

東ティモール共和国
東ティモール国立大学工学部能力向上
プロジェクト
中間レビュー調査報告書

平成 26 年 3 月
(2014年)

独立行政法人国際協力機構
人間開発部

人間
JR
14-036

東ティモール共和国
東ティモール国立大学工学部能力向上
プロジェクト
中間レビュー調査報告書

平成 26 年 3 月
(2014年)

独立行政法人国際協力機構
人間開発部

序 文

東ティモール共和国の唯一の公的高等教育機関である東ティモール国立大学には、国づくりを担うべき技術系人材の育成の観点からインドネシア時代の旧東ティモール・ポリテクニクを母体とした工学部が設置されました。しかし、教員が指導に十分な知識を有していないことや独立に伴う 1999 年 8 月の直接投票後の混乱によって教育機関施設を含む物的インフラの 7 割以上が破壊されて使用不可能であることから、教育の質が著しく低く、これまでに日本の無償資金協力による機材供与や技術協力による専門家派遣、教員の長期研修（国費留学）等の支援が行われてきました。

さらに 2006 年 4 月から 2010 年 3 月には、JICA は同大学工学部の強化に不可欠な教員の能力向上を目的とした「東ティモール大学工学部支援プロジェクト」を実施し、工学部教員の知識・技能の習得、修士号の取得を促しました。他方で、東ティモール国立大学工学部は教育の質の向上をめざして現行の 3 年制学士プログラムから 4 年制学士プログラムへの移行を計画しており、学部・学科の組織としての管理運営体制の強化と、東ティモールの地域社会に貢献する実践的な調査研究活動に基づくさらなる教育能力強化の必要性が確認されています。

このような状況の下、東ティモール共和国政府は引き続きわが国に対して東ティモール国立大学工学部への支援を要請し、2011 年 2 月より「東ティモール国立大学工学部能力向上プロジェクト」が 4 年間の計画で開始されました。

本中間レビュー調査は、プロジェクトの中間地点として、プロジェクト目標や成果等の達成状況や実施プロセスを確認するとともに、プロジェクトの残り期間の課題及び今後の方向性について確認することを通じて、プロジェクト改善に役立てることを目的としています。本報告書は、同調査結果を取りまとめたものであり、今後のプロジェクトの展開に、さらには類似の他プロジェクトに活用されることを期待しております。

最後に、本調査にご協力を頂いた内外関係者の方々に深い謝意を表するとともに、引き続き一層のご支援をお願いいたします。

平成 26 年 3 月

独立行政法人国際協力機構

人間開発部長 戸田 隆夫

目 次

序 文

目 次

地 図

略語表

評価結果要約表（日/英）

第1章 中間レビュー調査の概要	1
1-1 プロジェクトの概要	1
1-1-1 背景	1
1-1-2 プロジェクトの要約	1
1-1-3 プロジェクトの体制	2
1-2 中間レビュー調査の目的	2
1-3 合同評価チームのメンバー	3
1-4 調査日程	3
1-5 評価の方法	3
1-5-1 評価の手順と手法	3
1-5-2 評価の制約・限界	4
第2章 プロジェクトの実績	6
2-1 投入	6
2-1-1 日本側	6
2-1-2 東ティモール側	6
2-2 成果（アウトプット）	7
2-2-1 成果（アウトプット）1	7
2-2-2 成果（アウトプット）2	9
2-2-3 成果（アウトプット）3	10
2-3 プロジェクト目標	11
第3章 実施プロセス	14
3-1 活動の進捗	14
3-2 技術移転/キャパシティ・ディベロップメント	15
3-3 プロジェクトマネジメント	15
3-3-1 プロジェクト運営体制/意思決定過程/コミュニケーション	15
3-3-2 モニタリング	16
3-4 オーナーシップ	17
第4章 評価5項目による評価結果	19
4-1 妥当性	19
4-1-1 プロジェクト計画の妥当性	19

4-1-2	手段の適切性	19
4-1-3	日本の技術・ノウハウの比較優位	20
4-1-4	プロジェクト開始以降プロジェクトをとりまく環境の変化	20
4-2	有効性	20
4-2-1	プロジェクト目標の達成見込み	21
4-2-2	成果（アウトプット）とプロジェクト目標との因果関係	21
4-3	効率性	21
4-3-1	成果（アウトプット）の達成状況	21
4-3-2	投入、活動、アウトプットの因果関係	21
4-3-3	プロジェクト実施の費用対効果を高める工夫	22
4-3-4	他機関・スキームとの協力及び連携状況	23
4-4	インパクト	23
4-4-1	上位目標達成の見込み	23
4-4-2	波及効果	24
4-4-3	因果関係	24
4-5	持続性	24
4-5-1	政策面	25
4-5-2	財政面	25
4-5-3	組織面	25
4-5-4	人員面	25
4-5-5	技術面	25
4-5-6	機材維持管理	26
4-6	貢献要因と阻害要因の検証	26
4-6-1	貢献要因	26
4-6-2	阻害要因/問題を惹起し得る要因	26
第5章	結論及び提言	28
5-1	結論	28
5-2	提言	28
付属資料		
1.	署名済ミニッツ（含む合同評価報告書・Annex）	33
2.	署名済ミニッツ（2013年4月5日JCC署名版）	107
3.	評価グリッド（和）	111
4.	カリキュラム・シラバスサンプル	116
5.	教員アンケート質問票	158
6.	Operation Plan FoEST-UNTL 2013-2017	168
7.	授業評価質問項目	175
8.	工学部の現状（2013年4月2日学部長プレゼンテーション資料）	176
9.	活動進捗リスト	184

地 図



略 語 表

略語	英 語	日 本 語
ASEAN	Association of Southeast Asian Nations	東南アジア諸国連合
CADEFEST	Project for Capacity Development of the Faculty of Engineering, Science and Technology, the National University of Timor-Lorosa'e	東ティモール国立大学工学部能力向上プロジェクト (2011-2015)
CADETES	The project for the Capacity Development of the Teaching Staff in the Faculty of Engineering, the National University of Timor-Leste	東ティモール大学工学部支援プロジェクト (2006-2010)
CE	Civil Engineering	土木工学
C/P	Counterpart	カウンターパート
D3	Diploma 3	ディプロマ3(東ティモールの学士号、3年制)
EEE	Electrical and Electronic Engineering	電気・電子工学
ETTA	The East Timor Transitional Administration	東ティモール暫定政府
FD	Faculty Development	ファカルティ・ディベロップメント
FDC	Faculty Development Committee	ファカルティ・ディベロップメント委員会
FE	Faculty of Engineering	工学部
GPE	Geology and Petroleum Engineering	地質石油工学
IE	Information Engineering	情報工学
ITB	Institut Teknologi Bandung (Institute of Technology of Bandung)	バンドン工科大学 (インドネシア)
ITS	Institut Teknologi Sepuluh Nopember (Institute of Technology Sepuluh Nopember)	スラバヤ工科大学 (インドネシア)
JCC	Joint Coordinating Committee	合同調整委員会
JSUC	Japanese Supporting University Committee	国内支援委員会
ME	Mechanical Engineering	機械工学
MM	Man/Months	人月
M/M	Minutes of Meetings	協議議事録 (ミニッツ)
MOE	Ministry of Education	教育省
MOU	Memorandum of Understanding	覚書
PDM	Project Design Matrix	プロジェクト・デザイン・マトリックス
PO	Plan of Operation	実施計画

R/D	Record of Discussions	討議議事録
SDP	Strategic Development Plan	戦略的開発計画
SIP	Sector Investment Plan	セクター別投資計画
S1 program	The 4-year bachelor program	4年制学士プログラム
S1	Sarjana 1	サルジャナ 1 (インドネシア学士号、4年制)
S2	Sarjana 2	サルジャナ 2 (インドネシア修士号、2年制)
UNTL	National University of Timor-Lorosa'e	東ティモール国立大学

評価結果要約表

1. 案件の概要	
国 名：東ティモール共和国	案件名：東ティモール共和国国立大学工学部能力向上プロジェクト
分 野：高等教育	援助形態：技術協力プロジェクト
所轄部署：JICA 人間開発部	協力金額：2 億 7,000 万円
協力期間	2011 年 2 月 1 日～ 2015 年 1 月 31 日 (4 年間)
	先方関係機関： 教育省 (Ministry of Education : MOE) 東ティモール国立大学工学部 (Faculty of Engineering, Science and Technology, National University of Timor-Lorosa'e : UNTL) 日本側協力機関：長岡技術科学大学、山口大学、岐阜大学
1-1 協力の背景と概要	
<p>2000 年 11 月に開校した東ティモール共和国（以下、「東ティモール」と記す）の唯一の公的 高等教育機関である東ティモール国立大学（UNTL）には、国づくりを担うべき技術系人材の 育成の観点からインドネシア時代の旧東ティモール・ポリテクニクを母体とした工学部が設 置されたが、教員が指導に十分な知識を有していないことや、独立に伴う 1999 年 8 月の直接投 票後の混乱によって教育機関施設を含む物的インフラの 7 割以上が破壊されて使用不可能であ ることから、教育の質が著しく低く、これまでに日本の無償資金協力による機材供与や技術協 力による専門家派遣、教員の長期研修（国費留学）等の支援が行われた。</p> <p>さらに 2006 年 4 月から 2010 年 3 月には、JICA は UNTL 工学部の強化に不可欠な教員の能力 向上を目的とした「東ティモール大学工学部支援プロジェクト」を実施し、UNTL 工学部教員 の知識・技能の習得、修士号の取得を促した。</p> <p>他方で、UNTL 工学部は教育の質の向上をめざして現行の 3 年制学士プログラムから 4 年制 学士プログラムへの移行を計画しており、学部・学科の組織としての管理運営体制の強化と、 東ティモールの地域社会に貢献する実践的な調査研究活動に基づくさらなる教育能力強化の必 要性が確認されている。</p> <p>また、2010 年の国家優先課題（National Priorities）や現在策定中の戦略的開発計画（Strategic Development Plan : SDP）において、人材開発はインフラ整備と並ぶ重点課題として位置づけら れているように、特に高等教育分野では市場ニーズに対応した高度技術者の育成のニーズは高 く、UNTL は、国のリーダーとなり得る人材育成の拠点として当該国の経済社会の発展に貢献 することが期待されている。</p> <p>このような状況下、東ティモール政府から引き続きわが国に対して UNTL 工学部への支援の 要請があった。こうして技術協力プロジェクト「東ティモール国立大学工学部能力向上プロジ ェクト」が 2011 年 2 月より 4 年間の計画で開始され、教育・研究・学部運営における 3 つの目 標を設定した。</p> <p>今般、技術協力プロジェクトの開始から 2 年を経過したところで、本プロジェクトの目標及 び各成果の達成状況を確認するとともに、現状の課題とプロジェクトの残りの期間での活動 の報告性について確認し、合同評価報告書として UNTL 側と合意することを目的とした調査を 行った。</p>	
1-2 協力内容（中間レビュー時点）	
(1) 上位目標： 工学部から地域社会に貢献する高度技術を有する人材が輩出される。	

(2) プロジェクト目標：
工学部が適切な管理運営の下で質の高い教育を提供する。

(3) 成果（アウトプット）
成果1：工学部における授業（講義・実験）の実施環境が改善する。
成果2：実践的な調査・研究活動に基づいて卒業研究指導が行われる。
成果3：学部の管理体制が改善される。

（注）本プロジェクトでは、工学部5学科のうち、3学科（機械工学、土木工学、電気・電子工学）を対象としている。

1-3 投入（中間レビュー時点）

- (1) 日本側：総投入額 1億8,200万円
- 1) 専門家派遣：15名
派遣分野（長期専門家）：調整員（2名）
派遣分野（短期専門家）：チーフアドバイザー1名・支援大学より各専門分野派遣12名（13名）
 - 2) 研修員受入れ：長期研修2名、短期研修12名
 - 3) 第三国専門家：
インドネシアバンドン工科大学1名5回、スラバヤ工科大学3名と2名の2回派遣
 - 4) 機材供与実績：
現地調達〔10万7,805.25ドル（\$）〕、供与機材（5,048万7,860円）、携行機材（1,166万4,880円）
 - 5) 現地活動費：合計15万364.36\$
- (2) 東ティモール側
- 1) カウンターパート：合計84名（学長、学部長、3学科教員、アドミニススタッフ）
 - 2) 専門家の執務等：執務スペース、家具、水道・光熱費等
 - 3) 事業運営費：
1,892万3,400IDRと6,140\$（スラバヤ工科大学教員派遣の一部費用）

2. 評価帳査団員の概要

団員	団長・総括	田中 努	JICA 人間開発部 高等・技術教育課長
	高等教育	角田 学	JICA 国際協力専門員
	機械工学	田辺 郁男	長岡技術科学大学
	土木工学	関根 雅彦	山口大学
	電気・電子工学	吉田 弘樹	岐阜大学
	協力企画	三輪 開人	JICA 人間開発部 高等・技術教育課
	評価分析	荻野 有子	コーエイ総合研究所
調査期間	2013年4月1日（月）～2013年4月5日（金）		評価の種類：中間レビュー

3. 評価結果の概要

3-1 実績の確認

(1) 成果（アウトプット）

1) 成果1：工学部における授業（講義・実験）の実施環境が改善する。

4年制学士プログラム（The 4-year bachelor program：S1 program）は、予定どおり2012年より開始され、プロジェクトを通じて改善されたカリキュラムに即して実施されているが、ポルトガル制度準拠など、今後変更の可能性があることに留意する必要がある（指標1-1）。シラバス・講義ノート・実験実習書等については整備を進めているところであるが、さらに促進される必要がある（指標1-2、1-4）。4年制学士プログラムはまだ開始間もないため、カリキュラム等のレビューを実施する段階にないが、ファカルティ・ディベロップメント委員会（Faculty Development Committee：FDC）については、現在機能していないため活性化を促進する必要がある（指標1-3）。

2) 成果2：実践的な調査・研究活動に基づいて卒業研究指導が行われる。

4年制学士プログラムの下で実践的な調査・研究活動に基づく卒業研究の指導が行えるよう教員の能力強化が進展しているが、当初計画の変更に伴い、4年制学士プログラムの下で卒業研究が開始されるのは、プロジェクト期間終了後の2015年以降である。よって、現行指標は不適切であるとともに、成果2を達成するためには、プロジェクト期間の延長を検討する必要がある（指標2-1、2-2）。

3) 成果3：学部の管理体制が改善される。

活動計画の達成度は確認できず（指標3-1）、学部管理検討委員会も組織されていないため、定期的レビューは実施されていない（指標3-2）。それら指標の達成状況以前に、成果3については、PDMに記載されている言葉の定義や活動内容をまず明確にし、本成果において何を達成すべきか、全関係者が共通認識をもち、具体的な活動計画を立てることが必要である。なお、UNTL側は、運営指導調査の指摘に迅速に対応し、内部規定のドラフトを作成するなど、管理体制改善の動きはある。

(2) プロジェクト目標

プロジェクト目標：工学部が適切な管理運営の下で質の高い教育を提供する。

プロジェクト終了の2015年1月までに、3つの成果（アウトプット）を通じて一定程度は達成されると見込まれるが、4年制学士プログラムの第1期生の卒業研究指導開始は2015年以降となるため、プロジェクト期間中に同プログラムの全サイクルは完了することができない。よって、プロジェクト目標は、達成できない部分が残ることが既に明らかである。なお、「教育内容」の満足度（指標1）、「卒業率」（指標2）については、定義の明確化、指標としての妥当性並びにデータ取得方法等について検討を要する。「授業評価」（指標3）については、プロジェクト主導ではあるが、定期的実施されており、教育の質改善に役立てられている。

3-2 評価5項目に基づく評価結果

(1) 妥当性

妥当性は総じて高い。プロジェクトは、東ティモールの戦略的開発計画（Strategic Development Plan：SDP 2011-2030）における高等教育政策と合致しており、産業人材育成支援を重点分野と定めた日本の開発援助政策との整合性も高い。唯一の国立大学であり、最高学府である東ティモール国立大学（UNTL）を対象に、日本が比較優位をもっている

工学部を支援とすることは適切である。また、工学部 5 学科のうち、情報工学科、地質石油工学科はポルトガル共和国（以下、「ポルトガル」と記す）による支援があったため、その 2 つを除いた 3 学科をターゲットとしたことも適切である。ただし、プロジェクトデザインについては、3 年制学士プログラムから学生が転入することを前提としていた当初計画に変更が生じ、転入制度はなくなったため、プロジェクト期間中に 4 年制学士プログラムの卒業研究指導はできなくなった。よって、当初目的を達成するうえではプロジェクト期間の見直しを提案するとともに、プロジェクト・デザイン・マトリックス（Project Design Matrix：PDM）も全体的な修正が必要である。

(2) 有効性

プロジェクト目標は対象 3 学科の 4 年制学士プログラムにおいて質の高い教育を提供することであるが、4 年制プログラムの卒業研究指導は 2015 年以降であることから積み残しが出るため、現行期間内にプロジェクト目標を達成することは不可能である。

(3) 効率性

先行プロジェクトの教訓を生かし、高い効率性を保持・発現する工夫がなされているものの、①FDC や学部管理運営委員会が機能していないこと、②教員の退職・転職、③機材供与の遅延、④成果 3 の活動・目標が不明瞭であることなどが効率性を阻害している。特に、①、③、④については対策を講ずる必要がある（②はプロジェクトの対応範囲外）。なかでも、③機材供与の遅延は、研究活動の進捗と質に大きな影響を及ぼす要因となっている。

(4) インパクト

上位目標：工学部から地域社会に貢献する高度技術を有する人材が輩出される。

人材輩出に係る「規模（人数）面」については、現在の年間 200 名規模の 4 年制学士プログラムへの入学者が継続すると想定されるため達成見込みは高いが、一方で、現行の登録・非登録数動向に照らすと、必ずしも楽観はできない状況もある。また、目標値（600 名）は、当初 5 期以上の卒業生の輩出が見込まれることを前提に設定された数値であることから、見直しも必要である（指標 1）。「貢献」を示す「就職率」については、現状では整備されていないことから、データ取得の可否も含め、要検討である（指標 2）。

(5) 持続性

1) 政策面

「妥当性」の項で既述のとおり、高等教育政策並びに同政策における UNTL の重要な位置づけといった政策環境は継続するとみられる。よって、UNTL における研究活動促進、学位取得推進も継続すると見込まれる。

2) 財政面

本調査では、予算面での詳細な情報は入手できなかったため、部分的な情報を得たにとどまる。まず、研究助成金制度は現在あるが、実質的に機能していないため、これが機能することが期待される。大学から学部レベルに権限移譲されて予算が振り分けられることにより、より学部のニーズに応じた予算執行が期待される。

3) 組織面

FDC は機能しておらず、学部運営委員も組織化されていないため、組織面での持続性

に向けた強化が求められる。授業評価の継続実施も期待されるが、現在はプロジェクト主導で行っているおり、FDCが機能していないことなどから、プロジェクト終了後の継続のための取り組みが必要である。

4) 人員面

本プロジェクトの支援対象3学科内の大多数(7割程度)の教員はプロジェクト活動に参画しており、マネジメントレベルのローテーション後も、特段の問題はないものとみられる。

5) 技術面

日本で修士号を取得した教員は、その経験を生かして学生への研究指導を行っており、今後もそれは継続されると思われる。また、UNTLの方針から留学により、高位学位取得も順調に進んでおり、今後毎年数名程度の教員が修士号を取得する見込みである。

6) 機材維持管理面

機材インベントリが作成されたとの報告があり、これは維持管理体制構築に向けた良い兆候であるとともに、維持管理予算が配分されれば、ある程度は適切に行われることが予想される。ただし、技術的に困難なものについては、工学部での対応は難しいことも見込まれる。特に、現地調達が難しいことから、多くの機材が本邦機材の調達にならざるを得ず、スペアパーツ・修理等も含め、機材の維持管理については将来的な取り組みが必要である。また、先行プロジェクトで供与した機材について、使い方が分からないために活用されていない機材が少なからずある点については、機材の活用を推進すべく、プロジェクトとして再研修の実施を検討することが望まれる。また、実験実習書の作成を推進することも必要である。

3-3 効果発現に対する貢献要因並びに問題を惹起し得る要因

(1) 貢献要因

1) 計画に関すること

特になし

2) 実施プロセスに関すること

- UNTLが大学改革の一環として、給与・服務規程の制定を行っており、教員給料増加や、ダブルワークの禁止などにより、教員のモチベーション向上や勤務状況の改善が見込まれる。
- UNTLでは高学位取得や研究活動の促進を行っていることから、これらがプロジェクト活動の追い風になると考えられる。
- 運営指導調査における指摘を受け、タスクフォースが組織され、学部内部規定のドラフトを作成するなど迅速な対応がなされた。今後は、大学の規定に即して改定・修正する必要があるが、内部規定の制定により学部運営が効率的・効果的になされることが期待される。
- 持続性発現に資する要因として、将来的には本邦支援大学との覚書(Memorandum of Understanding: MOU)締結や、個人的な師弟関係の継続などが期待できる。

(2) 問題を惹起し得る要因

1) 計画に関すること

- ・ 本プロジェクトデザインは、当初計画における3年制学士プログラムの学生が4年制学士プログラムへ移行するという前提が基礎となって、プロジェクト期間、活動、指標、目標等が設定されているが、その前提に変化があったため、プロジェクトデザイン全体に影響を及ぼしている。
- ・ 事前評価におけるデータを用いたマネジメントの推進については、活動として含まれていないが、現在もデータ整備の必要性は高い（例：卒業率、休学・退学状況等含む）。
- ・ PDM の記載内容について、「誰が何をいつまでにどうするのか」という具体性に不明な点があること、また、和訳と英訳の整合性も問題があることが、プロジェクト活動の不明瞭さ（特に成果3）に影響した可能性がある。

2) 実施プロセスに関すること

- ・ 最も大きな問題は機材調達の遅れである。その背景には、連絡体制の不備に起因する手続き上の遅延と、研究機材調達に係る根本的な課題に起因するものがある。機材調達の問題が研究活動の進捗とその質に大きな影響を及ぼしており、また、そのフォローのために、プロジェクト専門家がかなりの労力を割かねばならない状況も生まれているなど、効率性・有効性を阻害する要因となっている。
- ・ キャリア・レジーム（キャリア規程）によれば、各教員は最大3科目を担当することになっている。しかし、修士号取得教員は講義（理論）を担当することができるが、学科によっては修士号取得教員数が不足しているため、教員間における労働負荷のギャップが生じている。
- ・ キャリア・レジーム（キャリア規程）による待遇改善があり、修士保持者を優遇したが、学士保持者に対する待遇がほとんど改善されず、不満をもつ教員が出てきたことが挙げられる。
- ・ UNTL のスラバヤ工科大学（Institut Teknologi Sepuluh Nopember : ITS）に対する支払い問題（支払いの滞り）により、ITS 教員による集中講義が中止されたままになっている。
- ・ 休校日が多すぎること及び教員の勤務日数と時間が短いことが挙げられる。

3-4 結論

結論として、プロジェクトはおおむね堅実に進捗している。プロジェクトは、東ティモール並びに UNTL の政策・ニーズに整合しており、3 学科、4 年制学士プログラムを対象とし、教育、研究、学部運営の3つの観点から工学部の能力強化を行うアプローチは適切であり、妥当性は高い。他方、いくつかの課題が存在する。まず、プロジェクト期間については、当初目的を達成するためには延長の可否を検討する必要がある。ほかにも、ファカルティ・ディベロップメント委員会（FDC）、機材調達、4 年制学士プログラムの卒業研究（プロジェクト終了後になる）、成果3に係る活動全般の面でも課題が存在する。加えて、PDM は関係者全員で詳細に見直しを行い修正する必要がある。

3-5 提言

プロジェクト実施期間終了までにプロジェクト目標を達成するために、今後の活動において以下を提言する。

(1) ファカルティ・ディベロップメント委員会（FDC）の機能活性化

- (2) 全教員に対する研究活動の促進
- (3) 年間活動計画に基づいた学部・学科の定期ミーティングの実施
- (4) 長期的視野に基づくスタッフ育成の実施
- (5) 工学部全体を視野に入れたビジョン・ミッションの策定
- (6) キャンパス環境の改善
- (7) 4年制学士プログラムへの移行に基づく PDM の遂行
- (8) PDM 達成に向けた学科レベルでの指標設定と遂行

The Summary of Mid Term Review

1. Outline of the Project	
Country : Democratic Republic of Timor-Leste	Project title : Project for Capacity Development of the Faculty of Engineering, Science and Technology, the National University of Timor-Lorosa'e
Issue/Sector : Higher Education	Cooperation scheme : Technical Cooperation
Division in charge : Higher Education Division, JICA	Total cost (at the time of evaluation study) : 270 million yen
Period of Cooperation : 1 February 2011 – 31 January 2015 (4 years)	Partner Country's Implementing Organization : Ministry of Education, Faculty of Engineering, Science and Technology, National University of Timor-Lorosa'e <hr/> Supporting Organization in Japan : Nagaoka University of Technology, Yamaguchi University, Gifu University
<p>1-1 Background of the Project</p> <p>According to the National Priorities 2010, human capital development and infrastructure development are one of the top priorities for stable social and economic development in Timor-Leste. Also, Strategic Development Plan 2011- 2030 identifies “shortage of skilled human resources” as the current challenges, and features on nurturing high-skilled human resources who can lead the country at National University of Timor-Leste (UNTL). Corresponding to this, the Ministry of Education aims to train competent engineers who can respond to the labor market needs through establishment of Polytechnics, and also expect the Faculty of Engineering, the National University of Timor-Leste to be a center of excellence in engineering education.</p> <p>JICA had cooperated to Faculty of Engineering, UNTL for capacity development of its teaching staff for 4 years, since April 1, 2006 to March 31, 2010 in the technical cooperation project “Capacity Development for Teaching Staff in Faculty of Engineering, National University of Timor-Leste (CADETES project)”, As a result of cooperation, a certain level of achievements are shown in improvement of skills and knowledge of teaching staff, but still not completely satisfied, because of several difficulties, such as absence of some teaching staff for studying abroad, side-work and lack of equipments and facilities for lecture.</p> <p>In order to support strengthening to of education and research capacity of UNTL in the field of Engineering, JICA and UNTL agreed to implement “Project for Capacity Development of the Faculty of Engineering, Science and Technology, the National University of Timor-Leste (CADEFEST-UNTL)”. The Project applies 3 approaches to realize the goal : education; research, management.</p> <p>As 2 years out of 4 years cooperation period has passed since its launch in February 2010, JICA has dispatched Mid Term Evaluation Team (the Team)to jointly review the progress of the Project.</p>	

1-2 Project Overview

(1)Overall Goal

The Faculty of Engineering, Science and Technology, UNTL (UNTL-FEST) produces high-skilled human resources who can contribute to the society.

(2)Project Purpose

The Faculty provides excellent education under appropriate management and operation.

(3)Outputs

1. Environment for conducting lectures and experiments in the Faculty is improved.
2. Practical and research based final thesis is taught by teaching staff in the Faculty.
3. Faculty management system is improved.

* It should be noted about the scope of the project. The direct target of cooperation is basically 3 departments of Mechanical, Civil and Electrical & Electronic Engineering in UNTL-FEST.

(4)Inputs (at the time of evaluation)

Japanese side : Total cost JPY 188 mil

No. of long-term experts : 2

No. of short-term experts : 49

No. of third country experts : 6

No. of training participants in Japan : 2 (long term), 13 (short term)

Equipment :

\$107,805.25 (Local), ¥50,487,860 (JICA Handover equipment), ¥11,664,880 (Expert/JICA)

Operational cost : \$150,364.36

Timor-Leste Side

No. of Counterparts : 84

Office and facilities : Office space with furniture, water & utilities

Local cost : IDR18,923,400+\$6,140

2. Evaluation Team

Members of Evaluation Team

1. Mr. Tsutomu Tanaka, Team Leader, Director of Technical and Higher Education Division, Higher Education and Social security Group, Human Development Department, JICA Headquarter
2. Dr. Manabu Tsunoda, Senior Advisor for Higher Education, Human Development Department, JICA Headquarter
3. Prof. Ikuo Tanabe, Mechanical Engineering, Nagaoka University of Technology
4. Prof. Masahiko Sekine, Civil Engineering, Yamaguchi University
5. Dr. Hiroki Yoshida, Electrical and Electronic Engineering, Gifu University
6. Mr. Kaito Miwa, Cooperation Planning, Program Officer, Technical and Higher Education Division, Higher Education and Social Security Group, Human Development Department, JICA Headquarter
7. Ms. Yuko Ogino Evaluation Analysis, Consulting Department II, KRI International Corp.

Period of Evaluation	1 st - 5 th April 2013 (Mon.-Fri.)	Type of Evaluation : Mid Term Review
-----------------------------	--	---

3. Results of Evaluation

3-1 Project Performance

(1)Output

Output 1 : Environment for conducting lectures and experiments in the Faculty is improved.

The 4-year bachelor program (S1 Program) was commenced in 2012 as scheduled following the curriculum improved by the Project. The present curriculum may need to be revised in line with the Portuguese system and others in the near future (Indicator 1-1). Improvement/preparation of syllabi, lecture notes and job sheets has been underway, which needs to be accelerated (Indicator 1-2, 1-4). It is too early to review the curriculum and syllabi only just 1 year after the commencement of the S1 Program, but Faculty Development Committee (FDC) currently not functioning needs to be activated (Indicator 1-3).

Output 2 : Practical and research based final thesis is taught by teaching staff in the Faculty.

Capacity development of teaching staff has been progressing in view of teaching practical and research based final thesis of students in the S1 Program. However, the final thesis under S1 Program will start from 2015 after the end of the present project period due to the change of initial plan. Therefore, the indicators (2-1, 2-1) of Outputs 2 are no longer relevant and it is necessary to discuss about a possibility of extension of the project duration in order to achieve the original target.

Output 3 : Faculty management system is improved.

Achievement rate of action plan is not confirmed during the MTR (Indicator 3-1). The review of faculty management is not conducted as the faculty management committee is not organized (Indicator 3-2). First, clarification is necessary on definitions of terms and activities set in PDM in order to be agreed by all concerned on what to achieve in the Output 3, and to prepare roadmap/action plans. Draft of internal regulations is prepared by UNTL in prompt response to the recommendations by Advisory Mission from JICA, which is a good sign of improvement.

(2)Project Purpose

Project Purpose : The Faculty provides excellent education under appropriate management and operation.

Project purpose is likely to be achieved to a certain extent by the end of the Project (January, 2015) through the achievements of 3 Outputs mentioned above, but it is already envisaged that the Project Purpose will not be fully achieved mainly due to the fact that S1 program will not be completed within the current project period. Regarding the attainment by indicator, definitions of the “students’ satisfaction on the education provided by the Faculty” (Indicator 1), “graduation rate” (Indicator 2) need to be clarified, and their relevance as an indicator as well as how to obtain the data needs to be discussed. As for class evaluation, it has been conducted regularly, although led by the Project, and contributed to the

improvement of educational quality (Indicator 3).

3-2 Summary of Evaluation Results

(1) Relevance

Relevance is considered to be high in many aspects, for example, in terms of consistency with national policies of Timore-Leste as described in the Strategic Development Plan 2011-2030. The Project is also in line with Japanese aid policy where the aim for infrastructure building including soft component and human resource development for industry is mentioned. Selection of the target institution, faculty and departments is also appropriate. UNTL is a sole public university and top university in the country. Japanese engineering education has a comparative advantage in the world, and it is valid to assist engineering faculty. It is also reasonable to select 3 departments as the other 2 departments, namely Department of Informatics Engineering (IE) and Department of Geology and Petroleum Engineering (GPE) are assisted by Portuguese.

However, the project design needs to be re-examined. The project was initially developed based on the condition that transfer of D3 students to S1 Program was allowed, but this is no longer valid and existing. The final thesis of S1 Program will not be carried out during the present project period. It is therefore suggested that the present project duration should be extended if the Project Purpose originally targeted is to be achieved. At the same time, overall PDM needs to be revised.

(2) Effectiveness

Effectiveness is not as high as initially expected because the Project Purpose is not likely to be fully achieved. This is mainly due to the fact that S1 Program will not be completed within the current project period. Project Purpose was set originally for the Faculty to be able to provide excellent education through the newly created S1 Program in the target 3 departments, but the teaching final thesis will start only from 2015.

(3) Efficiency

Efficiency is considered to be fairly maintained in various aspects based on the lessons learned from the previous project and others. However, there are issues and constraining factors. They are 1) not functioning of FDC and not organizing the faculty management committee, 2) resignation/job hopping by teachers, 3) delay in procuring equipment, 4) unclear activities and targets set in the Output 3. Measures by the project need to be taken for all the factors except 2 which are out of project scope. In particular, 3) delay in procuring equipment has caused/been causing serious effects on the progress of research activities as well as their quality.

(4) Impact

Regarding the prospect for achieving Overall Purpose, impact on the human resource development is considered to be high in terms of quantity (number of graduates) based on the assumption that approximately 200 enrolled students on an annual average will continue. However, considering present trend and usual registration/non-registration practice of UNTL, it may not be fully optimistic about the

attainment of the target figures as well. In any case, the target figure (600) was initially set in view of 5-years stock of graduates which is no longer valid due to the change in S1 Program as mentioned earlier, and therefore it needs to be revisited (Indicator 1). How to grasp graduates' contribution to the society by way of employment rates of students and whether it is possible to gather the data also need to be discussed as tracking of graduated students is not currently conducted by UNTL (Indicator 2).

(5) Sustainability

1) Policy aspects

As mentioned in the (1)Relevance, policy environment in the higher education including significant position of UNTL will be continuously favorable. Enhancement to research activity and promotion of obtaining higher degrees are expected to continue as well.

2) Financial aspect

Details of budget are not obtained during the MTR, and partial information is available. For example, research fund is established in UNTL but it is not functioning well. The budget system is decentralized and it will be then possible to execute the budget based on the needs of faculty.

3) Organizational aspect

It is necessary to activate FDC and to organize the faculty management committee in order to make them function. Class evaluation should also be continued independently after the project period, but it is currently led by the Project and not by FDC. Sustainability issue of class evaluation needs to be attended as well.

4) Personnel aspect

Since a majority (70%) of lecturers of the 3 target departments are participating the project activities, the change of management personnel would not be a serious problem.

5) Technical aspect

Those who obtained master's degrees in Japan are able to guide student's final thesis with their experiences in Japan and it is also expected to be continued after the project period. Obtaining higher degrees in overseas as a policy of UNTL has been and expected to continue every year steadily adding teaching staff with master's degree in the target 3 departments.

6) Maintenance and management of equipment

The inventory of equipment was reportedly prepared, which is a good sign for the better management. Basic maintenance is expected to be done properly as long as the budget is secured. But it can be difficult for the faculty to treat some technical problems. Research equipment is basically procured from Japan due to a limited local procurement possibility and therefore maintenance including availability of spare parts and repairing skills is assumed to pose a future difficulty. Also, there seems to be quite some equipment which is not utilized due to insufficient knowledge on how to use them. They are mostly provided in the previous CADETES Project. In such situation, it is recommended to provide refresher training for a maximum utilization of equipment, and ensure to prepare the job sheets as well.

3-3 Factors contributing project progress

(1) Factors related to planning

No factors observed.

(2) Factors related to implementation process

- As part of the university reforms currently implemented in UNTL, UNTL has settled new regulation (Carrier Regime), increased salaries, banned double work etc. which are expected to contribute to the improved motivation and working habits of teachers.
- UNTL, as part of university reforms, is promoting obtaining higher degrees and facilitating research activities, which can be an advantage for the Project.
- In prompt response to the recommendation from Advisory Mission, UNTL organized Task Force and prepared Internal regulations, which will be expected to serve to more efficient and effective faculty management after finalizing the regulations in line with University level regulations.
- MoU with Japanese Supporting University is expected in the future. Personal relationship between lecturer and Japanese professor is also expected to be maintained.

3-4 Major Factors constraining project progress

(1) Major factors related to planning

- The Project was initially designed based on the condition that D3 students were able to transfer to S1 Students, which is no longer valid and existing. Since all the elements such as project duration, activities, indicators, purposes etc. are developed based on the initial plan, the change in the S1 Program has an overall effect on the project design at moment.
- Faculty management based on data, which was mentioned in the Ex-ante evaluation, is not included in the Project activities, but it needs to be included (eg. Graduation rates, leave of absence from school/drop-out etc.)
- PDM is not clearly presenting “who does what by when”, and there some inconsistencies between Japanese and English versions, which might have affected the lack of clarity of activities particularly in Output 3.

(2) Major factors related to implementation process

- The most serious factor affecting efficiency and effectiveness is regarded as delay in procuring equipment. It has caused/causing problems on progress of research activities and their quality as well. One background reason is procedural delays occurred by miscommunication/mismanagement and another is a genuine problem related to the procurement system of research equipment as a whole. In following –up with the delays, experts should devote their time and efforts as well.
- According to “Carrier Regime”, each lecturer can teach up to 3 subjects. But the problem is that only S2 holder (master degree) can teach theoretical class and some departments do not have sufficient staff who has S2 to cover all theoretical class. Because of this, the imbalance of work load among the teaching staff is observed.
- New Carrier Regime was settled and master holder's treatment was improved, but the treatment to bachelor holders was almost same as before. Therefore, some lecturers are dissatisfied with their treatment.
- Due to the problem with payment from UNTL to ITS, intensive lectures by ITS have been suspended.
- In the UNTL calendar, there are too many holidays and shortage of working days and hours.

3-5 Conclusions

In conclusion, the Project is overall in steady progress. The Project is highly relevant with the policies as well as the needs of the country and UNTL. The Project is expected to strengthen the capacity of the Faculty from education, research and management aspects by mainly targeting S1 Program and 3

departments, which is an appropriate approach. However, there are some issues, of which major one is project duration which needs to be extended if the original project purpose is to be achieved. Other issues are observed in the areas of FDC, equipment, final thesis of S1 program (to be implemented after the project ends) and overall activities under Outputs 3. In addition, the present PDM needs to be re-examined thoroughly and modified in consultation among all the concerned. The key issues and recommendations are addressed in the following section in more details.

3-6 Recommendations

In order to realize the Project Purpose by the end of Project Period, the Team recommend following as further actions to be taken;

1. Activation of Faculty Development for Quality of Education
2. Encouragement of Research Activities for all Teaching Staff of Possible Topics
3. Systematic Management and Operation based on Regular Meetings at Department and Faculty Levels under Annual Action Plan
4. Staff Development Plan (S1, S2, S3) with Long Term Strategy
5. Clear Vision and Mission towards Attractiveness of FEST, UNTL
6. Improvement Campus Environment
7. The countermeasures of PDM contents responding to the change of the S1 Program
8. Follow-up of Suggested Measures on PDM Activities of each Department

第1章 中間レビュー調査の概要

1-1 プロジェクトの概要

1-1-1 背景

2000年11月に開校した東ティモール共和国（以下、「東ティモール」と記す）の唯一の公的高等教育機関である東ティモール国立大学（UNTL）には、国づくりを担うべき技術系人材の育成の観点からインドネシア時代の旧東ティモール・ポリテクニクを母体とした工学部が設置されたが、教員が指導に十分な知識を有していないことや、独立に伴う1999年8月の直接投票後の混乱によって教育機関施設を含む物的インフラの7割以上が破壊されて使用不可能であることから、教育の質が著しく低下し、これまでに日本の無償資金協力による機材供与や技術協力による専門家派遣、教員の長期研修（国費留学）等の支援が行われた。

さらに2006年4月から2010年3月には、JICAは東ティモール国立大学（UNTL）工学部の強化に不可欠な教員の能力向上を目的とした「東ティモール大学工学部支援プロジェクト」を実施し、工学部教員の知識・技能の習得、修士号の取得を促した。

他方で、UNTL工学部は教育の質の向上をめざして現行の3年制学士プログラムから4年制学士プログラムへの移行を計画しており、学部・学科の組織としての管理運営体制の強化と、東ティモールの地域社会に貢献する実践的な調査研究活動に基づくさらなる教育能力の強化が確認されている。

また、2010年の国家優先課題（National Priorities）や現在策定中の戦略的開発計画（Strategic Development Plan）において、人材開発はインフラ整備と並ぶ重点課題として位置づけられているように、特に高等教育分野では市場ニーズに対応した高度技術者の育成のニーズは高く、UNTLは、国のリーダーとなり得る人材育成の拠点として当該国の経済社会の発展に貢献することが期待されている。

このような状況下、東ティモール政府から引き続きわが国に対してUNTL工学部への支援の要請があった。こうして技術協力プロジェクト「東ティモール国立大学工学部能力向上プロジェクト」が2011年2月より4年間の計画で開始され、教育・研究・学部運営における3つの目標を設定した。

今般、技術協力プロジェクトの開始から2年を経過したところで、本プロジェクトの目標及び各成果の達成状況を確認するとともに、現状の課題とプロジェクトの残りの期間での活動の報告性について確認し、合同評価報告書としてUNTL側と合意することを目的とした調査を行った。

1-1-2 プロジェクトの要約

プロジェクトは、現行プロジェクト・デザイン・マトリックス（Project Design Matrix : PDM）（2011年2月版）に基づき表-1のように要約される。詳細については、付属資料1 合同評価報告書 Annex-0 参照。

表－１ プロジェクトの要約

上位目標	工学部から地域社会に貢献する高度技術を有する人材が輩出される。
プロジェクト目標	工学部が適切な管理運営の下で質の高い教育を提供する。
成果 1	工学部における授業（講義・実験）の実施環境が改善する。
成果 2	実践的な調査・研究活動に基づいて卒業研究指導が行われる。
成果 3	学部の管理体制が改善される。

注：上位目標はプロジェクト終了 3～5 年後に、プロジェクト目標はプロジェクト終了までに達成が期待される目標

なお、本プロジェクトのスコープは、原則 3 学科（機械工学、土木工学、電気・電子工学）の 4 年制学士プログラム〔サルジャナ 1 (Sarjana 1 : S1) プログラム〕を対象としている。よって、PDM に基づき達成度を確認する際には、上位目標、プロジェクト目標、成果 1 における「工学部」は原則 3 学科を、成果 1「授業」並びに成果 2「研究指導」は 4 年制学士プログラムを対象としていることを前提としている。

1－1－3 プロジェクトの体制

(1) 東ティモール側

東ティモール側の実施機関は、東ティモール国立大学（UNTL）である。同大学は東ティモール唯一の国立総合大学であり、本プロジェクトの対象となる工学部は 2000 年の開校と同時に設置され、現在は土木工学科、電気・電子工学科、機械工学科、情報工学科の 4 学科から構成されている。

他方で、工学部の教育資機材・インフラの 7 割以上が 1999 年の独立に伴う混乱の際に破壊され、施設や機材が十分でないことに加え、教員の大半が 3 年制学士終了者であり、教材や指導書も十分に整理されていないこと等から、インドネシアをはじめとした周辺諸国と比べて教育・研究レベルが低いといわざるを得ない。今後、国づくりを担うべき技術系人材の育成の拠点として UNTL が中心的役割を果たすためには、工学部のさらなる教育・研究能力強化が課題といえる。

(2) 日本側

本プロジェクトは、日本の国立大学法人である山口大学、岐阜大学、長岡技術科学大学から国内支援大学としての協力を得ており、工学部 3 学科（土木工学科、電気・電子工学科、機械工学科）に対する教授方法や教材整備、研究実施に係る技術指導、工学部の運営体制強化のための指導・助言を行う専門家の派遣や、プロジェクト運営方針検討のための協議等に参加を得ている。

1－2 中間レビュー調査の目的

中間レビュー調査の主な目的は以下のとおりである。

- ・ プロジェクトの実績を計画と比較して検証する。
- ・ プロジェクトの実施プロセスを検証し、貢献・阻害要因を把握する。
- ・ 評価 5 項目（妥当性、有効性、効率性、インパクト、持続性）に即しプロジェクトを分析・

評価する。

- ・ PDM の変更も含めプロジェクト後半で取るべきアクションについて提言を行う。

1-3 合同評価チームのメンバー

(1) 東ティモール側

No	氏名	所属
1	風間 秀彦	チーフアドバイザー
2	小松 謙一郎	業務調整専門家
3	高橋 敦	業務調整専門家

(2) 日本側

No	担当分野	氏名	所属
1	団長・総括	田中 努	JICA 人間開発部 高等・技術教育課長
2	高等教育	角田 学	JICA 国際協力専門員
3	機械工学	田辺 郁男	長岡技術科学大学
4	土木工学	関根 雅彦	山口大学
5	電気・電子工学	吉田 弘樹	岐阜大学
6	協力企画	三輪 開人	JICA 人間開発部 高等・技術教育課
7	評価分析	荻野 有子	コーエイ総合研究所

1-4 調査日程

本レビューの現地調査は、2013年4月1日（月）から4月5日（金）の5日間にわたり実施された。日程の詳細は、付属資料1 合同評価報告書 Annex-1 参照。

調査結果については、2013年4月5日（金）に開催されたプロジェクト合同調整委員会（Joint Coordination Committee : JCC）において報告のうえ、ミニッツ（Minutes of Meetings : M/M）としてプロジェクトの進捗、重要課題、提言を要約して署名した。また、現地調査後、合同評価報告書（Joint Evaluation Report）を作成した（現地署名ミニッツは付属資料2、合同評価報告書を含む署名ミニッツは付属資料1）。

1-5 評価の方法

1-5-1 評価の手順と手法

中間レビュー調査チーム（以下、「チーム」と記す）は、以下（1）～（3）の手順で、PDMに基づきプロジェクト開始当初から現在までのプロジェクトの実績と実施プロセスを、資料レビュー、質問票、インタビュー等を通じて把握・分析し、評価5項目の観点から評価を行った。評価の枠組みである評価グリッドは、付属資料3 参照。

(1) プロジェクトの実績

プロジェクトの実績は、投入（インプット）、成果（アウトプット）、プロジェクト目標、上位目標について計画並びに PDM 指標に即して検証した。中間レビュー調査であることから、プロジェクト目標、上位目標については達成の見込みを検討した。

(2) 実施プロセス

実施プロセスは、プロジェクトが計画に即して実施されてきたのか、プロジェクトマネジメントは適切であったかなどをレビューし、プロジェクトの実施プロセスに影響を与えた貢献・阻害要因を把握した。

(3) 5項目評価

プロジェクトは、以下に説明する5項目の評価基準に基づいて分析・評価した。

表－2 5項目評価

1. 妥当性 (Relevance)	妥当性は、プロジェクトの正当性や必要性を問う視点である。プロジェクトの期待される効果（プロジェクト目標や上位目標等）は相手国やターゲットグループのニーズに合致しているか、プロジェクトは問題の解決方法として適切か、プロジェクトは政策との整合性があるか、プロジェクトの戦略やアプローチは妥当かなどを評価する。
2. 有効性 (Effectiveness)	有効性は、成果とプロジェクト目標の関係を明確にしつつ、想定された対象者・社会に対してプロジェクトの実施により便益がもたらされるか/プロジェクトの目標がどの程度達成されるかを問う視点である。
3. 効率性 (Efficiency)	効率性はリソース・投入が成果（アウトプット）に転換されているかを量・質・タイミングの観点から問う視点で、主としてプロジェクト・コストと効果の関係に焦点をあてる。
4. インパクト (Impact)	インパクトは、プロジェクトの実施によって生じる長期的な視点の効果を問う視点で、直接的・間接的、正・負、想定された・想定されなかった効果を含む。
5. 持続性 (Sustainability)	持続性は、プロジェクトによる効果が支援終了後も持続され得るかを問う視点で、政策/制度、組織、財政、技術面などの観点から検証する。

情報源は、既存の文献・各種報告書（国内支援委員会議事録、専門家報告書、活動実績資料、教員アンケート結果集計、授業評価結果集計資料等）に加え、現地調査において、評価ワークショップ、インタビュー調査等を実施し、必要な情報・データの収集を行った。

1-5-2 評価の制約・限界

本中間レビュー現地調査は、短期間に精力的に実施されたものの、準備期間並びに現地調査日数の制約により、いくつかの課題については調査が不十分のまま残った。事前の準備並びに現地日程は、現実的な必要日数を確保することに加え、特に改善点として指摘されるのは以下の点である。

- ・ 評価ワークショップでは、各学科より PDM に即して進捗、課題等をまとめたマトリックスを作成してもらい、課題の把握と今後のアクションプランを協議する予定であったが、イースター休暇等時間的な制約並びに事前の準備不足もあって十分行うことができなかった。最終的に各学科より短時間にまとめたドラフト(付属資料1 合同評価報告書 Annex12 参照)が提出されたものの、本来は、各学科内で検討して作成するプロセスが重要であり、

それを基に今後のアクションを関係者全体で具体的に議論する機会として本中間レビュー調査を活用すべきであった。日本側調査団には、現地の日程も考慮し事前に必要な時間を計算して、計画・調整することが求められる。

- C/P に対しては、インタビューは実施されたものの、質問票調査は行われず、時間的制約から日本側インプットや技術移転/キャパシティ・ディベロップメントの手法並びに協力の質に対する率直な意見を十分聞くことはできなかった。
- 成果 3 については、進捗促進を図る必要性が以前から認識されていることから、改善方法について具体的に議論・合意できるような事前の準備（対処方針）がなされるべきであった。
- 教員の外国語能力（英語とポルトガル語）が異なることから、英文のミニッツ等重要な文書の議論・確認においては、C/P が事前に目を通せるよう必要な時間をとるとともに、状況に応じ現地語等の通訳や要約翻訳等を行う可能性も含め、関係者間の共通理解を促進することが望ましい。
- PDM の改訂については、プロジェクト期間延長に係る点を除き、十分な議論を行うことができなかった。本報告書では、PDM 改訂に係るポイントについては、適宜本文中にも指摘したが、改訂の際には全体構造を再度検証のうえ、修正することが必要である。

第2章 プロジェクトの実績

2-1 投入

東ティモール並びに日本側より、プロジェクト開始から中間レビュー時点（2011年2月～2013年3月）までの期間に行われた投入は以下のとおり。

2-1-1 日本側

①日本人専門家	長期専門家：調整員として累計2名 短期専門家：チーフアドバイザー1名（14.5M/M）、 支援大学より累計15名（3.9M/M） （詳細は付属資料1 合同評価報告書 Annex 4）			
②研修員受入	長期研修（修士課程留学）：2名（詳細は付属資料1 合同評価報告書 Annex 5） 短期研修：12名（詳細は付属資料1 合同評価報告書 Annex 6）			
③第三国専門家	インドネシア・サトリオ客員教授（バンドン工科大学：Institut Teknologi Bandung：ITB）：ワークショップ5回（詳細は付属資料1 合同評価報告書 Annex 7） インドネシア・スラバヤ工科大学 ¹ ：第1回3名、第2回2名の教員派遣（詳細は付属資料1 合同評価報告書 Annex 8）			
④機材供与	研究機材等以下の金額相当が供与された。（詳細は付属資料1 合同評価報告書 Annex 9）			
		Local 現地調達機材	JICA Handover equipment 供与機材	Expert/JICA 携行機材
	機械工学	\$31,713.20	¥14,741,600	¥7,690,400
	土木工学	\$13,297.30	¥27,099,260	¥2,491,600
	電気・電子工学	\$35,240.75	¥7,862,900	¥1,168,390
	工学部	\$27,554.00	¥784,100	¥314,490
合計	\$107,805.25	¥50,487,860	¥11,664,880	
⑤現地活動費 （在外事業 強化費）	合計15万364.36\$が、航空賃、旅費、業務契約、スタッフ以外への謝金報酬、会議費、一般業務費として支出された。（詳細は付属資料1 合同評価報告書 Annex 10）			

2-1-2 東ティモール側

①カウンターパート （C/P）	学部長（1名）、機械工学（25名）、土木工学（17名）、電気・電子工学（16名）の3学科の全教員並びにアドミニススタッフ（24名）がカウンターパートとして位置づけられている。詳細は付属資料1 合同評価報告書 Annex 3 参照。このほか、プロジェクト・ディレクターは学長（1名）である。
②専門家の執務室、什器等	キャンパス内の執務室、椅子、机、書棚、エアコン、水道、光熱費、セミナー開催場所（教室）などが提供された。なお、執務室の状況は良好。

¹ 2011年3月に覚書（MOU）を締結。MOUには、年2回、各2週間の集中講義にITS教員の派遣及び学術交流促進などが明記されている。（出所：第2回国内支援委員会会議資料2012年4月）

③事業運営費	インドネシア・スラバヤ工科大学 (ITS) 教員派遣 (2 回分) の一部費用 (1,892 万 3,400 IDR + 6,140\$) が負担された。
--------	---

2-2 成果 (アウトプット)

プロジェクト目標達成のためには、PDM に 3 つの成果 (アウトプット) が設定されている。PDM の指標に基づき検証した成果ごとの達成状況は以下のとおり。

2-2-1 成果 (アウトプット) 1

成果 1	工学部における授業 (講義・実験) の実施環境が改善する。
指標	<p>指標 1-1: 工学部の 4 年制学士プログラムのカリキュラムが国内標準カリキュラムに基づいて整備される。</p> <p>指標 1-2: 4 年制学士プログラムのカリキュラムに従い、90%以上の科目でシラバスが整備される。</p> <p>指標 1-3: ファカルティ・ディベロップメント委員会 (FDC) により、2 年ごとにカリキュラム、シラバスがレビューされる。</p> <p>指標 1-4: 90%以上の授業において、工学部教員により講義ノート・実験実習書が整備される。</p>
達成状況	<p>4 年制学士プログラムは、予定どおり 2012 年より開始され、プロジェクトを通じて改善されたカリキュラムに即して実施されているが、ポルトガル制度準拠など、今後変更の可能性があることに留意する必要がある (指標 1-1)。シラバス・講義ノート・実験実習書等については整備を進めているところであるが、さらに促進される必要がある (指標 1-2、1-4)。4 年制学士プログラムはまだ開始間もないため、カリキュラム等のレビューを実施する段階にないが、ファカルティ・ディベロップメント委員会 (FDC) については、現在機能していないため活性化を促進する必要がある (指標 1-3)。</p>

指標 1-1: 工学部の 4 年制学士プログラムのカリキュラムが国内標準カリキュラムに基づいて整備される。

国内標準カリキュラム (National Curriculum) には準拠しないことを東ティモール国立大学 (UNTL) が決定し、4 年制学士カリキュラムは整備された。当初、政府が定めた国内標準カリキュラムに基づいた教育が義務づけられていたが、このカリキュラムは、国際レベルのため工学部教員では実施不可能など、いろいろ問題があったため大学本部から国内標準カリキュラムに拘束されない独自のカリキュラム作成の指示があった。そして、国内標準カリキュラムを参考にして、各学科とも 4 年制のカリキュラムを 2012 年末までに作成し、当初予定のとおり、2012 年から 4 年制学士プログラムが開始された。現時点で 1 年次、2 年次の学生が在籍している。カリキュラム・シラバスサンプルは付属資料 4 参照。

右カリキュラムは、各学科で議論して作成したあと、プロジェクト活動の一環として、第三国専門家であるバンドン工科大学 (ITB) サトリオ客員教授が、単位数の統一などもチェックして完成させた。今後は、ポルトガル制度準拠の動きがあることに加え、UNTL がインドネシアの元大学学長などカリキュラム専門家を招聘し、大学のカリキュラムレビ

ューを実施中であることなどから、今後変更の可能性があることに留意する必要がある²。

なお、カリキュラムは公用語のポルトガル語で作成されている。2012年から教育言語はポルトガル語またはテトゥン語を使うことになっているが、一部にはインドネシア語や英語が使われ、言語は混乱した状態になっている。ポルトガル語能力が十分でない学生・教員も多いなど、教授言語は教育の質の観点から問題のあるケースが少なくないとの意見が、日本人専門家から聞かれた。

また、本指標は改訂を要することを指摘する。現状並びに国内標準カリキュラムへの準拠が流動的であることに対応し、「国内標準カリキュラムに基づいて」を削除変更/することが考えられる³。

指標 1-2: 4年制学士プログラムのカリキュラムに従い、90%以上の科目でシラバスが整備される

4年制学士プログラムに従ったシラバスは整備中で、現在1、2年次の科目でシラバスが作成されているが、一部の科目はまだ作成されていない。シラバスの作成のためには、プロジェクト側が様式を提供し、第三国専門家であるサトリオ客員教授が、作成目的・意義・方法などを指導して作成した（カリキュラム・シラバスサンプルは付属資料4）。

現在、具体的な作成率は不明であるが、学科別教員インタビューによると、電気・電子工学では基礎科目（basic subject）の30%、専門科目（specific subject）は未着手、土木工学では専門科目は全科目（ただし要調整部分は残る）、一般科目は未着手、機械工学では約25%程度が完了しているとのことであった。4年制学士プログラム実施予定に即し、引き続き整備を促進することが指摘される。また、今後は、プロジェクトのモニタリングの一環として、正確な作成率データを取得することが望ましい。

指標 1-3: ファカルティ・ディベロップメント委員会（FDC）により、2年ごとにカリキュラム、シラバスがレビューされる。

4年制学士プログラムは始まって1年余りであり、カリキュラムやシラバスの見直しは時期尚早であるので、見直しを行っていない。通常、カリキュラムは極軽微な修正を除き、少なくともそのプログラムの最初の学生が卒業するまで改正は行わないのが通例である。シラバスについても、現在のシラバスは2012年9月に作成したので、まだ見直すところまで至っていない。

ファカルティ・ディベロップメント委員会（FDC）については、現在は休眠状態である。FDCは、先行プロジェクトである「東ティモール大学工学部支援プロジェクト（2006～2010）」で導入し、本プロジェクトの実施協議報告書（2011年）にも「ファカルティ・ディベロップメント委員会の役割・機能の明確化」をプロジェクト実施上の留意点として挙げているものの、ファカルティ・ディベロップメント（FD）の意味・意義がまだ明確に

² 各学科インタビューによれば、現行4年制カリキュラムは、導入は2年前だが、2000年代初等にできたもので、それに準拠しているため内容が古い部分も残っているとのことであった。

³ 暫定的に「大学としてふさわしいレベル」などとあえて特定しない形としておくことも一案であるが、「ふさわしいレベル」は指標としての具体性に欠けるものであり、可能であれば、カリキュラムの質または正当性を示すような具体性のある指標についても検討されることがより望ましい。

理解されていないことや、人的課題（FDCの委員長を任命した人物の退職等）などにより、現在も機能していない状況である。他方、通常FDとみなされる活動自体は、別の場で一定程度実施されている模様でもある（ただし、大学レベルか学部・学科レベルのものは明確でない）。いずれにせよ、FDの定義・意義について十分に理解されるよう、引き続きプロジェクト専門家による働きかけが求められるとともに、UNTL側でもFD活動の活性化に尽力することが期待される。また、既存システムのなかで行われている/行えそうな場合には、新たな委員会組織化の必要性の再検討も考えられる。

なお、「ファカルティ・ディベロップメント委員会により、2年ごとにカリキュラム、シラバスがレビューされる」となっているが、本来、カリキュラム等はFDCのイニシアティブに基づき学科で見直すべきものとみられる。また、カリキュラム・レビューの頻度も「2年ごと」と設定されているが、4年制学士プログラムは最低でも4年間実施されなければ有効性は検証できないなど現実的ではない。レビューの内容に応じて適切な頻度の検討をしたうえで、指標の改訂が必要である。

指標 1-4：90%以上の授業において、工学部教員により講義ノート・実験実習書が整備される。

教員アンケート結果（2013年3月）によると、自分の授業の61%～80%において、講義ノートまたは実験実習書を整備したと回答した教員が平均70%弱であった⁴（質問票は付属資料5参照）。なお、教員アンケートでは、授業によって講義ノートが必要なのか実験実習書が必要なのかは異なるため、lecture notes or job sheetという聞き方をしており、PDMでもand/orに変更することが適当である。また、実験実習書（job sheet）については、関係者間で共通の理解をもっていないケースも見受けられるため、用語の定義についてはPDMに注を付記して明確にすることが望ましい。

2-2-2 成果（アウトプット）2

成果2	実践的な調査・研究活動に基づいて卒業研究指導が行われる。
指標	指標 2-1：4年制学士プログラムの下で、実践的な調査・研究活動に基づく卒業研究の指導が行われる。 指標 2-2：4年制学士プログラムに基づく学生による卒業研究の成果品が、毎年作成される。
達成状況	4年制学士プログラムの下で実践的な調査・研究活動に基づく卒業研究の指導が行えるよう教員の能力強化が進展しているが、当初計画の変更に伴い、4年制学士プログラムの下で卒業研究が開始されるのは、プロジェクト期間終了後の2015年以降である。よって、現行指標は不適切であるとともに、成果2を達成するためには、プロジェクト期間の延長を検討する必要がある（指標2-1、2-2）。

⁴ 「Q17: How many percentages of your classes do you prepare "lecture Note" or "Job Sheet" for you each class between March 2012 and December 2012?」の質問に対し、回答は5段階スケールより選択（1. 0～20%, 2. 20～40%, 3. 41～60%, 4. 61～80%, 5. 81～100%）

指標 2-1：4年制学士プログラムの下で、実践的な調査・研究活動に基づく卒業研究の指導が行われる。

本プロジェクトは2015年1月に終了予定であるが、4年制学士プログラムの卒業研究は2015年から開始される。成果2は、基本的に4年制学士プログラムを対象としていることを調査団は確認しているが、プロジェクト期間との齟齬が生じている。本指標並びに成果2に関連する活動は、2012年開始の4年制学士プログラムに3年制学士プログラムからの学生の編入を前提として設定されたものである。しかし、その後編入制度は認められないこととなり、当初の目的を達成するためには、4年制学士プログラムの卒業研究が終わるまで、プロジェクト期間延長の可能性について検討することが必要である。

また、現行指標は、アウトプットと指標の記載内容が重複しているため、プロジェクト延長の有無にかかわらず改訂を要することを指摘しておく。なお、現在実施されている3年制学士プログラムの卒業研究指導の質（実践的調査・研究か）についての詳細は不明であるが、専門家の見解によれば演習問題をまとめるというレベルとみられる。

指標 2-2：4年制学士プログラムに基づく学生による卒業研究の成果品が、毎年作成される。

4年制学士プログラムによる卒業研究は始まっておらず、上記指標2-1と同様現行プロジェクト期間内には達成し得ない指標である。

<補足事項>

専門家の見解では、教員の研究については、実験レベルにとどまっているケースなど、研究の質、レベルに課題があるものの、先行プロジェクトと比較して進歩がみられ、教員によっては外部に公表できる研究もあるとのことである。なお、限定的ながら、プロジェクトや大学主催の研究発表の機会はあるものの、学会、ジャーナルなどはない。工学会など（大学だけでなく）実務関係者も発表できる場があると有効であることが指摘される。

2-2-3 成果（アウトプット）3

成果3	学部の管理体制が改善される。
指標	指標 3-1：学部（学科）の活動計画が80%以上達成される。 指標 3-2：学部（学科）の管理状況のレビューが毎学期ごとに実施される。
達成状況	活動計画の達成度は確認できず（指標3-1）、学部管理検討委員会も組織されていないため、定期的レビューは実施されていない（指標3-2）。それら指標の達成状況以前に、成果3については、PDMに記載されている言葉の定義や活動内容をまず明確にし、本成果において何を達成すべきか、全関係者が共通認識をもち、具体的な活動計画を立てることが必要である。なお、UNTL側は、運営指導調査の指摘に迅速に対応し、内部規定のドラフトを作成するなど、管理体制改善の動きはある。

指標 3-1：学部（学科）の活動計画が80%以上達成される。

学部レベルの年間活動計画は策定されているが、達成度は確認できていない。学科レベルの年間活動計画は策定されているとみられるが、本調査において確認できておらず、達

成度も不明である。なお、工学部の5カ年計画（Operation Plan FoEST-UNTL 2013-2017）は作成されており、学部長より入手した（付属資料6参照）。

成果3については、まず、各活動に記載されている各種委員会や年間活動計画等の定義を明確にし、本成果において何を達成すべきか、関係者間の共通認識を確立する必要がある。また、現行システムとその機能状況を改めて確認したうえで、持続性確保に向けて既存システムの活用も検討し、本成果の達成に向けてプロジェクトの活動計画/ロードマップを調整・策定する必要がある。

指標3-2：学部（学科）の管理状況のレビューが毎学期ごとに実施される。

学部管理検討委員会が組織されていないので、委員会による学部や学科の管理状況の定期的レビューは実施されていない。しかし、学科会議、学部会議、大学全体の会議については、毎週定期的に開催することが決められている（学科会議については、実際の開催頻度は学科によって異なる）。なお、指標3-1でも既述のとおり、まず、成果3について定義を明確にし、活動計画を調整・作成し直すことが求められる。

<補足事項1>

運営指導調査（2012年5月）の提言に基づき迅速な対応がとられ、内部規程（Internal Regulations）のドラフトが作成された。大学としての規程を現在策定中で、大学規程が完成しだい、内部規程を大学規程に沿った形で修正する予定である。

<補足事項2>

事前評価表では「現在は学生の在籍情報や成績、卒業生の就職状況等が体系的に管理されていないため、現状の課題の把握と分析を踏まえた適切な学部運営管理体制を整備することで、総合的に学生に対する『質の高い教育の提供』を確保することが期待される」とあるが、データの体系的な管理については、現在PDMで設定されている活動に明示的には含まれていない。学部管理体制の改善をめざす成果3においては、この側面についてもどのように取り組むのか、検討が必要である。

2-3 プロジェクト目標

プロジェクト目標は、プロジェクト終了までに達成されるべき目標で、3つの指標が設定されている。PDMの指標に基づき検証した現時点における達成見込みは以下のとおり。

プロジェクト目標	工学部が適切な管理運営の下で質の高い教育を提供する。
指標	指標1：学生の70%以上が工学部の教育内容に満足する。 指標2：工学部の学生の卒業率が向上する。 指標3：学生による授業評価の結果、各科目において平均60%以上の満足度を得る。

達成見込み	プロジェクト終了の2015年1月までに、3つの成果（アウトプット）を通じて一定程度は達成されると見込まれるが、4年制学士プログラムの第1期生の卒業研究指導開始は2015年以降となるため、プロジェクト期間中にプログラムの全サイクルは完了することができない。よって、プロジェクト目標は、達成できない部分が残ることが既に明らかである。なお、「教育内容」の満足度（指標1）、「卒業率」（指標2）については、定義の明確化、指標としての妥当性並びにデータ取得方法等について検討を要する。「授業評価」（指標3）については、プロジェクト主導ではあるが、定期的実施されており、教育の質改善に役立てられている。
-------	---

指標1：学生の70%以上が工学部の教育内容に満足する。

現在、「授業評価調査」は実施されているが、指標の「教育内容」は授業以外の評価も含む広い概念として設定されたものと推察される。「教育内容」全般に対する学生アンケート調査であれば、4年制学士プログラム終了時/卒業時の実施などが考えられるが、いずれにせよ、「教育内容」の定義の明確化、指標の妥当性並びにデータ取得の可能性・方法について検討を要する。

指標2：工学部の学生の卒業率が向上する。

プロジェクト目標は4年制学士プログラムを直接対象としているが、第1期生が卒業するのは2015年以降であることから、現行プロジェクト期間（2015年1月終了）を前提とすると不適切な指標である。また、現時点で「卒業率」のデータは整備されていないため、まずは「卒業率」の定義を明確にする必要がある。例えば、現在、3年制学士プログラムでは、単位をすべて取得したにもかかわらず、卒業認定証の発行を受けていない学生も珍しくない。また、「卒業率」の改善には、プロジェクト以外にもさまざまな要因が働くこと、現在も、工学部に在籍はしているが登録していない学生数かなりの割合に上り⁵、必ずしも規定内の期間に卒業することが一般的ではないという現状なども考慮する必要がある。よって、プロジェクト目標の指標としての妥当性についても再度検討するとともに、卒業率データ整備の方法について、大学側と検討することが求められる。

指標3：学生による授業評価の結果、各科目において平均60%以上の満足度を得る。

授業評価は、2008年8月より年2回の頻度で定期的実施され、教育の質改善に活用されてきている（質問項目は付属資料7参照）。直近の2012年12月実施の授業評価結果（暫定版）によると、5段階評価で平均評点は約3.5となっている⁶。目標値である60%以上達成のためには、平均評点が4以上となる必要がある。なお、現在実施されている授業評価調査は、3学科の授業を対象とし、ポルトガル人・ブラジル人教員が教えている科目も含

⁵ 2013年度データでは、5学科の全学生数2,270名に対し、登録学生数は約半数の1,165名となっている。（学部長プレゼンテーション付属資料8より）

⁶ 質問（Q8: How many percentages do you satisfy this class?）に対し、5段階評価（1.0～20%、2.20～40%、3.41～60%、4.61～80%、5.81～100%）で回答する。なお、授業評価質問票は、機械工学科35科目、土木工学科36科目、電気電子工学科33科目の合計104科目を対象に配布し、2013年3月時点の集計暫定版ではそれぞれ17、25、16科目の合計58科目（回収率55.8%）である。その後回収された追加科目も含め、現在最終版をプロジェクト側で集計中である。なお、これらのなかにはポルトガル人・ブラジル人教員が教えている科目も含まれている。

まれているため、ポルトガル語で行われる授業を理解することが難しいなど、評価結果の影響を与えた可能性がある。また、本来このようなアンケート調査は、シラバスが完成した段階で、授業評価をすることに意味があるという見解もあることに留意（先生が質の保証をする、それに対して学生が満足度を示すというもの）。

授業評価自体は、先行プロジェクト CADETES 時代に開始されたもので、右プロジェクト終了後は、大学側で継続する予定であったが、現在もプロジェクト主導で実施している状況が続く（アンケート用紙を準備して各学科に依頼し、集計・結果のフィードバックはプロジェクト側が行う。ただし個々の科目の結果は個人情報なので公表しないで個人に渡す）。本活動がプロジェクト終了後も継続されるためには、FDC など大学側主体で実施できる体制構築が必要となる。

第3章 実施プロセス

3-1 活動の進捗

PDM に計画されているプロジェクト活動は、予定どおり実施されてきているものも多いが、主な課題としては①ファカルティ・ディベロップメント委員会 (FDC)、②スラバヤ工科大学 (ITS) 教員派遣、③機材、④4 年制学士プログラムの卒業研究、⑤管理検討委員会、⑥成果 3 の全般的な明確化が挙げられる。詳細は、以下の表にまとめるとおり。

なお、PDM に記載されている各活動進捗の詳細は付属資料 9 を参照されたい。また、学部長による進捗報告プレゼンテーション (付属資料 1 合同評価報告書 Annex 11)、各学科別に作成された活動の進捗状況 (付属資料 1 合同評価報告書 Annex 12) も参考資料となる。

成 果	主な課題
成果 1	<ul style="list-style-type: none"> ・ ファカルティ・ディベロップメント委員会 (FDC) : 委員会を立ち上げたものの、現時点では休眠状態で機能していない。詳細は成果 1 の指標 1-3 の項参照。 ・ ITS 教員派遣 : UNTL の ITS に対する支払い問題 (支払の滞り) により、ITS 教員による集中講義が中止されたままになっている。プロジェクトは、UNTL と ITS 間の橋渡しを行い、解決を待っているところである。
成果 2	<ul style="list-style-type: none"> ・ 機材 : 機材調達の問題が活動の進捗とその質に影響を及ぼしている。2011 年度には、研究機材の大幅遅れのため、多くの研究で申請機材を使っでの短期研修や研究に影響があり、そのために多くの研究では当初の研究計画を変更し、研究に必要な基礎的な勉強や現有機材を使って行った。機材の大幅遅れは、銘柄指定の条件が厳しくなったこと、仕様作成に多くの時間を要したことなど、JICA の機材調達に予想をはるかに超える日数を要したことなどが理由である。また、携行機材についても、通関手続きの煩雑さなどから引き取りが遅れるなどした。 また、2012 年度には、JICA 本部と調達部間の手続きが滞ったことにより大幅に遅延し、予定された研究活動に大きな支障が出た。プロジェクト側と JICA 本部関係者によりビデオ会議を行うなど解決に努めたが、機材調達遅延の問題は尾を引いている。 2012 年度にみられた連絡体制の不備に起因する手続き上の遅延とは別に、研究機材調達に係る根本的な課題を指摘しなければならない。専門家の意見によれば、研究機材は性能が重要であるにもかかわらず、現在の調達制度では性能を日本でチェックする仕組みになっていないことが問題である。この問題に対処すべく、支援大学に仕様の確認をしてもらうなどしているものの、一般機材と比較し、研究機材の調達は性能チェックの点で異なるという特徴を踏まえた調達が望まれるなど、機材調達制度全般に係る課題が指摘されている。また、現地調達が限定される東ティモールの調達事情も、持続性 (維持管理) に影響を及ぼす要因となっている。 ・ 4 年制学士プログラムの卒業研究 : 4 年制学士プログラムの卒業研究に関する活動は、卒業研究開始がプロジェクト期間終了後の 2015 年以降となるため、現行プロジェクト期間中に実施することはできないことが既に明らかである。

成果 3	<ul style="list-style-type: none"> ・ 管理検討委員会：委員会はまだ組織されていない。 ・ 成果 3 の全体的な明確化：PDM に記載されている用語・活動全般の定義・意味について明確にし、「成果 3 で何を達成するのか」について関係者間で合意する必要がある。詳細は成果 3 の達成状況に既述のとおりで、まず、現状の把握並びに改善に向けた具体的な活動計画の策定、さらには追加インプットの必要性についても早急に検討する必要がある。
------	--

上記以外には、以下の点が挙げられる。

- ・ 休校日が多すぎることで、及び教員の勤務日数と時間が短いこと。これは、大学全体の問題として、服務規程の整備・実施を要請し改善を依頼した。
- ・ 現地議会選挙（2012年7月）による Dr. Satoryo 客員教授派遣の中止。

このほか、特別講義、セミナー、視察等のリスト（付属資料 1 合同評価報告書 Annex 13）の並びに研究テーマリスト（同 Annex14）を参考資料として添付した。

なお、現在活動計画（Plan of Operation : PO）については、当初計画と現状との隔たりが大きいことから比較する形で作成されていないが、今後は作成することが望ましい。例えば、プロジェクト前半については実施実績を、後半については計画と実施を併記する形などが考えられる。PO は、UNTL 側も含む関係者間で共有してプロジェクト進捗管理に生かすことが期待される。

3-2 技術移転/キャパシティ・ディベロップメント

技術移転/キャパシティ・ディベロップメントは進展している。しかし短期専門家による指導分野が、必ずしも全教員の要求する内容とレベルが一致していないことも指摘される。専門家の見解によれば、ミスマッチングはないが、レベルについては UNTL 側の状況に即して指導するなど工夫しているとのことである。他方、UNTL 教員の満足度については、十分に調査できなかったが、担当教員が支援大学に限定されること、そのため研究テーマが一致しないこと、研究機材調達遅延により研究活動に支障があったこと、長期留学候補者が試験に通らなかったこと、などについてコメントがあった。

3-3 プロジェクトマネジメント

3-3-1 プロジェクト運営体制/意思決定過程/コミュニケーション

プロジェクト運営体制は適切である。合同調整委員会（JCC）を年 1 回開催し、進捗報告と活動計画の承認を得ている（付属資料 1 合同評価報告書の Annex15）。また、国内支援委員会も年 1 回定期的に開催されてきた。

専門家と C/P との関係は良好で、コミュニケーションも頻繁に取っている。重要事項は必ず文書で配布し説明しており、計画変更時は常に学部長の承認を得ている。ただし、学部長から各学科への情報伝達が十分でないことがあり、一部の学科長は、情報共有が徹底されないことに対して不満を抱いているようである。専門家としては、信頼関係の確立のために、相手の言い分を十分に聞いて、できる限りの対応をとるようにしている。なお、教員によってはポルトガル語と英語で外国語能力が異なることから、重要なポイントについては現地語の翻訳・通訳を介するなど、共通理解を深めることが推奨される。このほか、2012年5月に学長、副学長、

工学部長及び教育省・高等教育総局長を日本に招聘し、プロジェクトと UNTL 本部、教育省との連携を強化した。

日本人専門家間のコミュニケーションも良好である。現地アサインメントが短期シャトルベースであるチーフアドバイザーが不在の期間も、電子メールで定期的に連絡を取っている。本邦支援大学との連絡も通常メールで実施している。調整員専門家以外の専門家がすべて短期専門家派遣によるものであることから、プロジェクトの進捗状況をお互いがフォロー・共有できるように、詳細を記した各種報告書も定期的に提出されており、本プロジェクトのドキュメンテーション整備状況は良好である。

JICA 本部とは、電子メール、電話、TV 会議を通じて情報共有を行っている。本部の対応については、プロジェクト運営の効率性・有効性に影響を及ぼす要因であることから、的確性・迅速性が求められる。また、JICA 東ティモール事務所には月次報告を実施しており、その他適宜、個別の事案について相談している。現地の日本大使館には、JCC や各種セミナーへの参加、また大使表敬などを通じてコミュニケーションをとっている。

3-3-2 モニタリング

定期的・日常的なモニタリングの実施状況は良好である。上述のとおり、JCC は年 1 回定期的に開催され進捗がモニタリングされている。また、プロジェクトの月次業務報告書で進捗状況を確認している。これら通常のモニタリングに加え、2012 年 6 月には、運営指導調査団が派遣され課題の抽出を行い、今後取り組むべき重点事項として 5 項目が合意された。各項目に対応する、中間レビュー調査時点での対応状況は以下に要約される。

運営指導調査における指摘事項 (2012 年 6 月)	現 状 (学部長プレゼンテーション 2013 年 4 月 2 日)
① 新設された 4 年制 (S1 コース) における工学部の教育目標を見直し、学科レベルにおいてカリキュラムとシラバスを確定する。	<ul style="list-style-type: none"> ・ サトリオ教授によるワークショップを行い教育目標が新たに設定された。 ・ カリキュラム改訂は行われたが、単位についてポルトガルの制度に準拠すべく調整の要あり。 ・ 教員はシラバス作成を行っているが、すべての科目で完了するにはさらに時間を要する。
② 工学部における内部規程を作成し、実行する。内部規程では、勤務時間、研究方針、年次休暇、罰則などを規定し、この規程を作成するために工学部内にタスクフォースを結成する。	タスクフォースは、既に学部内部規定のドラフトを作成済み。今後は、大学の規定に即して改定・修正する必要がある。

<p>③ 工学部が持続的に成長するために、教員の育成計画や学位取得のための留学計画を学科内で議論し、学部レベルで計画を策定する。</p>	<ul style="list-style-type: none"> • UNTLはキャリア・レジーム（キャリア規程）作成済みで、工学部では学士・ディプロマをもっている教員を修士取得のためポルトガルに派遣することが記載されている⁷。 • 工学部内の情報共有については、引き続き課題であり、効果的なコミュニケーションシステムが構築されていない。
<p>④ 教員間における労働負荷のギャップがあり、これを解消する。</p>	<p>キャリア・レジーム（キャリア規程）によれば、各教員は最大3科目を担当することになっている。しかし、修士号取得教員は講義（理論）を担当することができるが、学科によっては修士号取得教員数が不足している（学士・ディプロマレベルの教員は実験・実習授業の担当または講義授業アシスタントとして教えることができる）。</p>
<p>⑤ 各学科の事業計画に基づいた予算の申請、執行の仕組みを強化する。</p>	<p>予算計画は各学科で検討されている。2014年度より学部レベルに権限委譲される予定で、予算計画執行の責任も学部任されることになる。</p>

出所：学部長プレゼンテーション（2013年4月2日）（付属資料1 合同評価報告書 Annex 11）

なお、現行PDMは2011年2月版のまま改訂されていないが、インプットに長期研修（留学）を追加すべく、JCCにて承認を得た。

3-4 オーナーシップ

先行プロジェクトと比較し、UNTL側のオーナーシップは格段に向上している。ただし、活動全般はまだプロジェクト専門家主導によるものが多く、さらなる向上が期待される。

教育省、UNTLの位置づけについては、UNTLは組織上教育省から独立しており、プロジェクト実施に係る役割は基本的にUNTLが負っている。工学部長はプロジェクト活動を重要視しており、参加度も高い。プロジェクトとの信頼関係も篤いが、プロジェクト専門家の見解によると、マネジメントはプロジェクト専門家に頼ることが多く、さらなるリーダーシップや統率力が期待される、また、学長はR/DではProject Directorとなっており、協力的ではあるものの、実質的な関与は限定的である。

カウンターパート（Counterpart：C/P）側の参加度合いについては、プロジェクト専門家の見解によれば、工学部3学科の教員全員がC/Pとなるため、プロジェクトに対して協力的な教員もいれば、非協力的（無関心）な教員もいるなど、人により参加度合いが異なる。ただし、協力的な教員の数、協力の密度などは、先行プロジェクトから比較すると大きく向上している。研究活動に熱心で、プロジェクト活動への参加度が高い教員は、全体の4割程度に上る。また、セミナー

⁷ UNTLでは、ポルトガルやブラジル連邦共和国（以下、「ブラジル」と記す）から教授を招聘し、修士課程、博士課程を開設している。ここでの論文はポルトガル語で作成しなければならず、その前提としてポルトガルに留学経験のない教員を対象に、ポルトガル語コースの修了が義務づけられている。現在、すべての教員は修士課程もしくは博士課程への登録が義務づけられており、海外留学組以外は、UNTLに設置された本コースに登録することになっている。（出所：月次業務報告書2012年10月分）

やトレーニングには参加するが、研究プロポーザルは出さないやや参加度の低い教員は全体の 3 割程度で、総じて 7 割程度がプロジェクトに対して協力的ということになる。なお、プロジェクト活動に無関心、あるいはキャンパスに来ていない教員は全体の 3 割程度である。

C/P 側予算に関し、予算の執行が非常に不安定という課題がある。ITS 教員派遣に対する費用の一部が、ITS に支払われていない状態が続き、現在 ITS 教員派遣は中断している。そのほか、サトリオ教授のワークショップのときに、昼食を準備することもある。学部の予算がないときには用意しないこともある。ただし、ITS 訪問、ウダヤナ大学訪問時は、UNTL 教員分の旅費を UNTL が負担している（金額不明）。

第4章 評価5項目による評価結果

4-1 妥当性

妥当性は総じて高いが、プロジェクトデザインについては当初計画に変更が生じたため、プロジェクト期間の見直しを提案するとともに PDM も全体的な修正が必要である。詳細は以下のとおり。

4-1-1 プロジェクト計画の妥当性

プロジェクトは、東ティモールの教育開発政策と合致している。戦略的開発計画（Strategic Development Plan : SDP 2011-2030）では、高等教育に対する質保証強化を明記。UNTL は唯一の国立の高等教育機関として、教育、研究、コミュニティへの知の提供、東ティモールの文化と民主主義の強化による自由の推進といった国家目標において、重要な役割を担うことが記載されている。

日本の開発援助政策との整合性も高い。日本の対東ティモール援助方針の重点目標のひとつが、経済活動活性化のための基盤づくりであり、「東ティモールが今後安定的に発展していくための最大の課題である経済活動の活性化のため、ソフトを含めたインフラ整備や産業人材の育成に関する支援を重点的に行う」とある。本プロジェクトは、産業人材育成に寄与するものである。

大学の選定根拠・基準並びにターゲットグループの選定も適切である。UNTL は、唯一の国立大学であり、最高学府である。工学部における教育、研究、社会貢献の機能は、いずれも未成熟で、支援を必要としていることから、UNTL 工学部におけるニーズも明確に存在する。工学教育は他の高等教育分野に比べて、日本が比較優位をもっている部分であり、工学部を対象とすることは適切である。また、工学部 5 学科のうち、情報工学科、地質石油工学科はポルトガルによる支援があったため、その 2 つを除いた 3 学科をターゲットとしたことも適切である⁸。

4-1-2 手段の適切性

UNTL が質の高い教育を提供するために、3 学科で新たに開始された 4 年制学士プログラムを通じて、教育、研究、学部運営の 3 つの側面から能力強化を図る戦略は適切である。他方、東ティモール側 C/P のレベルと、日本の支援大学とのレベルに格段の差があり、そのギャップを埋めるために、支援大学が柔軟にレベルを合わせて対応している。日本のノウハウがそのまま適用できるものは少ないため、専門家は臨機応変に対応することが求められている。

プロジェクトデザイン（計画された「活動」→「アウトプット」→「プロジェクト目標達成」→「上位目標達成」の論理性は適切だったか）については、ロジック上はおおむね整合している。ただし、論理的つながりが不明瞭な部分もある。例えば、プロジェクト目標の指標である「卒業率の向上」はプロジェクトの活動以外のさまざまな要因に影響を受けることが挙げられる。また、現実的でない活動が含まれている。例えば、カリキュラムを 2 年ごとにレビューすることについては、最低でも 4 年は実施しなければカリキュラムの有効性は判断できないなど

⁸ なお、情報工学科に対する全面的なポルトガル支援は 2012 年で終了し、現在は、ポルトガル人教員が個別に派遣されている。情報工学科の 4 年制学士プログラムは 2010 年より開始されている。地質石油工学科は 2012 年から開始され、引き続きポルトガルが支援している。

である。また、事前評価時に想定した、学生の在籍情報や成績、卒業生の就職状況が体系的に管理されていないため、現状の課題の把握と分析を踏まえた適切な学部運営管理体制を整備する、とあるが学生・卒業生の情報データ管理に係る活動は設定されていない。さらには、当初計画からの変更に伴い、4年制学士プログラムの第1期生が4年生になるのは2015年からとなるため、プロジェクト終了後でないといけない活動や、達成し得ない目標・指標がある。現行PDMについては、本報告書内でも適宜修正・検討箇所を指摘してきたが、ナラティブサマリー・指標・関連する活動・外部条件（記載箇所が間違っている）・日本語と英文の整合性・必要な注釈付記等を含め、全般的に修正する必要がある。

4-1-3 日本の技術・ノウハウの比較優位

本プロジェクトは、これまでの日本の支援による経験・蓄積をベースに実施されており、日本は比較優位がある。「東ティモール大学工学部支援プロジェクト(2006～2010)」を通じ、UNTL工学部教員の一定の知識レベル向上が認められた。このほか、無償資金協力による機材供与や技術協力による専門家派遣、教員の長期研修（国費留学）等の支援を行ってきており、同大学の能力向上に寄与してきた。

4-1-4 プロジェクト開始以降プロジェクトをとりまく環境の変化

まず大きな変化として、当初予定されていた3年制学士プログラムの学生の、4年制学士プログラムへの移行制度が取りやめとなったことがある。実施協議報告書によれば、「従来、3年制学士プログラムで入学した学生については、2012年時点で2.5ポイント以上の成績を取得していた場合に限り、継続して4年制学士プログラムへの進級が可能」(P10)であったが、その後大学側の方針として学生の移行制度は取りやめとなった。4年制学士プログラムは、予定どおり2012年より開始され、現在、1年次と2年次の学生が在籍している⁹。第1期生が4年次に進級するのは2015年となり、現行プロジェクト期間（2015年1月終了）では対応できない。現行プロジェクト期間は、「教員が留学から帰国するタイミングと実践的な調査・研究活動を通じて卒業研究指導の体制が整備されるまでの期間を勘案したもので、また想定では4年制学士プログラムの最初の卒業生は、早ければ2012年末に輩出されることから、4年間のプロジェクトのなかで3期の卒業生をフォローすることが可能となる」(P.11)ことに基づき設定されたものであるが、現状に即していない。よって、当初の目的を達成するためには、プロジェクト期間延長の可能性も含めた見直しが必要である。

このほか、2012年の1年間、ポルトガル人、ブラジル人教員が工学部で教鞭を取ったことが挙げられる。プロジェクト活動に対する影響は特になかったが、授業をポルトガル語で行ったため、授業評価が極めて低く、多くの学生は授業内容を理解できていないものと懸念される。

4-2 有効性

プロジェクト目標は対象3学科の4年制学士プログラムにおいて質の高い教育を提供することであるが、4年制プログラムの卒業研究指導は2015年以降であることから積み残しが出るため、

⁹ 2012年以降、3年制学士プログラムの新規受入れはなく、現在は3年生（あるいはそれ以上）が在籍している。2015年以降も、卒業できない学生は在籍することになる。

現行期間内にプロジェクト目標を達成することは不可能であり、当初目標ほどに高くない。詳細は以下のとおり。

4-2-1 プロジェクト目標の達成見込み

「実績」でも既述のとおり、プロジェクト目標は完全に達成することはできない。4年制学士プログラムは、現行プロジェクト期間中には完了しないことが主な理由である。

プロジェクト目標に資する貢献要因としては、UNTLが大学改革の一環として、規程の制定や、研究活動の促進を行っていることから、これらがプロジェクト活動の追い風になると考えられる。阻害要因は、大学規程に定められた教員の処遇（キャリア規程）が、現実的でなく、それが教員のモチベーションを下げる可能性がある。

4-2-2 成果（アウトプット）とプロジェクト目標との因果関係

ロジック上は、成果（アウトプット）が達成されれば、外部条件である「4年制学士プログラムが導入されること」も既に満たされているため、プロジェクト目標は達成できると考えられる。しかし、既述のとおり、同プログラムの卒業研究指導は2015年以降であることから、現行期間内に成果2ひいてはプロジェクト目標自体を達成することは不可能であるとともに、成果3の進捗促進も必要である。

4-3 効率性

先行プロジェクトの教訓を生かし、高い効率性を保持・発現する工夫がなされているものの、①FDCや学部管理運営委員会が機能していないこと、②教員の退職・転職、③機材供与の遅延、④成果3の活動・目標が不明瞭であることなどが効率性を阻害している。特に、①、③、④については対策を講ずる必要がある（②はプロジェクトの対応範囲外）。

4-3-1 成果（アウトプット）の達成状況

成果（アウトプット）における課題は、FDCや学部管理運営委員会が機能していないこと、機材供与の遅延、成果3の活動・目標が不明瞭であることなどが挙げられる。詳細は「プロジェクトの実績」並びに「活動の進捗」参照。

このほか、成果（アウトプット）達成に影響を与えた可能性のある要因としては、本邦長期研修（前フェーズでの投入）を受講した教員2名が退職したこと¹⁰、並びにインドネシアで修士号を取得して帰国した教員が退職（FDCの委員長を任命した人物）したことが挙げられる。

4-3-2 投入、活動、アウトプットの因果関係

(1) 外部条件（Important Assumptions）

PDMに設定されている3つの外部条件の現状は以下に要約される。

¹⁰ 1名は元々行っていたパートタイムの仕事へ、1名は民間会社へ転職。

外部条件	現 状
1. 学則の下で新たに定められる工学部の組織規程によって、教職員の人数、業務内容、待遇等に負の影響がもたらされないこと	キャリア・レジーム（キャリア規程）による待遇改善があり、修士保持者を優遇したが、学士保持者に対する待遇がほとんど改善されず、不満をもつ教員が出てきた。
2. 留学中の教員が学位を取得して帰国すること	帰国後、転職する教員がいる（日本の支援については、先行プロジェクトで留学した2名が退職）。
3. 学部の管理・運営体制改善に向けた予算が適切に配置されること	学部に対して予算は配分されているが、管理運営に使われているかどうかは不明。予算規模/推移データについては、今次調査期間中には確認できなかった。しかし、2014年度より、予算管理も含め学部の裁量強化を開始。また、2013年度は学部に9万ドルが日常的な維持管理費として配分される予定であることから、各学科間にこの予算計画策定を依頼するなど、改善の動きが確認できた。

(2) 投入（インプット）

活動を実施するために過不足のない量・質の投入が、適当なタイミングで実施されたのかについては、特に課題として以下が挙げられる。

- ・ 既述のとおり、機材調達の遅れ等により、計画された研究活動の実施が進まないなど、効率性並びに有効性を阻害する問題が生じた。また、先行プロジェクトで供与された教育機材のなかで、現在活用されていない機材が少なからずあることが、教員インタビューにより判明した。活用していない理由は、当初研修を受けたが十分ではない、実験実習書（job sheet）を作成していないため研修を受けていない教員には使い方が分からないといったことであった。
- ・ 事務職員からの要望によりパソコンの研修を実施したが（520ドル）、十分に活用されているとは言い難い。
- ・ 当初計画に比べて、日本側のインプット（短期専門家派遣）を大幅に増やしているが、教育能力向上、研究能力向上、学部管理運営の改善のいずれにおいても、より日常的なインプットが必要である。
- ・ 学科により支援大学が特定されているが、研究分野が必ずしも一致しないケースがあるという意見がC/Pより聞かれた。

4-3-3 プロジェクト実施の費用対効果を高める工夫

効率性を高める工夫として、UNTL既存の機材を使った技術指導を実施している。専門家派遣、本邦研修のタイミングは、研究活動の進捗状況に合わせて効果的に実施されるように計画し実行している。また、インドネシア人材を活用することで、現地の状況により即した指導を展開している。これは、先行プロジェクトにおける教訓を生かしたものである。

他方、事前評価表で想定された遠隔教育システム（Shool on Internet : SOI-AIA）を活用した指導助言、無償機材である「太陽光パネル」の調査・研究活動への活用による成果2の達成促進については、今次調査では確認できなかった。

4-3-4 他機関・スキームとの協力及び連携状況

JICA の他の技術協力プロジェクト、個別専門家、また現地で活動中のコンサルタントなどと連携して、特別講義や現場見学を実施している。また「大阪ガス奨学金・短期研修プログラム」¹¹「太陽光無償」とは適宜サポート、情報共有を行っている。今後は、機械工学科に派遣される青年海外協力隊員との連携が期待される。そのほか、UNTL の外国人教員主催のワークショップで、パネラーとして参加して、プロジェクトの意義を広報した。

4-4 インパクト

上位目標については、人材輩出に係る「規模（人数）面」の目標達成は一定程度見込まれるが、目標値並びに「貢献」を示す就職率の指標については要検討である。詳細は以下のとおり。

4-4-1 上位目標達成の見込み

上位目標は、プロジェクト終了3～5年後に達成されることをめざす目標で、2つの指標が設定されている。PDM の指標に基づき検証した現時点における達成見込みは以下のとおり。

上位目標	工学部から地域社会に貢献する高度技術を有する人材が輩出される。
指標	指標 1：工学部の 4 年制学士プログラムの卒業生数が 2018 年までに 600 名を超える。 指標 2：卒業生の 60%以上が専攻分野に関連した業務に就業する。
達成見込み	人材輩出に係る「規模（人数）面」については、現在の年間 200 名規模の 4 年制学士プログラムへの入学者が継続すると想定されるため達成見込みは高いが、一方で、現行の登録・非登録数動向に照らすと、必ずしも楽観はできない状況もある。また、目標値（600 名）は、当初 5 期以上の卒業生の輩出が見込まれることを前提に設定された数値であることから、見直しも必要である（指標 1）。「貢献」を示す「就職率」については、現状では整備されていないことから、データ取得の可否も含め、要検討である（指標 2）。

指標 1：工学部の 4 年制学士プログラムの卒業生数が 2018 年までに 600 名を超える。

4 年制学士プログラムへの入学者数は、以下の表-3 に示すとおり 3 学科合計で 2012 年度 207 名、2013 年度 218 名である。同プログラム卒業生の輩出は 2015 年以降となるが、2015 年から 2018 年までの 4 年間で年平均 200 名とし単純計算で 800 名となり、退学/留年者を勘案しても 600 名は超えると想定される。

しかし、一方で現在の登録・非登録者数の動向をみると、必ずしも楽観はできない。2013 年の工学部（5 学科）学生数は合計 2,270 名であるが、うち登録学生数は 1,165 名で、残り是非登録となっている（付属資料 8 参照）。ただし、本指標の目標値（600 名）は、事前評価表によれば、2012 年に 4 年制学士プログラムが導入された場合には、（2013 年末に最初の卒業生が輩出されると想定して）5 期以上の卒業生の輩出が見込まれることを前提に設定された数値である。いずれにせよ、プロジェクト期間が延長された場合には、本指標並

¹¹ 「大阪ガス奨学金」「短期研修プログラム」は年間 20 名（1 人当たり 500 ドル）で 5 年間のプログラム。「短期研修プログラム」は工学部教員の派遣（2 週間）を支援するもの。

びに目標値・年なども再検討される必要がある。

表－3 学科別入学者数（2012年度及び2013年度）

年	機械工学	土木工学	電気・電子工学	合計
2012	37	86	84	207
2013	69	74	75	218

出所：プロジェクト事務所

指標2：卒業生の60%以上が専攻分野に関連した業務に就業する。

工学部では就職データを収集しておらず、現時点の就職率は不明である。雇用状況は、大学での教育やプロジェクト以外のさまざまな外部要因が影響することにも留意する必要がある。調査団としては、大学による卒業生追跡調査実施の可能性を検討するか、もしそれが難しいようであれば、他の代替指標を設定するなど、検討することを提案する。

4-4-2 波及効果

現在のところ、計画された効果以外に、正負とも波及効果は特に認められない。ただし、プロジェクトの影響とは別であるが、教員の給料が増加したり、教員の処遇の改革により、モチベーションを下げた教員が発生するなどの状況はある。

4-4-3 因果関係

上位目標とプロジェクト目標に、ロジック上の乖離はなく、外部条件は現時点でも正しいとみられるが、特に休学・退学者の実態把握が必要である。外部条件の現状は以下のとおり。

外部条件	現 状
1. 学生の多くが就職などを理由に途中で休学・退学をせずに卒業をすること	大学では、休学・退学者の実態は把握できていないため、予測することが難しいが、4年制学士プログラムは、まだ1年次、2年次の学生のみで、現時点では休学・退学は問題になっていない模様。ただし、3年制学士プログラムにおける過去の傾向をみると、3年次以降の状況は楽観できない。
2. 不況、治安の悪化などにより、工学系の技術者の就職環境が悪化しないこと	治安状況は現時点では落ち着いている。建設工事は盛んに行われており、技術者のニーズは今後も高まると予想される。

4-5 持続性

政策、人員、技術面での持続性は一定程度見込めるが、財政、組織面並びに機材維持管理が課題とみられる。詳細は以下のとおり。

4-5-1 政策面

「妥当性」の項で既述のとおり、高等教育政策並びに同政策における UNTL の重要な位置づけといった政策環境は継続するとみられる。よって、UNTL における研究活動促進、学位取得推進も継続すると見込まれる。

4-5-2 財政面

本調査では、予算面での詳細な情報は入手できなかったため、部分的な情報を得たにとどまる。まず、研究助成金制度は現在あるが、実質的に機能していないため、これが機能することが期待される。大学レベルでのリサーチセンターも設置された模様であるが、現在の詳細は不明である。また、奨学金予算に関していえば、2012 年は 150 万ドルだったところが、2013 年には 500 万ドル確保したとのことである。また、大学から学部レベルに権限移譲されて予算が振り分けられることにより、より学部のニーズに応じた予算執行が期待される。

4-5-3 組織面

既述のとおり、FDC は機能しておらず、学部運営委員も組織化されていないため、組織面での持続性に向けた強化が求められる。授業評価の継続実施も期待されるが、現在はプロジェクト主導で行っており、FDC が機能していないことなどから、プロジェクト終了後の継続のための取り組みが必要である。

4-5-4 人員面

学部長は 5 年ごとに選出され、副学部長、学科長、副学科長は 2 年ごとに選出される。既述のとおり、本プロジェクトの支援対象 3 学科内の大多数（7 割程度）の教員はプロジェクト活動に参画しており、マネジメントレベルのローテーション後も、特段の問題はないものとみられる。他方、教員が民間企業に転職することや教育省など他省庁に引き抜かれることが多くなると、持続性にも影響がでる可能性がある。

4-5-5 技術面

研究活動に対して、熱心に取り組んでいる教員は、引き続き研究活動を続けていくことが期待される。日本で修士号を取得した教員は、その経験を生かして学生への研究指導を行っており、今後もそれは継続されると思われる。また、UNTL の方針から留学により、高位学位取得も順調に進んでいる。3 年制学士プログラムでは、すべての教員が講義を担当できたが、4 年制学士プログラムでは修士号以上の学位をもっている教員が講義を担当し、学士〔サルジャーナ 1 (Sarjana 1 : S1) とディプロマ 3 (Diploma 3 : D3)〕をもつ教員は実験や演習を担当するように決めて実施しつつある。そのために S1 と D3 教員を留学させて修士号取得を促進しているが、現在 3 学科の修士号保持者は 31 名、さらに留学中教員は 17 名に及び、このうち 3 名は博士課程に留学中である。したがって、今後毎年数名程度の教員が修士号を取得する見込みである。

なお、事前評価時に期待された①修士号を取得した教員グループによる研究活動実施状況、②学生による研究グループ形成状況、③地域・社会ニーズに対応した研究に係る外部関係者との連携・協力状況については、今次調査では十分に確認できなかった。専門家によれば、まだそのような活動は活発ではないとのことであった。

4-5-6 機材維持管理

教員より、機材インベントリーが作成されたとの報告があり、これは維持管理体制構築に向けた良い兆候であるとともに、維持管理予算が配分されれば、ある程度は適切に行われることが予想される。ただし、技術的に困難なものについては、工学部での対応は難しいことも見込まれる。特に、現地調達ที่ 難しいことから、多くの機材が本邦機材の調達にならざるを得ず、スペアパーツ・修理等も含め、機材の維持管理については将来的な取り組みが必要である。また、先行プロジェクトで供与した機材について、活用されていない機材が少なからずある点については、機材の活用を推進すべく、プロジェクトとして再研修の実施を検討することが望まれる。また、実験実習書の作成を推進することも必要である。

4-6 貢献要因と阻害要因の検証

プロジェクトの進捗に貢献した要因並びに阻害要因/問題を惹起し得る要因として、以下の点が挙げられる。

4-6-1 貢献要因

(1) 計画に関すること

特になし

(2) 実施プロセスに関すること

- UNTL が大学改革の一環として、給与・服務規程の制定を行っており、教員給料増加や、ダブルワークの禁止などにより、教員のモチベーション向上や勤務状況の改善が見込まれる。
- UNTL では高学位取得や研究活動の促進を行っていることから、これらがプロジェクト活動の追い風になると考えられる。
- 運営指導調査における指摘を受け、タスクフォースが組織され、学部内部規定のドラフトを作成するなど迅速な対応がなされた。今後は、大学の規定に即して改定・修正する必要があるが、内部規定の制定により学部運営が効率的・効果的になされることが期待される。
- 持続性発現に資する要因として、将来的には本邦支援大学との MOU 締結や、個人的な師弟関係の継続などが期待できる。

4-6-2 阻害要因/問題を惹起し得る要因

(1) 計画に関すること

- 本プロジェクトデザインの基本は、当初計画における3年制学士プログラムの学生が4年制学士プログラムへ移行するという前提が基礎となって、プロジェクト期間、活動、指標、目標等が設定されているが、その前提に変化があったため、プロジェクトデザイン全体に影響を及ぼしている。
- 事前評価におけるデータを用いたマネジメントの推進については、活動として含まれていないが、現在もデータ整備の必要性は高い(例:卒業率、休学・退学状況等含む)。
- PDM の記載内容について、「誰が何をいつまでにどうするのか」という具体性に不明

な点があること、また、和訳と英訳の整合性も問題があることが、プロジェクト活動の不明瞭さ（特に成果3）に影響した可能性がある。

(2) 実施プロセスに関すること

- 最も大きな問題は機材調達の遅れである。その背景には、連絡体制の不備に起因する手続き上の遅延と、研究機材調達に係る根本的な課題に起因するものがある。機材調達の問題が研究活動の進捗とその質に大きな影響を及ぼしており、また、そのフォローのために、プロジェクト専門家がかなりの労力を割かねばならない状況も生まれているなど、効率性・有効性を阻害する要因となっている。
- キャリア・レジーム（キャリア規程）によれば、各教員は最大3科目を担当することになっている。しかし、修士号取得教員は講義（理論）を担当することができるが、学科によっては修士号取得教員数が不足しているため、教員間における労働負荷のギャップが生じている。
- キャリア・レジーム（キャリア規程）による待遇改善があり、修士保持者を優遇したが、学士保持者に対する待遇がほとんど改善されず、不満をもつ教員が出てきたことが挙げられる。外部条件である「学則の下で新たに定められる工学部の組織規程によって、教職員の人数、業務内容、待遇等に負の影響がもたらされないこと」に影響が出ている。
- UNTL の ITS に対する支払い問題（支払いの滞り）により、ITS 教員による集中講義が中止されたままになっている。
- 休校日が多すぎることで及び教員の勤務日数と時間が短いことが挙げられる。

上記に加え、以下の点も影響を及ぼす可能性がある。

- 工学部内の情報共有については、引き続き課題であり、効果的なコミュニケーションシステムが構築されていない。
- カリキュラムは公用語のポルトガル語で作成されており、2012年から教育言語はポルトガル語またはテトゥン語を使うことになっているが、一部にはインドネシア語や英語が使われ、言語は混乱した状態になっている。ポルトガル語能力が十分でない学生・教員も多いなど、教授言語は教育の質の観点から問題のあるケースが少なくないとみられる。
- 本邦長期研修（前フェーズでの投入）を受講した教員2名、並びにインドネシアで修士号を取得して帰国した教員が退職（FDCの委員長を任命した人物）した。

第5章 結論及び提言

5-1 結論

プロジェクトはおおむね堅実に進捗していると判断される。プロジェクトは、東ティモール並びに UNTL の政策・ニーズに整合しており、3 学科、4 年制学士プログラムを対象とし、教育、研究、学部運営の 3 つの観点から工学部の能力強化を図るアプローチは適切であり、妥当性は高い。他方、いくつかの課題が存在する。まず、当初目的を達成するためには、プロジェクト期間の延長を検討することが適切である。ほかにも、ファカルティ・ディベロップメント委員会 (FDC)、機材調達、4 年制学士プログラムの卒業研究指導、成果 3 に係る活動全般の面でも課題が存在する。加えて、PDM は関係者全員で詳細に見直しを行い修正する必要がある。これら主な課題と提言については、次の項で詳細に説明する。

5-2 提言

プロジェクト実施期間終了までにプロジェクト目標を達成するために、今後の活動において以下を提言する。

(1) ファカルティ・ディベロップメント委員会 (FDC) の運営強化

教育の質を向上させるために、ファカルティ・ディベロップメント委員会 (FDC) は非常に重要な役割をもつ。FDC をしっかり機能させることで、教育の内容や方法を改善していく体系的な仕組みが整い、2030 年に向けた大学改善計画の土台が整うといえる。そのためにも、2011 年に設立された工学部の FDC 運営面を強化していく必要がある。

(2) 全教員に対する研究活動の促進

国の中核を担う国立大学の工学部として、すべての教員が自らの専門性に沿った研究活動に励む必要がある。研究活動は教育の質の向上につながるほか、教員自身のキャリアアップにも通じる重要な活動である。

(3) 年間活動計画に基づいた学部・学科の定期ミーティングの実施

最新の情報をスタッフ間で共有し、円滑なマネジメントを進めていくために、定期的なミーティング、意見交換・集約の実施が重要である。

(4) 長期的視野に基づく教員育成の実施

UNTL の教員として、海外に留学して修士号や博士号を取得することは、同大学の基盤強化において極めて重要である。長期的視野と人材育成計画に基づき、教員を育成していく必要がある。

(5) 工学部全体を視野に入れたビジョン・ミッションの策定

より魅力的で国際的な学部をつくるためには、地域に根付いた、ユニークで個性的なビジョンとミッションが必要である。そのビジョンやミッションの下で、大学の教育や研究を進めていくことを期待したい。

(6) キャンパス環境の改善

キャンパスの環境は年々改善されつつあるが、まだ改善の余地があり、大学の教員や生徒からは以下の点について改善要望があった。

- ・ 施設の修繕（屋根、天井、トイレなど）
- ・ 大学の基本的インフラ（水、下水、電気など）
- ・ インターネット回線
- ・ 教室、教員室、学生寮
- ・ 日々の清掃活動
- ・ 機材の整備
- ・ デイリからヘラキャンパスへの交通手段
- ・ 参考書籍
- ・ 大学のホームページ、パンフレット、セミナーなどの広報ツール
- ・ 音楽やスポーツなどのアクティビティ

(7) 4年制学士プログラムへの移行に基づく PDM の見直しと対応策の実施

先述のとおり、このままいくと4年制学士プログラムの卒業研究がプロジェクトの終了後の実施となるため、PDM 上では目標の達成が不可能となる。そのため、プロジェクト期間の延長をはじめとした、現行 PDM を実現するための対応策を検討し、学科ごとの活動内容と目標指標を見直す検討が必要である。

付 属 資 料

1. 署名済ミニッツ（含む合同評価報告書・Annex）
2. 署名済ミニッツ（2013年4月5日JCC署名版）
3. 評価グリッド（和）
4. カリキュラム・シラバスサンプル
5. 教員アンケート質問票
6. Operation Plan FoEST-UNTL 2013-2017
7. 授業評価質問項目
8. 工学部の現状（2013年4月2日学部長プレゼンテーション資料）
9. 活動進捗リスト

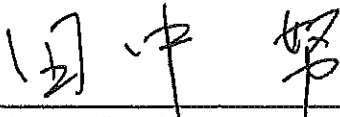
**MINUTES OF MEETING
BETWEEN
THE JAPANESE MID TERM REVIEW TEAM
AND
THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF
THE DEMOCRATIC REPUBLIC OF TIMOR-LESTE
ON
THE PROJECT FOR CAPACITY DEVELOPMENT
OF FACULTY OF ENGINEERING, SCIENCE AND TECHNOLOGY,
THE NATIONAL UNIVERSITY OF TIMOR-LOROSA'E (UNTL)**

The Japanese Mid Term Review Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA"), headed by Mr. Tanaka Tsutomu, conducted a study from April 1st to April 5th, 2013, for the purpose of the joint mid-term review on the Project for Capacity Development of the Faculty of Engineering, Science and Technology, the National University of Timor-Lorosa'e" (hereinafter referred to as "the Project").

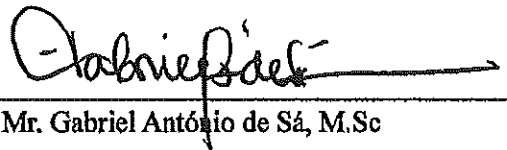
During its visit to the country of the Project, the Team had collected relevant data and information, and had a series of meetings and workshops with the authorities and organization concerned.

Based on the mentioned data and information, the Team had a series of discussions with the Timor-Leste authorities concerned. As a result of the discussions, the Team and the Timor-Leste authorities concerned agreed on the matters referred to in the document attached hereto.

Dili, June 5th, 2013

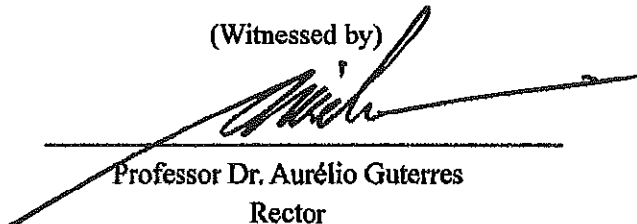


Mr. Tsutomu Tanaka
Team Leader
Mid Term Review Team
Japan International Cooperation Agency



Mr. Gabriel António de Sá, M.Sc
Dean
Faculty of Engineering
National University of Timor-Lorosa'e
Democratic Republic of Timor-Leste

(Witnessed by)



Professor Dr. Aurélio Guterres
Rector
National University of Timor-Lorosa'e
Democratic Republic of Timor-Leste

**Project for Capacity Development of the Faculty of Engineering,
Science and Technology, the National University of Timor-Lorosa'e
(CADEFEST-UNTL)**

Joint Mid Term Evaluation Report

June 2013



TABLE OF CONTENT

List of Abbreviations

1. OUTLINE OF THE MID TERM REVIEW	1
1-1 PROJECT OVERVIEW	1
1-2 OBJECTIVES OF THE MID TERM REVIEW	2
1-3 MEMBERS OF THE JOINT EVALUATION TEAM	2
1-5 METHODOLOGY OF EVALUATION.....	3
2. ACHIEVEMENTS OF THE PROJECT	4
2-1 INPUTS	4
2-2 OUTPUT	5
2-3 PROJECT PURPOSE	7
3. IMPLEMENTATION PROCESS	8
3-1 PROGRESS OF ACTIVITIES.....	8
3-2 TECHNICAL TRANSFER/CAPACITY DEVELOPMENT	9
3-3 PROJECT MANAGEMENT	9
3-4 OWNERSHIP	11
4. RESULTS OF THE EVALUATION BY FIVE CRITERIA	11
4-1 RELEVANCE.....	11
4-2 EFFECTIVENESS	13
4-3 EFFICIENCY.....	13
4-4 IMPACT.....	15
4-5 SUSTAINABILITY	16
5. CONCLUSIONS AND RECOMMENDATIONS	17
5-1 CONCLUSIONS.....	17
5-2 RECOMMENDATIONS.....	17

List of Annexes

0. PDM (Feb. 2011)
1. Schedule of Japanese Evaluation Team
2. Evaluation Grid
3. List of Counterpart
4. List of Experts
5. List of participants in Long term Training in Japan
6. List of participants in short term training in Japan
7. List of dispatch of third country expert
8. List of dispatch of lecturers from ITS
9. List of equipment
10. List of operational costs
11. Presentation by Dean on Progress Report on 2nd April 2013
12. Matrix of Joint Evaluation of 3 departments

97.

13. List of special lecture, seminar, site visit etc.
14. List of Research Theme
15. List of JCC & JSUC

M.

*h **

List of Abbreviations

ASEAN	Association of Southeast Asian Nations
CADEFEST	Project for Capacity Development of the Faculty of Engineering, Science and Technology, the National university of Timor-Lorosa'e
CADETES	The project for the Capacity Development of the Teaching Staff in the Faculty of Engineering, the National University of Timor-Leste
CE	Civil Engineering
C/P	Counterpart
D3	Diploma 3
EEE	Electrical and Electronic Engineering
ETTA	The East Timor Transitional Administration
FD	Faculty Development
FDC	Faculty Development Committee
FE	Faculty of Engineering
ITB	Institut Teknologi Bandung (Institute of Technology of Bandung)
ITS	Institut Teknologi Sepuluh Nopember (Institute of Technology Sepuluh Nopember)
JCC	Joint Coordinating Committee
JICA	Japan International Cooperation Agency
JSUC	Japanese Supporting University Committee
ME	Mechanical Engineering
MM	Man/Months
M/M	Minutes of Meetings
MOE	Ministry of Education
MOU	Memorandum of Understanding
PDM	Project Design Matrix
PO	Plan of Operation
R/D	Record of Discussions
S1 program	The 4-year bachelor program
S1	Sarjana 1
S2	Sarjana 2
UNTL	National University of Timor-Lorosa'e

q.17.

 *

1. OUTLINE OF THE MID TERM REVIEW

1-1 PROJECT OVERVIEW

1-1-1 Background

According to the National Priorities 2010, human capital development and infrastructure development are one of the top priorities for stable social and economic development in Timor-Leste. Also, Strategic Development Plan 2011- 2030 identifies “shortage of skilled human resources” as the current challenges, and features on nurturing high-skilled human resources who can lead the country at National University of Timor-Lorosa’e (UNTL). Corresponding to this, the Ministry of Education aims to train competent engineers who can respond to the labor market needs through establishment of Polytechnics, and also expect the Faculty of Engineering, the National University of Timor-Leste to be a center of excellence in engineering education.

JICA had cooperated to Faculty of Engineering, UNTL for capacity development of its teaching staff for 4 years, since April 1, 2006 to March 31, 2010 in the technical cooperation project “Capacity Development for Teaching Staff in Faculty of Engineering, National University of Timor-Leste (CADETES project)”. As a result of cooperation, a certain level of achievements are shown in improvement of skills and knowledge of teaching staff, but still not completely satisfied, because of several difficulties, such as absence of some teaching staff for studying abroad, side-work and lack of equipment and facilities for lecture.

In order to support strengthening education and research capacity of UNTL in the field of Engineering, JICA and UNTL agreed to implement “Project for Capacity Development of the Faculty of Engineering, Science and Technology, the National University of Timor- Lorosa’e (CADEFEST-UNTL)”. The Project applies 3 approaches to realize the goal: education, research, management.

As 2 years out of 4 years cooperation period has passed since its launch in February 2011, JICA has dispatched Mid Term Evaluation Team (the Team) to jointly review the progress of the Project.

1-1-2 Summary of the Project

Narrative summary of the Project based on the Project Design Matrix (PDM) (February 2011) is as below. The original PDM is attached in Annex 0.

Narrative Summary of the Project	
Overall Goal	The Faculty of Engineering, Science and Technology, UNTL (UNTL-FEST) produces high-skilled human resources who can contribute to the society.
Project Purpose	The Faculty provides excellent education under appropriate management and operation.
Output	1. Environment for conducting lectures and experiments in the Faculty is improved. 2. Practical and research based final thesis is taught by teaching staff in the Faculty. 3. Faculty management system is improved.

Note: In the PDM, Overall Goal is to be achieved in 3-5 years after the project completion and Project Purpose is to be achieved by the end of the project.

It should be noted about the scope of the project. The direct target of cooperation is basically 3 departments in the Faculty and 4-year bachelor program (S1 Program). Therefore, the narrative summary needs to be understood accordingly.

1-2 OBJECTIVES OF THE MID TERM REVIEW

The main objectives of the Mid Term Review (MTR) are as follows:


- 1) To verify the accomplishments of the Project compared to those planned;
- 2) To identify constraining and/or contributing factors that have affected the implementation process;
- 3) To analyze the Project in terms of the five evaluation criteria (i.e. Relevance, Effectiveness, Efficiency, Impact and Sustainability); and
- 4) To make recommendations on the Project regarding the measures to be taken for the 2nd half of the project including modification of PDM when necessary.

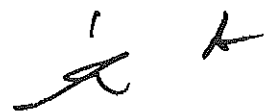
1-3 MEMBERS OF THE JOINT EVALUATION TEAM

The Mid Term Review was conducted by the Joint Evaluation Team comprised of the following members:

Timor-Leste side

Mr. Gabriel António de Sá	Dean, Faculty of Engineering, Science and Technology, National University of Timor-Lorosa'e
Mr. Frederico de Carvalho	Vice Dean(Academic), Faculty of Engineering, Science and Technology, National University of Timor-Lorosa'e
Mr. Justino da Costa Soares	Vice Dean(Adm.& Finance), Faculty of Engineering, Science and Technology, National University of Timor-Lorosa'e
Mr. Adalberto Guterres da Silva	Vice Dean(Students' Affair), Faculty of Engineering, Science and Technology, National University of Timor-Lorosa'e
Mr. Paulino Marques Cabral	Director, Mechanical Engineering Department, Faculty of Engineering, Science and Technology, National University of Timor-Lorosa'e
Mr. Paulo da Silva	Director, Civil Engineering Department, Faculty of Engineering, Science and Technology, National University of Timor-Lorosa'e
Mr. Tarcísio Freitas Sávio	Director, Electrical and Electronics Department, Faculty of Engineering, Science and Technology, National University of Timor-Lorosa'e

2




Japanese side

Mr. Tsutomu Tanaka	Team Leader, Director Technical and Higher Education Division, Higher Education and Social security Group, Human Development Department, JICA Headquarter
Dr. Manabu Tsunoda	Senior Advisor Higher Education, Human Development Department, JICA Headquarter
Prof. Ikuo Tanabe	Mechanical Engineering, Nagaoka University of technology
Prof. Masahiko Sekine	Civil Engineering, Yamaguchi University
Dr. Hiroki Yoshida	Electrical and Electronic engineering, Gifu University
Mr. Kaito Miwa	Cooperation Planning, Program Officer Technical and Higher Education Division, Higher Education and Social Security Group, Human Development Department, JICA Headquarter
Ms. Yuko Ogino	Evaluation Analysis, Consulting Department II, KRI International Corp.

1) 1-4 SCHEDULE OF THE MID TERM REVIEW

The survey was conducted from April 1, 2013 to April 5, 2013.

(The details of the survey schedule is shown in the Annex 1.)

1-5 METHODOLOGY OF EVALUATION

1-5-1 Evaluation procedures and methods

The Mid-term Review Team (hereinafter referred to as “the Team”) reviewed related documents and information collected through questionnaires, interviews with the counterpart personnel, Japanese expert and relevant stakeholders. The Team analyzed the Project from the viewpoints of 1) Achievements of the Project, 2) Implementation Process, and 3) the Five Evaluation Criteria.

1) **Achievements of the Project**

Achievements of the Project were measured in terms of Inputs, Outputs, Project Purpose and Overall Goal in comparison with the Verifiable Indicators of the PDM. In Mid Term Review, prospect of achieving Project Purpose and Overall Goal were measured.

2) **Implementation Process**

Implementation process of the Project was reviewed to see if the activities have been implemented according to the planned schedule, and to see if the Project has been managed properly as well as to identify contributing and/or constraining factors that have affected the implementation process.

3) **Evaluation based on the Five Evaluation Criteria**

The project was analyzed and evaluated based on the 5 Evaluation Criteria as described below:

97.

97

Five Evaluation Criteria

1. Relevance	Relevance of the project is considered from a view point of the validity of the Project Purpose and Overall Goal in connection with the development policy of the country and the needs of beneficiaries.
2. Effectiveness	Effectiveness is assessed by evaluating to what extent the project has achieved its purpose clarifying the relationship between the Project Purpose and Outputs.
3. Efficiency	Efficiency of the project implementation is analyzed with an emphasis on the relationship between Outputs and Inputs in terms of quantity, quality and timing.
4. Impact	Impact examines the indirect effects and extended effects by the project in the long run. The analysis also includes the positive and negative impacts that were not expected when the Project was planned.
5. Sustainability	Sustainability of the project is evaluated from the viewpoints of political/policy, financial, organizational personnel and technical aspects, and examines the current extent to what the achievement of the project is sustained or expanded.

The evaluation framework of the MTR is presented in the Evaluation Grid (Annex 2)

1-5-2 Limitation of the MTR

Despite the rigorous exercises done in conducting MTR, there remain more issues that should have been covered.

2. ACHIEVEMENTS OF THE PROJECT

2-1 INPUTS

The following inputs have been provided from both Timor-Leste and Japanese sides from February 2011 to March 2013.

Timor-Leste Side

1) Counterpart personnel	Dean (1), Dept. of Mechanical Eng. (25), Dept. of Civil Eng. (17), Dept. of Electrical & Electronic Eng.(16), Administration (24) (See Annex 3)
2) Office and facilities	Office in the campus with good condition & furniture (desk & chair, shelves), air condition, water & utilities, venue for seminars (classrooms)
3) Operational costs	IDR 18,923,400+US\$6,140 for a part of costs for 2 dispatches of lecturers from Institute of Technology Sepuluh Nopember (ITS)

Japanese Side

1) Japanese Experts	Long term experts: a total of 2 as coordinator Short term experts: 1 chief advisor (14.5M/M) and a total of 39 experts
---------------------	---

	from Japanese supporting universities (12.8M/M). (See Annex 4)																								
2) Training in Japan	Long term training: 2 participants (See Annex 5) Short term training: 13 participants (See Annex 6)																								
3) Experts from the third country	5 times workshop by Prof. Dr. Satryo (See Annex 7) 2 dispatches of lecturers from ITS (See Annex 8)																								
4) Equipment	Various laboratory equipment and others worth as the following amounts have been provided. (See Annex 9)																								
	<table border="1"> <thead> <tr> <th></th> <th>Local</th> <th>JICA Handover equipment</th> <th>Expert/JICA</th> </tr> </thead> <tbody> <tr> <td>Mechanical</td> <td>\$31,713.20</td> <td>¥14,741,600</td> <td>¥7,690,400</td> </tr> <tr> <td>Civil</td> <td>\$13,297.30</td> <td>¥27,099,260</td> <td>¥2,491,600</td> </tr> <tr> <td>Electrical</td> <td>\$35,240.75</td> <td>¥7,862,900</td> <td>¥1,168,390</td> </tr> <tr> <td>Faculty</td> <td>\$27,554.00</td> <td>¥784,100</td> <td>¥314,490</td> </tr> <tr> <td>Total</td> <td>\$107,805.25</td> <td>¥50,487,860</td> <td>¥11,664,880</td> </tr> </tbody> </table>		Local	JICA Handover equipment	Expert/JICA	Mechanical	\$31,713.20	¥14,741,600	¥7,690,400	Civil	\$13,297.30	¥27,099,260	¥2,491,600	Electrical	\$35,240.75	¥7,862,900	¥1,168,390	Faculty	\$27,554.00	¥784,100	¥314,490	Total	\$107,805.25	¥50,487,860	¥11,664,880
	Local	JICA Handover equipment	Expert/JICA																						
Mechanical	\$31,713.20	¥14,741,600	¥7,690,400																						
Civil	\$13,297.30	¥27,099,260	¥2,491,600																						
Electrical	\$35,240.75	¥7,862,900	¥1,168,390																						
Faculty	\$27,554.00	¥784,100	¥314,490																						
Total	\$107,805.25	¥50,487,860	¥11,664,880																						
5) Operational Costs	A total of \$150,364.36 has been spent for air fare, travel allowance, fees and honorarium for non-staff, refreshment and miscellaneous. (See Annex 10)																								

2-2 OUTPUT

In order to achieve the Project Purpose, three (3) Outputs are specified in PDM of the Project. The achievement and review of each Output based on the verifiable indicators in the PDM is summarized as follows:

2-2-1 Output 1

Output 1	Environment for conducting lectures and experiments in the Faculty is improved.
Indicator	1-1. Curriculum for 4-year bachelor program is maintained according to national curriculum. 1-2. More than 90% of syllabi are maintained according to the curriculum. 1-3. Curriculum and syllabi are reviewed once a two year by the FDC. 1-4. More than 90 % of lecture note and job sheet is maintained according to the curriculum.
Summary	The 4-year bachelor program (S1 Program) was commenced in 2012 as scheduled following the curriculum improved by the Project. Improvement of syllabi and other teaching materials has been underway. Faculty Development Committee needs to be further activated.

Indicator 1-1. Curriculum for 4-year bachelor program is maintained according to national curriculum.

UNTL decided not to follow the National Curriculum, and the curriculum for 4 years bachelor program (S1 Program) has been settled. S1 Program was commenced in 2012 as scheduled following the curriculum improved by the Project. Currently, a whole curriculum review is

underway at university level by Indonesian experts invited by UNTL. At the same time, the curriculum may have to comply with the Portuguese system in terms of credits. The present curriculum therefore may need to be revised in line with such developments in the near future.

Indicator 1-2. More than 90% of syllabi are maintained according to the curriculum.

The syllabus according to S1 Program is under preparation. Some parts of them have been done. Precise completion rate is unknown, but according to the interviews with the teaching staff, the picture is as follows:

- 30% of basic subjects and none of specific subject for Department of Electrical and Electronics Engineering (EEE),
- 100% of specific subjects but none of basic general subjects for Department of Civil Engineering (CE),
- Approximately 25% for Department of Mechanical Engineering (ME).

In any case, preparation of syllabi is expected to be accelerated.

Indicator 1-3. Curriculum and syllabi are reviewed once a two year by the FDC.

This is not done as it is too early to review the curriculum and syllabi only just 1 year after the commencement of the S1 program. Faculty Development Committee (FDC) was first introduced in the Phase-1 but is currently not functioning, probably due to an insufficient common understanding about the concept of Faculty Development (FD) among all the stakeholders. On the other hand, certain activities related to FD appear to be carried out in the existing system. In any case, definition of FD and roles and responsibilities of FDC first need to be clarified and then activated. Curriculum may have to be reviewed not directly by FDC but may be done at departmental level initiated by FDC. The intervals currently set as “once a two year” may also need to be re-examined depending on the scope and scale of the review exercise.

Indicator 1-4. More than 90 % of lecture note and job sheet is maintained according to the curriculum.

According to the results of the questionnaire survey to teachers (Mar. 2013), nearly 70 % of the respondents on an average answered that they have prepared lecture notes or job sheets for 61%-80% of their classes¹. It should be noted that the term of “job sheets” is not fully understood by all the concerned, which also needs to be clarified to establish a common understanding.

2-2-2 Output 2

Output 2	Practical and research based final thesis is taught by teaching staff in the Faculty.
Indicators	2-1. Practical and research based final thesis is taught by the teaching staff. 2-2. Outputs (documents) which summarized the result of final thesis are made annually.

¹ 5 point scales: 1. 0~20%, 2. 20~40%, 3. 41~60%, 4. 61~80%, 5. 81%~100%



Summary	Capacity development of teaching staff has been progressing in view of teaching practical and research based final thesis of students in the S1 Program.
----------------	--

Indicator 2-1. Practical and research based final thesis is taught by the teaching staff.

Final thesis under S1 Program will start from 2015 after the end of the present project period. Initially, Output 2 and its indicators were developed based on the condition that 3 year Diploma (D3) students were able to transfer to S1 program, but it was later decided not to be allowed. The MTR team confirms that Output 2 basically refers to S1 Program, and in order to achieve the original target, it is necessary to discuss about a possibility of extension of the project duration.

Indicator 2-2. Outputs (documents) which summarized the result of final thesis are made annually.

Final thesis under 4-years bachelor program has not yet started. The same situation as above applies.

2-2-3 Output 3

Output 3	Faculty management system is improved.
Indicators	3-1. More than 80% of activities mentioned in the annual action plan is achieved. 3-2. The achievement of the faculty management is reviewed every semester.
Summary	Clarification is necessary on definitions of terms and activities set in PDM in order to be agreed by all concerned on what to achieve in the Output 3. Faculty management system needs to be improved.

Indicator 3-1. More than 80% of activities mentioned in the annual action plan is achieved.

Action plan at faculty level is prepared every year. But the achievement rate is not confirmed during the MTR. Action plan at departmental level also appears to be prepared every year, which is not confirmed during the MTR as well. First, the definition of the indicator needs to be clarified to have a common understanding among all concerned about “annual action plan”.

Indicator 3-2. The achievement of the faculty management is reviewed every semester.

The review by the faculty management committee is not conducted as the committee is not organized. Weekly meetings at department, faculty and university levels respectively are held actually with varied implementation status between departments. This indicator also needs to be clarified and more elaborated.

(Supplement)

Draft of internal regulation is prepared in prompt response to the recommendations by Advisory Mission from JICA conducted in June 2012. The internal regulation will be modified in accordance with the university regulation which is now under discussion and will be finalized soon.

Handwritten signatures and initials, including a signature that appears to be 'F.T.' and another that appears to be 'A' with a checkmark.

2-3 PROJECT PURPOSE

Project Purpose	The Faculty provides excellent education under appropriate management and operation.
Indicators	<ol style="list-style-type: none"> 1. More than 70% of the students satisfy the education provided by the Faculty. 2. Graduation rate of the Faculty improved. 3. As a result of class evaluation, every subject get more than 60 points (60% of satisfaction) in average.
Summary	Project purpose is likely to be achieved to a certain extent by the end of the Project (January, 2015) through the achievements of 3 outputs mentioned above. The reason for this certain reservation is because the whole cycle of the S1 Program will not be completed within the present project period, as the teaching of final thesis for the 1st intake students will start from 2015.

Indicator 1. More than 70% of the students satisfy the education provided by the Faculty.

First, "The education provided by the Faculty" needs to be clarified. It usually encompasses a wider concept than class evaluation. Its' definition, relevance as an indicator as well as obtainability and how to obtain the data needs to be discussed.

Indicator 2. Graduation rate of the Faculty improved.

This indicator is not relevant if the Project is to end in January 2015 as currently scheduled because the 1st intake students of the S1 Program will not be graduated within the present project period. In addition, the definition of "graduation" needs to be clarified in view of collecting data since there are students who have completed all the required courses but have not been awarded with certificates as currently seen in the D3 program. Furthermore, relevance of the graduation rate as an indicator itself needs to be discussed as it is affected by factors other than efforts by the Project.

Indicator 3. As a result of class evaluation, every subject get more than 60 points (60% of satisfaction) in average.

According to the results of the class evaluation (Dec. 2012), the average score out 5 point scales is at about 3.5 In order to achieve the target of 60%, the average score is expected to reach at least 4 (61~80%). Since the unit of class evaluation is teacher and the present results cover not only S1 Program but also D3 program. Classes are also conducted in different teaching languages which might have had affected the satisfaction of students. The results need to be understood considering such influencing factors. In addition, class evaluation is currently conducted led by the Project office, which in future needs to be conducted independently by the UNTL side either led by FDC or whatever appropriate in view of sustainability.

3. IMPLEMENTATION PROCESS

3-1 PROGRESS OF ACTIVITIES

Most of the activities have been/are being carried out as planned in PDM. The Progress Report presented by Dean and the department-wise progress of activities of the 3 outputs specified in

PDM are attached in the Annex 11&12.² Major issues related to activities by Output are summarized below.

Output	Major issues
Output 1	<ul style="list-style-type: none"> ● <u>FDC</u>: FDC was organized but currently is not functioning. ● <u>Suspension of ITS intensive lectures</u>: Due to the problem with payment from UNTL to ITS, intensive lectures by ITS have been suspended. The Project coordinated to try to solve the problem between UNTL and ITS, and is waiting for the settlement.
Output 2	<ul style="list-style-type: none"> ● <u>Equipment</u>: Procurement of equipment for JFY2012 was long delayed. Research activities are not conducted on schedule in absence of the equipment which is necessary for the research. Video conference was set to discuss how to solve the problem among all the concerned, yet still remain as an issue. Other than such procedural delays, there is a genuine problem of procuring research equipment in terms of ensuring precision and best performance of equipment, which is related to the whole procurement system itself including very limited possibility of local procurement. ● <u>Final thesis of S1 Program</u>: It is already envisaged that the activities related to the final thesis of S1 Program will not be carried out during the present project period.
Output 3	<ul style="list-style-type: none"> ● <u>Management committee</u>: Committee has not been yet organized. ● <u>Overall clarification</u>: Clarification is necessary on definitions of terms and activities set in PDM in order to be agreed by all concerned on what to achieve in the Output 3. Progress is not clearly grasped during the MTR, and a concrete roadmap/action plan needs to be developed.

Other issues are listed as below:

- 1) In the UNTL calendar, there are too many holidays and shortage of working days and hours. The Project requested UNTL to settle a regulation to improve the current situation.
- 2) Due to general election (July 2012), cancellation of dispatch of Dr. Satryo occurred.

For information, a list of the special lectures, seminars, site visits etc. (Annex 13) and a list of Research Theme (Annex 14) are attached.

3-2 TECHNICAL TRANSFER/CAPACITY DEVELOPMENT

Technical transfer/capacity development has been in progress. It is however observed by the Project that the areas and levels of training by short term experts do not always match to the ones that all the C/P request. The short term experts try to adjust to meet the needs of C/P as much as possible. The satisfaction of C/P in this matter was not fully surveyed during the MTR, but an opinion was expressed about limitation of choices of supervisors which are basically

² Presentation by Dean was made on 2 April 2013 on the 1st day Evaluation Workshop. The department-wise draft matrix (basically activities part only) were quickly prepared by each department and submitted to the MTR team as a follow-up of evaluation workshop exercise.

9.7.

L K

confined to each supporting university.

3-3 PROJECT MANAGEMENT

3-3-1 Project management/decision making/communication

Joint Coordinating Committee (JCC) is held once a year. (See Annex 15) Progress reports and activity plans are approved by JCC. At the site, the Project has daily contacts with Dean, Vice Deans, Directors, Vice Directors and lecturers. Good communication between Japanese experts is maintained. In the time of absence of Chief Advisor, whose assignment is on shuttle basis, communication is done by email frequently. Important issue is always shared by written documents. If there is any change of plan, the Project consults with Dean and get approvals. Information sharing between Dean and Director of each department is further expected to work well. The relationship among Project, UNTL and Ministry of Education (MoE) was strengthened through the invitation program to Japan in May 2012, in which Rector, Vice Rector, Dean of UNTL and Director General for Higher Education in MoE participated.

3-3-2 Monitoring

Good monitoring has been done on regular, and day-to-day basis. Progress is monitored by JCC once a year as mentioned above. Project monitors the progress by monthly report. In addition, an advisory mission was dispatched by JICA June 2012 to review the progress and pointed out issues to be solved. Suggestions from the mission and related current progress presented by Dean during the MTR are summarized as below.

Suggestion from Advisory Mission (June 2012)	Current progress (Presentation by Dean on 2 April 2013)
UNTLE FEST will update the appropriate educational objectives and goals, and curriculum and syllabus of S1 in each Department, immediately.	<ul style="list-style-type: none"> ● Educational Objectives and goals are newly created in cooperation with the workshop by Prof. Dr. Satryo. ● Curriculum has been revised, but the number of credit must be adjusted to the Portuguese system. ● Lecturers are working on making syllabi, but it will take more time to complete all the subjects.
UNTLE FEST will take actions after making the internal regulations immediately. In the internal regulations, key points should be carefully taken into considerations, such as the rules of working hour, research incentive, annual leave, penalties. UNTLE FEST will establish the Task Force for making the internal regulations,	Task Force Team has already created the draft of internal regulation of the Faculty. It needs to be revised and modified to be aligned with the University Regulation.
Staff development plan including	● UNTLE has settled "Carrier Regime" in which

Handwritten signature and initials, including a large 'A' and a star-like symbol.

<p>scholarship, training and further studies should discussed at the department level and summarized at the Faculty level for effective sustainability of UNTL FEST. UNTL FEST will make all efforts to share information, timely, to all staff and take actions based on the records of each meeting,</p>	<p>carrier step is mentioned. UNTL-FoEST will dispatch lecturers with S1 or D3 to Portugal to obtain S2.</p> <ul style="list-style-type: none"> ● Sharing information is still issue. The faculty does not have effective communication system.
<p>The imbalance of work load among the teaching staff should be resolved.</p>	<p>According to "Carrier Regime", each lecturer can teach up to 3 subjects. But the problem is that only S2 holder can teach theoretical class and some departments do not have sufficient staffs who has S2 to cover all theoretical class. (S1 to D3 holders can teach practical class or teach theoretical class as an assistant.)</p>
<p>Budget system based on the department clear action plan should be strengthened and activated.</p>	<p>Budget Plan has been discussed in each department. The budget will be decentralized into Faculty level in 2014. Then each faculty has responsibility to implement the budget plan.</p>

Source: Presentation by Dean on 2 April 2012 (Annex 11)

3-4 OWNERSHIP

Overall, ownership of the UNTL side has been considerably increased in comparison to the phase 1, and is expected to be further strengthened. UNTL is an autonomous university, therefore basically all the roles in relation to the Project are owed by UNTL. Dean recognizes the significance of the Project and is active. He is continuously expected to exercise leadership and initiatives. The participation level of teaching staff is different from one to another. Approximately 70% of all the teaching staff are estimated to participate in the Project, of which 40 % are very active and participate all the project activities. Compared to the phase 1, the participation level in terms of quantity and quality has been significantly improved. One issue is unstable budget execution. For example, some part of amounts has not been paid to ITS. But the costs of C/P for delegation to ITS and Udayana university in Bali, Indonesia were borne by UNTL.

4. RESULTS OF THE EVALUATION BY FIVE CRITERIA

4-1 RELEVANCE

Relevance is considered to be high, but the project design needs to be re-examined. The project was initially developed based on the condition that transfer of D3 students to S1 Program was allowed, but this is no longer valid and existing. It is therefore suggested that the present project duration should be extended if the project purpose originally targeted is to be achieved. The details are as follows:

Handwritten signature

Handwritten signature

1) Relevance of the project planning :

The Project is consistent with national policies of Timor-Leste. According to Strategic Development Plan 2011-2030, it is mentioned that the function of quality assurance of higher education will be strengthened. It is recognized that UNTL as a sole public university has an important role to serve the national purposes of teaching and conducting research to provide knowledge to the community, promoting freedom of thought and strengthening Timorese culture and democracy.

The Project is also in line with Japanese aid policy. One of important objectives of Japanese aid policy for Timor-Leste is building basis for economic development. Also, the aim for infrastructure building including soft component and human resource development for industry is mentioned. The Project contributes to the attainment of the aim

Selection of the target institution is appropriate. UNTL is a sole public university and top university in the country, and therefore it is the best to cooperate with. In terms of needs of the UNTL, each function of Education, research and contribution to the society is not matured, and needs are clearly existing.

Selection of target faculty and departments is also valid. Japanese Engineering education has a comparative advantage in the world, therefore it is appropriate to cooperate with Faculty of Engineering, Science and Technology. It is also reasonable to select three departments as the other 2 departments, namely Department of Informatics Engineering and Department of Geology and Petroleum Engineering are assisted by Portuguese. (Assist to Dept. of IE by Portuguese is finished in 2012. Dept. of GPE started in 2012 and assisted by Portuguese university.)

2) Appropriate of the means:

There is a big gap between Japanese Supporting University and UNTL in terms levels of education and research. In order to fill the gap, Japanese experts adjusted with flexibility. It is not always appropriate to apply Japanese experience into UNTL, therefore experts should be flexible to the actual situation in UNTL.

In the project design and PDM, there are some parts that the logical connection is not clear. For example, graduation rate will be affected by many other factors which are irrelevant to project activities. There are some activities which are not practical as well. For example, it is not realistic to review the curriculum every two years, since at least one cycle (4 years) has to be completed. In any case, PDM needs to be modified by examining all the elements.

3) Comparative Advantage of Japanese technology/expertise:

The current project is implemented based on the previous experiences and assets. The Project for the Capacity Development of Teaching Staff in the Faculty of Engineering (CADETES) was conducted from 2007 to 2010. As a result of this precedent project, basic skill and knowledge of the lecturers had been increased. In addition, equipment provided under Grant Aid, experts dispatches and degree programs in Japan were also conducted and contributed in strengthening the basis in the faculty.

4) Change of the environment of the Project:

In the year of 2012, many lecturers from Portugal and Brazil taught in the Faculty. There is not any effect to the project activity itself, but they taught in Portuguese and not all the students could understand the class. It may have affected the results of class evaluation, and more importantly the quality of education itself.

4-2 EFFECTIVENESS

Effectiveness is not as high as expected because the Project Purpose is not likely to be fully achieved as described below.

1) Prospect of Achievement of Project Purpose:

As mentioned earlier, the project purpose is not likely to be fully achieved mainly due to the fact that S1 program will not be completed within the current project period. A contributing factor in relation to the Project Purpose is that UNTL is promoting university reforms. For example, they try to settle new regulation and facilitate research activities. This can be an advantage for the project. On the other hand, a part of new regulation (Carrier Regime) can demotivate lecturers since some treatments to the lecturers are not accepted as a fair conduct in some cases.

2) Causal relation between Outputs and Project Purpose:

Logically, 3 outputs are sufficient to achieve the Project purpose with an important assumption (introduction of 4-years bachelor program) already fulfilled. However, the final thesis of S1 Program will not be conducted within the present project period, which results in incomplete achievement of Output 2 and subsequently the Project Purpose as well.

4-3 EFFICIENCY

Efficiency is considered to be fairly maintained from the various aspects. However, there are issues and constraining factors which need to be fixed. Details are as follows.

1) Achievement of Outputs:

As mentioned earlier, issues related to the achievement of outputs are mainly not functioning of FDC, equipment, the absence of clear roadmap/action plan of activities under Output 3, etc. See details for the achievement of Outputs.

A possible constraining factor is that two lecturers who obtained Master's degree in Japan (Input of previous project) resigned from UNTL. Another lecture who obtained Master's degree in Indonesia also resigned from UNTL, who was the chairperson of FDC.

2) Causal relation between Inputs, Activities and Outputs:

Important Assumptions

There are 3 important assumptions and the status is summarized below.

Important Assumptions	Status
1. Any negative impact may not occur regarding assignment of the faculty staff, their working conditions, etc.	New Carrier Regime was settled and Master holder's treatment was improved, but the treatment to bachelor holders was almost same as before. Therefore, some lecturers are dissatisfied their treatment.
2. Teaching staff who study abroad return to the Faculty with degree.	Sometimes, lecturer resigns from UNTL after study abroad. (In case of Japanese inputs, 2 lecturers who obtained higher degrees in Japan in the phase 1 period resigned)
3. Enough budget is allocated for improvement of faculty management.	A certain amount of budget is allocated to the faculty, but it is not sure the budget is used for the improvement of the management. Detailed information on the budget was not obtained in the MTR. However, it was confirmed that more authority and discretion will be shifted to the faculty level including budget management.

Inputs

Most of the inputs have been provided as planned/appropriately in terms of quantity, quality and timing, and utilized effectively. Exceptions are as follows:

- Procurement of equipment was delayed and ensuring the precision and performance of equipment is not an easy task as mentioned earlier.
- In response to the request from administration staff, project organized PC training (520USD), but it is hard to say that it is utilized.
- Comparing with original plan, input from Japan has been increased especially short term experts, however, in each element of education, research and faculty management is necessary to get more daily input.

3) Measures to increase cost efficiency:

Project utilize the equipment already existed in the faculty. The timing of dispatch of short term experts and short term training in Japan is considered and implemented in order to make them most effective in accordance with the progress of research activity. Project utilize Indonesian expert in order to realize more understandable way of cooperation. (similarity of geographical situation and language)

4) Coordination and cooperation with other donors and schemes

Project organized special lectures and site visits in cooperation with other technical cooperation projects, experts and consultants who work in the country. Project shares information with Osaka Gas Foundation scholarship program and Solar Panel Project. Project is expected to have cooperation with Japan Overseas Cooperation Volunteer who is dispatched to the department of mechanical engineering. One of expert of project participated as a panelist in the workshop organized by international professors in UNTL, and promoted the importance of the Project.

9A.

4-4 IMPACT

Impact on the human resource development is considered to be high in terms of quantity (number of graduates) but how to grasp their contribution to the society needs to be discussed. The details are presented as below.

1) Prospect for achieving Overall Goal:

Overall Goal is to be assessed in the post project period as this is the goal to be achieved 3 to 5 years after the project. The current prospect of achieving Overall Goal by indicator is as follows.

Overall Goal	The Faculty of Engineering, Science and Technology, UNTL (UNTL-EEST) produces high-skilled human resources who can contribute to the society.
Indicators	<p>1. Number of Students graduated from the Faculty with licensure (4-year bachelor) degree exceeds 600 by 2018.</p> <p>2. More than 60% of the students graduated from the Faculty get job relating to their field of study.</p>

Indicator 1. Number of Students graduated from the Faculty with licensure (4-year bachelor) degree exceeds 600 by 2018.

The number of newly enrolled students in 3 departments is 207 in the year of 2012 and 218 in 2013. The number of graduates under 4-years bachelor program from 2015 to 2018 is assumed to be approximately 800 (estimated at 200 students on an annual average) without any drop-out/repetition included. Taking possible future drop-out/repetition into consideration, it is still estimated to exceed 600.

However, the present university statistics show that there are a total of 2270 students in the faculty (5 departments) in the academic year 2013, of which 1165 persons are registered and the rest are not registered. Considering such trend and usual registration practice of UNTL, it may not be fully positive about the attainment of the target figures. In any case, if the project period is extended, the indicator/target figures and target year also need to be revisited.

Number of students enrolled by department (2012 & 2013)

Year	ME	CE	EEE	Total
2012	37	86	84	207
2013	69	74	75	218

Indicator 2. More than 60% of the students graduated from the Faculty get job relating to their field of study.

Currently, there is no employment data available as tracking of graduated students is not conducted in UNTL. It should be noted that there are many external factors affecting the employment situation other than the university education and influence of the Project. The MTR team proposed to either explore the possibility of conducting a tracer study by UNTL in the future or, if not feasible, cancel this indicator and/or replace by more relevant other new indicator.

9.7.

2) Ripple effects:

No ripple effects caused by the Project either negative or positive other than the planned ones are observed.

3) Causal relation:

Relation between Project Purpose and Overall Goal is logically consistent. Regarding the 2 important assumptions, the present status is summarized as below:

Important Assumptions	Status
1. Most of the students graduate from the Faculty without long term leave, or drop-out	Actual number of drop-out is not counted, and therefore it is not possible to make precise projection.
2. Employment situation for engineers may not be worsened, due to economic depression or security deterioration	Currently, social situation is stable and more construction works are expected. Accordingly, employment demands for engineers are estimated to be increased.

4-5 SUSTAINABILITY

Sustainability is considered to be rather positive in terms of policy, personnel and technical aspects, but challenges remain in the area of finance and organizational aspects. The details are as follows.

1) Policy aspect:

As mentioned in the I. Relevance, policy environment in the higher education including significant position of UNTL will be continuously favorable. Enhancement to research activity and promotion of obtaining higher degrees are expected to continue as well.

2) Financial aspect:

Details of budget are not obtained during the MTR, and partial information is available. For example, at this moment, research fund is established in UNTL but it is not functioning well. The research center was established but the same situation seems to apply. As for scholarship funds, \$5 million have been reportedly secured in 2013 (\$1.5 million in 2012). The budget system is decentralized and it will be then possible to execute the budget based on the needs of faculty.

3) Organizational aspect

It is necessary to activate FDC and faculty management committee in order to make them function in the future. Class evaluation should also be continued independently after the project period, but it is currently led by the Project and not by FDC. Sustainability issue of class evaluation needs to be attended.

4) Personnel aspect

90. 

Dean is selected every five years. Vice Dean, Director and Vice Director are selected every two years. Since a majority (70%) of lecturers are participating the project activities, the change of management personnel would not be a serious problem.

5) Technical aspect:

Those who are presently active in their research activities are expected to continue their research work. Those who obtained Master's degree in Japan will be able to guide student's final thesis with their experiences in Japan and it is also expected to be continued. Obtaining higher degrees in overseas have been steadily adding teaching staff with master's degree in the target 3 departments. At present, there are 31 master's degree holders, 17 teachers studying overseas of which 3 are enrolled in doctoral programs.

6) Maintenance and management of equipment

The inventory of equipment was reportedly prepared, which is a good sign. Basic maintenance is expected to be done properly as long as the budget is secured. But it can be difficult for the faculty to treat some technical problem. Research equipment is basically procured from Japan and therefore maintenance is assumed to pose a future difficulty.

There seems to be quite some equipment which is not utilized. They are mostly provided in the phase 1. Initial training was already provided when procured, but it was not sufficient for C/Ps to utilize them independently. There are also cases that who received the training did not prepare the job sheets (instruction manuals) for the benefit of others without training. In such situation, it is recommended to provide refresher training for a maximum utilization of equipment, and ensure to prepare the job sheets.

5. CONCLUSIONS AND RECOMMENDATIONS

5-1 CONCLUSIONS

In conclusion, the Project is overall in steady progress. There are some issues, of which major one is project duration which needs to be extended if the original project purpose is to be achieved. Other issues are observed in the areas of FDC, equipment, final thesis of S1 program and overall activities under Outputs 3. In addition, the present PDM needs to be re-examined thoroughly and modified in consultation among all the concerned. The recommendations are addressed in the following section in more details.

5-2 RECOMMENDATIONS

In order to realize the Project Purpose by the end of Project Period, the evaluation team recommended following as further actions to be taken;

1) Acceleration of Faculty Development for Quality of Education

For the purpose of quality improvement of education, Faculty Development Committee (FDC) is quite important. The role of the Faculty Development Committee is to improve educational contents and method systematically for better quality of the education of teaching staff in FEST. FDC is in line with a strong quality assurance regulatory system of

Timor-Leste Strategic Development Plan (2011-2030). FDC of FEST needs to be activated more after improving the operation and monitoring system and contents although it has already established in 2011.

2) Encouragement of Research Activities for all Teaching Staff of Possible Topics

As a university staff towards center of excellence for engineering in the country, all teaching staff shall be encouraged more to carry out any research activities under possible topics. Research activities are effective for quality of education and own career development.

3) Systematic Management and Operation based on Regular Meetings at Department and Faculty Levels under Annual Action Plan

In order to share the updated information among staff and run smooth management of any academic and administrative issues, regular meetings at each department and faculty level should be operated systematically, especially in the current rapid growing stage of the Faculty of Engineering, Science and Technology (FEST). Management and operation of department and faculty levels are desirable to be implemented based on Annual Action Plan. In order to improve imbalance of work load among staff of FEST, the evaluation team suggested the internal regulation shall be taken effectively for faculty management in line with university internal regulation.

4) Staff Development (S1, S2, S3) with Long Term Strategy

In general, staff development takes time for getting S1, S2 and S3, and is indispensable for the next generation of university as the important intellectual asset. The evaluation team suggested staff development plan of each department shall be designed with long term strategy.

5) Clear Vision and Mission towards Attractiveness of FEST, UNTL

In order to become more attractive and nationally/internationally recognized faculty, clear vision and mission of FEST, which has characteristics and uniqueness of locality of the country, are desirable. It is expected that university education, research and outreach activities of FEST will be implemented under these vision and mission.

6) Improvement Campus Environment

Although campus environment is improving year by year through all efforts of FEST, it is still needed to improve more, especially for the following items based on the voices of students and some staff ;

- Repair of Facilities (Roof, Ceiling, Toilet, etc.)
- Improvement of Basic Infrastructure (Water, Drainage, Electricity, etc.)
- Internet Services
- Classroom (not enough), Staff Houses, Student Dormitory
- Campus Cleaning in General
- Maintenance of Equipment
- Improvement of Transportation between Dili and Hera Campus

PA



K

- Reference Books, Teaching Methodology
- PR: Technology News, Home-page, Brochure, Seminars
- Other Activities such as Sports and Music

7) The countermeasures of PDM contents responding to the change of the S1 Program

As mentioned above, the present PDM needs to be re-examined thoroughly and modified because thesis of S1 program (to be implemented after the project ends). It is needed to take countermeasures of PDM contents responding to the change of the S1 Program and follow-up of suggested measures on PDM activities of each department.

MA.

h^A

Annex 0

Project Design Matrix (PDM)
Project Title: "Technical Cooperation Project for Capacity Development of the Faculty of Engineering, Science and Technology, The National University of Timor-Lorosa 'e"
Project Site: UNTL Hera Campus. **Project Term:** February, 2011 - January, 2015. **Date:** February, 2011
Target Groups: Faculty staffs of Departments of Mechanical, Civil, and Electrical & Electronic Engineering in the Faculty of Engineering, Science and Technology, UNTL

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<p>Overall Goal The Faculty of Engineering, Science and Technology, UNTL (UNTL-FEST) produces high-skilled human resources who can contribute to the society.</p>	<ul style="list-style-type: none"> ✓ Number of Students graduated from the Faculty with licensure (4-year bachelor) degree exceeds 600 by 2018. ✓ More than 60% of the students graduated from the Faculty get job relating to their field of study. 	<ul style="list-style-type: none"> - Statistic Data on No. of students graduated from the Faculty - Questionnaire to graduated students 	<ul style="list-style-type: none"> - Most of the students graduate from the Faculty without long term leave, or drop-out - Employment situation for engineers may not be worsened, due to economic depression or security deterioration.
<p>Project Purpose The Faculty provides excellent education under appropriate management and operation.</p>	<ul style="list-style-type: none"> ✓ More than 70% of the students satisfy the education provided by the Faculty. ✓ Graduation rate of the Faculty improved. ✓ As a result of class evaluation, every subject 	<ul style="list-style-type: none"> - Interview result with students in each grade -- Statistic Data on students graduated from the Faculty 	<ul style="list-style-type: none"> - licensure (4-year bachelor) program is introduced

	get more than 60 points (60% of satisfaction) in average.	-Result of class evaluation	
Outputs 1. Environment for conducting lectures and experiments in the Faculty is improved. 2. Practical and research based final thesis is taught by teaching staff in the Faculty. 3. Faculty management system is improved.	<ul style="list-style-type: none"> ✓ Curriculum for 4-year bachelor program is maintained according to national curriculum. ✓ More than 90% of syllabi are maintained according to the curriculum. ✓ Curriculum and syllabi are reviewed once a two year by the FDC. ✓ More than 90 % of lecture note and job sheet is maintained according to the curriculum. ✓ Practical and research based final thesis is taught by the teaching staff. ✓ Outputs (documents) which summarized the result of final thesis are made annually. 	<ul style="list-style-type: none"> - Comparison chart between national curriculum and curriculum of each department. - No. of syllabi maintained. - Interview to FDC - No. of syllabi, lecture notes and job sheets maintained. - Interview to the teaching staff on progress of research 	<ul style="list-style-type: none"> -Any negative impact may not occur regarding assignment of the faculty staff, their working condition, etc -Teaching staff who study abroad return to the Faculty with degree. - Enough budget is allocated for improvement of faculty management.





<p>activity.</p> <ul style="list-style-type: none"> -Summary document of final thesis - Result of evaluation on annual action plan - Interview to the committee for improvement of management capacity 	<p>More than 80% of activities mentioned in the annual action plan is achieved.</p> <p>The achievement of the faculty management is reviewed every semester.</p>	<p>activity.</p>
<p>activity.</p>	<p>More than 80% of activities mentioned in the annual action plan is achieved.</p> <p>The achievement of the faculty management is reviewed every semester.</p>	<p>activity.</p>
<p>activity.</p>	<p>Inputs Japan (JICA)</p> <ol style="list-style-type: none"> 1. Dispatch of Experts <ul style="list-style-type: none"> • Long-term experts Chief advisor Coordinator • Short-term experts Area of expertise : Mechanical, Civil, Electrical and Electronic, and Faculty management 2. Short-term Training in Japan Teaching staff from each department 3. Necessary expenses for project Implementation 	<p>Preconditions</p>
<p>activity.</p>	<p>Activities</p> <ol style="list-style-type: none"> 0-0 Base-line survey is conducted for measurement of degree of future achievement. 1-1 Each department designs the curriculum for licensure program (4-year bachelor program), according to the national curriculum. 1-2 The Faculty applies number of qualified teaching staff for introduction of licensure 	<p>activity.</p>

<p>program.</p> <p>1-3 Teaching staff of the Faculty design the syllabus (syllabi) and teaching materials according to licensure program.</p> <p>1-4 Teaching staff learns appropriate teaching skills on the subjects introduced under licensure program.</p> <p>1-5 Faculty Development Committee (FDC) reviews curriculum and syllabus periodically, under licensure program.</p> <p>1-6 Teaching staff conduct class evaluation at the initiative of FDC.</p> <p>2-1 Teaching staff identifies research and investigation needs of the society.</p> <p>2-2 Teaching staff make research proposals for conducting research activity.</p> <p>2-3 Teaching staff (and students) conduct practical research activity.</p>	<p>Timor-Leste (UNTL)</p> <ol style="list-style-type: none"> 1. Assignment of C/P (Dean and Academic/ Administration staff) 2. Provision of office spaces and furniture for experts 3. Necessary local expenses of the project implementation 	
---	---	--

M.

A

A

<p>2-4 Teaching staff widely share the experience of practical research activity.</p> <p>2-5 Teaching staff (the faculty) establish the method of research activity for instructing to students.</p> <p>2-6 The Faculty introduces practical and research based final thesis to their students.</p> <p>2-7 Teaching staff evaluates the final thesis appropriately through the presentation conducted by the students.</p> <p>2-8 Each department materializes students' final thesis into booklets so that it would be widely shared outside of UNTL.</p> <p>3-1 The Faculty organizes committee for improvement of academic capacity based on the Statute.</p> <p>3-2 The Faculty organizes committee for improvement of management capacity based on the Statute.</p>		
--	--	--

9.7

4

✓

<p>3-3 The committee for improvement of management capacity settles the annual action plan for improvement of management system of the Faculty.</p> <p>3-4 Teaching staff enhance the capacity of management of the Faculty according the action plan.</p> <p>3-5 The Faculty management committee reviews its status of faculty management periodically.</p>		
---	--	--

Notes: The targets of indicators shall be reviewed according to the progress of the Project, when it is necessary

92.




CADEFEST-UNTL Mid-Term Joint Evaluation
Schedule

2013.4.5

No.	Date		Schedule
1	31-Mar	Sun	(Arrive in Dili) PM: Internal Meeting
2	1-Apr	Mon	AM: Internal Meeting PM: Meeting with JICA Office Members
3	2-Apr	Tue	AM: Joint Evaluation Workshop (Day1) PM: Interview with UNTL Teachers and Staff
4	3-Apr	Wed	AM: Joint Evaluation Workshop (discuss Action Plan) PM: Interview with UNTL Teachers and Students 16:30 Interview with Staff of Department of Education
5	4-Apr	Thu	AM: Joint Evaluation Workshop (Day2) 16:30 Interview with Rector of UNTL and Staff of Department of Education
6	5-Apr	Fri	AM: Wrap up Meeting & Discussion of M/M PM: JCC, Japanese Embassy
7	6-Apr	Sat	(Leave Dili)
	7-Apr	Sun	Arrive in Japan

97.

Annex 1: Evaluation Grid: Mid-term Review for "Capacity Development of the Faculty of Engineering, Science and Technology, the National University of Timor-Leste" (CADEFEST-UNTL)*

Item	Evaluation Questions		Necessary Data	Source	Data collection method		
	Main	Sub					
Achievement	Progress made toward Outputs	<p>Output 1: Environment for conducting lectures and experiments in the Faculty is improved.</p> <p>Output 2: Practical and research based final thesis is taught by teaching staff in the Faculty.</p> <p>Research:</p> <p>Output 3: Faculty management system is improved.</p> <p>Management:</p>	<p>Indicator 1-1: Curriculum for 4-year bachelor program is maintained according to national curriculum.</p> <p>Indicator 1-2: More than 90% of syllabi are maintained according to the curriculum.</p> <p>Indicator 1-3: Curriculum and syllabi are reviewed once a two year by the FDC.</p> <p>Indicator 1-4: More than 90 % of lecture note and job sheet is maintained according to the curriculum.</p> <p>Indicator 2-1: Practical and research based final thesis is taught by the teaching staff.</p> <p>Indicator 2-2: Outputs (documents) which summarized the result of final thesis are made annually.</p> <p>Indicator 3-1: More than 80% of activities mentioned in the annual action plan is achieved.</p> <p>Indicator 3-2: The achievement of the faculty management is reviewed every semester.</p> <p>Status of mechanism/system to promote plan of activities (e.g. regulations)</p> <p>Indicator 1: More than 70% of the students satisfy the education provided by the Faculty.</p> <p>Status of preparation for assessing students' satisfaction on the education provided by the Faculty</p> <p>Indicator 2: Graduation rate of the Faculty improved.</p> <p>Status of preparation for gathering graduation rates of the Faculty</p> <p>Indicator 3: As a result of class evaluation, every subject get more than 60 points (60% of satisfaction) in average.</p> <p>Status of preparation of class evaluation by students</p>	<p>Curriculum, reports, Japanese experts, C/P</p> <p>Curriculum, syllabi reports, Japanese experts, C/P</p> <p>Curriculum, syllabi, reports, Japanese experts, C/P</p> <p>Lecture note and job sheet, reports, Japanese experts, C/P</p> <p>Reports, Japanese experts, C/P</p> <p>Reports, Japanese experts, C/P</p> <p>Reports, Japanese experts, C/P</p> <p>Reports, Japanese experts, C/P</p> <p>Regulations, Japanese experts, C/P</p> <p>Curriculum, reports, C/P, students</p> <p>Japanese experts, C/P, students</p> <p>Reports, C/P, students</p> <p>Japanese experts, C/P, students</p> <p>Reports, C/P, students</p> <p>Japanese experts, C/P, students</p>	<p>Document review, questionnaire, interviews</p> <p>Document review, questionnaire, interviews</p> <p>Document review, questionnaire, interviews</p> <p>Document review, questionnaire, interviews</p> <p>Document review, questionnaire, interviews</p>		
			Prospect for achieving Project Purpose	<p>Project Purpose: The Faculty provides excellent education under appropriate management and operation.</p>	<p>Number of counterparts assigned to the project, and their designations</p>	<p>Offices and facilities provided by UNTL for the project and experts</p>	
				<p>Have the Inputs been made by the side of Timor-Leste as planned? If not, what are the reasons?</p> <p>* C/P personnel</p> <p>* Offices and facilities</p>			

Item	Evaluation Questions		Necessary Data	Source	Data collection method		
	Main	Sub					
Status of Inputs	* Budgets and expenditures for the project		List of budgets/expenditures, equipment and materials	Performance lists and reports	Document review		
	Have the inputs been made by the Japanese side as planned? If not, what are the reasons?						
	* Japanese experts		Number of experts allocated to required technical areas, duration and timing of experts dispatched				
	* Training in Japan		Purpose & contents of the training Number of training participants Duration of the training				
	* Experts from the third country		Number of experts allocated to required technical areas, duration and timing of experts dispatched				
	* Equipment		Type and quantity				
	* Budget		Purpose of the provision Budget and details of disbursement				
	Have the Activities been implemented as planned?		Progress of the Activities			Performance lists and reports, C/P, Japanese experts	Document review, questionnaire, interviews
	Are there any problems which influenced the progress of the Activities?		Problems which influenced the progress of the Activities				
	When there were problems, how were they solved?		Measures and systems employed for problem-solving				
Has the method employed for technical transfer from the project experts to C/P been appropriate?		Level of C/P's satisfaction: Issues to be improved:					
Technical Transfer/capacity development	Has the project management system been effective and efficient in promoting project activities?		Project management/coordination/support system of MOE, UNTL, task force, JICA H/O, JICA country office: Project management/implementation system of the project team:	C/P	questionnaire, interviews		
			Decision-making process (including JCC): Frequency and method of communication among Japanese experts, between experts and C/Ps and within C/Ps: Measures taken when a project plan changed: Measures taken to solve problems collaboratively: Establishment of a sense of trust with C/Ps:	Reports, MoE, C/P, Japanese experts	Document review, questionnaire, interviews		
Project management/implementation system	How have important decisions and communication been made within the Project? Were they made effectively? Has the information been shared within the Project?			Reports, MoE, C/P, Japanese experts	Document review, questionnaire, interviews		

Handwritten signature

97.

Annex-1: Evaluation Grid: Mid-term Review for Project for "Capacity Development of the Faculty of Engineering, Science and Technology, the National University of Timor-Leste" (CADEFEST-UNTL)"

Item	Evaluation Questions		Necessary Data	Source	Data collection method
	Main Decision making and communication	Sub			
Implementation Process		Has the communication between the Project and JICA HQs, JICA country office, Japanese Embassy and other related Japanese organization been adequate? Has the communication between the Project and relevant agencies of Timor-Leste been adequate?	Frequency and methods of communication with relevant agencies of Japan and Timor-Leste sides: Measures taken when a project plan is changed: Contents of support provided by related Japanese and Timor Leste agencies: Level of participation and activeness on the Timor-Leste agencies	Reports, MoE, C/P, Japanese experts	
		Has regular monitoring been conducted? How has it been conducted?	Monitoring system, plan and records		
Monitoring		Have the results of the monitoring been incorporated into the Project? If yes, how have they been incorporated?	Use of monitoring results	Japanese experts	questionnaire, interviews
		Have there been any changes in the PDM and the Activities? If yes, have they been appropriated?	Changes in the PDM, the reasons for the changes and its process		
Ownership		Have there been any changes in the important assumptions? Has the project been influenced by the changes of important assumptions? Have the influences appropriately dealt with?	Changes in the important assumptions and the influences to the project: Measures take to cope with the influences:	Reports, MoE, C/P, Japanese experts	Document review, questionnaire, interviews
		Are authorities and responsibilities of the MOE and UNTL clear?	Authorities, roles and responsibilities of the MOE and UNTL : Relationship with other relevant organizations of MOE and UNTL :	MoE, C/P, Japanese experts	questionnaire, interviews
Ownership		Has the participation of managers of the Timor-Leste side been appropriate?	Level of awareness and participation of the managers of Timor-Leste		
		Have the number and quality of C/Ps assigned to the Project been appropriate?	Evaluation regarding C/Ps from Project experts	Japanese Experts	questionnaire, interviews
		Have the C/Ps participated in the Project sufficiently?	Activities implemented and efforts made by C/P (including monitoring of the project); Frequency of communication with the Project experts (including reporting of activities) :	C/ Japanese experts	Document review, questionnaire, interviews
		Has the allocation of budget of the Timor-Leste side been sufficient?	Record of inputs from the Timor-Leste side	MoE, C/P, Japanese experts	
		Are the Overall Goal and Project Purpose consistent with the education policy of Timor-Leste?	Sector Investment Plan and Education Policy of Timor-Leste	Sector Investment Plan and Education Policy of Timor-Leste	Document review

90.

Annex-1: Evaluation Grid: Mid-term Review for Project for "Capacity Development of the Faculty of Engineering, Science and Technology, the National University of Timor-Lorosa'e (CADEFEST-UNTL)"

Item	Evaluation Questions		Necessary Data	Source	Data collection method	
	Main	Sub				
1. Relevance	Relevance of the project planning	Is the Overall Goal consistent with the Japanese aid policy?	Japanese aid policy for Timor-Leste	Country assistance policy, JICA implementation plan for TL		
		Was the target institution, faculty and departments selected appropriately?	Selection rationale and criteria of UNTL, Faculty of Engineering, Science and Technology, and 3 departments	Ex-ante report, Japanese experts	Document review, questionnaire, interviews	
	Appropriateness of the means	Is the Project Purpose still consistent with the needs of the country, UNTL, the Faculty of Engineering and the three departments?	Needs of the government, UNTL, the Faculty of Engineering, Science and Technology and the three departments	C/Japanese experts		Document review, questionnaire, interviews
		Was the selection of the C/P organization and the target group (teaching staff of UNTL) appropriate?	Selection process of C/P organization and the target group	Ex-ante report, MoE, C/P, Japanese experts		
		Is the Project appropriate as areas for the Faculty provides excellent education under appropriate management and operation	Appropriateness as a measure: Status of utilization of local and Japanese know-how: Appropriateness as a type/formation of cooperation and method :	Ex-ante report, PDM, C/Japanese experts		Document review, questionnaire, interviews
	Comparative advantage of Japanese technology/experts	Was the project approach/design appropriate?	Appropriateness of the logic of the project (Activities→Outputs→Purjocet Purpose→Overall Goal): Probability to fulfill important assumptions:			
		Has JICA ever assisted other countries in the same technical area? Have enough knowledge and experiences been accumulated?	Record of Japanese past aid projects: Evaluation of Japanese technology/skills by C/Ps	JICA HQs, C/P, Japanese experts	questionnaire, interviews	
	Change of the environment of the Project	Have there been any changes in the environment (including trends of assistance by other donors) of the Project? Have there been any influences by the changes?	Information about political, economic and social changes Trends of assistance by other donors	Progress reports, MoE, C/P, Japanese experts	questionnaire, interviews	
		Is the Project Purpose likely to be achieved	See 1. Achievement	Reports, C/P, Japanese experts, students	Document review, questionnaire, interviews	
	2. Effectiveness	Causal relation	Are there any contributing/constraining factors for achieving the Project Purpose?	Contributing/constraining factors and remedial measures taken	Reports, C/P, Japanese experts	Document review, questionnaire, interviews
Are the 3 Outputs sufficient for achieving the Project purpose?			Logic of the project including important assumptions and causal relation	Reports, C/P, Japanese experts	Document review, questionnaire, interviews	

Annex-1: Evaluation Grid: Mid-term Review for Project for "Capacity Development of the Faculty of Engineering, Science and Technology, the National University of Timor-Lorosa" (CADEFEST-UNTLL)

Item	Evaluation Questions		Necessary Data	Source	Data collection method	
	Main Purpose	Sub				
3. Efficiency	Achievement of Outputs	Have the important assumptions to attain Project purpose been fulfilled?	Status of the important assumption- "Licensure (4-year bachelor) program is introduced"	C/Japanese experts	questionnaire, interviews	
		Have the Activities been implemented as planned?	Record of achievement of Outputs (see 1. Achievement) Record of achievement of Activities		Document review, questionnaire, interviews	
	Causal relation between Inputs, Activities and Outputs	Are there any factors which constrained the achievement of the Outputs?	Constraining factors and remedial measures taken (including transfer of the major C/P who received training)	List of Inputs, Reports, C/P, Japanese experts		questionnaire, interviews
		Have the important assumptions to attain Outputs been fulfilled?	Status of the important assumption- "Any negative impact may not occur regarding assignment of the faculty staff, their working conditions, etc."			
		Have the important assumptions to attain Outputs been fulfilled?	Status of the important assumption- "Teaching staff who study abroad return to the Faculty with degree"			
	Cost efficiency	Are the activities sufficient to achieve the Outputs?	Have the important assumptions to attain Outputs been fulfilled?	Status of the important assumption- "Enough budget is allocated for improvement of faculty management"		
			Have the resources and experiences of the target country/area been effectively used?	Japanese and third country experts (numbers, technical area, timing) Equipment and facilities provided (type, quantity, timing) C/P (Number of counterparts, technical area, timing) Training in Japan (Numbers, purpose & contents, timing, utilization of skills/knowledge acquired) If there are Inputs, which were not utilized	List of Inputs, C/P, Japanese experts	Document review, questionnaire, interviews
			Are there any effective measures taken in order to raise cost efficiency of the Project?	Record of Activities Achievement of the Outputs (see 1. Achievements) Examples of good practices Measures taken to raise cost efficiency	C/P, Japanese experts	questionnaire, interviews
	Coordination and cooperation with other donors and schemes	Have there been coordination or cooperation with other donors to enhance the Project effects? Has there been any coordination with other Japanese development schemes?	Have there been coordination or cooperation with other donors to enhance the Project effects? Has there been any coordination with other Japanese development schemes?	Cooperation and coordination with other donors and schemes	MoE, C/P, Japanese experts	questionnaire, interviews
				Indicator 1: Number of Students graduated from the Faculty with licensure (4-year bachelor) degree exceeds 600 by 2018.	Reports, C/P, students	Document review

Annex-1: Evaluation Grid Mid-term Review for Project for "Capacity Development of the Faculty of Engineering, Science and Technology, the National University of Timor-Leste" (CADEFEST-UNTL)

Item	Evaluation Questions		Necessary Data	Source	Data collection method	
	Main	Sub				
4. Impact	Prospect for achieving Overall Goal	Overall Goal: The Faculty of Engineering, Science and Technology, UNTL (UNTL-FEST) produces high-skilled human resources who can contribute to the society.	Status of enrollment in 4-year bachelor program (number of enrolled students in 2012, number of applicants in 2013 etc.)	Reports, C/P, students	Document review, questionnaire, interviews	
		Indicator 2: More than 60% of the students graduated from the Faculty get job relating to their field of study.	Status of gathering employment/placement data			
	Ripple effect	Are there any constraining factors in achieving the Overall Goal?	Socio-economic, socio-cultural factors and etc.	Progress reports, C/P, Japanese experts	questionnaire, interviews	
		Have there been any unexpected positive impacts?	Observation of the impacts in terms of aspects of policy law, institution, equality/human rights, technical innovation, an economy. Activities implemented by the initiative of the Timor-Leste side	Reports, C/P, Japanese experts		
	Causal relation	Have there been any unexpected negative impact?	Observation in terms of political, constitutional and institutional aspects, equality/human rights aspects, technical innovation aspects, economic aspects.	Reports, C/P, Japanese experts	Document review, questionnaire, interviews	
		considering the Project Purpose, is the Overall Goal adequately set?	Logic of the project including important assumptions and causal relation changes in important Assumptions: "Most of the students graduates from the Faculty without long term leave, or drop-out" "Employment situation for engineers may not be worsened, due to economic depression or security deterioration"	PDIM, Reports, C/P, Japanese experts		
	Policy aspect	Will the government of Timor-Leste support the Project after the termination of the Project?	Policy and plan of the government regarding technical and higher education/UNTL	MoE, C/P	questionnaire, interviews	
		Will the budget be secured as an activity of GoT?	Likelihood of the Project approach being incorporated into GoT	MoE, C/P		
	5. Sustainability	Organizational aspect	Does the project implementation system have an organizational ability to conduct the Activities effectively after the completion of the Project?	Degree of understanding and participation/ownership by MOE and UNTL; Status of functioning of FDC; Status of functioning of faculty management committees;	Reports, MoE, C/P, Japanese experts	
		Personnel	Is it likely that C/Ps assigned will be retained in the Project? Are there any remedial measures prepared in case of staff rotation?	System of rotation of GoT officers and UNTL staff System of retaining institutional memory		

Annex-1: Evaluation Grid: Mid-term Review for Project for "Capacity Development of the Faculty of Engineering, Science and Technology, the National University of Timor-Lorosaie (CADEFEST-UNTL)"

Item	Evaluation Questions		Necessary Data	Source	Data collection method
	Main	Sub			
	Technical aspect	Does the project team already have capacity to implement the Activities effectively? Are they motivated to continue the Project on their own?	Capacity developed/still to be developed: Level of motivation to sustain the Project: Examples of initiatives taken by C/Ps: Status of research activities by the group of teachers who obtained masters' degree: Status of formation of research group by students: Status of coordination/cooperation with external organizations/personnel in relation to research topics responding to local/social needs:	Reports, C/P, Japanese experts	Documentation, review, questionnaire, interviews
		Has the equipment and facilities provided been maintained properly?	Status of maintenance and utilization of the equipment and facilities		
	Maintenance and management of equipment/facility	What are the contributing and constraining factors for the sustainability of the Project?	Contributing/necessary factors to sustain the project outcomes (e.g. possibility of partnership with Japanese Universities) Constraining factors to sustain the project outcomes	C/P, Japanese experts	questionnaire, interviews

Handwritten mark

Handwritten mark

Handwritten mark



UNIVERSIDADE NACIONAL TIMOR LOROSA'E
FACULDADE DE ENGENHARIA, CIÊNCIAS E TECNOLOGIA

Lista dos docentes e Funcionários da Administração da Faculdade de Engenharia, Ciências e Tecnologia

Annex 3

Departamento de Engenharia Mecânica

2013.3.8.

NO	Nome dos Docentes	Nível	Posição	Grau	Ano de Trabalho	Período de Estudo no Estrangeiro	Formado na Universidade	Date of Birth
1	Eng. Gabriel António de Sá, M.Sc.	VI	Decano	S.2	2000	24-9-2007 / 12 Abril 2010	Universidade de Aveiro, Portugal	1962. 2. 28
2	Mariim Guimarães, M. Eng.	VI	Docente	S.2	2000	4-3-06 / Agosto 08	Universidade de Nagasaki, Japão	1971. 7. 01.
3	Eng. Victor da C. Soares, M.Eng.	VI	Docente	S.2	2000	2010/09/11	Candidato Doutoramento em Portugal	1962. 4. 30
4	Eng. Felis Moreira, B.Sc.	VI	Coordenador	D.III / MSW	2000		Candidato Mestrado em UNL, UNM, ITS, Indonésia	1932. 2. 01
5	Eng. Duarte da C. Sarmento, M. Eng.	VI	Conselho Geral da UNTL	S.2	2000	5-3-07 / 5-3-09	Universidade Federal Ceara, Brasil	1964. 1. 04
6	Eng. Adalberto Guterres da Silva, M. Eng.	VI	Vice Decano III	S.2	2000	24-9-2007 / Setembro 2010	Universidade de Coimbra, Portugal	1965. 5. 22
7	Constâncio António Pinto, ST., M.Eng.	V	Pro-Reitor	S.2	2000	27-2-07 / 29-4-09	Universidade de Gaja Mada, Indonésia	1966. 2. 25
8	Joaquim da Costa, ST., M.Eng.	V	Docente	S.2	2000	14-19-2008	ITS, Indonésia	1972. 6. 05
9	Mário Marques Cabral, Spd.M.Eng.	V	Docente	S.2	2000	24-3-2010 / 15-11-1012	Mestrado em UNMinho	1974. 3. 08
10	António Pedro Belo, M. Eng.	VI	Adjunto Director Dep. Mecânica	S.2 / Posgrad	2000	18-10-2008 / Out. 2010	Universidade de Algarve, Portugal	1970. 8. 25
11	Eng. João Sarmento Pinto, M. Eng.	VI	Docente	S. 2	2000	14-10-2008 / Dezembro 2010	Universidade de Minho, Portugal	1966. 1. 19
12	José Barmato, B.Sc.	V	Docente	D.III	2000	18-10-2008	Candidato Mestrado em UNMinho	1962. 4. 06
13	Joviano A. da Costa, ST., M.Eng.	VI	Docente	S.2	2000	Abril 2007 / Agosto 2009	Universidade de Nagasaki, Japão	1972. 9. 28
14	Baptista Pascoal F. Correia, B.Sc.	V	Docente	D.III	2000	18-10-2008	Candidato Mestrado em UNMinho	1966. 6. 15
15	Eng. Paulino Marques Cabral, M. Eng.	VI	Director do Dep. Eng. Mecânica	S.2	2002	14-10-2008 / Dezembro 2010	Universidade de Minho, Portugal	1961. 6. 22
16	Felix de Oliveira, ST., M.Eng.	V	Docente	S.2	2003	14-10-2008	ITS, Indonésia	1973. 8. 02
17	Agapito Morato, ST.	V	Docente	S.1	2002	-	Candidato Mestrado em UNMinho	1971. 4. 15
18	Paulo da Silva, B.Eng.	V	Docente	S.2	2006	19-5-2010 - 18-7-2012	Mestrado em Australia	1975. 7. 08
19	José Maria Xavier, ST.	V	Docente	S.1	2006	-	Candidato Mestrado em Australia	1985. 7. 07
20	Junior Raimundo da Cruz, B.Mc	IV	Assist. Docente	D.III	2006	1/4/2010 - Out. 2012	Candidato Mestrado em Japão	1983. 7. 09
21	Francisco Xavier Ximenes, B. Mc	V	Docente	D.III	2006	-	UNTL FESC.T	1982. 3. 23
22	Valerio de Sousa Gama, B. Mc	V	Docente	D.III	2006	2012	Candidato Mestrado em Japão	1978. 5. 18
23	Lelis Gonzaga Fraga, ST., M.Eng.	VI	Docente	S.2	2011	-	Indonésia	
24	Domingos de Sousa Freitas, ST., M.Eng.	VI	Docente	S.2	2011	-	Indonésia	
25	Evangelino Cândido Gato, ST., M.Eng.	VI	Docente	S.2	2011	-	Indonésia	
26	Domingos de Jesus, B.Mc	III	Assist. Docente	D.III	2000	-	Indonésia	

Studying abroad

Full-time working of outside

7

Handwritten signature

97

Departamento de Engenharia Civil

NO	Nome dos Docentes	Nível	Posição	Grau	Ano de Trabalho	Período de Estudo no Estrangeiro	Formado na Universidade	Date of Birth
1	Mariano Renato M. da Cruz, ST., M.Eng	VI	Docente	S.2	2000	Licença sem Salário 1-9-10 - 31-8-2012	Universidade de Saítama, Japão	1966. 2. 20
2	Eng. Leonel da S.G. Madeira, M.Eng.	VI	Docente	S.2	2000	-	Universidade de Saítama, Japão	
3	Eng. Benjamin de O. Martins, M.Eng	VI	Docente	S.2	2000	18-10-2008	Universidade de Algarve, Portugal	1963. 6. 29
4	João Soares, ST., M.Eng	VI	Docente	S.2	2000	27-2-2005 / 23-9-2007	Universidade de Saítama, Japão	1969. 1. 03
5	Justino da Costa Soares, M.Eng	V	Vice Decano II	S.2	2000	2009/11	Universidade de Minho, Portugal	1963. 1. 06
6	Paulo da Silva, M. Eng	VI	Director do Dep. Eng. Civil	S.2	2000	14-10-2008	Universidade de Minho, Portugal	1967. 6. 09
7	Francisco Guterres O. Ximenes, ST.	V	Docente	S.1	2000	14-10-2008	ITS, Indonésia	1966. 10. 24
8	José Maria C. Belo Ximenes, M. Eng	VI	Docente	S.2	2000	14-10-2008	Universidade de Minho, Portugal	1963. 2. 02
9	Tomás Soares Xavier, Spd.	VI	Docente	S.1	2000	Junho 2011	Candidato Mestrado em UNMinho	1968. 1. 31
10	Alfredo Ferreira, ST.	V	Docente	S.1	2000	14-10-2008	ITS, Indonésia	1980. 7. 14
11	Leandro Madeira Branco, B. CC	V	Docente	D. III	2006	2012	Candidato Mestrado Japaun	1973. 9. 29
12	Sérgio Miguel Freitas, ST.	V	Docente	S.1	2008	-	Indonésia	1983. 5. 24
13	Humbelina Maia S. Viegas, B. CC	V	Docente	D. III	2008	-	UNTU, FECT	1970. 2. 23
14	Raimundo Pereira, ST	V	Docente	S.1	2005	Junho 2011	Candidato Mestrado em UNMinho	1982. 7. 27
15	Hugo da Costa Ximenes, ST	V	Docente	S.1	2011	-	Candidato Mestrado Japaun	
16	Aleixo Sarmento, ST.	V	Adjunto Director Dep. Eng. Civil	S.1	2011	-	Indonésia	
17	Marcelo Marques, B. CC	V	Docente	D. III	2011	-	UNTU, FECT	1983. 7. 27

Departamento de Engenharia Electrónica e Electricidade

NO	Nome dos Docentes	Nível	Posição	Grau	Ano de Trabalho	Período de Estudo no Estrangeiro	Formação na Universidade	Date of Birth
1	Rui Manuel de O. A. Sarmento, ST., M. Eng	VI	Docente	S.2	2003	-	Universidade de GIFU, Japão	1971. 4. 13
2	Ruben Jerónimo Freitas, ST., M.Eng.Sc	VI	Docente	S.2	2005	..... / 13-12-07	Universidade Tecnologia de Curfin, Australia	1975. 2. 14
3	Frederico de Carvalho, ST., M. Eng	VI	Vice Decano I	S.2	2003	19-9-05 / 25-3-08	Universidade de GIFU, Japão	1973. 12. 13
4	Reinaldo Guterres da Cruz, ST	V	Docente	S.1	2000	14-10-2008	ITS, Indonésia	1968. 7. 07
5	Paulo Monteiro, ST., M.Eng	VI	Docente	S.2	2003	14-10-2008	ITS, Indonésia	1974. 12. 19
6	Celestino Correia, ST	V	Docente	S.1	2003	24-3-2010	Candidato Mestrado em UNMinho	1975. 5. 12
7	Tarcísio Freitas Sávio, ST., M.Eng	V	Director do Dep. Eng. E. Electricid.	S.2	2003	2009/2/10	S2 in Japan	1975. 12. 26
8	Nicolau R. da Costa, ST	V	Docente	S.1	2005	24-3-2010	Candidato Mestrado em UNMinho	1975. 9. 11
9	Vital de Jesus Ximenes, ST	V	Docente	S.1	2005	20/10/11	Candidato Mestrado em UNCE Coimbra	1975. 11. 16
10	Ángelo da Costa, ST., M.Eng	V	Docente	S.2	2005	01/07/2007 / 30-1-2012	Mestrado em Indonésia	
11	João Bosco Ribeiro F. Cabral, ST	V	Docente	S.1	2006	-	Candidato Mestrado em Brasil	
12	João Guterres, B.ETT	V	Docente	D. III	2000	Oct-07	UNTU, FECT	1971. 3. 09
13	Câncio Monteiro, M.Eng	IV	Docente	S.2	2006	1-10-08 / Março 1012	Candidato Doutoramento em Japão	1981. 3. 02
14	Abelito Filipe Belo, B.ETT	V	Adjunto Director Dep. E. Electricid.	D. III	2006	-	UNTU, FECT	1982. 1. 11
15	Benedito Freitas Ribeiro, B.ETT	V	Docente	D. III	2006	23 de Setembro 2012.	Candidato Mestrado em Japão	1983. 6. 10
16	Diga Maria de Sousa, B.ETT	V	Docente	D. III	2006	2012	Candidato Mestrado em Japão	1984. 4. 19

Departamento de Engenharia Informática

NO	Nome dos Docentes	Nível	Posição	Grau	Ano de Trabalho	Período de Estudo no Estrangeiro	Formado na Universidade
1	Zuñira Ximenes da Costa, M.Ed	VI	Docente	S.2	2011	-	Universidade de Évora, Portugal
2	Carito Pinto, M.Eng	VI	Docente	S.2	2011	-	Universidade Técnica de Lisboa Portugal
3	Marcelino Caetano Noronha, M.Eng	VI	Director do Dep. Eng. Informática	S.2	2011	-	Indonésia
4	Guido Sarmiento, B.Inf	V	Docente	DIII	2011	-	Candidato Mestrado em UNMinho
5	José Soares Pinto, S.Kom	V	Docente	S.1	2011	-	Indonésia
6	Emanúcia Emma S. Magno, B.Inf	V	Docente	DIII	2011	-	Candidato Mestrado em UNMinho
7	Vasco Pereira, S.Kom	V	Docente	DIII	2011	-	Indonésia
8	José Elias Pereira Timan, B.Inf	V	Docente	DIII	2011	-	Candidato Mestrado em UNMinho
9	Frederico Soares Cabral, S.Kom	V	Adjunto Director Dep. Informática	S.1	2011	-	Indonésia

Docentes Departamento Geolojia / Petróliu

NO	Nome dos Docentes	Nível	Posição	Grau	Ano de Trabalho	Período de Estudo no Estrangeiro	Formado na Universidade
1	Vital Cruz Malai de Araujo Vilanova, M. Eng		Director do Dep. Geolojia	Mestre	Fev. 2012	-	
2	Gabriel Gaspar A. de Oliveira, M.geo		Adjunto Director Dep. Geolojia		Fevereiro 2011	-	
3	Apollinario Euzébio Alves, ST.M.Sc		Docente Tempu Integradu		Fevereiro 2011	-	
4	Henrique Gusmao Mendonca Pereira, ST. N		Docente Tempu Integradu		Fevereiro 2011	-	
5	Aquiles Tomas Freitas, M.geo		Docente Tempu Integradu		Fevereiro 2011	-	
6	Nene Soares Valente Cristovao, ST.M.Sc		Docente Tempu Integradu		Fevereiro 2011	-	
7							

Docentes Parte Tempo

NO	Nome dos Docentes	Nível	Posição	Grau	Ano de Trabalho	Período de Estudo no Estrangeiro	Formado na Universidade
1	Priscilla Fontini		Docente Parte Tempo	Posi Graduada			Brazil
2	Túlio Alves ST		Docente Parte Tempo	S.1			Indonésia
3	Emmanuel Matih		Docente Parte Tempo	S.1			Medio Oriente

907.

R

h

Funcionários da Administração

NO	Nome dos Funcionários da Administração	Nível	Posição	Grau	Ano de Trabalho	Período de Estudo no Estrangeiro	Formado na Universidade
1	Mateus da Costa	IV	Chefe da Administração	STM	2000	Out-2008	Faleceu
2	Eduardo Ruas Ximenes, L. Ed	III	Chefe Dep. de Administração	S.1	2010		UNTL
3	Agapito José Neto	IV	Secretário do Decano	S.1	2000	Out-2008 / 17 de Nov. 2012	UNTL
4	Antônio de Oliveira Carvalho	III	Funcionário da Administração	SLTP	2000	-	Indonésia
5	Domingos Pereira	III	Funcionário da Administração	SLTA	2000	-	Indonésia
6	Pedro de Carvalho	III	Funcionário da Administração	SLTA	2002	-	Indonésia
7	Pedro Fernandes	II	Funcionário da Administração	SLTP	2006	-	Indonésia
8	Cristovão Tomé Moreira, B.ETT	II	Funcionário da Administração	D.III	2000	Out 2006/2011	UNTL FECT
9	Júlio Nicolau Belo	II	Funcionário da Administração	SLTA	2007	-	Indonésia
10	José da Silva	IV	Funcionário Bibliotecário	SLTA	2000	-	Indonésia
11	Carrilho de Carvalho	III	Funcionário Bibliotecário	SLTA	2000	-	Indonésia
12	Luis António Freitas	II	Funcionário da Administração	SLTA	2002	-	Estudar na UNTL
13	Raimundo Moreira	I	Funcionário da Administração	SD	2002	-	Indonésia
14	João Gonçalo Baptista	I	Funcionário da Administração	Decl. SLTA	2007	-	Indonésia
15	António Mendonça	I	Funcionário da Administração	SLTP	2007	-	Indonésia
16	Marcos Pereira de A. P	I	Funcionário da Administração	SLTP	2007	-	Indonésia
17	José Redentor da Costa	I	Funcionário da Administração	SLTP	2007	-	Indonésia
18	Alberto M. da Silva	I	Funcionário da Administração	SLTP	2007	-	Indonésia
19	Francisco de Carvalho	I	Funcionário da Administração	SD	2000	-	Indonésia
20	Lucas Amaral	I	Funcionário da Administração	SD	2005	-	Indonésia
21	Marcelina da Costa	I	Funcionário da Administração	Decl. SD	2005	-	Indonésia
22	Mateus Canzido	I	Funcionário da Administração	SD	2006	-	Timor-Portugal
23	Alfredo da Costa Sarmiento	III	Funcionário da Administração	STM	2000	-	Indonésia
24	José Gomes Maia Sura	III	Funcionário da Administração	STM	2000	-	Estudar na UNTL
25	Lino da Costa Monteiro	I	Funcionário da Administração	SD	-	-	

Recapitulação		S.2	S.1	D.III/D.II	SLTA/SLTP/SD	Total Dep.
No	Departamento					
1	Engenharia Mecânica	18	2	6/0	0/0/0	26
2	Engenharia Civil	7	7	3/0	0/0/0	17
3	Engenharia Electrónica e Electricidade	7	5	4/0	0/0/0	16
4	Engenharia Informática	3	2	4/0	0/0/0	9
5	Funcionários da Administração	0	2	1/0	9/6/6	24
		35	18	18/0	9/6/6	92
				18	21	Total : 93

Total Níveis Académicos na FECT	
S.2 =	35
S.1 =	18
D.III =	48
D.II =	0
SLTA =	9
SLTP =	6
SD =	6
Total :	92

Departamento Engenharia Civil	Departamento Engenharia Informática
Nível : VI 7 pessoas	Nível : VI 3 pessoas
Nível : V 10 pessoas	Nível : V 6 pessoas
Nível : IV 0 pessoa	Nível : IV 0 pessoa
Nível : III 2 pessoas	Nível : III 0 pessoa
Total : 19	Total : 9

Departamento Engenharia Mecânica
Nível : VI 14 pessoas
Nível : V 11 pessoas
Nível : IV 1 pessoa
Nível : III 1 pessoa
Total : 27

Departamento Eng. Electrónica e Electricidade	Funcionários da Administração
Nível : VI 4 pessoas	Nível : IV 3 pessoas
Nível : V 11 pessoas	Nível : III 5 pessoas
Nível : IV 1 pessoa	Nível : II 4 pessoas
Nível : III 0 pessoa	Nível : I 10 pessoas
Total : 16	Total : 22

Aprovado pelo,

DIII, 7 de Janeiro de 2013

(Eng. Gabriel António de Sá, M.Sc)
Decano-FECT

(Marfim Guimarães, M.Eng)
Vice Decano II

CADEFEST Project

Expert (Long Term, Short Term) from February 2011 to March 2013

1. Long Term Expert

	Name	Dispatch Period	Expertise
1	Mr. Kenichiro KOMATSU	2011.2.21 – 2013.4.14	Coordinator
2	Mr. Atsushi TAKAHASHI	2013.3.4 – 2015.1.31	Coordinator

2. Short Term Expert

A) Chief Advisor

	Name	Dispatch Period	Expertise
1	Dr. Hidehiko KAZAMA	2011.2.21 – 2011.4.8 (47M/D)	Chief Advisor
2		2011.5.23 – 2011.7.10 (49M/D)	
3		2011.8.17 – 2011.10.2 (47M/D)	
4		2011.11.14 – 2011.12.25 (42M/D)	
5		2012.2.8 – 2012.4.8 (61M/D)	
6		2012.5.28 – 6.29 (33M/D)	
7		2012.8.10 – 2012.9.30 (51M/D)	
8		2012.11.12 – 2012.12.23 (42M/D)	
9		2013.2.11 – 2013.4.14 (63M/D)	

B) Expert from Japanese Supporting University

	Name	Dispatch Period	Expertise
1	Dr. Masahiko SEKINE	2011.3.20 – 2011.3.27 (8M/D)	Civil Engineering
2	Dr. Motoyuki SUZUKI	2011.3.20 – 2011.3.27 (8M/D)	Civil Engineering
3	Dr. Eiji MATSUO	2011.3.20 – 2011.3.27 (8M/D)	Civil Engineering
4	Dr. Hiroki YOSHIDA	2011.3.20 – 2011.3.28 (9M/D)	Electrical & Electronic Engineering
5	Dr. Daohong WANG	2011.3.20 – 2011.3.28 (9M/D)	Electrical & Electronic Engineering
6	Dr. Yasuhiro TAKAHASHI	2011.3.23 – 2011.4.1 (10M/D)	Electrical & Electronic Engineering
7	Dr. Ikuo TANABE	2011.3.27 – 2011.4.1 (6M/D)	Mechanical Engineering
8	Dr. Hideo KOGUCHI	2011.3.27 – 2011.4.1 (6M/D)	Mechanical Engineering
9	Dr. Hiroyuki OHTA	2011.3.27 – 2011.4.1 (6M/D)	Mechanical Engineering
10	Dr. Masahiko SEKINE	2011.11.27 – 2011.12.5 (9M/D)	Civil Engineering
11	Dr. Koji ASAI	2011.11.27 – 2011.12.5 (9M/D)	Civil Engineering
12	Dr. Koichi SHIMAKAWA	2012.2.12 – 2012.2.25 (14M/D)	Electrical & Electronic Engineering
13	Dr. Yasuo OKAZAKI	2012.2.12 – 2012.2.25 (14M/D)	Electrical & Electronic Engineering

14	Dr. Hiroki YOSHIDA	2012.3.21 – 2012.4.1 (12M/D)	Electrical & Electronic Engineering
15	Dr. Yasuhiro TAKAHASHI	2012.3.21 – 2012.3.29 (9M/D)	Electrical & Electronic Engineering
16	Dr. Masato SHINJI	2012.3.26 – 2012.4.1 (7M/D)	Civil Engineering
17	Dr. Katsuhiko TAKAMI	2012.3.26 – 2012.4.1 (7M/D)	Civil Engineering
18	Dr. Ikuo TANABE	2012.3.26 – 2012.4.1 (7M/D)	Mechanical Engineering
19	Dr. Hiroo TAURA	2012.3.26 – 2012.4.1 (7M/D)	Mechanical Engineering
20	Dr. Masahiko SEKINE	2012.3.31 – 2012.4.8 (9M/D)	Civil Engineering
21	Dr. Ikuo TANABE	2012.8.9 – 2012.8.22 (14M/D)	Mechanical Engineering
22	Mr. Hideo HOSHINO	2012.8.9 – 2012.8.22 (14M/D))	Mechanical Engineering
23	Mr. Kenta SATO	2012.8.9 – 2012.8.22 (14M/D)	Mechanical Engineering
24	Dr. Koji ASAI	2012.8.19 – 2012.8.29 (11M/D)	Civil Engineering
25	Dr. Kouichi YAMAMOTO	2012.8.25 – 2012.9.1 (8M/D)	Civil Engineering
26	Dr. Masahiko SEKINE	2012.12.8 – 2012.12.16 (9M/D)	Civil Engineering
27	Dr. Ayaho MIYAMOTO	2012.12.8 – 2012.12.16 (9M/D))	Civil Engineering
28	Dr. Hiroki YOSHIDA	2012.12.17 – 2012.12.23 (7M/D)	Electrical & Electronic Engineering
29	Dr. Koji ASAI	2013.1.19 – 2013.1.27 (9M/D)	Civil Engineering
30	Dr. Yasuo OKAZAKI	2013.2.18 – 2013.3.3 (14M/D)	Electrical & Electronic Engineering
31	Dr. Kazuo TANAKA	2013.2.18 – 2013.3.3 (14M/D)	Electrical & Electronic Engineering
32	Dr. Hiroki YOSHIDA	2013.2.27 – 2013.3.10 (12M/D)	Electrical & Electronic Engineering
33	Dr. Daohong WANG	2013.2.27 – 2013.3.10 (12M/D)	Electrical & Electronic Engineering
34	Dr. Katsuhiko TAKAMI	2013.3.2 – 2013.3.10 (9M/D)	Civil Engineering
35	Dr. Motoyuki SUZUKI	2013.3.4 – 2013.3.10 (7M/D)	Civil Engineering
36	Dr. Ikuo TANABE	2013.3.4 – 2013.3.10 (7M/D)	Mechanical Engineering
37	Mr. Satoshi TAKAHASHI	2013.3.4 – 2013.3.17 (14M/D)	Mechanical Engineering
38	Mr. Hideo HOSHINO	2013.3.9 – 2013.3.21 (13M/D)	Mechanical Engineering
39	Mr. Kazuo YOSHII	2013.3.9 – 2013.3.21 (13M/D)	Mechanical Engineering

	Expertise	M/D (M/M)
1	Mechanical Engineering	121M/D (4.08M/M)
2	Civil Engineering	127M/D (4.23M/M)
3	Electrical & Electronic Engineering	136M/D (4.53M/M)
	TOTAL	384M/D (12.8M/M)

CADEFEST Project
Long term Training in Japan
From February 2011 To March 2013

Annex 5

No.	Training Program	Name of Participant	Training Period	Training Organization	M/M
1	Mechanical Engineering	Mr. Valerio de Sousa Gama	2012.4 – (2.5 years)	Nagaoka University of Technology	-
2	Civil Engineering	Mr. Leandro Madeira Branco	2012.4 – (2.5 years)	Yamaguchi University	-

Note: A candidate from Electrical & Electronic Engineering department not advanced to Master's Course

9.7. *LA*

CADEFEST Project
Short term Training in Japan
From February 2011 To March 2013

Annex 6

No.	Training Program	Name of Participant	Training Period	Training Organization	M/M
1	Civil Engineering	Mr. Leandro Madeira Branco	2011.6.26 – 2011.8.6	Yamaguchi University	1.40
2	Civil Engineering	Mr. Lourenco Soares	2011.11.13 – 2011.12.15	Yamaguchi University	1.10
3	Electrical & Electronic Engineering	Mr. Ruben Jeronimo Freitas	2011.11.21 – 2011.12.21	Gifu University	1.03
4	Electrical & Electronic Engineering	Mr. Frederico de Calvalho	2011.11.21 – 2011.12.21	Gifu University	1.03
5	Electrical & Electronic Engineering	Mr. Abelito Filipe Belo	2012.7.28 – 2012.9.1	Gifu University	1.20
6	Mechanical Engineering	Mr. Leis Gonzaga Fraga	2012.7.29 – 2012.9.1	Nagaoka University of Technology	1.17
7	Mechanical Engineering	Mr. Joviano Antonio da Costa	2012.7.29 – 2012.9.22	Nagaoka University of Technology	1.87
8	Mechanical Engineering	Mr. Francisco Xavier Ximenes	2012.7.29 – 2012.9.22	Nagaoka University of Technology	1.87
9	Civil Engineering	Mr. Justino da Costa Soares	2012.9.30 – 2012.11.4	Yamaguchi University	1.20
10	Civil Engineering	Mr. Alfredo Ferreira	2012.9.30 – 2012.11.4	Yamaguchi University	1.20
11	Civil Engineering	Mr. Benjamin Hopffer Martins	2012.9.30 – 2012.11.4	Yamaguchi University	1.20
12	Mechanical Engineering	Mr. Marfim Guimaraes	2012.10.7 – 2012.11.17	Nagaoka University of Technology	1.40
13	Electrical & Electronic Engineering	Mr. Ruben Jeronimo Freitas	2012.11.3 – 2012.12.17	Gifu University	1.50

Training period : Departure date from Dili to Arrival Date at Dili

207.

i
R*

CADEFEST Project
Dispatch of the third country expert
Workshop by Prof. Dr. Satryo Soemantri
From February 2011 To March 2013

	Period	Workshop Theme	Number of Participant
1	2011.9.12 – 2011.9.15	Basic Concept of Faculty Management	22
2	2011.12.4 – 2011.12.7	Faculty Development and Class Evaluation	20(?)
3	2012.5.30 – 2012.6.2	Vision, Mission, Educational Goal and Objectives	20(?)
4	2012.9.11 – 2012.9.14	Alignment of Educational Objectives and Curriculum	16
5	2013.1.21 – 2013.1.24	Syllabus	20

CADEFEST Project
Dispatch Lecturer from ITS (Institut Teknologi Sepuluh Nopember)
From February 2011 To March 2013

< 1st Dispatch >

	Period	Name of Lecturer	Dept.
1	2011.6.27 – 2011.7.8	Dr. Hendro Nurhadi	Mechanical Engineering
2	2011.6.20 – 2011.6.24	Mr. Suwarno	Civil Engineering
3	2011.6.20 – 2011.7.1	Dr. Ardyono Priyadi	Electrical & Electronic Engineering

< 2nd Dispatch >

	Period	Name of Lecturer	Dept.
1	2012.1.30 – 2012.2.10	Mr. Mohammad Khoirul Effendi	Mechanical Engineering
2	2012.1.30 – 2012.2.10	Dr. Heri Suryoatmojo	Electrical & Electronic Engineering

List of Equipment for Engineering Faculty (Non-Practical) (CADEFEST)

Annex 9

No.	Items	Model	Classifi- cation	Storage location	Place of use	Provided by	Year of delivery	Unit Price	QTY	Amount	Use frequency (Times/year)	Remarks
1	Seagate USB2.0 Expansion Portable Drive 500GB	Seagate ST95004EXM101RK	C	Project Office	Project Office	CADEFEST (local)	30-Mar-11	\$195.00	2	\$270.00	Always	
2	Scanner	CANON CanoScan LIDE 110	E	Project Office	Project Office	CADEFEST (local)	18-Mar-11	\$115.00	1	\$115.00	Often	
3	Color Printer	CANON PRINUS IP100	E	Project Office	Project Office	Expert / JICA	08-Mar-11	\$23,400	2	\$46,800	Often	
4	Ink Tank (for CANON PRINUS IP100)	BCI-18CLR	E	Project Office	Project Office	Expert / JICA	06-Mar-11	\$1,390	10	\$13,900	Often	
5	Ink Tank (for CANON PRINUS IP100)	BCI-18BK	C	Project Office	Project Office	Expert / JICA	06-Mar-11	\$1,020	10	\$10,200	Often	
6	AC Adapter (for TEPPA)	KONGSIMO AD06HSJ	E	Project Office	Project Office	Expert / JICA	24-May-11	\$1,860	1	\$1,860	Often	
7	Clear Book	KOKUYO RA-1720M	C	Project Office	Project Office	Expert / JICA	24-May-11	\$705	5	\$3,525	Always	
8	Clear Book	KOKUYO RA-1720M	C	Project Office	Project Office	Expert / JICA	24-May-11	\$705	5	\$3,525	Always	
9	Clear Book Refill	KOKUYO RA-1780B	C	Project Office	Project Office	Expert / JICA	24-May-11	\$215	16	\$3,440	Always	
10	Clear Book Refill	KOKUYO RA-1780B	C	Project Office	Project Office	Expert / JICA	24-May-11	\$215	16	\$3,440	Always	
11	TOSHIBA USB2.0 Portable Hard Drive 500GB	TOSHIBA Canvio Basics 693400-A	C	Library	Library	CADEFEST (local)	20-Jul-11	\$90.00	1	\$90.00	Always	
12	UPS	APC 650VA	E	Project Office	Project Office	CADEFEST (local)	22-Aug-11	\$123.00	1	\$123.00	Always	
13	Desktop PC	HP Pro3330M	E	Admin Office	Admin Office	CADEFEST (local)	14-Mar-12	\$780.00	15	\$11,700.00	Always	
14	Desktop PC	HP Pro3330M	E	Project Office	Project Office	CADEFEST (local)	14-Mar-12	\$780.00	5	\$3,900.00	Always	
15	Copy Machine	Fuji Xerox DocuCentre 205B	E	Project Office	Project Office	CADEFEST (local)	21-Mar-12	\$4,780.00	2	\$9,560.00	Always	
16	Scanner	Mitsumasa 2000W	E	Project Office	Project Office	CADEFEST (local)	21-Mar-12	\$120	2	\$240.00	Always	
17	Printer toner	HP 53A	C	Library	Library	CADEFEST (local)	21-Mar-12	\$97	2	\$194.00	Always	
18	Extension Cable	Ministar 6 port	E	Admin Office	Admin Office	CADEFEST (local)	21-Mar-12	\$25.00	4	\$100.00	Always	
19	Extension Cable	Ministar 6 port	E	Library	Library	CADEFEST (local)	21-Mar-12	\$25.00	4	\$100.00	Always	
20	USB Flash Drive	USF 96B	E	Project Office	Project Office	CADEFEST (local)	21-Mar-12	\$19	1	\$19.00	Often	
21	Drawing Instruments	USF Flash Drive	E	Project Office	Project Office	Expert / JICA	28-Mar-12	\$15,120	1	\$15,120	Often	
22	UPS	NPC 500VA	E	Admin Office	Admin Office	CADEFEST (local)	28-Mar-12	\$78.00	10	\$780.00	Always	
23	Extension Cable	Winstar 4 port	E	Admin Office	Admin Office	CADEFEST (local)	28-Mar-12	\$22.50	4	\$90.00	Always	
24	Printer toner	HP119A	C	Project Office	Project Office	Expert / JICA	23-May-12	\$2,880	10	\$28,800	Always	
25	Printer toner	HP119A	C	Project Office	Project Office	Expert / JICA	23-May-12	\$2,880	10	\$28,800	Always	
26	Printer	Deskjet 2520/FS 44inch	E	Project Office	Project Office	JICA Handover Equipment	21-Jun-12	\$650,000	1	\$650,000	sometimes	
27	Printer	HP772 Ink cartridge	E	Project Office	Project Office	JICA Handover Equipment	21-Jun-12	\$120,000	1	\$120,000	sometimes	
28		Q1997A Standard Paper (A0)	C	Project Office	Project Office	JICA Handover Equipment	21-Jun-12	\$3,100	1	\$3,100	sometimes	
29	Ink Cartridge	Q6575A Universal Instant-dry obsa	C	Project Office	Project Office	JICA Handover Equipment	21-Jun-12	\$11,000	1	\$11,000	sometimes	
30	Ink Cartridge	BCI-18 Black	C	Project Office	Project Office	Expert / JICA	16-May-12	\$1,090	20	\$21,800	Always	
31	Ink Cartridge	BCI-18 Color	C	Project Office	Project Office	Expert / JICA	16-May-12	\$1,410	10	\$14,100	Always	
32	A4 File	FLV108	C	Project Office	Project Office	Expert / JICA	16-May-12	\$49	30	\$1,470	Always	
33	A4 File	FLV108	C	Project Office	Project Office	Expert / JICA	16-May-12	\$49	30	\$1,470	Always	
34	A4 File	FLV108	C	Project Office	Project Office	Expert / JICA	16-May-12	\$49	30	\$1,470	Always	
35	A4 File	FLV108	C	Project Office	Project Office	Expert / JICA	16-May-12	\$49	30	\$1,470	Always	
36	Toner	Fuji Xerox DocuCentre 205B	C	Project Office	Project Office	CADEFEST (local)	14-Jun-12	\$24.00	6	\$504.00	Always	
37	Extension Cable	Winstar 4 port	E	Project Office	Project Office	CADEFEST (local)	31-Jul-12	\$21.00	1	\$21.00	Often	
38	Presenter	FP-1000	E	Project Office	Project Office	CADEFEST (local)	31-Jul-12	\$25.00	1	\$25.00	sometimes	
39	Toner	HP920 Black	C	Project Office	Project Office	CADEFEST (local)	31-Jul-12	\$18.00	6	\$108.00	Always	Stock for HP7000
40	Toner	HP920 Blue	C	Project Office	Project Office	CADEFEST (local)	31-Jul-12	\$18.00	1	\$18.00	Always	Stock for HP7000
41	Toner	HP920 Yellow	C	Project Office	Project Office	CADEFEST (local)	31-Jul-12	\$18.00	1	\$18.00	Always	Stock for HP7000
42	Toner	HP920 Red	C	Project Office	Project Office	CADEFEST (local)	31-Jul-12	\$19.00	1	\$19.00	Always	
43	Printer	HP LaserJet P1102	E	Library	Library	CADEFEST (local)	13-Dec-12	\$150.00	1	\$150.00	Always	
44	Toner	HP 85A	E	Library	Library	CADEFEST (local)	13-Dec-12	\$82.00	1	\$82.00	Always	
45	Speaker	DIAT	E	Project Office	Project Office	CADEFEST (local)	05-Mar-13	\$120.00	1	\$120.00	sometimes	
46	Microphone	GNM HS-128	E	Project Office	Project Office	CADEFEST (local)	05-Mar-13	\$30.00	1	\$30.00	sometimes	
47	Cable	HP154	E	Project Office	Project Office	Expert / JICA	05-Mar-13	\$5.00	1	\$5.00	sometimes	
48	Printer toner	HP102	C	Project Office	Project Office	Expert / JICA	14-Mar-13	\$2,780	15	\$41,700	Always	
49	Printer toner	HP102	C	Project Office	Project Office	Expert / JICA	14-Mar-13	\$2,780	15	\$41,700	Always	
										日本円合計	\$1,088,650	
										F/J-合計	\$27,554.00	
							CADEFEST (local)	\$27,554.00	Expert / JICA	\$314,490		

* E : Equipment (testing machine which can be used for several years)
C : Consumption goods

Handwritten signature

Handwritten mark

Operational Costs borne by the Japanese side

Annex 10

CADEFEST Project 在外事業強化費支出実績 2010年度～2012年度(JFY2010-2012)

区 分 Category	2010年度	2011年度	2012年度
在外事業強化 Overseas Activities Cost	\$6,100.50	\$95,837.00	\$48,426.86
(内訳) Detail			
航空賃 Air Fare	\$978.00	\$0.00	\$1,199.00
旅費(航空賃以外) Travel Allowance (Excl. Air Fare)	\$711.00	\$1,744.00	\$2,214.00
業務契約(ローカルコンサルタント) Contract with Local Based Consultant	\$0.00	\$0.00	\$0.00
業務契約(ローカルNGO) Contract with Local Based NGO	\$0.00	\$0.00	\$0.00
業務契約 Commission Contract (Others)	\$0.00	\$6,340.00	\$7,400.00
謝金報酬(スタッフ以外) Fees and Honorarium (Non-staff)	\$420.00	\$7,801.00	\$3,446.50
会議費 Refreshment	\$902.50	\$3,228.40	\$577.70
一般業務費 Miscellaneous	\$3,089.00	\$76,723.60	\$33,589.66
Grand Total from JFY2010-JFY2012			\$150,364.36

M.

i h

Progress Report

CADEFEST Project
February 2011 to March 2013

Mr. Gabriel Antonio de Sa
Dean
Faculty of Engineering, Science and Technology

Current progress to the suggestion from Advisory Mission on June 2012

- UNTL FEST will update the appropriate educational objectives and goals, and curriculum and syllabus of S1 in each Department, immediately.
- ⇒ Educational Objectives and goals are newly created in cooperation with the workshop by Prof. Dr. Satriyo.
- ⇒ Curriculum has been revised, but the number of credit must be adjusted to the Portuguese system.
- ⇒ Lecturers are working on making syllabi, but it will take more time to complete all the subjects.

Current progress to the suggestion from Advisory Mission on June 2012

- UNTL FEST will take actions after making the internal regulations immediately. In the internal regulations, key points should be carefully taken into considerations, such as the rules of working hour, research incentive, annual leave, penalties. UNTL FEST will establish the Task Force for making the internal regulations,
- ⇒ Task Force Team has already created the draft of internal regulation of the Faculty. It needs to be revised and modified to be aligned with the University Regulation.

Current progress to the suggestion from Advisory Mission on June 2012

- Staff development plan including scholarship, training and further studies should be discussed at the department level and summarized at the Faculty level for effective sustainability of UNTL FEST. UNTL FEST will make all efforts to share information, timely, to all staff and take actions based on the records of each meeting.
- ⇒ UNTL has settled "Carrier Regime" in which carrier step is mentioned. UNTL-FoEST will dispatch lecturers with S1 or D3 to Portugal to obtain S2.
- ⇒ Sharing Information is still an issue. The faculty does not have an effective communication system.

Current progress to the suggestion from Advisory Mission on June 2012

- The imbalance of work load among the teaching staff should be resolved.
- ⇒ According to "Carrier Regime", each lecturer can teach up to 3 subjects. But the problem is that only S2 holder can teach theoretical class and some departments do not have sufficient staffs who have S2 to cover all theoretical class. (S1 to D3 holders can teach practical class or teach theoretical class as an assistant.)

Current progress to the suggestion from Advisory Mission on June 2012

- Budget system based on the department clear action plan should be strengthened and activated.
- ⇒ Budget Plan has been discussed in each department. The budget will be decentralized into Faculty level in 2014. Then each faculty has responsibility to implement the budget plan.

Progress on the PDM

Output 1 : Quality of lectures and experiments is improved in the Faculty.

- 1-1 Each department designs the curriculum for licensure program (4-year bachelor program), according to the national curriculum.
- 1-2 The Faculty applies number of qualified teaching staff for introduction of licensure program.
- 1-3 Teaching staff of the Faculty design the syllabus (syllabi) and teaching materials according to licensure program.
- 1-4 Teaching staff learns appropriate teaching skills on the subjects introduced under licensure program.
- 1-5 Faculty Development Committee (FDC) reviews curriculum and syllabus periodically, under licensure program.
- 1-6 Teaching staff conduct class evaluation at the initiative of FDC.

- Curriculum and some part of syllabus have been created, but FDC is not active.
- Class evaluation has been conducted each end of semester but it was initiated by project experts.
- Teaching staff are improving their skill and knowledge through the training by Japanese and Indonesian experts.
- There is a problem with payment to ITS, then ITS cannot send lecturer to UNTL at this moment.

Progress on the PDM

Output 2 : Practical and research based final thesis is taught by teaching staff in the Faculty.

- 2-1 Teaching staff identifies research and investigation needs of the society.
- 2-2 Teaching staff make research proposals for conducting research activity.
- 2-3 Teaching staff (and students) conduct practical research activity.
- 2-4 Teaching staff widely share the experience of practical research activity.
- 2-5 Teaching staff (the faculty) establish the method of research activity for instructing to students.
- 2-6 The Faculty introduces practical and research based final thesis to their students.
- 2-7 Teaching staff evaluates the final thesis appropriately through the presentation conducted by the students.
- 2-8 Each department materializes students' final thesis into booklets so that it would be widely shared outside of UNTL.

- The number of lecturers who submitted research proposal in JFY 2011 and 2012.
- ME : 7, CE : 11, EEE : 4 (22 in total) (17 themes)
- The number of lecturers who accepted research proposal in JFY 2011 and 2012.
- ME : 4, CE : 7, EEE : 3 (14 in total) (10 themes)

Progress on the PDM

- The progress and result of the research is shared among the lecturers and students through "Research Seminar" organized by the project.
- Some lecturers involve their students into research activities.
- Each department evaluates students' final thesis by their presentation.
- No department materialize the students' final thesis.

- Research activities are not conducted on schedule because of delay of procurement of the equipment which is necessary for the research.
- Some lecturers are not interested in participating research activity.

Progress on the PDM

Output 3 : Faculty management system is improved.

- 3-1 The Faculty organizes committee for improvement of academic capacity based on the Statute.
- 3-2 The Faculty organizes committee for improvement of management capacity based on the Statute.
- 3-3 The committee for improvement of management capacity settles the annual action plan for improvement of management system of the Faculty.
- 3-4 Teaching staff enhance the capacity of management of the Faculty according to the action plan.
- 3-5 The Faculty management committee reviews its status of faculty management periodically.

- Committee has not been yet organized.
- Faculty management related academic matters has been improved through the workshop by Prof. Dr. Satryo.
- FoEST has annual action plan, anyway.

Activities from February 2011 to March 2013

Expert from Japan (Chief Advisor and Coordinator)

No	Name of Expert	Position	Total M/M
1	Dr. Hidetaka Kazama	Chief Advisor	14.33 M/M (9 times)
2	Mr. Kenichiro Komatsu	Coordinator	From February 2011 ~
3	Mr. Atsushi Takahashi	Coordinator	From March, 2013 ~

Expert from Japan (Japanese Supporting University)

No	University	Field	Total M/M
1	Nagaoka University of Technology	Mechanical Engineering	6.03 M/M (12 times)
2	Yamaguchi University	Civil Engineering	4.23 M/M (15 times)
3	Gifu University	Electric & Electronic Engineering	4.53 M/M (12 times)

Activities from February 2011 to March 2013

Short term training in Japan

JFY	Field	Organization	Number of Participant
2011	Mechanical	Nagaoka Univ. of Technology	0
	Civil	Yamaguchi Univ.	2
	Electrical & Electronic	Gifu Univ.	12
2012	Mechanical	Nagaoka Univ. of Technology	4
	Civil	Yamaguchi Univ.	3
	Electrical & Electronic	Gifu Univ.	2
Total			19

So far, 12 lecturers participated short term training in Japan. (Mr. Ruben participated twice.)

Activities from February 2011 to March 2013

Research Theme in JFY2011 and 2012

JFY	Discipline	Name of Researcher	Research Theme
JFY 2011	Mechanical Engineering	Hermani Arianto de Costa Ferdinandus Sitorus Situmorang	Analysis of Stress Distribution Field on 2D Isoskedal Riveted Joints of Different Geometrical Shape
		Heri Hartono Muhlisnawati	Experimental Study on stress of Glass
	Civil Engineering	Heri Hartono Luhur Mardiana Purwati Luhur Mardiana Purwati	Study of quality and strength of aggregate (Coarse and Fine Aggregate) P-Timer Test
		Heri Hartono Purwati	Slip-Induced caused by rainfall and proposal of prevention in East Timor
JFY 2012	Electrical & Electronic Engineering	Frederico de Carvalho	The Impact of Environment and Equal Angle of Solar Panel on Solar Irradiation
		Frederico de Carvalho	An experimental study on the characteristics of the lightning occurred in Timor-Leste led to application in designing Timor-Leste national lightning protection standard
	Mechanical Engineering	Heri Hartono de Costa Ferdinandus Sitorus Situmorang	Experimental analysis of stress singularity in 2D bonded structure of dissimilar material joint
		Heri Hartono de Costa Ferdinandus Sitorus Situmorang	Experimental study on stress of Glass
JFY 2012	Civil Engineering	Heri Hartono Purwati Luhur Mardiana Purwati	The Effect of the Gravel Shape on Pore Coefficient
		Heri Hartono Purwati Luhur Mardiana Purwati	The relationship between permeability activity and the intensity of precipitation
	Electrical & Electronic Engineering	Heri Hartono de Costa Ferdinandus Sitorus Situmorang	Analysis of River Characteristics in Dili
		Heri Hartono de Costa Ferdinandus Sitorus Situmorang	The Effect of surface and panel's temperature on the output performance of photovoltaic silicon (Si) and amorphous silicon panel in Timor-Leste

Activities from February 2011 to March 2013

Intensive Lecture by ITS

JFY	Field	Lecturer	Notes
2011	Mechanical	Dr. Hensu Nurhid	
June	Civil	Mr. Suswamo	He returned earlier because of sickness.
	Electrical & Electronic	Dr. Ardiono Pradi	
2012	Mechanical	Mr. Mohamad Khoirul Effendi	
February	Electrical & Electronic	Dr. Heri Suhartono	

Due to delay of payment from UNTL, It is stopped to send ITS lecturer to UNTL since February 2012. It should be resolved as soon as possible.

Activities from February 2011 to March 2013

Workshop on Faculty Management by Prof. Dr. Satryo Soemantoro

JFY	Theme	No. of Participants
Sep 2011	Basic Concept of Faculty Management	22
Dec 2011	Faculty Development and Class Evaluation	20
May 2012	Vision, Mission, Educational Goal and Objective	20
Sep 2012	Alignment of Educational Objectives and Curriculum	16
Jan 2013	Syllabus	20

Through these workshops, faculty members understood the importance of faculty management and review the vision, mission and educational goals in each department. Now new syllabus in accordance with new curriculum are updated by each lecturer.

Activities from February 2011 to March 2013

Equipment provided by CADEFEST

- Mechanical Engineering**
- General Equipment such as Projector, Screen, Desktop PC, Printer, Data Storage, Digital Camera and Handycam
 - Materials for practical such as Electrodes, Iron, Metal sheet, etc.
 - Equipment for education such as Milling Machine and Hardness Tester.
 - Equipment for research such as FFT Analyzer, Vibration Meter, Universal Testing Machine and Workstation
 - Tools for maintenance of equipments such as Air gun, Air Hose, Bushing, Coupler, Wrench etc.
- Civil Engineering**
- General Equipment such as Projector, Screen, Desktop PC, Printer, Data Storage, Digital Camera and Handycam
 - Materials for practical such as Jig saw, Drill, Hammer, Glove etc.
 - Equipment for education such as Hydraulic Testing Machine, Strain Gauge and Mold Sample Extractor.
 - Equipment for research such as Water quality checker, GPS System, Total Station, Current Meter, Autoclave, Incubator, Water level, Penetration Tester, Steel ball etc.

Activities from February 2011 to March 2013

Equipment provided by CADEFEST

- Electrical & Electronic Engineering**
- General Equipment such as Projector, Screen, Desktop PC, Printer, Data Storage, Digital Camera and Handycam
 - Materials for practical such as Soldering Iron, Cable, Resistor, Potentiometer, Condenser, Multimeter, Transistor, etc.
 - Equipment for research such as Oscilloscope, Data Logger, Pyrometer, Weather Sensor, Electric Field Antenna, Integrator, Logic Analyzer, etc.

Some equipment are not used for a long time, UNTL FoEST must consider the way to fully utilize them.

Civil Engineering Department

Matrix of Joint Evaluation

Items	Target set in PDM	Progress/ Achievement	Challenges / Issues	Suggested Measures
<p>1. Project Objective The Faculty provides excellent education under appropriate management and operation.</p>	<ul style="list-style-type: none"> ✓ More than 70% of the students satisfy the education provided by the Faculty. ✓ Graduation rate of the Faculty improved. ✓ As a result of class evaluation, every subject get more than 60 points (60% of satisfaction) in average. 			
<p>2. Outputs 1. Environment for conducting lectures and experiments in the Faculty is improved.</p>	<ul style="list-style-type: none"> ✓ Curriculum for 4-year bachelor program is maintained according to national curriculum. ✓ More than 90% of syllabi are maintained according to the curriculum. ✓ Curriculum and syllabi are reviewed once a two year by the FDC. 			

P.L.

A

K

Items	Target set in PDM	Progress/ Achievement	Challenges / issues	Suggested Measures
	✓ More than 90 % of lecture note and job sheet is maintained according to the curriculum.			
2. Practical and research based final thesis is taught by teaching staff in the Faculty.	✓ Practical and research based final thesis is taught by the teaching staff. ✓ Outputs (documents) which summarized the result of final thesis are made annually.			
3. Faculty management system is improved.	✓ More than 80% of activities mentioned in the annual action plan is achieved. ✓ The achievement of the faculty management is reviewed every semester.			

※Qualitative data should be filled in "Progress/Achievement" if available.

92.

9

✓

Items	Merit	Problems / Challenges	Suggested Measures
<p>3. Activities</p> <p>1-1 Each department designs the curriculum for licensure program (4-year bachelor program), according to the national curriculum.</p> <p>1-2 The Faculty applies number of qualified teaching staff for introduction of licensure program.</p> <p>1-3 Teaching staff of the Faculty design the syllabus (syllabi) and teaching materials according to licensure program.</p> <p>1-4 Teaching staff learns appropriate teaching skills on the subjects introduced under licensure program.</p> <p>1-5 Faculty Development Committee (FDC) reviews curriculum and syllabus periodically, under licensure program</p> <p>1-6 Teaching staff conduct class evaluation at the initiative of FDC.</p>	<p>Yes, already made</p> <p>No</p> <p>General subject syllabus is under development, specific subject syllabus is accomplished in 100% for internal department but still modified with CADEFEST-UNTL</p> <p>All staff learns appropriate teaching skills</p> <p>FDC not active</p> <p>FDC not active</p>	<p>National curriculum for engineering there is has been some specific standards adapt european system from education ministries, is now using that curriculum prepared by the department of internal cooperation with CADEFEST-UNTL, but still to the combined the National level and department level.</p> <p>The staff are qualified and competent specialized field is not sufficient, S1 holder not supposed to teach S1 course's but it's really condition.</p> <p>The syllabus provided by the teachers sometimes conflict with the academic calendar for many holidays according calendars government work.</p> <p>Not efficiency for teaching, maximum three courses different per semester by every lecturc.</p> <p>Of engineering faculty No evaluation team for curriculum and syllabus, often done by the CADEFEST Project</p> <p>The Faculty authority not power to be organize</p>	<p>UNTL need to special studies to determine the standard curriculum for the study of civil engineering programs that are flexible, visionary science and technology, according to international standards.</p> <p>Need for capacity building of the staff according to the vision, mission UNTL. And proposal to 5 more lectures (S1 or S2)</p> <p>To be seen again between Academic calendars and government calendar by UNTL</p> <p>More efficiency one course per semester by every faculty.</p> <p>It should be submitted to the head of the center UNTL by Dean Faculty to be establish FDC</p> <p>Must organized by Dean Faculty but need support from UNTL center, the FDC members separated with actual structure.</p>

Items	Merit	Problems / Challenges	Suggested Measures
2-1 Teaching staff identifies research and investigation needs of the society.	Yes, often done	Transport, budget and matter of time	Should be done periodically and priorities according to budget
2-2 Teaching staff make research proposals for conducting research activity.	Yes, often done support by CADESFEEST-UNTL	limited of the time	Researching something important and personal volition investigators but need sufficient of the time
2-3 Teaching staff (and students) conduct practical research activity.	Yes, often done of final semester by student accompany by lecture	transportation readiness and financial plans	There is need for policies and strategies to plan research from UNTL
2-4 Teaching staff widely share the experience of practical research activity.	Yes, Often shared through academic advising	time and place of counseling research has not been well planned by the department	Need to provide room for the guidance of research in the department
2-5 Teaching staff (the faculty) establish the method of research activity for instructing to students.	Yes, is necessary and has been establish as the subject lecture	No	No
2-6 The Faculty introduces practical and research based final thesis to their students.	Yes, often done by faculty to student of every final semester	Student writing is often not timely research	There should be time limits by Department
2-7 Teaching staff evaluates the final thesis appropriately through the presentation conducted by the students.	Yes, often done for final semester, it is the obligation lecturer	The testers are often not on time because of transportation constraints	Need on time
2-8 Each department materializes students' final thesis into booklets so that it would be widely shared outside of UNTL.	No, Internal only	There is no departmental library	There should be a library by department

90.

X

X

Items	Merit	Problems / Challenges	Suggested Measures
3-1 The Faculty organizes committee for improvement of academic capacity based on the Statute.	Yes, really need	The Committee has not established by faculty	Need to be established by UNTL
3-2 The Faculty organizes committee for improvement of management capacity based on the Statute.	Yes, really need	The Committee has not established by faculty	Need to be established by UNTL
3-3 The committee for improvement of management capacity settles the annual action plan for improvement of management system of the Faculty.	Yes, really need	The Committee has not established by faculty	Need to be established by UNTL with a clarity of the mission
3-4 Teaching staff enhance the capacity of management of the Faculty according the action plan.	Yes, really need	Sometimes Personal commitment is inconsistent	Personal commitment are appreciated by the UNTL if the management system in a fair and equitable
3-5 The Faculty management committee reviews its status of faculty management periodically.	Yes, do not committee but deppartment is appreciated for regulary meeting of faculty	Sometimes There is no loyalty of management system	There should be an increase in loyalty

90

A

19

Electrical & Electronics Engineering Department

Matrix of Joint Evaluation

Items	Target set in PDM	Progress/ Achievement	Challenges / Issues	Suggested Measures
<p>1. Project Objective The Faculty provides excellent education under appropriate management and operation.</p>	<p>✓ More than 70% of the students satisfy the education provided by the Faculty.</p> <p>✓ Graduation rate of the Faculty improved.</p> <p>✓ As a result of class evaluation, every subject get more than 60 points (60% of satisfaction) in average.</p>	<p>For My opinion is: Increased students' satisfaction for education provided by the faculty.</p> <p>I hope need to improved Graduation rate by high level or 90%</p> <p>Every subject More than 50% point in average</p>	<p>Improved education system Provided of teaching material</p> <p>The ability of students understood the subject is low</p> <p>Teaching skill should be improved Problem also for Intermediate Language for students</p>	<p>Needed many training for teaching staf</p>
<p>2. Outputs 1. Environment for conducting lectures and experiments in the Faculty is improved.</p>	<p>✓ Curriculum for 4-year bachelor program is maintained according to national curriculum.</p> <p>✓ More than 90% of syllabi are maintained according to the curriculum.</p> <p>✓ Curriculum and syllabi are reviewed once a two year by the FDC.</p>	<p>30% curriculum for 4-years bachelor program are maintained</p> <p>Currently is need a new curriculum complete for licensure program</p> <p>Enough curriculum and syllabi are reviewed is needed</p>	<p>Difficult for us to recommended curriculum appropriate with our nesecity</p> <p>Now just 40% a new curriculum for licensure</p>	<p>Hope complete a new curriculum</p> <p>Hope should make completely</p>

97

7

12

Items	Target set in PDM	Progress/Achievement	Challenges / Issues	Suggested Measures
	✓			
	✓	More than 90 % of lecture note and job sheets are maintained according to the curriculum.	Curriculum is changes	Lecture should have job sheet
2. Practical and research based final thesis is taught by teaching staff in the Faculty.	✓	Practical and research based final thesis is taught by the teaching staff. Outputs (documents) which summarized the result of final thesis are made annually.	Lecturers needed more research training, lack of equipment	Increases number of trainees in Japan
3. Faculty management system is improved.	✓	More than 80% of activities mentioned in the annual action plan is achieved. The achievement of the faculty management is reviewed every semester.	Lack of financial resources Less than loyalty	Request to for budget Request to UNTL side

※Qualitative data should be filled in "Progress/Achievement" if available.

Items	Merit	Problems / Challenges	Suggested Measures
<p>3. Activities</p> <p>1-1 Each department designs the curriculum for licensure program (4-year bachelor program), according to the national curriculum.</p> <p>1-2 The Faculty applies number of qualified teaching staff for introduction of licensure program.</p> <p>1-3 Teaching staff of the Faculty design the syllabus (syllabi) and teaching materials according to licensure program.</p> <p>1-4 Teaching staff learns appropriate teaching skills on the subjects introduced under licensure program.</p> <p>1-5 Faculty Development Committee (FDC) reviews curriculum and syllabus periodically, under licensure program.</p> <p>1-6 Teaching staff conduct class evaluation at the initiative of FDC.</p>		<p>For EEE Department number of lecture is limited Lecture abroad to continue study every country.</p> <p>EEE Department Not enough teaching staff were allocated to licensure program</p> <p>EEE Department for teaching staff design the syllabus but sometimes not appropriated with academic calendar because many vocation day.</p> <p>EEE Department teaching skills need should be improved</p> <p>FDC not more activity</p> <p>Not have organized by UNTL side</p>	<p>Have a discussion with MOE</p> <p>Request to UNTL</p> <p>UNTL should improved academic calendar</p> <p>Make proposal research for human resources development plan</p> <p>EEE request to FDC</p> <p>Request to UNTL</p>

Items	Merit	Problems / Challenges	Suggested Measures
2-1 Teaching staff identifies research and investigation needs of the society.	EEE research and investigation need have been identified or not	Maybe linkage between UNTL and society need to be enhanced	Collaboration with society
2-2 Teaching staff make research proposals for conducting research activity.	Yes, number of research proposal have been composed	EEE not all lecture make research proposal	All lecture should be make proposal
2-3 Teaching staff (and students) conduct practical research activity.	Number of research activities have been conducted	EEE Not Yet teaching staff conducted with student	in the future hope teaching staff conducted with student
2-4 Teaching staff widely share the experience of practical research activity.	Seminar or meeting to share the experiences of research activities were held sometimes	Times is limited for teaching staff to shared for another side	Less than 2 subject for teaching staff to teach student
2-5 Teaching staff (the faculty) establish the method of research activity for instructing to students.	The method of research activity for instruction to students have be improved	EEE department not yet	Maybe in the future
2-6 The Faculty introduces practical and research based final thesis to their students.	The faculty has introduced practical and research based final theses to their student	Student are written is not timely for research	
2-7 Teaching staff evaluates the final thesis appropriately through the presentation conducted by the students.	Yes, students is presentations conducted for final theses	Student finished not on time	Finish on time
2-8 Each department materializes students' final thesis into booklets so that it would be widely shared outside of UNTL.	Yes, for final these student should be make compiled into booklets to divided by another side	Each department not have library	Library is importante by each department

Items	Merit	Problems / Challenges	Suggested Measures
3-1 The Faculty organizes committee for improvement of academic capacity based on the Statute.	The Department organized meeting if real needed	-The committee not have established by faculty	Hope need established by UNTL
3-2 The Faculty organizes committee for improvement of management capacity based on the Statute.	Yes, really needed	-not established by faculty	Established by UNTL
3-3 The committee for improvement of management capacity settles the annual action plan for improvement of management system of the Faculty.	Yes, needed	Not yet established by faculty	Should established by UNTL
3-4 Teaching staff enhance the capacity of management of the Faculty according the action plan.	Yes	Inconsistent	Personal commitment should be appreciate by UNTL management system to a fair and clearly
3-5 The Faculty management committee reviews its status of faculty management periodically.	Yes, have meeting every weeks	-Is not loyal for management system	Should be improved of management system

9.7.

h

R

Mechanical Engineering Department

Matrix of Joint Evaluation

Items	Target set in PDM	Progress/ Achievement	Challenges / Issues	Suggested Measures
<p>1. Project Objective The Faculty provides excellent education under appropriate management and operation.</p>	<ul style="list-style-type: none"> ✓ More than 70% of the students satisfy the education provided by the Faculty. ✓ Graduation rate of the Faculty improved. ✓ As a result of class evaluation, every subject get more than 60 points (60% of satisfaction) in average. 			
<p>2. Outputs 1. Environment for conducting lectures and experiments in the Faculty is improved.</p>	<ul style="list-style-type: none"> ✓ Curriculum for 4-year bachelor program is maintained according to national curriculum. ✓ More than 90% of syllabi are maintained according to the curriculum. ✓ Curriculum and syllabi are reviewed once a two year by the FDC. 			

9.7.

A

h

Items	Target set in PDM	Progress/ Achievement	Challenges / Issues	Suggested Measures
	<ul style="list-style-type: none"> ✓ More than 90 % of lecture note and job sheet is maintained according to the curriculum. 			
2. Practical and research based final thesis is taught by teaching staff in the Faculty.	<ul style="list-style-type: none"> ✓ Practical and research based final thesis is taught by the teaching staff. ✓ Outputs (documents) which summarized the result of final thesis are made annually. 			
3. Faculty management system is improved.	<ul style="list-style-type: none"> ✓ More than 80% of activities mentioned in the annual action plan is achieved. ✓ The achievement of the faculty management is reviewed every semester. 			

※Qualitative data should be filled in "Progress/Achievement" if available.

at.

1 R

✓

Items	Merit	Problems / Challenges	Suggested Measures
<p>3. Activities</p> <p>1-1 Each department designs the curriculum for licensure program (4-year bachelor program), according to the national curriculum.</p> <p>1-2 The Faculty applies number of qualified teaching staff for introduction of licensure program.</p> <p>1-3 Teaching staff of the Faculty design the syllabus (syllabi) and teaching materials according to licensure program.</p> <p>1-4 Teaching staff learns appropriate teaching skills on the subjects introduced under licensure program.</p> <p>1-5 Faculty Development Committee (FDC) reviews curriculum and syllabus periodically, under licensure program.</p> <p>1-6 Teaching staff conduct class evaluation at the initiative of FDC.</p>	<p>Yes, according to national curriculum</p> <p>Currently, have 16 active staffs of 24 lecturers. In future we required 6 more lecturers to complete department plan.</p> <p>Yes, 50% of the subjects already prepared the syllabus</p> <p>Yes, all teaching staffs teach based on their appropriate skills.</p> <p>Not yet. We just start the licensure program.</p> <p>Yes, by initiative of the JICA</p>	<p>Books, references are limited</p> <p>8 staffs still continuing their study abroad</p> <p>Books and references are limited</p> <p>Understanding of appropriate skill is still low</p> <p>FDC doesn't work well, because the chairperson absent.</p> <p>FDC doesn't work</p>	<p>Complete the books and references based on the subjects in the curriculum</p> <p>Improve qualified number of teaching staffs by upgrading their level of education (Master to Doctor degree)</p> <p>Books and references should be completed</p> <p>Improvement of teaching skill is needed. Training of specific skill should be continued</p> <p>Faculty structure should undertake FDC</p> <p>Responsible by faculty</p>

Items	Merit	Problems / Challenges	Suggested Measures
2-1 Teaching staff identifies research and investigation needs of the society.	No, but only some lecturer done their research base on industrial and society need.	No initiative of some teaching staffs to do research Limited time for investigation	UNTL should motivate teaching staffs to do research by preparing special budget for research
2-2 Teaching staff make research proposals for conducting research activity.	Yes, some lecturers	Limited of English language understanding No motivation of teaching staffs to do research	English language course Training of research methodology
2-3 Teaching staff (and students) conduct practical research activity.	Yes, all lecturers had background of practical research activity	Material for practical activity is not sufficient Practical equipments (machines) are not completed yet	Should provide materials for student practical activity Complete equipments for student's practical activity
2-4 Teaching staff widely share the experience of practical research activity.	Yes, seminar conducted by JICA and UNTL	Only few teaching staff doing research	Improve number of teaching staff for doing research
2-5 Teaching staff (the faculty) establish the method of research activity for instructing to students.	Yes, UNTL already establish the method of research for instructing students.	No final year of licensure students at the moment	All teaching staffs should follow the same method of research
2-6 The Faculty introduces practical and research based final thesis to their students.	Yes, all students made their thesis base on practical and Research method	Material for practical research is limited	Material for practical research should be completed
2-7 Teaching staff evaluates the final thesis appropriately through the presentation conducted by the students.	Yes, all final students have to defended their final thesis in front of team from Department		
2-8 Each department materializes students' final thesis into booklets so that it would be widely shared outside of UNTL.	Yes, they submitted to UNTL and Faculty, library and Department.		

Items	Merit	Problems / Challenges	Suggested Measures
3-1 The Faculty organizes committee for improvement of academic capacity based on the Statute.	Yes, but this Responsible by faculty (Dean) and UNTL	Low of academic capacity	Should be improved by specific training
3-2 The Faculty organizes committee for improvement of management capacity based on the Statute.	Yes, because Department structure are base on statute UNTL	Management capacity is still low	Should be improve
3-3 The committee for improvement of management capacity settles the annual action plan for improvement of management system of the Faculty.	Annual action plan for each Department manage by UNTL	Still not implemented completely	Should be implemented the annual action plan properly
3-4 Teaching staff enhance the capacity of management of the Faculty according the action plan.	Annual action plan manage by UNTL, but some point not realized	Lack of management	-
3-5 The Faculty management committee reviews its status of faculty management periodically.	Yes, base on regulation from Rector we have regular meeting for Department and faculty	-	-

99.

✓

✓

CADEFEST Project
Special Lecture, Seminar, Site Visit etc.
From February 2011 To March 2013

Annex 13

< Special Lecture >

	Date	Presenter	Topic	Number of Participant
1	2011.9.21	Mr. Joao Pedro DRBFC & Regional Director of Dili Regional Office, DRBFC	Site Management on Case Study	39
2	2011.12.12	Mr. Hideyoshi Fujiwara Katahira Engineering International	Basic for Structural / Mechanical Design	97
3	2012.2.23	Prof. Koichi Shimakawa Gifu University	Advances in amorphous semiconductor technologies	53
		Prof. Yasuo Okazaki Gifu University	Electromagnetic Environment and its Standardization	
4	2012.6.27	Instituto de Gestao do Equipamento Ministry of Public Works	Database System for Road Maintenance, GPS System	N/A
5	2013.2.5	Mr. Joao Pedro DRBFC & Regional Director of Dili Regional Office, DRBFC	Outline of Case Study	30
6	2013.2.23	Prof. Yasuo Okazaki	Electromagnetism in recent HV and EV (Hybrid/ Electric Vehicles)	26
		Prof. Kazuo Tanaka	How to solve a system of linear equations by the computer	

< Seminar >

	Date	Name of Seminar	Theme	Number of Participant
1	2011.9.29	1 st Research Seminar	Research Progress in JFY2011	68
2	2012.3.29	2 nd Research Seminar	Research Result in JFY2011	46
3	2012.11.22	3 rd Research Seminar	Research Progress in JFY2012	31
4	2013.3.7	4 th Research Seminar	Research Result in JFY2012	30

< Site Visit >

	Date	Site	Dept.	Number of Participant
1	2011.7.7	Power Plant in Hera	Electrical & Electronic Engineering	15
2	2011.9.30	Fatuahi 6.7Km CDRW Project site	Civil Engineering	6
3	2012.3.1	Bemos Dili Water Supply Plant	Civil Engineering	6
4	2012.6.27	IGE Machinery Management	Mechanical Engineering	N/A

< Dispatch of Technical Staff >

	Period	Name	Purpose
1	2012.8.20 – 2012.8.28	Mr. Tokuo Tsunoda Mr. Susumu Nagamatsu (Marutani Shiko Co. Ltd)	Installation and Operation Guidance of Hydraulic Testing Machine
2	2012.12.18 – 2012.12.22	Mr. Yoshihiro Otsuka (Kyonan Denki Co. Ltd)	Maintenance and Repair of Transmission Testing System

< Delegation from UNTL to other university >

	Period	Destination	Purpose	Member
1	2011.3.7 – 2011.3.9	Institut Teknologi Sepuluh Nopember (ITS) Surabaya, Indonesia	· Conclusion of MoU between UNTL and ITS · Monitoring UNTL lecturers who are studying in ITS	Vice Rector Dean CA, PC
2	2012.6.4 – 2012.6.6	Universitas Udayana (UNUD) Denpasar, Indonesia	· Observation of Faculty Management and related matters · International Cooperation	Vice Rector Dean Director of Dept. (3) Chief Adm. (2) CA, PC

< Dispatch Lecturer from UNTL to other university >

	Period	Name of Lecturer	Destination	Purpose
1	2013.1.26 – 2013.2.3	Frederico de Carvalho (EEE)	Universitas Andalas Padang, Indonesia	· Training on research method in the field of atmosphere of the lightning strike activity for protection purpose · Development future cooperation

Year	Department	Name of Researcher	Research Theme	Remarks
JFY 2011	Mechanical Engineering	Joviano Antonio da Costa Francisco Xavier Ximenes	Analysis of stress singularity field in 2D bonded structures of dissimilar material joint	
		Marfim Guimaraes	Experimental study on noise of Gear	
	Civil Engineering	Jose Maria C. Belo Ximenes Leandro Madiera Branco	Study of quality and strength of aggregate (Coarse and Fine agregate) in Timor leste	
		Lourenco Soares	Slope failure caused by rainfall and proposal of prevention in East Timor	
	Electrical & Electronic Engineering	Ruben Jeronimo Freitas	The Impacts of Environment and Tilted Angle of Solar Panel on Solar Insolation	
		Frederico de Carvalho	An experimental study on the characteristics of the lightning occurred in Timor-Leste and its application in designing Timor-Leste national lightning protection standard	
JFY 2012	Mechanical Engineering	Joviano Antonio da Costa Francisco Xavier Ximenes	Experimental analysis of stress singularity in 2D bonded structures of dissimilar material joint	Continual
		Marfim Guimaraes	Experimental study on noise of Gear	Continual
		Lelis Gonzaga Fraga	The Effect of the Object Shape on Drag Coefficient	
	Civil Engineering	Benjamin Hoppfer Martins	The relationship between landslide activity and the intensity of precipitation	
		Justino da Costa Soares Alfredo Ferreira Sergio Miguel Freitas	Analysis of River Characteristic at Dili	
	Electrical & Electronic Engineering	Ruben Jeronimo Freitas	The Impact of ambient and panel's temperature on the output performance of commercial silicon (Si) and amorphous solar panel in Timor Leste	Continual
		Frederico de Carvalho	An Experimental Study on the Characteristics of the Lightning occurred in Timor-Leste and its Application in designing Timor-Leste National Lightning Protection Standard	Continual

927.

		Abelito Filipe Belo	A study on the variability persist on the speed of wind for power generation in Timor Leste and their result data transmitted to wireless communication system	
JFY 2013	Mechanical Engineering	Joviano Antonio da Costa	Influence of adhesive thickness to the intensity of stress singularity in 3-D bonded structure of disciscosimilar material joint	Continual
		Marfim Guimaraes	Effects of transmission errors on noise and vibration of gears	Continual
		Francisco Xavier Ximenes	Study of the basic concepts of scaling, dimentional analysis and understanding of instrumented indentation measurements to material engineering	Continual
		Lelis Gonzaga Fraga Evangelinho Cadidio Gaio	The Effect of the Object Shape on Drag Coefficient	Continual
	Civil Engineering	Benjamin Hoppfer Martins Francisco Guterres	Geologic-geotechnic features and landslide mechanism along the Fatuahi Road	Continual
		Justino da Costa Soares Alfredo Ferreira Sergio Miguel Freitas	Analysis of Hydraulic Characteristic and Sediment Transportation at Becora River	Continual
	Electrical & Electronic Engineering	Ruben Jeronimo Freitas	A correlation between glass-transition temperature and micro-hardness in chalcogenide glasses	Continual
		Frederico de Carvalho	An Experimental Study on the Characteristics of the Lightning occurred in Timor-Leste and its Application in designing Timor-Leste National Lightning Protection Standard	Continual
		Abelito Filipe Belo	A study on the variability persist on the speed of wind for power generation in Timor Leste and their result data transmitted to wireless communication system	Continual

CADEFEST Project
JCC, JSUC
From February 2011 To March 2013

Annex 15

< JCC >

	Date	Place	Main Agenda	Number of Participant
1	2011.3.17	Conference Room Hotel Timor	- Introduction of FoEST, UNTL - Outline of the Project and Working Plan - Issues to be Discussed	32
2	2012.6.14	Conference Room Hotel Timor	- Progress of the CADEFEST Project - Working Plan for 2012 JFY - Report on Advisory Mission from Japan - Issues to be Discussed	30

< JSUC : Japanese Supporting University Committee >

	Date	Place	Main Agenda	Number of Participant
1	2011.5.16	Room #228 JICA HQs	- JSUC Management - Progress of CADEFEST Project - Working Report by Short Term Expert - Activity Plan for JFY2011	16
2	2012.4.23	Room #228 JICA HQs	- Election of new chairperson of JSUC - Progress of CADEFEST Project - Working Report by Short Term Expert - Activity Plan for JFY2012 - Discussion on Future Plan	12

9.7.

★
A

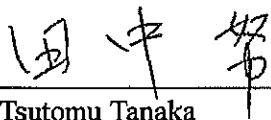
**MINUTES OF MEETING
BETWEEN
THE JAPANESE MID TERM REVIEW TEAM
AND
THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF
THE DEMOCRATIC REPUBLIC OF TIMOR-LESTE
ON
THE PROJECT FOR CAPACITY DEVELOPMENT
OF FACULTY OF ENGINEERING, SCIENCE AND TECHNOLOGY,
THE NATIONAL UNIVERSITY OF TIMOR-LOROSA'E (UNTL)**

The Japanese Mid Term Review Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA"), headed by Mr. Tanaka Tsutomu, conducted a study from April 1st to April 5th, 2013, for the purpose of the joint mid-term review on the Project for Capacity Development of the Faculty of Engineering, Science and Technology, the National University of Timor-Lorosa'e (hereinafter referred to as "the Project").

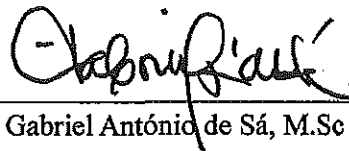
During its visit to the country of the Project, the Team had collected relevant data and information, and had a series of meetings and workshops with the authorities and organization concerned.

Based on the mentioned data and information, the Team had a series of discussions with the Timor-Leste authorities concerned. As a result of the discussions, the Team and the Timor-Leste authorities concerned agreed on the matters referred to in the document attached hereto.

Dili, April 5th, 2013

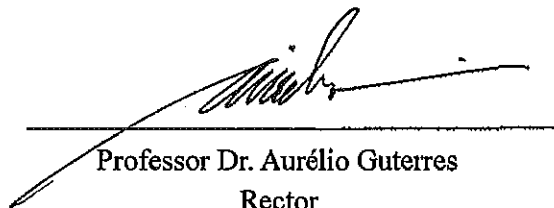


Mr. Tsutomu Tanaka
Team Leader
Mid Term Review Team
Japan International Cooperation Agency



Mr. Gabriel António de Sá, M.Sc
Dean
Faculty of Engineering, Science and
Technology
National University of Timor-Lorosa'e
Democratic Republic of Timor-Leste

(Witnessed by)



Professor Dr. Aurélio Guterres
Rector
National University of Timor-Lorosa'e
Democratic Republic of Timor-Leste

THE ATTACHED DOCUMENT

I. PROGRESS

As a result of discussion, both sides realized the following progress in the Project;

1. Output

Output 1 (Education):

The 4-year bachelor program (S1 Program) was commenced in 2012 as scheduled following the curriculum improved by the Project. Improvement of syllabi and other teaching materials has been underway. Faculty Development Committee needs to be further activated.

Output 2 (Research):

Capacity development of teaching staff has been progressing in view of teaching practical and research based final thesis of students in the S1 Program.

Output 3 (Management):

Clarification is necessary on definitions of terms and activities set in the Project Design Matrix(PDM) in order to be agreed by all concerned on what to achieve in the Output 3. Faculty management system needs to be improved.

2. Project Purpose

Project purpose of *"the Faculty provides excellent education under appropriate management and operation"* is likely to be achieved to a certain extent by the end of the Project (January, 2015) through the achievements of 3 outputs mentioned above. The reason for this certain reservation is because the whole cycle of the S1 Program will not be completed within the present project period, as the teaching of final thesis for the 1st intake students will start from 2015.

II. KEY ISSUES

As a result of discussions, both sides realized the following key issues;

1. Quality of Education

Under full collaboration and utilization of current capacity of teaching staff, it is necessary to take step-by-step approach of curriculum improvement of S1 Program for quality of education. Practice oriented education is still quite important for S1 Program to cater for the society of the country. Self-monitoring system of quality education is also needed to strengthen more.

Handwritten signatures and initials in black ink, including a stylized signature and the letters 'LST'.

2. Encouragement of Research Activities

Towards center of excellence for engineering in the country, all teaching staff are encouraged to carry out any research activities under possible topics as well as teaching and orientating students. Research activities are essential for quality of education and their career development.

3. Management of Department and Faculty Levels

In order to share the updated information among staff and run smooth management of any academic and administrative issues, regular meetings at each department and faculty level should be operated systematically, especially in the current rapid growing stage of the Faculty of Engineering, Science and Technology (FEST). Management and operation of department and faculty levels are desirable to be implemented based on Annual Action Plan. Faculty internal regulation to improve imbalance of work load among staff of FEST may be effective for faculty management in line with university regulation.

4. Staff Development (S1, S2, S3) with Long Term Strategy (full-swing stage)

In general, staff development takes time for getting S1, S2 and S3, and is indispensable to the next generation of university as the important intellectual asset. Therefore, staff development plan of FEST is desirable to be designed with long term strategy.

5. Clear Vision and Mission towards Attractiveness of FEST, UNTL

Clear vision and mission of FEST reflecting characteristics and uniqueness of locality of the country are desirable in order to become more attractive and nationally/internationally recognized faculty. It is expected that university education, research and outreach activities of FEST will be implemented under these vision and mission.

6. Faculty Development (FD)

Faculty Development (FD) means the general term of the systematic and practical method for a teaching staff of university to improve the contents and the method of class.

The Purpose of the Faculty Development Committee (FDC) is to improve educational contents and method systematically for better quality of the education of teaching staff in FEST. FD is in line with a strong quality assurance regulatory system of Timor-Leste Strategic Development Plan (2011-2030). FDC of FEST needs to be activated more after improving the operation system and contents although it has already been established in 2011.

7. Campus Environment

Although campus environment is improving year by year through all efforts of FEST, it is still needed to improve more, especially for the following items based on the voices of students and staff such as;

- Repair of Facilities (Roof, Ceiling, Toilet, etc.)
- Improvement of Basic Infrastructure (Water, Drainage, Electricity, Internet Services, etc.)
- Classroom (not enough), Staff Houses, Student Dormitory
- Maintenance of Equipment

III. RECOMMENDATIONS

Both sides agreed the following focus points for recommendations;

1. Acceleration of faculty development activities for quality of education
2. Encouragement of research activities for all teaching staff of possible topics
3. Systematic management and operation based on regular meetings at department and faculty levels under Annual Action Plan
4. Staff development plan (S1, S2, S3) with long term strategy
5. Improvement of campus environment
6. The investigation of PDM contents responding to the change of the S1 Program
7. Follow-up of "Suggested Measures" on PDM activities of each department

<Notes>

This Minutes of Meeting preliminarily explains a key point summary of the study team on the Mid Term Review for the Project. Details will be presented in the Joint Evaluation Report which will be prepared and agreed later.

Handwritten signatures and initials in the bottom right corner of the page. There are two distinct signatures, one appearing to be 'a' and the other a more complex cursive signature.

3. 評価グリッド (和)

評価グリッド「東ティモール国立大学工学部能力向上プロジェクト(CADEFEST-UNTLL)」中間レビュー用

評価項目	評価設問		必要なデータ	情報源	調査方法		
	大項目	小項目					
実績	アウトプットの達成度 プロジェクト目標の達成度(達成見込み)	アウトプット1の達成度:工学部における授業(講義・実験)の実施環境が改善する。	指標1-1:工学部の4年制学士プログラムのカリキュラムが国内標準カリキュラムに基づいて整備されているか 指標1-2:4年制学士プログラムのカリキュラムに、90%以上の科目でシラバスが整備されているか 指標1-3:ファカルティ・ディベロップメント委員会(FDC)により、2年ごとにカリキュラム、シラバスがレビューされているか 指標1-4:90%以上の授業において、工学部教官により講義ノート・実験実習書が整備されているか	改訂版カリキュラム、各種報告書、日本人専門家、C/P 改訂版カリキュラム・シラバス、各種報告書、日本人専門家、C/P 改訂版カリキュラム・シラバス、各種報告書、日本人専門家、C/P 講義ノート・実験実習書、各種報告書、日本人専門家、C/P	資料レビュー、質問票、インタビュー		
		アウトプット2の達成度:実践的な調査・研究活動に基づいて卒業研究指導が行われる。	指標2-1:4年制学士プログラムの下で、実践的な調査・研究活動に基づく卒業研究の指導が行われているか	各種報告書、日本人専門家、C/P	資料レビュー、質問票、インタビュー		
		アウトプット3の達成度:学部の管理体制が改善される。	指標3-1:学部(学科)の活動計画が80%以上達成されているか 指標3-2:学部(学科)の管理状況のレビューが毎学期ごとに実施されているか 活動計画を促進するための仕組み(Regulationなど)の現状	活動計画書、日本人専門家、C/P 活動計画書、日本人専門家、C/P 委員会の取極め(Regulation等)、日本人専門家、C/P	資料レビュー、質問票、インタビュー		
		プロジェクト目標の達成度(達成見込み)	プロジェクト目標:工学部が適切な管理運営の下で質の高い教育を提供する。	指標1:学生の70%以上が工学部の教育内容に満足する。 学生の教育内容への満足度を測る準備がなされているか 指標2:工学部の学生の卒業率が向上する。 学生の卒業率の統計の準備がなされているか 指標3:学生による授業評価の結果、各科目において平均60%以上の満足度を得る。 学生の授業評価の満足度を測る準備がなされているか	改訂版カリキュラム、各種報告書、C/P、学生 日本人専門家、C/P、学生 各種報告書、C/P、学生 日本人専門家、C/P、学生 各種報告書、C/P、学生	資料レビュー、質問票、インタビュー	
			投入実績	*C/Pの配置	配属人数と役割	日本人専門家、C/P、学生	
				*専門家の事務室、什器等の提供	専門家の事務室	各種報告書、C/P、学生	
				*プロジェクト実施に必要な諸経費の負担	プロジェクト実施のために配分された経費、設備、資材のリスト	日本人専門家、C/P、学生	

評価項目	評価設問		必要なデータ	情報源	調査方法			
	大項目	小項目						
実績	投入実績(続き)	<p>計画どおりに日本側からの投入はなされたか、なされなかった場合その理由は何か</p> <p>* 専門家派遣</p> <p>* 本邦研修への研修員受入</p> <p>* 第三国専門家</p> <p>* 機材</p> <p>* 現地活動費</p>	<p>必要データ</p> <p>各分野、人数、派遣期間、時期の投入内容</p> <p>研修内容、人数、期間</p> <p>分野、人数、期間</p> <p>種類と数量、投入目的</p> <p>活動予算と支出内容</p>	実績取りまとめ、各種報告書	資料レビュー			
			活動の進捗状況	<p>活動は計画どおりに行われたか</p> <p>活動の進捗に影響を与えた問題はあるか</p> <p>問題発生時にとられた対応</p>	実績取りまとめ、各種報告書、C/P、日本人専門家	資料レビュー、質問票、インタビュー		
			技術移転の方法	JICAによる技術移転の方法がC/Pにとって受け入れやすいものであったか	C/P	C/P	質問票、インタビュー	
			運営管理体制	プロジェクトの運営管理体制は、プロジェクト活動推進に効果的かつ効率的であったか	教育省並びにUNTILの業務状況、教育省、UNTIL及びプロジェクトとの連携体制、タスクフォースの業務状況、JICA本部、JICA東ティモール事務所、教育省におけるプロジェクトサポート体制、プロジェクトチームの実施体制	各種報告書、教育省、C/P、日本人専門家	資料レビュー、質問票、インタビュー	
			実施プロセス	意思決定・コミュニケーション	プロジェクトにおける意思決定、コミュニケーションはどのようなプロセスでなされたか、効果的に行われれば共有されたか	意思決定のプロセス(含むJCC)、日本人専門家同士、専門家とC/P、C/P同士とのコミュニケーションの頻度・方法、計画変更時の対応状況、共同で取り組む問題の解決方法、信頼関係の確立	各種報告書、教育省、C/P、日本人専門家	資料レビュー、質問票、インタビュー
					プロジェクトと日本の関係機関(JICA本部・東ティモール事務所、大使館)とのコミュニケーション、及び東ティモール側関係機関は効果的に行われたか	プロジェクトの、日本の関係機関、東ティモール側機関とのコミュニケーションの頻度・方法、計画変更時の対応状況、共同で取り組む問題の解決方法、協力内容、東ティモール側の主体性	各種報告書、教育省、C/P、日本人専門家	資料レビュー、質問票、インタビュー
			モニタリングの実施状況		定期的なモニタリングが行われたか、どのような方法で行われたか	モニタリング体制、モニタリングプラン、モニタリング記録	各種報告書、教育省、C/P、日本人専門家	質問票、インタビュー
					モニタリングの結果はどのようにプロジェクトの活動に反映されたか	モニタリング結果の活用状況	日本人専門家	質問票、インタビュー
					PDM、詳細活動に軌道修正が行われたか行われなかったかは、それは適切であったか	PDM修正の軌跡と変更理由、変更プロセス	各種報告書、教育省、C/P、日本人専門家	資料レビュー、質問票、インタビュー

評価項目	評価設問		必要なデータ	情報源	調査方法
	大項目	小項目			
1. 妥当性	オーナーシップ	本プロジェクト内での教育者とUNTILの権限・役割は明確か	教育省、UNTILの位置づけ(権限、役割、責任、他機関との関係)	教育省、C/P、日本人専門家	質問票、インタビュー
		東ティモール側責任者のプロジェクトマネジメントへの参加の度合いは適切か	東ティモール側責任者の意識と参加度合い		
		適切なC/Pが配置されたか	C/P配置についての日本人専門家の評価・満足度	日本人専門家	質問票、インタビュー
		C/Pのプロジェクト実施への参加は十分であったか	C/Pの活動状況(モニタリング・プロジェクト視察を含む)、専門家とのコミュニケーションの頻度(活動報告含む)	C/P、日本人専門家	資料レビュー、質問票、インタビュー
	プロジェクト計画の妥当性	C/P側の予算の配分は十分か	東ティモール側の投入実績	教育省、C/P、日本人専門家	
		上位目標及びプロジェクト目標と東ティモール教育開発政策との整合性はあ	東ティモールセクター投資計画、戦略的開発計画	東ティモールセクター投資計画、教育開発文書	資料レビュー
		上位目標と日本の開発援助政策との整合性はあ	日本の対東ティモール援助方針	対東ティモール個別援助計画、JICA対東ティモール事業実施計画、AW	
		プロジェクト対象校・学部・学科の選定は適切であったか	東ティモール国立工学部選定根拠・基準	事前調査報告書、日本人専門家	
		プロジェクト対象校、学部、学科では現在でもプロジェクトによる支援ニーズがあるか	東ティモール国立工学部におけるニーズ及び状況の変化	C/P、日本人専門家	資料レビュー、質問票、インタビュー
		ターゲットグループ(人)の選定は的確であったか	C/P機関及びターゲットグループの選定プロセス	事前調査報告書、教育省、C/P、日本人専門家	
手段の適切性	プロジェクトは対象校が質の高い教育を提供するための戦略として適切だったか	対象としての適切性、現地や日本のノウハウの活用状況、現地の状況に適した協力形態や方法の選択ができたか			資料レビュー、質問票、インタビュー
	プロジェクトデザインは適切だったか	計画された「活動」→「アウトプット」→「プロジェクト目標達成」→「上位目標達成」の論理性は適切だったか		事前調査報告書、PDM、C/P、日本人専門家	
日本の技術・ノウハウの比較優位性	協力内容・分野に対するJICAのこれまでの支援実績はあるか、知見が蓄積されているか	本分野における日本の過去の実績と経験・C/Pからの評価		JICA本部、C/P、日本人専門家	質問票、インタビュー
	プロジェクト開始以降プロジェクトをとりまく環境(他ドナーの援助動向含む)に変化はあったか、それによる影響はあったか	政策、経済、社会などの変化を示す情報、他ドナーの援助動向の推移		プロジェクト進捗報告書、教育省、C/P、日本人専門家	資料レビュー、質問票、インタビュー

評価項目	評価設問		必要なデータ	情報源	調査方法
	大項目	小項目			
2. 有効性	プロジェクト目標達成の見込み	プロジェクト目標の達成見込みはいかほどであるか プロジェクト目標の達成を促進・阻害する要因はあるか	プロジェクト指標の推移、プロジェクト実績及び進捗状況 促進要因、阻害要因と対処方法 4年制学士プログラムはポルトガル語が前提であるため別途支援を行っているポルトガル人講師との連携状況	各種報告書、C/P、日本人専門家、学生 各種報告書、C/P、日本人専門家	資料レビュー、質問票、インタビュー
	アウトプットとプロジェクト目標との因果関係	アウトプットはプロジェクト目標を達成するために十分であるか アウトプットからプロジェクト目標に至るまでの外部条件は現在においても正しいか 期待されたアウトプットを得るために予定された活動が適切に実施されたか アウトプット達成を阻害した要因はあるか	外部条件と因果関係から確認される計画の論理性 「4年制学士プログラムが導入されること」は満たされているか否か 「アウトプットの実績」及び「活動実績」 阻害要因と対処方法 (研修を受講した主要なC/Pの異動頻度含む) 「学則の下で新たに定められる工学部の細編課程」によって、教職員の人数、業務内容、待遇等に負の影響がもたらされないこと」は満たされているか否か 「留学中の教員が学位を取得して帰国すること」は満たされているか否か 「学部内の管理・運営体制改善に向けた予算が適切に配属されること」は満たされているか否か	各種報告書、C/P、日本人専門家 C/P、日本人専門家	資料レビュー、質問票、インタビュー 質問票、インタビュー
3. 効率性	投入、活動、アウトプットの因果関係	活動を実施するために過不足のない量・質の投入が適当なタイミングで実施されたか	「学部内の管理・運営体制改善に向けた予算が適切に配属されること」は満たされているか否か 専門家派遣(人数、分野、タイミング) 供与機材(種類、機種、数、タイミング) C/P配置(人数、分野、タイミング) C/P研修(人数、分野、回数、タイミング)と、研修受講者による同僚への研修内容の共有状況 活用されなかった投入の有無 活動実績、アウトプット達成実績	実績取りまとめ、各種報告書、C/P、日本人専門家 専門家	資料レビュー、質問票、インタビュー
	プロジェクト実施の費用対効果	費用対効果が高めるために、対象国・校のリソースや経験が有効に活用されているか 上記以外の方で有効な方策は採られているか	対象国、対象校の既存のフレームワーク・人材・機材などの活用例とその効果 その他効率性を高めるための方策 (募評評価基準では、①専門受派遣、②本邦研修、③在学事業強化費(研究助成、教材等購入)、④その他(他の援助機関・支援プロジェクトとの連携)の4つの観点から効率性を高めるとして実施状況)	C/P、日本人専門家 C/P、日本人専門家	質問票、インタビュー 質問票、インタビュー
	他ドナー、他スキームとの協調・連携	プロジェクトの効果を高めるために他ドナー及び他スキームとの協力・連携が効果的になされたか	他機関・スキームとの協力及び進捗状況	教育省、C/P、日本人専門家	質問票、インタビュー

評価項目	評価期間		必要なデータ	情報源	調査方法	
	大項目	小項目				
4. インパクト	上位目標達成の見込み	上位目標「工学部から地域社会に貢献する高度技術者を有する人材が輩出される」は、プロジェクト終了後3～5年で見込めるか	指標1：工学部の4年制学士プログラムの卒業生数が2018年までに600名を超える。	各種報告書、C/P、学生	資料レビュー、質問票、インタビュー	
		上位目標の達成を阻害する要因はあるか	指標2：2. 卒業生の60%以上が専攻分野に関連した業務に就業する。 就職データ整備状況	各種報告書、C/P、学生	資料レビュー、質問票、インタビュー	
	波及効果	上位目標の達成を阻害する要因はあったか	社会経済的要因、社会文化的要因、など	プロジェクト進捗報告書、C/P、日本人専門家	各種報告書、C/P、日本人専門家	資料レビュー、インタビュー
		想定されていたなかった正の影響はあったか	政策、法律、制度、基準等の整備、ジェンダー、人権、貧富など社会・文化的側面、技術面での変革、対象社会・プロジェクト関係者・受益者などへの経済的影響	各種報告書、C/P、日本人専門家	各種報告書、C/P、日本人専門家	資料レビュー、質問票、インタビュー
因果関係	想定されていたなかった負の影響はあったか	政策、法律、制度、基準等の整備、ジェンダー、人権、貧富など社会・文化的側面、技術面での変革、対象社会・プロジェクト関係者・受益者などへの経済的影響	プロジェクトロジック、外部条件の影響	各種報告書、C/P	資料レビュー、質問票、インタビュー	
	上位目標とプロジェクト目標に乖離はないか	外部条件は現時点でも正しく、満たされる可能性が高いか		PDM、各種報告書、C/P、日本人専門家		
政策面	プロジェクト終了後に政策的な支援が持続するか	プロジェクトが採用しているアプローチに関する東ティモール側の方針、今後の計画		教育省、C/P	質問票、インタビュー	
	本アプローチが今後対象校の活動として十分な予算が確保されるか	プロジェクトが採用しているアプローチが東ティモール国立大学の活動として盛り込まれる見込み、具体的な計画の有無		教育省、C/P		
組織面	現プロジェクト実施体制は、プロジェクト終了後も効果を上げる活動を実施するに足る組織能力があるか	東ティモール側(東ティモール政府、東ティモール国立大学)の本プロジェクトへの支出金割当率あるいは支出計画 外部資金獲得の可能性		各種報告書、教育省、C/P、日本人専門家	資料レビュー、質問票、インタビュー	
	配置・訓練された東ティモール側人員は留任するか 人員ローテーションの場合作業はあるか	教育省、対象大学におけるプロジェクトに対する認識の度合いと関与状況、プロジェクト関与に関する課題 FDGの機能状況 学部運営委員会の機能状況		各種報告書、C/P、日本人専門家		
技術面	プロジェクト関係者はプロジェクト終了後に独自で本プロジェクトのアプローチを展開、実施する能力・モチベーションを有しているか	公務員・教員の平均的ローテーション状況、C/Pローテーションの際の引き継ぎ状況		各種報告書、C/P、日本人専門家		
	プロジェクトで整備された校舍・資機材の維持管理は適切に行われているか	移転した技術の定着度、さらに必要とされる技術・能力、自力でプロジェクトを続けるモチベーションの有無 修士号を取得した教官グループによる研究活動実施状況 学生による研究グループ形成状況 地域・社会ニーズに対応した研究に係る外部関係者との連携・協力状況				
持続性	持続性の発現・阻害要因	プロジェクトで得られた効果が引き続き発現していくために必要な要因 (日本の大学との連携可能性など)		C/P、日本人専門家	質問票、インタビュー	
		プロジェクトで得られた効果が引き続き発現していくための阻害要因となるもの				



UNIVERSIDADE NACIONAL TIMOR LOROSA'E

UNTL



FACULDADE ENGENHARIA, CIÊNCIA E TECNOLOGIA
DEPARTAMENTO DE ENGENHARIA MECÂNICA

Horário do Primeiro Semestre

Salas de Aulas	Dias	Hóras	09:00-10:00	10:00-11:00	11:00-12:00	12:00-13:00	13:00-14:00	14:00-15:00	15:00-16:00	16:00-17:00
Segunda-feira										
Sala 7	Cadeira Prof.	Química para Engenharia, I/A	Vasco da Silva	Química para Engenharia, I/B	Vasco da Silva			Ética e Moral, I/A		
Sala 8	Cadeira Prof.	Cálculo I, I/B	Constância António Pinto, M.Eng	Cálculo I, I/A	Constância António Pinto, M.Eng			Cálculo Numérico, III/B		
Sala 9	Cadeira Prof.	Cálculo Numérico, III/A	Duarte da Costa Sarmento, M.Eng	Electricidade Básica, III/A	Gabriel António de Sá, M.Sc.			Física para Engenharia II, III/A		
Sala Oficina	Cadeira Prof.	Engineering Technical Drawing IV, V/A	Joao Sarmento Pinto, M.Eng	Engineering Technical Drawing IV, V/B	Joao Sarmento Pinto, M.Eng			Leis Gonzaga Fraga, M.Eng		
Oficina	Cadeira Prof.	Laboratório Mecânica V, V/B	Equipa					Desenho Basica, I/B		
Sala 7	Cadeira Prof.	Geometria Analítica e de Vetores, III/B	Equipa	Estadística Aplicada à Engenharia, III/B				Adalberto Guterres da Silva Ximenes, M. Eng		
Sala 8	Cadeira Prof.	Joviano A. da Costa, M.Eng	Física Basica, I/A	Evangelino Candido Gaio, M.Eng				Computer Programming, V/A		
Sala 9	Cadeira Prof.	Felix de Oliveira, M.Eng	Engenharia Dinâmica, III/A	Termodinâmica, III/A				Francisco Xavier Ximenes, B.E.Mc		
Sala Desenho	Cadeira Prof.	Marfim Guimarães, M.Eng	Engineering Technical Drawing IV, V/B	Felix de Oliveira, M.Eng				Ética Moral, I/B		
Oficina	Cadeira Prof.	Joao Sarmento Pinto, M.Eng	Laboratório Mecânica V, V/A	Equipa				Deformação Plástica, V/A		
Sala 7	Cadeira Prof.	Física Basica, I/B	Português, I/B					Joviano Antonio da Costa, M. Eng		
Sala 8	Cadeira Prof.	Felix de Oliveira, M.Eng	Português, I/A	Paulino Marques Cabral, M.Eng				Estadística Aplicada à Engenharia, III/A		
Sala 9	Cadeira Prof.	Paulino Marques Cabral, M.Eng	Elementos de Máquinas I, III/A	Automotive Engine System, V/A				Evangelino Candido Gaio, M.Eng		
Sala Desenho	Cadeira Prof.	Antonio Pedro Belo, M.Eng	Antonio Pedro Belo, M.Eng	Paulino Marques Cabral, M.Eng				Desenho Basica, I/A		
Oficina	Cadeira Prof.	Laboratório Mecânica III, III/B	Equipa					Adalberto Guterres da Silva Ximenes, M. Eng		
Sala 7	Cadeira Prof.	Inglês, I/A	Inglês, I/A	Inglês, I/B				Computer Programming, V/B		
								Francisco Xavier Ximenes, B.E.Mc		
								Automotive Engine System, V/B		
								Mario Marques Cabral, M.Eng		
								Geometria Analítica e de Vetores, III/A		
								Joviano A. da Costa, M.Eng		
								Desenho Mecânico, III/B		
								Joao Sarmento Pinto, M.Eng		
								Tetum, I/A / V/A		

Sala 8	Prof.	Paulo da Silva, M.Eng	Paulo da Silva, M.Eng	Agostinho de Sousa
Sala 9	Prof.	Introdução à Enge. Mecânica, I/B	Piping Engineering, V/B	Heat Transfer, V/B
Oficina	Cadeira	Paulino Marques Cabral, M.Eng	Lelis Gonzaga Fraga, M.Eng	Joaquim da Costa, M.Eng
	Prof.	Elementos de Máquinas I, II/B	Termodinâmica, III/B	Engenharia Dinâmica, III/B
	Cadeira	Antonio Pedro Belo, M.Eng	Felix de Oliveira, M.Eng	Marfim Guimaraes, M.Eng
	Prof.	Laboratório Mecânica III, III/A	Equipa	Laboratório Mecânica I, I/B
Sala 7	Cadeira	Introdução à Enge. Mecânica, I/A	Piping Engineering, V/A	Equipa
	Prof.	Paulino Marques Cabral, M.Eng	Lelis Gonzaga Fraga, M.Eng	Tetum, I/B / VB
Sala 8	Cadeira	Heat Transfer, V/A	Deformation Plastics, V/B	Agostinho de Sousa
	Prof.	Joaquim da Costa, M.Eng	Joviano Antonio da Costa, M.Eng	Física para Engenharia II, III/B
Sala 9	Cadeira	Electricidade Básica, III/B		Lelis Gonzaga Fraga, M.Eng
	Prof.	Gabriel António de Sá, M.Sc.		
Oficina	Cadeira	Desenho Mecânico, III/A		
	Prof.	Joao Sarmento Pinto, M.Eng		Laboratório Mecânica I, I/A
				Equipa

Dili, 5 de Marco de 2013

António Pedro Belo, M. Eng
Vice Diretor do Departamento de Engenharia Mecânica



UNIVERSIDADE NACIONAL TIMOR LOROSAE
FACULDADE DE ENGENHARIA, CIÊNCIAS E TECNOLOGIA
DEPARTAMENTO DE ENGENHARIA CIVIL

NOR HORARIO DO 1º E 3º SEMESTRE DA LICENCIATURA - ANO LECTIVO 2013

DIA	HORAS	1º SEMESTRE (Licenciatura) - SALA 1						3º SEMESTRE (Licenciatura) - SALA 2						
		TURMA A			TURMA B			TURMA A			TURMA B			
		DISCIPLINAS	Docente	Sala	DISCIPLINAS	Docente	Sala	DISCIPLINAS	Docente	Sala	DISCIPLINAS	Docente	Sala	
Segunda - feira	09.00-09.50	Português I	G	S1				Mecânica Geral II	L10	S2				
	09.50-10.40	Português I	G	S1				Mecânica Geral II	L10	S2				
	10.40-10.55	Intervalo												
	10.55-11.45	Geologia para Eng.	L6	S1				ENCONTRO ROTINA DO DEPARTAMENTO						
	11.45-12.35	Geologia para Eng.	L6	S1										
	12.35-13.35	Intervalo												
	13.35-14.25				Geologia para Eng.	L6	S1							
	14.25-15.15				Geologia para Eng.	L6	S1					Mecânica dos Solos I	L15	S2
	15.15-16.30	Intervalo												
	16.30-16.20				Português I	G	S1					Mecânica dos Solos I	L15	S2
	16.20-17.10				Português I	G	S1					Mecânica dos Solos I	L15	S2
	Terça - feira	09.00-09.50	Alg. e Geom. Analítica	L6	S1							Materiais de construção Civil II	L3	S2
		09.50-10.40	Alg. e Geom. Analítica	L6	S1							Materiais de construção Civil II	L3	S2
		10.40-10.55	Intervalo											
		10.55-11.45	Alg. e Geom. Analítica	L6	S1							Resistência dos Materiais I	L5	S2
11.45-12.35					Alg. e Geom. Analítica	L6	S1				Resistência dos Materiais I	L5	S2	
12.35-13.35		Intervalo												
13.35-14.25					Alg. e Geom. Analítica	L6	S1				Resistência dos Materiais I	L5	S2	
14.25-15.15					Alg. e Geom. Analítica	L6	S1				Resistência dos Materiais I	L5	S2	
15.15-15.30		Intervalo												
15.30-16.20		Etica e Cidadania	G	S1	Etica e Cidadania	G	S1				Materiais de construção Civil II	L3	S2	
16.20-17.10		Etica e Cidadania	G	S1	Etica e Cidadania	G	S1				Materiais de construção Civil II	L3	S2	
Quarta - feira		09.00-09.50	Desenho Básico	L12	S1	Studio Física para Eng. I	L7	S1				Topografia II	L6	S2
		09.50-10.40	Desenho Básico	L12	S1	Studio Física para Eng. I	L7	S1				Topografia II	L6	S2
		10.40-10.55	Intervalo											
		10.55-11.45	Desenho Básico	L12	S1	Studio Inglês I	G	S1				Topografia II	L6	S2
	11.45-12.35	Desenho Básico	L12	S1	Studio Inglês I	G	S1					Mecânica dos Fluidos	L13	S2
	12.35-13.35	Intervalo												
	13.35-14.25										Hidrologia I	L13	S2	
	14.25-15.15										Hidrologia I	L13	S2	
	15.15-15.30	Intervalo												
	15.30-16.20				Telun	G	S1					Mecânica Geral II	L10	S1
	16.20-17.10				Telun	G	S1					Mecânica Geral II	L10	S1
	Quinta - feira	09.00-09.50				Calculo I	G2	S1						
		09.50-10.40				Calculo I	G2	S1						
		10.40-10.55	Intervalo											
		10.55-11.45				Calculo I	G2	S1					Topografia II	L6	S2
11.45-12.35		Calculo I	G2	S1							Mecânica dos Solos I	L16	S2	
12.35-13.35		Intervalo												
13.35-14.25		Calculo I	G2	S1	Desenho Básico	L12	S1				Mecânica dos Solos I	L16	S2	
14.25-15.15		Calculo I	G2	S1	Desenho Básico	L12	S1				Mecânica dos Solos I	L16	S2	
15.15-15.30		Intervalo												
15.30-16.20		Inglês I	G	S1	Desenho Básico	L12	S1				Mecânica dos Fluidos	L13	S2	
16.20-17.10		Inglês I	G	S1	Desenho Básico	L12	S1				Mecânica dos Fluidos	L13	S2	
Sexta - feira		09.00-09.50	Física para Eng.	L7	S1							Mecânica Estrutural I	L5	S2
		09.50-10.40	Física para Eng.	L7	S1							Mecânica Estrutural I	L5	S2
		10.40-10.55	Intervalo											
		10.55-11.45	Telun	G	S1								Mecânica Estrutural I	L5	S2
	11.45-12.35	Telun	G	S1								Mecânica Estrutural I	L5	S2
	12.35-13.35	Intervalo												
	13.35-14.25										Etica e Cidadania	S1		S2
	14.25-15.15										Etica e Cidadania	S1		S2
	15.15-15.30	Intervalo												
	15.30-16.20										Química para Eng.			S2
	16.20-17.10										Química para Eng.			S2
	Sabado	Feriado												

L1 = Paulo da Silva M.Eng.
L2 = Leandro M. Branco BCC
L3 = Jose Maria M.Eng.
L4 = Lourenco Soares, ST, M. Eng
L5 = Ir. Leonel da Silva G. M., M.Eng.
L6 = Benjamin Martins, ST, M. Eng.
L7 = Hugo da Costa Ximenes, ST

L8 = Sergio M. Freitas, ST
L9 = Humbelina Melo BCC
L10 = Marcelo Marques BCC
L11 = Alfredo Ferreira
L12 = Francisco G. O. Ximenes
L13 = Justina da Costa Soares, M. Eng.
L14 = Aleixo Sarmiento, ST

L15 = M. Renato Monteiro da Cruz
G1 = Agostinho da Sousa
G2 = Joao Fernandes Soares
G3 = Vasco da Silva
G4 =

2013年3月20日
Director do Departamento Eng. Civil

(Paulo da Silva)



UNIVERSIDADE NACIONAL TIMOR LOROSAE
FACULDADE DE ENGENHARIA, CIÊNCIAS E TECNOLOGIA
DEPARTAMENTO DE ENGENHARIA CIVIL

HORARIO DO 5º SEMESTRE DO BACHARELATO - ANO LECTIVO 2013

DIA	HORAS	5º SEMESTRE (Bacharelato) - SALA 3					
		TURMA A			TURMA B		
		DISCIPLINAS	Docente	Sala	DISCIPLINAS	Docente	Sala
Segunda - feira	09.00-09.50	Água e Saneamento	L8	S3			
	09.50-10.40	Água e Saneamento	L8	S3			
	10.40-10.55	Intervalo					
	10.55-11.45				Construção de Rodovias II	L9	S3
	11.45-12.35				Construção de Rodovias II	L9	S3
	12.35-13.35	Intervalo					
	13.35-14.25	Gestão do projecto II	L1	S3			
	14.25-15.15	Gestão do projecto II	L1	S3			
	15.15-15.30	Intervalo					
	15.30-16.20				Gestão do projecto II	L1	S3
16.20-17.10				Gestão do projecto II	L1	S3	
Terça - feira	09.00-09.50	Drenagem	L11	S3			
	09.50-10.40	Drenagem	L11	S3			
	10.40-10.55	Intervalo					
	10.55-11.45	Fiel study	L15	S3			
	11.45-12.35	Fiel study	L15	S3			
	12.35-13.35	Intervalo					
	13.35-14.25				Fiel study	L15	S3
	14.25-15.15				Fiel study	L15	S3
	15.15-15.30	Intervalo					
	15.30-16.20	Construção de Aço II	L14	S3			
16.20-17.10	Construção de Aço II	L14	S3				
Quarta - Feira	09.00-09.50				Estruturas de Madeira	G2	S3
	09.50-10.40				Estruturas de Madeira	G2	S3
	10.40-10.55	Intervalo					
	10.55-11.45	Estruturas de Madeira	G2	S3			
	11.45-12.35	Estruturas de Madeira	G2	S3			
	12.35-13.35	Intervalo					
	13.35-14.25				Educação Cívica	G1	S3
	14.25-15.15				Educação Cívica	G1	S3
	15.15-15.30	Intervalo					
	15.30-16.20	Educação Cívica	G1	S3			
16.20-17.10	Educação Cívica	G1	S3				
Quinta - Feira	09.00-09.50	Teste dos Materiais	L3	Lab	Economia de Engenharia	L1	S3
	09.50-10.40	Teste dos Materiais	L3	Lab	Economia de Engenharia	L1	S3
	10.40-10.55	Intervalo					
	10.55-11.45	Teste dos Materiais	L3	Lab	Construção de Aço II	L14	S3
	11.45-12.35	Teste dos Materiais	L3	Lab	Construção de Aço II	L14	S3
	12.35-13.35	Intervalo					
	13.35-14.25				Construção de Betão Armado II	L5	S3
	14.25-15.15				Construção de Betão Armado II	L5	S3
	15.15-15.30	Intervalo					
	15.30-16.20	Construção de Betão Armado II	L5	S3			
16.20-17.10	Construção de Betão Armado II	L5	S3				
Sexta - Feira	09.00-09.50	Economia de Engenharia	L1	S3	Teste dos Materiais	L3	Lab
	09.50-10.40	Economia de Engenharia	L1	S3	Teste dos Materiais	L3	Lab
	10.40-10.55	Intervalo					
	10.55-11.45	Construção de Rodovias II	L9	S3	Teste dos Materiais	L3	Lab
	11.45-12.35	Construção de Rodovias II	L9	S3	Teste dos Materiais	L3	Lab
	12.35-13.35	Intervalo					
	13.35-14.25				Drenagem	L11	S3
	14.25-15.15				Drenagem	L11	S3
	15.15-15.30	Intervalo					
	15.30-16.20				Água e Saneamento	L8	S3
16.20-17.10				Água e Saneamento	L8	S3	
Sabado	Feriado						

- L1 = Paulo da Silva M.Eng.
- L2 = Leandro M. Branco BCC
- L3 = Jose Maria M.Eng.
- L4 = Lourenço Soares, ST, M. Eng
- L5 = Ir. Leonel da Silva G. Madeira, M.Eng.
- L6 = Benjamin Martins, ST, M. Eng.
- L7 = Hugo da Costa Ximenes, ST
- L8 = Sergio M. Freitas, ST
- L9 = Humbelinho Mala BCC
- L10 = Marcelo Marques BCC

- L11 = Alfredo Ferreira
- L12 = Francisco G. O. Ximenes
- L13 = Justino da Costa Soares, M. Eng.
- L14 = Alejo Sarmiento, ST
- L15 = M. Renato Monteiro da Cruz, M. Eng.
- G1 = Agostinho de Sousa
- G2 = Joao Fernandes Soares, ST.
- G3 =
- G4 =

2013年3月20日
Director do Departamento Eng. Civil

(Paulo da Silva)

Educational Objectives and Curriculum of Department of Mechanical Engineering

1. National University of Timor-Lorosa'e

Objectives: Vision

- Center of excellence for higher education in Timor-Leste

Objectives: Mission

- Achieving excellence through academic activities, community service research and competitive by adopting global practices in higher education;
- Make quality as a way of life and cultural appealing;
- Promote national identity and human values through the spread of the Timorese language and culture;
- Accelerating scientific activities by creating synergies in contemporaneous multilateral fields;
- Develop the general welfare of its members, through physical interventions, psychological and spiritual;
- Develop all the capabilities to provide a transparent administration and able, through good governance practices

2. Faculty of Engineering, Science and Technology

Objectives: Vision

- Center of excellence for science & technology in Timor-Leste
- Producing technocrat community based on country culture

Objectives: Mission

- All teaching staff with at least master degree;
- They perform as lecturers;
- Some teaching staffs with doctor degree;
- All teaching staffs conduct research for country development;
- Fulfill all minimum requirement for quality academics
- Students could conduct research activities;
- Producing intellectual and professional strong graduates for country development;
- All members stay in Hera campus;
- Teaching staffs and students should respect and follow the internal regulation of UNTL academic regulation;
- Update the curriculum;
- Organize adequate engineering education system for country sustainable development

3. Department Mechanical Engineering

Objectives: Vision

- Center of excellence in developing the technology of mechanical engineering in the field of conversion energy, manufacture, metallurgy, design, and general mechanics based on moral, spiritual value, and global competitiveness

Objectives: Mission

- Developing and implementing appropriate engineering education, labo-based research and community services to enhance the quality of science and technology to support country development with moral and spiritual value (education process);

- Producing graduates with the knowledge of mechanical engineering, capable to develop knowledge and skills independently, creative and innovative in their efforts to contribute positively to country development (graduate attribute
- Developing and implementing a curriculum that is dynamic and accommodating to the needs of the society (relevance);
- Developing the appropriate technology for country and developing science and technology in the mechanical engineering to compete in national and regional level (competitiveness);
- Collaborations and networking with local / national / international industries, society, government institutions, international agencies, etc (capacity building);
- To provide non-formal education (short term training, workshops, internships, etc) to the community to solve routine problems

Curriculum arrangement

- Based on the lecturer's workload and student study load, then S1 (Licenciatura) program will be performed in 8 semesters with total credito of 144;
- The load for each semester will be 18 credito (this is equivalent to 54 hours student study load per week);
- Ideally for each semester there are 6 courses @ 3 credito, each course will be handled by individual lecturer or team teaching, praktikum should be attached to the related courses;
- One semester lasts normally for 16 – 18 weeks

Curriculum of Department of Mechanical Engineering

Semester 1		Semester 2	
Subject	Credit	Subject	Credit
General Portugese	2	Technical Portugese	2
General English	2	Technical English	2
Ethics and moral	2	Human rights	2
Tetum	2	Calculus II	3
Calculus I	3	Linear algebra	2
Basic drawing	2	Engineering physics	2
Intro to Eng Mech	2	Engineering measurement	2
Basic physics	2	Statics 1 (2)	2
Chemistry	2	Laboratory (Mechanics II	1
Laboratory (Mechanics I)	1	Engineering material	2
Total	20	Total	20

Semester 3		Semester 4	
Subject	Credit	Subject	Credit
Vector analysis	2	Strength of materials	2
Engineering drawing II	2	Machine elements II	2
Engineering statistics	2	Basic electronics	2
Statics II	2	Fluid mechanics	2
Machine elements I	2	Theory of vibration	2
Numerical method	2	Engineering mathematics	3
Basic electrical engineering	2	Maintenance of technical installation	2
Thermodynamics	2	Laboratory (Mechanics)	1
Dynamics of machinery	2	Applied thermodynamics	2
Laboratory (Mechanics 3)	1	Energy conversion machinery	2
Total	19	Total	20

Semester 5		Semester 6	
Subject	Credit	Subject	Credit
Engineering computation	3	Automatic system (3)	3
Thermal engines	2	Ergonomics and work safety (2)	2
Mechanical metallurgy	2	Manufacturing processes (3) (2)	2
Piping and pipe installation	2	Hydraulics and pneumatic system (2)	2
Maintenance management	2	Electives 1 (3)	3
Fundamental of solid mechanics	2	Computer project (2)	2
Laboratory (Mechanics 5)	1	Laboratory (Mechanics 6) (1)	1
Heat transfer I	2	Heat transfer 2 (2)	2
Research methodology	2	Labor law (2)	2
Total	18	Total	19

Semester 7		Semester 8	
Subject	Credit	Subject	Credit
Factory plant layout	2	Industrial management	3
Environmental energy management	2	Field study / industrial practice	2
Integrated project management	2	Electives IV	3
Electric Power engineering	3	Final project	4
Electives II	3		
Electives III	3		
Final project (proposal)	1		
Total	16	Total	12

Total credit : 144

Remarks on ME curriculum

- Solid mechanics should not be for Licenciatura level;
- Engineering economics should be included;
- Maintenance of technical installation is not well defined, it is better to have other more important course;
- The sequence of course delivery between semester has to be revised so that it becomes more realistic, e.g. thermal engine should be taught after the students understand heat

transfer 1 and 2;

- It is suggested that engineering mechanics should replace engineering physics since engineering mechanics is more appropriate for ME curriculum.

Curriculum development

- Avoid ego-centric approach by lecturers or faculty members;
- Agree upon the graduate qualification and/or attribute and/or profile of competences;
- Graduate qualification should be aligned with vision and mission of related department;
- Identify and describe the core competences to be acquired by the graduate
- Identify and describe relevant basic (or universal) courses to support core competences;
- Avoid of creating 'new' courses, maximize the utilization of existing and well proven courses or text books or references or code standards
- Learn from other experiences, especially from well known and well respected institution (never reinvent the wheel for 2nd time)
- Independent of lecturers / faculty members availability, curriculum will drive capacity development of the lecturers / faculty members;
- Curriculum will not depend on the qualification of lecturers /faculty members; but will depend on the graduate attribute / competences / qualifications;
- Lecturers / faculty members will aligned themselves towards curriculum
- What is curriculum ? It is a descriptive program conducted by a department to produce graduates with certain competences / attributes / qualifications;
- It is not just a list of topics / subjects, but it has to describe the content and the methodology of delivery so that the subject will properly be understood and acquired by students;
- Assessment process is part of the cur
- Pay attention to the workload of lecturers and study load of students, curriculum operation should be conducted within the normal capacity of lecturers and within the normal absorption capacity of students;
- Remember that lecturers workload is approximately 40 hours per week, and students study load is approximately 54 hours per week

Syllabus of Static I.....

Department of Mechanical..... Engineering

Code	.....	Academic year	2013
Subject	Static I		
Instructor	Francisco Xavier		
Division	Material Science		
Unit	2	Required subject	Physics
Semester	2		
Day	Tuesday	Time	11.00 – 13.00
Room	7		
Related subjects	Engineering material, engineering physics, engineering measurement		
Prior knowledge and/or skills	Physics		
Theme	Forces, moments, equilibrium, free body diagram		
Objectives/Aim	Understanding the phenomena of statics and static structure and loading including action-reaction		
Relation and importance of this subject to the objectives of department	This course is one of the foundations for other mechanics and material related courses		
Goal	To understand static structure To understand forces and moments To understand static determinant structure (simply supported) and static indeterminate (rigidly supported) structure To understand equilibrium of forces and moments To solve for reaction forces To apply in solving simple structural problem		
Keywords	Forces, moments, equilibrium, structure		
Teaching method	Lecture and discussion using whiteboard/blackboard and/or projector		
Outline	1. Introduction 2. Definition of structure 3. Forces and moments 4. Equilibrium of forces and moments 5. Solution for reaction forces and moments 6. Simply supported structure (part 1) 7. Simply supported structure (part 2) 8. Midterm evaluation		

	<ul style="list-style-type: none"> 9. Rigidly supported structure (static indeterminate) part 1 10. Rigidly supported structure (static indeterminate) part 2 11. Axial rod 12. Truss structure 13. Beam 14. Frame structure 15. Torsional member 16. Final examination
Grading	Midterm examination : 35%, final examination: 60%, attendance: 5%
Criterion for grading	A: 85-100, B: 75-84.9, C: 60-74.9, D: 45-59.9 E: 0-44.9 (please review)
Textbook	Hibbeler, Engineering Statics
Reference books	Any book on Engineering Statics
Office hours	.....
Telephone number	.....
E-mail address	.....
URL, and others	.....

Syllabus of Engineering Materials.....

Department of Mechanical..... Engineering

Code	.....	Academic year	2013
Subject	Engineering Materials		
Instructor	Gabriel Antonio de Sa		
Division	Material engineering		
Unit	2	Required subject	Physics, chemistry
Semester	2		
Day		Time	
Room			
Related subjects	Engineering measurement, mechanical metallurgy, manufacturing processes		
Prior knowledge and/or skills	Physics, chemistry		
Theme	Microstructure, composition, alloying, heat treatment		
Objectives/Aim	Understanding the phenomena of microstructure, composition, alloying, heat treatment		
Relation and importance of this subject to the objectives of department	This course is one of the foundations for other related courses on metallurgy, materials, manufacturing processes		
Goal	To understand metal and non metal materials To understand iron and steel production processes To understand heat treatment of steel To understand material synthesis To understand corrosion protection To understand light weight metals		
Keywords	Material composition and properties, heat treatment, material production processes (casting, forging, etc)		
Teaching method	Lecture and discussion using whiteboard/blackboard and/or projector; laboratory work		
Outline	<ol style="list-style-type: none"> 1. Introduction 2. Metal and non-metal 3. Iron production 4. Iron production 5. Steel production 6. Kind of steel and combination (alloying) 7. Cast iron and wrought iron 8. Midterm evaluation 9. Heat treatment of steel 10. Molding and casting 		

	11. Elements combination and influence of steel 12. Influence to element combination 13. Light and weight metal 14. Material synthesis 15. Corrosion protection 16. Final examination
Grading	Midterm examination : 35%, final examination: 40%, laboratory score: 25%
Criterion for grading	A: 85-100, B: 75-84.9, C: 60-74.9, D: 45-59.9 E: 0-44.9 (please review)
Textbook	Hari Amanto and Daryanto, Metallurgy Science
Reference books	Hancoak, Engineering materials and processes Mendes Ribeiro, Mecanotécnica
Office hours	.....
Telephone number	.....
E-mail address	.....
URL, and others	.....

Syllabus of Basic Electrical Engineering.....

Department of Mechanical Engineering

Code	.....	Academic year	2013
Subject	Basic Electrical Engineering		
Instructor	Mario Marques Cabral		
Division	Basic engineering		
Unit	2	Required subject	Physics
Semester	3		
Day		Time	
Room			
Related subjects	Basic electronics, engineering measurement, laboratory		
Prior knowledge and/or skills	Physics		
Theme	Alternating current, direct current, resistor, conductor, capacitor, voltage		
Objectives/Aim	Understanding the phenomena of alternating current, direct current, resistor, conductor, capacitor, voltage		
Relation and importance of this subject to the objectives of department	This course is one of the foundations for other related basic electrical and electronic courses, for laboratory and measuring instruments, and for basic electrical installation		
Goal	To understand alternating current To understand direct current To understand resistor, capacitor, conductor To understand voltage and current measurement To understand electrical power To understand electrical installation and safety procedure		
Keywords	Alternating current, direct current, power, voltage, installation		
Teaching method	Lecture and discussion using whiteboard/blackboard and/or projector; laboratory work		
Outline	<ol style="list-style-type: none"> 1. Introduction to electrical terminology 2. Resistor 3. Electrical energy and power 4. Efficiency 5. Magnetic theory 6. Accumulator 7. Kirchoff law 8. Midterm evaluation 9. Electrical Static 10. Resistance in AC 11. Capacitive reactance/resistance 		

	<p>12. Resistance in DC</p> <p>13. Relation between induction windings and ohm resistance</p> <p>14. AC voltage</p> <p>15. AC power</p> <p>16. Final examination</p>
Grading	Midterm examination : 35%, final examination: 40%, laboratory score: 25%
Criterion for grading	A: 85-100, B: 75-84.9, C: 60-74.9, D: 45-59.9 E: 0-44.9 (please review)
Textbook	Suryatmo, Dasar dasar Teknik Listrik
Reference books	<p>Emily Dardi, Teknik Tenaga Listrik I</p> <p>Warsito, Sirkuit Arus Searah</p> <p>Sunarso, Teknik Listrik</p> <p>Grof, Basic Electronics</p>
Office hours	.....
Telephone number	.....
E-mail address	.....
URL, and others	.....

East Timor National University
Faculty of engineering
Department of mechanical engineering

Syllabus of Dynamics of machinery

Code		Academic year	2009
Subject	Dynamics of machinery		
Instructor	Marfim guimaraes, MEng		
Division	Mechanical Engineering department of FoE		
Unit	2	Required	Physics, statics
Semester	III (Uneven)		
Day	Thursday, Friday	Period	16
Room	201 (Mechanical Engineering Class room)		
Related subjects	Machine elements, Theory of vibration, Fundamental of solid mechanics		
Prior knowledge and/or skills	Physics, statics		
Theme	Kinematics of the particle, motion, work energy, impulse and momentum		
Objectives/Aim	Study of the motion of bodies. Kinematics: Cartesian and polar coordinate systems; normal and tangential components; translating and rotating reference frames. Kinetics of particles and rigid bodies: laws of motion; work and energy; impulse and momentum.		
Goal	<p>The student shall be able to:</p> <ol style="list-style-type: none"> 1. Define and use all of the above concepts. 2. Give dimensions associated with the above concepts. 3. Express particle velocities and accelerations in rectangular, normal and tangential, and polar coordinates, and be able to convert among systems. 4. Given the position vector $x(t)$, or the velocity vector $v(t)$ or $v(x)$ of a particle, determine the required forces; inversely, given the resultant force, determine the velocity and position vectors. 5. Use work-energy to determine force-velocity-position relationships for particles. 6. Use linear impulse-momentum to determine force-velocity-time relationships for particles. 7. Compute particle motion in various frames of reference. 8. Locate the instantaneous center and use it to solve velocity problems. 9. Calculate mass moments of inertia by integration. 10. Use the parallel-axis theorem correctly. 11. Calculate the mass moment of inertia for a composite body 12. Use the force and moment equations to solve rigid-body problems. 13. Use work-energy equations for rigid bodies. 14. Use impulse-momentum equations for rigid bodies. 		
Keywords	Position vector, Motion, work, energy and impulse		
Teaching method	Lecture and discussion using blackboard/white board. Some assignments and tasks		
Outline	1. Introduction of dynamics. Definitions of Particle/Rigid Body Mechanics, Newton's Laws. Rectilinear of Motion		

	<ol style="list-style-type: none"> 2. Curvilinear Motion; Projectile Motion 3. Normal and tangential cylindrical coordinates. Relative motion. 4. Newton's law for parts, Rectangular linier. Newton's law in N-T Coordinates 5. Work of a force; Work and energy. system of particle; power and efficiency 6. Conservation of force; conservation of energy Review 7. Linier impulse-momentum. Linier impulse-impact 8. Angular momentum. Angular impulse 9. Rigid body motion; simple rotation. General plane motion 10. Relative motion: velocity. Relative motion: acceleration 11. Moment of inertia 12. Planar kinetics: Translation rotation; general plane motion 13. Rigid body work 14. Rigid body work and energy 15. Linier/angular impulse and momentum 16. Conservation of momentum. Review
Grading	Midterm examination: 30%, final examination: 60% , attendance: 10%
Criterion for grading	A: 8.5-10, B: 7.5- 8.49, C: 6.0-7.49, D: 0.0-4.49 (please review)
Textbook	Mechanics for engineer (4 th edition),Ferdinand P.Beer,Erussell Johnston,Jr
Reference books	<ol style="list-style-type: none"> 1. Engineering Mechanics: Dynamics (8th edition),R.C. Hibbeler . 2. Mechanics part II Dynamics(2ndedition),J.L.Meriam
Message	Please enjoy various aspects of dynamics.
Office hours	09AM-16 PM
Telephone number	(+670) 7 3 8 6 6 3 5
E-mail address	marfim.guimaraes@yahoo.com
URL, and others	

Educational Objectives and Curriculum of Department of Civil Engineering

1. National University of Timor-Lorosa'e

Objectives: Vision

- Center of excellence for higher education in Timor-Leste

Objectives: Mission

- Achieving excellence through academic activities, community service research and competitive by adopting global practices in higher education;
- Make quality as a way of life and cultural appealing;
- Promote national identity and human values through the spread of the Timorese language and culture;
- Accelerating scientific activities by creating synergies in contemporaneous multilateral fields;
- Develop the general welfare of its members, through physical interventions, psychological and spiritual;
- Develop all the capabilities to provide a transparent administration and able, through good governance practices

2. Faculty of Engineering, Science and Technology

Objectives: Vision

- Center of excellence for science & technology in Timor-Leste
- Producing technocrat community based on country culture

Objectives: Mission

- All teaching staff with at least master degree;
- They perform as lecturers;
- Some teaching staffs with doctor degree;
- All teaching staffs conduct research for country development;
- Fulfill all minimum requirement for quality academics
- Students could conduct research activities;
- Producing intellectual and professional strong graduates for country development;
- All members stay in Hera campus;
- Teaching staffs and students should respect and follow the internal regulation of UNTL academic regulation;
- Update the curriculum;
- Organize adequate engineering education system for country sustainable development

3. Department Civil Engineering

Objectives: Vision

- To be an excellent education and research center in civil engineering to support sustainability development in Timor Lest

Objectives: Mission

- To establish and excellent civil engineering center for sustainable development (research);
- To foster engineers with broad knowledge, advanced technology, and innovative capability (education);
- To develop civil engineering education, research and community service in Timor Leste

Curriculum arrangement

- Based on the lecturer's workload and student study load, then S1 (Licenciatura) program will be performed in 8 semesters with total credito of 144;
- The load for each semester will be 18 credito (this is equivalent to 54 hours student study load per week);
- Ideally for each semester there are 6 courses @ 3 credito, each course will be handled by individual lecturer or team teaching, praktikum should be attached to the related courses;
- One semester lasts normally for 16 – 18 weeks

Curriculum of Department of Civil Engineering

Semester 1		Semester 2	
Subject	Credit	Subject	Credit
Portugese I	2	Calculus II	3
English I	2	Portugese II	2
Tetum	2	English II	2
Engineering geology	2	Engineering computation	2
Analytical geometry	3	Topography I	3
Engineering physics 1	2	Civil construction material 1	2
Basic drawing	2	Statics I	2
Calculus I	3	Engineering physics II (2)	2
Ethics and moral	2	Applied engineering statistics	2
Total	20	Total	20

Semester 3		Semester 4	
Subject	Credit	Subject	Credit
Statics II	2	Technical drawing	2
Topography II	3	Sanitation and clean water	2
Hydrology	2	Construction management I	2
Civil construction material II	2	Strength of material II	2
Fluid mechanics	2	Structural mechanics I	2
Strength of material I	2	Soil mechanics II	3
Chemical engineering	2	Heavy equipment	2
Numerical analysis	3	Hydrology II	2
Soil mechanics	3	Human rights	2
Total	21	Total	19

Semester 5		Semester 6	
Subject	Credit	Subject	Credit
Structural mechanics II	2	Civil construction II	2
Civil construction I	2	Drainage	2
Hydraulics	3	Road construction II	3
Road construction I	3	Concrete structure II	3
Concrete structure I	3	Steel construction II	3
Steel construction I	2	Foundation engineering II	2
Construction management II	2	Irrigation and infrastructure I	2
Foundation engineering I	2	Cost analysis	2
Total	19	Total	19

Semester 7		Semester 8	
Subject	Credit	Subject	Credit
Environmental impact analysis	2	Field practice (2) (1)	1
Bridge structure	2	Final project (4)	4
Pre-stressed concrete structure	2	Legal aspects (2)	2
River engineering	2	Urban transportation design (2)	2
Engineering economics	2		
Irrigation and infrastructure II	3		
Research methodology and final project proposal	2		
Traffic engineering	2		
Total	17	Total	9

Total credit : 144

Remarks on CE curriculum

- Future development of CE curriculum development: wood construction, airport engineering, coastal engineering, offshore engineering, port engineering etc.
- For the future of CE, it is advisable to create concentration of field of interest, e.g. CE with emphasize in structural design or concrete or port engineering, etc..

Curriculum development

- Avoid ego-centric approach by lecturers or faculty members;
- Agree upon the graduate qualification and/or attribute and/or profile of competences;
- Graduate qualification should be aligned with vision and mission of related department;
- Identify and describe the core competences to be acquired by the graduate
- Identify and describe relevant basic (or universal) courses to support core competences;
- Avoid of creating 'new' courses, maximize the utilization of existing and well proven courses or text books or references or code standards
- Learn from other experiences, especially from well known and well respected institution (never reinvent the wheel for 2nd time)
- Independent of lecturers / faculty members availability, curriculum will drive capacity development of the lecturers / faculty members;
- Curriculum will not depend on the qualification of lecturers /faculty members; but will depend on the graduate attribute / competences / qualifications;
- Lecturers / faculty members will aligned themselves towards curriculum
- What is curriculum ? It is a descriptive program conducted by a department to produce graduates with certain competences / attributes / qualifications;
- It is not just a list of topics / subjects, but it has to describe the content and the methodology of delivery so that the subject will properly be understood and acquired by students;
- Assessment process is part of the cur
- Pay attention to the workload of lecturers and study load of students, curriculum operation should be conducted within the normal capacity of lecturers and within the normal absorption capacity of students;
- Remember that lecturers workload is approximately 40 hours per week, and students study load is approximately 54 hours per week

Syllabus of Strength of Material I.....

Department of Civil Engineering

Code	CP-5-2-101	Academic year	2013
Subject	Strength of Materials I		
Instructor	Aleixo Sarmento		
Division	Structure		
Unit	2	Required subject	Physics, statics I
Semester	3		
Day	.....,	Time	.....
Room,		
Related subjects	Construction material, concrete, steel structure, timber structure, composites, structural mechanics		
Prior knowledge and/or skills	Physics, statics I		
Theme	Stress, strain, deflection, elastic and plastic deformation, yield strength, mechanical and physical properties		
Objectives/Aim	Understanding the phenomena of stress, strain, deflection, elastic and plastic deformation, yield strength, mechanical and physical properties		
Relation and importance of this subject to the objectives of department	This course is one of the foundations for other structural mechanics and strength of material related courses		
Goal	To understand stress and strain To understand stress-strain diagram of steel, aluminum, cast iron, etc To understand elastic deformation To understand plastic deformation To understand yield strength To understand failure criteria (von Mises, Tresca, etc)		
Keywords	Stress, strain, elastic and plastic deformation, yield strength, failure criteria		
Teaching method	Lecture and discussion using whiteboard/blackboard and/or projector; laboratory work		
Outlines	1. Introduction 2. Definition of stress and strain 3. Stress-strain diagram for materials 4. Elastic deformation		

	<ul style="list-style-type: none"> 5. Elastic modulus 6. Poisson's ratio 7. Failure criteria (1) 8. Midterm evaluation 9. Failure criteria (2) 10. Plastic deformation 11. Hydrostatic pressure 12. Mechanical properties of material 13. Steel, timber, aluminum, composites properties 14. Application of structural materials (1) 15. Application of structural materials (2) 16. Final examination
Grading	Midterm examination : 30%, final examination:30%, small projects/assignments: 35%, attendance: 5%
Criterion for grading	A: 85-100, B: 75-84.9, C: 60-74.9, D: 45-59.9 E: 0-44.9 (please review)
Textbook	Timoshenko, Strength of Materials Popov, Mechanics of Materials
Reference books	Any book on Strength of Materials
Office hours	.....
Telephone number	.....
E-mail address	.....
URL, and others	.....

Syllabus of Statics 1

Department of Civil Engineering

Code		Academic year	2013
Subject	Statics 1		
Instructor	Marcelo Marques		
Division	Structure		
Unit	2	Required subject	Physics, mathematics
Semester	2		
Day	.....,	Time	.....
Room,		
Related subjects	Strength of materials, structural analysis, physics, construction		
Prior knowledge and/or skills	Physics, mathematics		
Theme	Stress, strain, deflection, elastic and plastic deformation, yield strength, mechanical and physical properties		
Objectives/Aim	Understanding the phenomena of stress, strain, deflection, elastic and plastic deformation, yield strength, mechanical and physical properties		
Relation and importance of this subject to the objectives of department	This course is one of the foundations for other structural mechanics and strength of material related		
Goal	To understand stress and strain To understand stress-strain diagram of steel, aluminum, cast iron, etc To understand elastic deformation To understand plastic deformation To understand yield strength To understand failure criteria (von Mises, Tresca, etc)		
Keywords	Stress, strain, elastic and plastic deformation, yield strength, failure criteria		
Teaching method	Lecture and discussion using whiteboard/blackboard and/or projector; laboratory work		
Outline	1. Introduction 2. Definition of stress and strain 3. Stress-strain diagram for materials 4. Elastic deformation 5. Elastic modulus 6. Poisson's ratio 7. Failure criteria (1) 8. Midterm evaluation 9. Failure criteria (2)		

	10. Plastic deformation 11. Hydrostatic pressure 12. Mechanical properties of material 13. Steel, timber, aluminum, composites properties 14. Application of structural materials (1) 15. Application of structural materials (2) 16. Final examination
Grading	Midterm examination : 20%, final examination:50%, Tugas besar dan kecil: 25%, attendance: 5%
Criterion for grading	A: 85-100, B: 75-84.9, C: 60-74.9, D: 45-59.9 E: 0-44.9 (please review)
Textbook	To be decided
Reference books	Any book on Engineering statics
Office hours	.....
Telephone number	77851575
E-mail address	Lebenei@yaoho.com
URL, and others	.....

Syllabus of Heavy Equipments (Equipamentos Pecados)

Department of ... Civil Engineering

Code	CPE-5-2-201	Academic year	2013
Subject	Equipamentos peçados		
Instructor	José Maria C. B. Ximenes		
Division	Structure		
Unit	2	Required subject	Physics, statics I, Soil mechanics
Semester	4		
Day	.....,	Time	.....
Room,		
Related subjects	Physics, Material construction ,Soil mechanics		
Prior knowledge and/or skills	Physics, statics I, Soil mechanics		
Theme	Soil excavation, discharge, displacement, digging, layering		
Objectives/Aim	Understanding the phenomena of soil excavation, discharge, displacement, digging, layering		
Relation and importance of this subject to the objectives of department	This course is supporting the other related soil mechanics courses and structural construction courses		
Goal	<p>To understand the function and application of heavy</p> <p>To understand the material properties to be processed</p> <p>To understand the process and procedure of material displacement, discharge, excavation, digging, layering</p> <p>To understand the operation and maintenance and repair of heavy equipments</p>		
Keywords	Soil mechanics, material properties, material movement processing, equipment application		
Teaching method	Lecture and discussion using whiteboard/blackboard and/or projector; site work/visit		
Outline	<ol style="list-style-type: none"> 1. Introduction 2. Definition of heavy equipments and its components 3. Traction equipment 4. Material properties 5. Earth moving equipments 6. Excavation equipment 7. Digging equipment 8. Midterm evaluation 9. Loading and grading equipment 10. Compacting equipment 11. Transporting equipment 		

	<p>12. Foundation processing equipment</p> <p>13. Stone crusher</p> <p>14. Equipments for concrete and asphalt processing</p> <p>15. Operation, maintenance and repair of heavy equipments</p> <p>16. Final examination</p>
Grading	Midterm examination : 20%, final examination:50%, major and minor assignments: 25%, attendance: 5%
Criterion for grading	A: 85-100, B: 75-84.9, C: 60-74.9, D: 45-59.9 E: 0-44.9 (please review)
Textbook	Alat-alat berat dan penggunaannya (oleh Ir. Rachmanbadi PU) dan (Hendra Suryadharna& Harianto Yoso Wigroho ATMA JAYA)
Reference books	Any book on Equipments peçadós
Office hours	.....
Telephone number	77851575
E-mail address	Lebenci@yahoo.com
URL, and others	.....

Syllabus de Materiais de construção Civil 1

(Civil construction material 1)

Department of Civil Engineering

Code	CP-5-2-051	Academic year	2013
Subject	Materiais de Construção Civil I		
Instructor	José Maria C. B. Ximenes		
Division	Structure		
Unit	2	Required subject	Physics, chemistry
Semester	2		
Day	.....,	Time	.....
Room,		
Related subjects	Steel construction, concrete construction, timber construction, structural mechanics, strength of materials		
Prior knowledge and/or skills	Physics, chemistry		
Theme	Soil Mechanics, Structures of materials, concrete, steel structure, material strength		
Objectives/Aim	Understanding the method to obtain the best construction material		
Relation and importance of this subject to the objectives of department	This course is one of the foundations for other related courses in construction materials and strength of materials		
Goal	To understand the application of construction material To understand stress-strain diagram of steel, aluminum, cast iron, etc To understand the ultimate and yield strength of materials To understand material testing processes		
Keywords	Stress, strain, ultimate strength, yield strength, material properties and characteristics		
Teaching method	Lecture and discussion using whiteboard/blackboard and/or projector; laboratory work		
Outline	<ol style="list-style-type: none"> 1. Introduction 2. Definição das Pedras 3. Propriedade física e mecânicas das pedras 4. Principais Causas de Alteração das Pedras e Tratamentos para Impedir a Alteração das Pedras <p>Estudo das Pedras como Agregados para Argamassas e</p>		

	<p>Betões</p> <ol style="list-style-type: none"> 5. Generalidades dos ligantes História Gesso Cais Aéreas Cais Hidráulicas 6. Cimentos, Características Físicas e Químicas Gerais dos Ligantes Ensaios laboratorial 7. Generalidade das Argamassas Classificação das Argamassas, Propriedades Gerais, Resistência à Compressão Lab 8. Midterm evaluation 9. Características Tecnológicas das madeiras, Defeitos e Anomalias, Características Químicas, Físicas e mecânicas 10. Valores Correntes para as Resistências Mecânicas Samblagens 11. Novos Aspectos da Construção em Madeira 12. Ataque da Madeira por Fungos e Insectos Xilófagos, Protecção da Madeira contra Fungos e Insectos Xilófagos 13. Protecção Contra o Fogo, Algumas Designações das Peças de Madeira, Madeiras Mais Utilizadas Entre Nós 14. Generalidades dos aços de metais 15. Alumínio, Cobre, Zinco 16. Final examination
Grading	Midterm examination : 20%, final examination:50%, major and minor assignments: 25%, attendance: 5%
Criterion for grading	A: 85-100, B: 75-84.9, C: 60-74.9, D: 45-59.9 E: 0-44.9 (please review)
Textbook	Materials of Construction Civil (Prof. J. Luis Barroso de Aguiar)
Reference books	Any book on Materials of civil construction
Office hours	.....
Telephone number	77851575
E-mail address	Lebenei@yaoho.com
URL, and others	.....

Syllabus of Hydrology I.....

Department of Civil..... Engineering

Code	CP-5-2-012	Academic year	2013
Subject	Hydrology I		
Instructor	Justino da Costa Soares		
Division	Hydraulics		
Unit	2	Required subject	Physics, statics I
Semester	3		
Day	.....	Time	.....
Room	.....	
Related subjects	Fluid Mechanic, Hydraulics, Drainage, Water Supply, Irrigation		
Prior knowledge and/or skills	Physics, statics I		
Theme	Hydrology: Hydrologic cycle, rainfall, evaporation, infiltration, stage discharge relationships, unit hydrographs, flood estimation, reservoir capacity, reservoir and channel routing.		
Objectives/Aim	Understanding the principles and processes governing the movement of water through the hydrologic cycle, including atmospheric moisture flow, surface runoff, infiltration, and groundwater flow		
Relation and importance of this subject to the objectives of department	This course is one of the basic of the Hydraulics area		
Goal	To understand Principles of Hydrology To understand Hydrology estimation To understand Design and application of hydrology To understand Precipitation To understand Rational methods and application for drainage To understand River measurement To understand Discharge Runoff Analysis by Floating Method & River Cross Section Area		
Keywords	Processes and practical problems in: surface and groundwater hydrology, the hydrologic cycle, rainfall-run-off and flood analysis, regional groundwater flow and well hydraulics, and the design of water supply systems, Drainage and Irrigation.		
Teaching method	Lecture and discussion using whiteboard/blackboard and/or projector; using laboratory equipment for research		
Outline	1. Introduction 2. Hydrology Principles (definition of hydrology, hydrologic cycles 3. Hydrologic estimation method (runoff, infiltration, evaporation).		

	<ol style="list-style-type: none"> 4. Design and application of hydrology (drainage collection, design of culverts, others design application) 5. Concepts of flood frequency analysis, return period, flow duration curve 6. Rational methods and application for drainage 7. Precipitations (types of precipitation, characteristics of precipitation in Timor Leste, raingage station, raingage network, rainfall data) 8. Midterm examination 9. Hydrograph (flood frequency method, Gumbel's method, graphical method, design flood). 10. Integrated water resources management system 11. Theory of River measurement 12. Theory of Discharge Runoff Analysis by the Velocity Measurement (Currentmeter Method Floating Method) 13. Theory of Water depth measurement 14. Theory of Discharge Runoff Analysis by Floating Method & River Cross Section Area 15. Final Examination
Grading	Midterm examination : 30%, final examination:30%, small projects/assignments: 35%, attendance: 5%
Criterion for grading	A: 85-100, B: 75-84.9, C: 60-74.9, D: 45-59.9 E: 0-44.9 (please review)
Textbook	To be decided
Reference books	Any book on Hydrology and others regarding to the Hydraulics
Office hours	.....
Telephone number	.....
E-mail address	.....
URL, and others	.....

Syllabus of Hydrology II

Department of Civil Engineering

Code	CP-5-2-012	Academic year	2013
Subject	Hydrology II		
Instructor	Justino da Costa Soares		
Division	Hydraulics		
Unit	2	Required subject	Physics, statics I and Hydrology I
Semester	4		
Day	.....	Time	.....
Room	.....	
Related subjects	Fluid Mechanics, Hydraulics, Drainage, Water Supply, Irrigation		
Prior knowledge and/or skills	Hydrology I		
Theme	Hydrology: Hydrologic cycle, rainfall, evaporation, infiltration, stage discharge relationships, unit hydrographs, flood estimation, reservoir capacity, reservoir and channel routing. Well hydraulics.		
Objectives/Aim	Hydrologic statistics and frequency analysis techniques applied to problems of engineering hydrologic design.		
Relation and importance of this subject to the objectives of department	This course is one of the foundations for other related courses on drainage, irrigation, river engineering		
Goal	To understand Precipitation To understand Hydrology design and application To understand Rational method on Hydraulics design To understand Hydrograph To understand Discharge design and calculation To understand of the making H-Q curve		
Keywords	Processes and practical problems in: hydrologic cycle, rainfall-run-off and flood analysis, and the design of water supply systems, drainage, river water.		
Teaching method	Lecture and discussion using whiteboard/blackboard and/or projector; laboratory work and field study		
Outline	<ol style="list-style-type: none"> 1. Introduction 2. Precipitation measurement, analysis data, IDF (intensity Duration Frequency) curve, averaging, Thiessen and Isohyetal methods- 3. Design application in hydrology (drainage collection, design of culverts, others design application) 4. Concepts of flood frequency analysis, return period, flow duration curve 		

	<ol style="list-style-type: none"> 5. Rational methods and application for drainage 6. Hydrograph (flood frequency method, Gumbel's method, graphical method, design flood). 7. Application of River measurement 8. Midterm examination 9. Application of Discharge Runoff Analysis by the Velocity Measurement (Currentmeter Method Floating Method) 10. Application of Water depth measurement 11. Application Discharge Runoff Analysis by Floating Method & River Cross Section Area 12. H-Q Curve 13. Final examination
Grading	Midterm examination : 30%, final examination:30%, small projects/assignments: 35%, attendance: 5%
Criterion for grading	A: 85-100, B: 75-84.9, C: 60-74.9, D: 45-59.9 E: 0-44.9 (please review)
Textbook	To be decided
Reference books	Any book on Hydrology
Office hours	.....
Telephone number	.....
E-mail address	.....
URL, and others	.....

Educational Objectives and Curriculum of
Department of Electrical and Electronic Engineering

1. National University of Timor-Lorosa'e

Objectives: Vision

- Center of excellence for higher education in Timor-Leste

Objectives: Mission

- Achieving excellence through academic activities, community service research and competitive by adopting global practices in higher education;
- Make quality as a way of life and cultural appealing;
- Promote national identity and human values through the spread of the Timorese language and culture;
- Accelerating scientific activities by creating synergies in contemporaneous multilateral fields;
- Develop the general welfare of its members, through physical interventions, psychological and spiritual;
- Develop all the capabilities to provide a transparent administration and able, through good governance practices

2. Faculty of Engineering, Science and Technology

Objectives: Vision

- Center of excellence for science & technology in Timor-Leste
- Producing technocrat community based on country culture

Objectives: Mission

- All teaching staff with at least master degree;
- They perform as lecturers;
- Some teaching staffs with doctor degree;
- All teaching staffs conduct research for country development;
- Fulfill all minimum requirement for quality academics
- Students could conduct research activities;
- Producing intellectual and professional strong graduates for country development;
- All members stay in Hera campus;
- Teaching staffs and students should respect and follow the internal regulation of UNTL academic regulation;
- Update the curriculum;
- Organize adequate engineering education system for country sustainable development

3. Department Electrical and Electronic Engineering

Objectives: Vision

- To be a center of excellence in research and application in the field of electrical and electronic engineering that meets international standard

Objectives: Mission

- Theoretical and experimental-based teaching and learning approach
- Joint research with various universities and institutions that are strong in theoretical and application of learning;

- To contribute by giving applicable solution to the society and the government;
- To establish and promote research culture

Curriculum arrangement

- Based on the lecturer's workload and student study load, then S1 (Licenciatura) program will be performed in 8 semesters with total credit of 144.
- The load for each semester will be 18 credit (this is equivalent to 54 hours student study load per week).
- Ideally for each semester there are 6 courses @ 3 credit, each course will be handled by individual lecturer or team teaching, praktikum should be attached to the related courses.
- One semester lasts normally for 16 – 18 weeks

Curriculum of Department of Electrical and Electronic Engineering

Semester 1		Semester 2	
Subject	Credit	Subject	Credit
General Portugese	2	Technical English	2
Basic mathematics I	3	Electrical installation I	3
Introduction to computer	3	Mathematics II (calculus I)	3
Electrical materials	2	Physics	2
Electric circuit I	3	Electromagnetics I	2
Electric measurement 1	3	Electric circuit II	3
Technical drawing	2	Electronic devices I	3
General English	2	Technical Portugese	2
Total	20	Total	20

Semester 3		Semester 4	
Subject	Credit	Subject	Credit
Tetum (2)	2	Mathematics IV (advanced calculus)	3
Electrical installation II	2	Electronic circuit I	3
Mathematics III (calculus 2)	3	Digital electronics I	3
Electromagnetics II	3	Electrical machine II	3
Electronics device II	3	Control system I	3
Algorithm & programming language I	3	Communication system I	3
Electrical machine I	3	Human rights	2
Electrical power system	3		
Total	22	Total	20

Semester 5		Semester 6	
Subject	Credit	Subject	Credit
Algorithm & programming language II	3	Microprocessor & interface II	2
Electronic circuit II	3	Power electronics II	3
Digital electronics II	3	Magnetic circuit and transformer	3
Microprocessor & interface I	2	Communication system II	3
Power electronics I	3	Numerical analysis	2
Distribution & transmission	3	Power system analysis I	3
Control system II	3	Total (18) (16)	
Total	20	Total	16

Semester 7		Semester 8	
Subject	Credit	Subject	Credit
Applied computer for electrical & electronic engineering	3	Moral and ethics	2
Analysis signal and system	2	Engineering economics	3
On the job training	3	Final thesis	4
Standardization and protection	3		
Renewable energy	3		
Power system analysis II	3		
Total	17	Total	9

Total credit: 144

Curriculum development

- Avoid ego-centric approach by lecturers or faculty members;
- Agree upon the graduate qualification and/or attribute and/or profile of competences;
- Graduate qualification should be aligned with vision and mission of related department;
- Identify and describe the core competences to be acquired by the graduate
- Identify and describe relevant basic (or universal) courses to support core competences;
- Avoid of creating 'new' courses, maximize the utilization of existing and well proven courses or text books or references or code standards
- Learn from other experiences, especially from well known and well respected institution (never reinvent the wheel for 2nd time)
- Independent of lecturers / faculty members availability, curriculum will drive capacity development of the lecturers / faculty members;
- Curriculum will not depend on the qualification of lecturers /faculty members; but will depend on the graduate attribute / competences / qualifications;
- Lecturers / faculty members will aligned themselves towards curriculum
- What is curriculum ? It is a descriptive program conducted by a department to produce graduates with certain competences / attributes / qualifications;
- It is not just a list of topics / subjects, but it has to describe the content and the methodology of delivery so that the subject will properly be understood and acquired by students;
- Assessment process is part of the cur
- Pay attention to the workload of lecturers and study load of students, curriculum operation should be conducted within the normal capacity of lecturers and within the

normal absorption capacity of students;

- Remember that lecturers workload is approximately 40 hours per week, and students study load is approximately 54 hours per week

Syllabus of Introduction to computer.....

Department of Electrical Engineering

Code	.....	Academic year	2013
Subject	Introduction to computer		
Instructor	Frederico de Carvalho (coordinator), Rui Manuel Sarmiento, Cancio Monteiro		
Division	Information technology		
Unit	3	Required subject	
Semester	1		
Day		Time	
Room			
Related subjects	Algorithm & programming, mathematics, numerical analysis		
Prior knowledge and/or skills			
Theme	Software such as excel or spread sheet		
Objectives/Aim	Understanding the use of excel or spread sheet		
Relation and importance of this subject to the objectives of department	This course is one of the supporting courses for other courses such as numerical analysis, mathematics and algorithm & programming		
Goal	To understand basic of spread sheet To understand the application of spread sheet		
Keywords	Spread sheet		
Teaching method	Lecture and discussion using whiteboard/blackboard and/or projector; laboratory work		
Outline	<ol style="list-style-type: none"> 1. Introduction 2. Microsoft excel window 3. Basic operation 1 4. Basic operation 2 5. Basic operation 3 6. Using function 1 7. Using function 2 8. Midterm evaluation 9. Using function 3 10. Decision function 11. Charts 12. Curve fitting 13. User defined function 1 14. User defined function 2 		

	15. Modeling 16. Final examination
Grading	Midterm examination : 35%, final examination: 35%, laboratory score: 20%; mini tests: 10%
Criterion for grading	A: 85-100, B: 75-84.9, C: 60-74.9, D: 45-59.9 E: 0-44.9 (please review)
Textbook	Bernard V. Liengme, A Guide to Microsoft Excel 2002 for Scientists and Engineers, 3 rd edition
Reference books	Any books on spread sheet and mathematics
Office hours	.....
Telephone number	.....
E-mail address	.....
URL, and others	.....

Syllabus of Digital electronics I.....

Department of Electrical Engineering

Code	.....	Academic year	2013
Subject	Digital Electronics I		
Instructor	Rui Manuel Sarmiento		
Division	Electronics		
Unit	2	Required subject	_____
Semester	3		
Day	.....,	Time	.....
Room,		
Related subjects	System of number, Venn theory and diagram, Mathematical logic, Mathematical discrete		
Prior knowledge and/or skills	-----		
Theme	Design of combinational circuit		
Objectives/Aim	Understanding the phenomena of combinational circuit		
Relation and importance of this subject to the objectives of department	This course is one of the foundations for other related combinational circuit courses		
Goal	To understand various combinational circuit To understand the application in the existing circuit To design combinational circuit		
Keywords	Combinational circuit		
Teaching method	Lecture and discussion using whiteboard/blackboard and/or projector; laboratory work		
Outline	<ol style="list-style-type: none"> 1. Introduction 2. System of number 3. Conversion of number 4. Logic gates 5. Binary codes 6. Boolean algebra 7. Truth table 8. Midterm evaluation 9. Karnaugh Map 		

	10. Analysis and design of combinational circuit Part 1 11. Analysis and design of combinational circuit Part 2 12. Selector 13. Comparator 14. Adder Part 1 15. Adder Part 2 16. Final examination
Grading	Midterm examination : 30%, final examination:30%, small projects/assignments: 35%, attendance: 5%
Criterion for grading	A: 85-100, B: 75-84.9, C: 60-74.9, D: 45-59.9 E: 0-44.9 (please review)
Textbook	Projeto de Sistemas Digitais, Victor Pimenta e Mario Seia de Araujo, Editorial Presenca Sistemas digitais-Fundamentos algebricos, Carlos Serro, IST Press
Reference books	Any book on Digital Electronics
Office hours	.....
Telephone number	.....
E-mail address	.....
URL, and others	.....

Syllabus of Algorithm and Programming Language 1.....

Department of Electrical Engineering

Code	.....	Academic year	2013
Subject	Algorithm and Programming Language 1		
Instructor	Frederico de Carvalho		
Division	Information technology		
Unit	3	Required subject	Introduction to computer, basic digital, mathematics
Semester	3		
Day		Time	
Room			
Related subjects	Algorithm & programming language 2, microprocessor & interface, applied computer for electrical and electronics engineering		
Prior knowledge and/or skills	Introduction to computer, basic digital, mathematics		
Theme	Numerical computing, embedded system, programming concept		
Objectives/Aim	Understanding the phenomena of embedded system , numerical computing, and programming concept		
Relation and importance of this subject to the objectives of department	This course is one of the foundations for other related courses on algorithm & programming language, microprocessor & interface, applied computer		
Goal	<p>To understand basic programming of high level language</p> <p>To understand basic algorithm and flow chart</p> <p>To understand the application of computer language for mathematical calculation</p> <p>To understand basic interface with PC</p>		
Keywords	High level language, algorithm, flow chart		
Teaching method	Lecture and discussion using whiteboard/blackboard and/or projector; laboratory work		
Outline	<ol style="list-style-type: none"> 1. Introduction to algorithm 2. Concept of programming language 3. Flow chart 1 4. Flow chart 2 5. Input output structure 6. Branch 7. Iteration (looping) 8. Midterm evaluation 9. Recursive 10. Modular programming 11. Function 		

	12. Array one dimension 13. Array two dimension 14. String manipulation 15. Pointer 16. Final examination
Grading	Midterm examination : 35%, final examination: 35%, laboratory score: 20%; mini tests: 10%
Criterion for grading	A: 85-100, B: 75-84.9, C: 60-74.9, D: 45-59.9 E: 0-44.9 (please review)
Textbook	Bryan W. Kernighan, et.al , The C Programming Language, 2 nd edition Thomson Subsabda Ngoen, Pengantar Algoritma dengan Bahasa C
Reference books	Any books on Fundamental C Programming
Office hours	.....
Telephone number	.....
E-mail address	.....
URL, and others	.....

5. 教員アンケート質問票

Survey for the evaluation of CADEFEST project

Survey Avaliasaun ba Projeitu CADEFEST

Submission Deadline : 11th March 2013

March, 2013

The result of this survey is used only to evaluate CADEFEST project and to improve the contents of the project. Your frank opinion is highly appreciated. Thank you very much for your cooperation.

Resultadu konaba survesy ne'e atu evalua Projeitu CADEFEST no hasae contiudu projeitu nian. Ita nia opiniaun sei apresia tebes. Obrigadu barak ba ita nia koperasaun.

I. General Information Informasaun Jeral

1. What is your department? *Husi Departamentu?*
a. Mechanical *Mekanika* b. Civil *Sivil* c. Electrical *Electronica*
2. What is your latest academic degree? *Uluk ita nia Nivel Akademiku Saida?*
a. D2 b. D3 c. D4 d. S1 e. S2
3. Acquisition university and acquisition year. *Hotu iha Universidade no Iha Tinan.*
Acquisition university *Nara Universidade:*.....
Country *Nasaun :*..... Acquisition year *Tinan:*.....

II. Education activity Atividade Edukasaun

4. Do you think how many percentages of the student in average are satisfied with the classes in the Faculty?
Oinsa ita boot nia hanoin ba persentagen estudante sira nia valor (Rata-rata) ne'ebe satisfas ona ho aula seluk ne'ebe iha fakuldade?
a. 0~20% b. 21~40% c. 41~60% d. 61~80% e. 81~100%
5. Do you think how many percentages of the students in average are satisfied with the classes of the special subject in your department?
Oinsa ita boot nia hanoin konaba persentajen ba valor studante sira ho aula seluk ne'ebe materia spesial iha ita nia departamentu?
a. 0~20% b. 21~40% c. 41~60% d. 61~80% e. 81~100%
6. Do you think how many percentages of the students in avarage are satisfied with the classes of the special subject which you teach?
Oinsa ita boot nia hanoin konaba persentajen ba valor estudante sira ho aula ne'ebe materia spesial ne'ebe ita boot hanoin ona?
a. 0~20% b. 21~40% c. 41~60% d. 61~80% e. 81~100%
7. Do you think how many percentages of the students in average are graduated (completed their course) in comparison with the number of enrolled students?
Oinsa ita boot nia hanoin konaba persentajen ba numeru estudante sira ne'ebe remata ona (kompleta ona sira nia kursu) kompara ho numeru studante foun?
a. 0~20% b. 21~40% c. 41~60% d. 61~80% e. 81~100% w. I don't know *Hau Lahatene*
8. Do you think the quality of the class (theory / practical) in the Faculty has been improved every year?
Oinsa ita nia hanoin konaba kualidade eskola (Teoria/Pratika) iha fakuldade ne'ebe sa'e ona iha tinan-tinan?

- a. No, it's downgrading *Lae, kualidade tun*
- b. No significant change *Laiha mudansa ne 'ebe mak siknifikante*
- c. Yes, it's improving little by little *Los ,kualidade ne 'e aumenta neneik.*
- d. Yes, it's improving very much *Los, kualidade sae maka'as*
- w. I don't know *Hau Lahatene.*
- x. Others *No Seluk (*)

8.1 If your answer in question 8. is a. or b., please describe the reason.

Karik ita responde pergunta no 8. maka a. ka b, hateten sai nia rajaun.

.....

.....

.....

8.2 If your answer in question 8. is c. or d., please describe the reason.

Karik ita responde pergunta no 8. maka c. ka d., esplika sai nia rajaun.

.....

.....

.....

9. Do you think the class evaluation is useful for improvement of your teaching method and teaching quality?

Oinsa ita boot nia honoin konaba "klase evaluasaun" nee benefisiu hodi hadia ita nia metodu hanorin no kualidade hanorin?

- a. Not at all *Laiha liu*
- b. Not so useful *Ladun benefisiu*
- c. So so *Naton deit*
- d. Useful *Benefisiu*
- e. Very useful *Benefisiu liu*

III. Curriculum and syllabus *Silabus no Kurikulu*

10. Are the educational objectives and goals of your department recognized in Faculty of Engineering, science and technology ?

Iha apoiu ka lae konaba objektivo no targetu edukasaun husi Fakuldade ba departementu?

- a. Not yet *Sidak*
- b. Yes, but a little *Los, Maibe oituan deit*
- c. Yes, but to some extent *Los, Mas Balu hasae*
- d. Yes, fully done *Los, Kompletu tiha ona*

11. Have you prepared the New Curriculum for 4 years bachelor program in your department?

Ita prepara ona estudu ida atu nune'e intrudus ba Kurikulum Foun iha tinan 4 ba programa S1 (sarjana) iha ita nia departamentu?

- a. Not yet *Sidak*
- b. Yes, but a little *Los, Maibe oituan deit*
- c. Yes, but to some extent *Los, Mas Balu hasae*
- d. Yes, fully done *Los, Kompletu tiha ona*

12. How many percentages of your classes do you prepare syllabi which you taught between March 2012 and December 2012?

Persentajen hirak mak ba ita nia aula/klas ne'ebe ita prepara silabus ba aula ida-ida ne'ebe ita hanorin tiha ona iha fulan Marsu 2012 no Dezembru 2012?

- : a.0%
- b.1~19%
- c.20~39%
- d.40~59%
- e.60~79%
- f.80~99%
- g.100%

13. Do you explain the syllabi of your class at the beginning of each semester?

Iha loron premeriu karik ita esplika silabus ba estudantes sira ba kada semester?

- a. Not at all *La iha liu* b. Yes, but only a part *Los, Parte balun*
 c. Yes, in all classes *Los, iha aula hotu-hotu.*

13.1 If your answer to question 13 is b. or c., how do you explain it? (Multiple answers allowed)

Karik ita nia responde ba pergunta no 13 mak b ka c. Oinsa ita abele esplika ne'e? (Resposta bele barak Liu.

- a. By oral *Liu husi Oral* b. By writing on the board *Liu husi hakerek iha quadro (papan tulis)*
 c. By distributing the printed document *Liu hus documentus ne'ebe print tiha ona*
 x. Others *No seluk-seluk tan (*)

14. How often do you review the curriculum in your department?

Oinsa dalaruma ita hare'e fila fali ba kurikulum iha ita nia departamentu?

- a. Not at all *La iha liu* b. Every 2 or 3 years *Kada tinan 2 ka 3*
 c. Every year *Tinan-tinan* w. I don't know *Hau Lahatene*

15. How often do you review and improve the syllabus in your classes?

Oinsa dalaruma ita reviu fali no aumenta silabus iha ita nia aula laran?

- a. Not at all *Laiha liu* b. Every 2 or 3 years *Kada tinan 2 ka 3*
 c. Every year, but little by little *Tinan-tinan, maibe ne-neik*
 d. Every year, and sufficiently *Kada tinan, mas ho sufisiente*
 x. Others *No selu-seluk tan (*)

16. The format of timetable and curriculum are not unified among departments. How do you think of it?

Listo orariu no kurikulum laos tau hamutuk ho entre departamentu. Oinsa ita nia hanoin konaba ida ne'e?

- a. No need to unify the format, since each department has each opinion.

La persija atu tau hamutuk, wainhira kada departamentu iha opinion

- b. It's better to unify the format, if possible. *Diak liu tau hamutuk format ne'e, karik bele*

- c. It's necessary to unify the format, since it will be easier to manage by the faculty staff.

Ida ne'e nesesariu atu tau hamutuk, se kuandu ida ne'e sei fasil liu atu maneja husi Staff Fakuldade.

- d. Others *Seluk (*)

17. How many percentages of your classes do you prepare "Lecture Note" or "Job Sheet" for you each class between March 2012 and December 2012?

Pursentajen hira ba ita nia aula/klas mak ita prepara ba "Nota Dosente" ka "Job Sheet" ba ita nia aula ida-idak entre fulan Marsu 2012 no Dezemburu 2012?

- a. 0~20% b. 21~40%, c. 41~60%, d. 61~80%, e. 81~100%

18. Please fill in (tick) the form regarding your language communication skills.

Ense ba laran (Sinal/Tanda) tuir ita nia lingua komunikasaun skil.

Language <i>Lingua</i>		Very poor <i>LahateneLiu</i>	Poor <i>Lahatene</i>	Fair <i>Sufisiente</i>	Well <i>Diak</i>	Excellent <i>Diak Liu</i>
Portuguese	Reading <i>Le'e</i>					
	Writing <i>Hakere</i>					
	Speaking <i>Koalia</i>					

English	Reading <i>Le'e</i>					
	Writing <i>Hakere</i>					
	Speaking <i>Koalia</i>					
Indonesian	Reading <i>Le'e</i>					
	Writing <i>Hakere</i>					
	Speaking <i>Koalia</i>					

19. How do you evaluate your basic academic skill and knowledge in your field in comparison with the professors and associate professors of the international level university?

Oinsa ita evalua ita nia skil ba akademika basica nian no konesementu iha tereimu kompara ho Dosente sira (Professor / Associate Professor) iha nivel Universidade internasional?

Subject <i>Materia</i>	Very poor <i>Lahatene Liu</i>	Poor <i>Lahatene</i>	A little poor <i>Ladun hatenen</i>	Equivalent <i>Ekiwalen</i>	Excellent <i>Diak liu</i>
Mathematics <i>Matematika</i>					
Physics or Mechanics <i>Mekanika ka Fizika</i>					
Basic engineering <i>Enjineria ajiku</i>					
Special subjects except your class <i>Materia espesial laos iha Aula laran</i>					
Special subjects of your class <i>Materia espesial iha aula laran</i>					

IV. Research Activities *Aktividade Peskija*

20. How often have you ever conducted the research activities?

Oinsa ita halao ona aktividade peskija nian?

- a. Not at all *Laiha liu* b. Rarely *La dun* c. Sometimes *Dala ruma*
d. Quite Often *Dala barak* e. Always *Bebeik*

20.1 If your answer to question 20. is a. or b., what is the reason for it? (Multiple answers allowed)

Karik ita responde perguntas 20 mak a. ka b., ho rajaun saida? (Resposta bele barak liu)

- a. Research is not necessary. *Peskija laos nesesariu.*
b. Research is unappreciated by others. *Peskija ne'e labele apresia husi ema seluk.*
c. I cannot find a research theme. *Hau labele hetan hau nia tema peskija nian.*
d. I don't know how to conduct a research. *Hau lahatene oinsa bele halao hau peskija.*
e. I don't have time for research since I am very busy. *Hau laiha tempu ba halo peskija wainhira hau iha servisu barak.*
f. Research is difficult. *Aktividade Peskija ne'e defisil.*
g. I don't have equipments for research. *Hau laiha ekipamentu ba peskija nian*
h. I don't have a budget for research. *Hau la iha orsamentu ba aktividade peskija nian.*
i. I don't have references (books, journals, etc) for research. *Hau laiha refrensia (Kadernu. Jurnal no seluk-seluk tan)ba peskija.*
j. Others *No seluk-seluk tan (*)

21. Have you ever create the research proposal and applied for external organization / institution (including JICA) in order to conduct your research activities?

Karik ita kria tiha ona proposal peskija nian no aplika ba Organijasaun international/ instituisaun (inklui JICA) atu halao ita nia peskija atividade?

- a. Not at all *Laiha liu* b. Rarely *Ladun* c. A little *Oituan deit* d. Often *Dala ruma*
e. Quite Often *Dalaruma liu*

22. Please fill in the following items which you have been achieved with regards to the research activities so far. Except for the Final Report for Bachelors Degree or dissertation for Master's Degree.

Ense tuir item ne'ebe ita hetan ona ho tuir atividade peskija nian durante ne'e. Laos Relatorio Final ba Diploma S1 ka disertasaun ba Diploma S2/Master.

- a. Published on Report *Publika ona iha Jornal : _____ times Dala*
b. Presentation at domestic seminar and symposium *Apresentasaun ba seminariu Domestiku nian / Simpoziu: _____ times Dala*
c. Presentation at international seminar and symposium. *Aprsentasaun iha Seminariu Internasional / Simpoziu: _____ times Dala*
d. Published in journal paper without referee. *Publika iha journal sem /laiha referensia : _____times Dala*
e. Published in journal paper with referee *Publika iha jornal hamutuk ho referensia : _____times Dala*

22.1 If you have any count in d. or e. in question 22, please write down the Author's name, Title of paper, Journal name, Volume Number, Page, Issue year of your paper in according to the Example.

Wainhira ita iha duvida ba no d. ka e. Entaun iha pergunta ba 22. Bele hakerek autor nia naran, ninia Titlu, naran Jornal, Numeru ba Volume nian, Pajina, kestaun tinan ba ita ina folha (kertas) tuir esemplu mak tuir mai ne'e

Example: Taro Jica, Ken. Komatsu and Hidehiko Kazama: Study on actual conditions and future plan of infrastructures in Timor-Leste, Journal of Urban Planning, Vol. 25, No. 6, pp.27-34, 2011.

Esemplu: *Taro Jica, Ken. Komatsu no Hidehiko Kazama: Studa ba kondisaun atual no planu future ba ihaTimor-Leste, Jornal ba Urban Planing, Vol. 25, No. 6, pp. 27-34,2011.*

.....
.....
.....
.....
.....
.....

23 The student in the 4-years Bachelor Program has Final Thesis at the final year. Do you think you can teach Final thesis completely by your current skill and knowledge?

Estudante mak tuir Programa S1 (Sarjana) iha tinan 4 nia laran nia tenki iha ekripsi (teje final) iha tempu ne'ebe mak hanesan. Ita hanoin katak ita bele hanorin ita nia Teje (eskripsi) ho kompletu liu husi ita nia skil no konesementu foun?

- a. Not at all *La iha liu* b. Very little *Oituan liu* c. A little *Ointuan deit*
d. Almost *La dun* e. Completely *Bele*

23-1 If your answer to question 23. is a. or b., what is the reason for it? (Multiple answers allowed)

Karik ita responde pergunta 23 mak a. ka b., ho rajaun saida? (Resposta bele barak liu)

- a. Lack of knowledge. *Konesementu ne'ebe minimu.*
- b. Lack of teaching skills. *Skill hanorin mak minimu.*
- c. Lack of confidence to teach. *Laiha mental atu hanorin.*
- d. I cannot find topics for Thesis. *Haul abele hetan topiku ba Teje (eskripsi) nian.*
- e. Lack of equipments *Ekipamentus ne'ebe mak minimu.*
- f. Lack of budget. *Laiha orsamentu.*
- g. Lack of time to teach. *Tempu mak minimu atu hanorin.*
- h. There is no merit to teach Thesis. *Laiha iha vantajen atu hanorin teje(eskripsi).*
- i. Others *No seluk-seluk tan (*

)

V. Faculty management Jestaun ba Fakuldade nian

Faculty Management is defined as an organization (structure), regulations (rules) in order to realize the educational objectives and goals of the Faculty and Department based on the vision and mission of the University, and it also includes management and maintenance of them. Specifically, they are "Organization", "Structure", "Regulations", "Jobs", "Maintenance", and so on.

Jestaun fakuldade defini tiha ona hanesan organinijasaun (strutura), regulasaun, (Regra) atu realija ba mehi no objetivu edukasaun nian ba Fakuldade no Departamentu tuir visaun no misaun universidade nian, no ida ne'e inklui mos sai hanesan sira nia jestaun no manutensaun. Espesialmente, hanesan: "Organijasaun", "Strutura", "Regulasaun", "Servisu", "Manutensaun", no seluk tan.

24. Are you satisfied with the current Faculty Management?

Ita satisfeitu ho Jestaun Fakuldade uluk?

- a. Not at all *La iha liu*
- b. Almost dissatisfied *Ladun Satisfeitu*
- c. Neutral *Neutru*
- d. Almost satisfied *La satisfeito*
- e. Satisfied *Satisfeitu*

24.1 If your answer to question 24. is a. or b., what is the reason for it? (Multiple answers allowed)

Karik ita responde pergunta 24. mak a. ka b., saida mak ita nia rajaun ba ida ne'e? (Resposta bele barak)

- a. Management structure is ambiguous. *Strutura Jestaun dala rua.*
- b. Lack of responsibility of the person in charge. *Menus responsabilidade ba ema ne'ebe mak kaer.*
- c. Too much dependent on the decision of person in charge
- d. Lack of fairness. *Laiha Neutralidade.*
- e. Management is not appropriate. *Laiha Jestaun ida mak adekuadu.*
- f. Lack of rules and regulations about inagement. *Laiha regulamentu ka regra konaba jestaun*
- g. Management is too strict. *Gestaun ne'ebe maka'as liu.*
- h. Others *No seluk tan (*

)

25. Are you satisfied with the current Department Management?

Ita senti satifeitu ho Jestaun Departamentu uluk?

- a. Not at all *La iha liu*
- b. Almost dissatisfied *Ladun Satisfeitu*
- c. Neutral *Neutru*
- d. Almost satisfied *La satisfeito*
- e. Satisfied *Satisfeitu*

25.1 If your answer to question 25. is a. or b., what is the reason for it? (Multiple answers allowed)

Karik ita responde pergunta 25. mak a. ka b., siada mak ita nia rajaun? (Resposta bele barak)

- a. Management structure is ambiguous. *Strutura Jestaun dala rua.*
- b. Lack of responsibility of the person in charge. *Menus responsabilidade ba ema ne'ebe mak kaer (Sefi).*
- c. Too much dependent on the decision of person in charge *Depende liu ba ema ne'ebe kaer desijaun (Sefi)*
- d. Lack of fairness. *Laiha Neutralidade.*
- e. Management is not appropriate. *Laiha jestaun mak adekuadu.*
- f. Lack of rules and regulations about management. *Laiha regulamentu ka regra konaba jestaun .*
- g. Management is too strict. *Jestaun mak aas liu.*
- h. Others *No seluk tan ()*

26. Do you think it is necessary to set the rules and regulations for the management of the Faculty?

The rules and regulations include the purpose of the organization, terms of reference, work flow, management method and so on.

Ita hanoin katak ida ne'e nesesariu atu halao regra no regulamentu ba genstaun Fakuldade nian?

Regra no regulasaun hira ne'e inkhui ba objetivu organijasaun nian, termus referensia, servisu diak, metodu jestaun no seluk tan.

- a. No, I don't think so. *Lae, Hau la hanoin hanesan ne'e.*
- b. Yes, but it depends on the contents. *Los, maibe depende ba kontestu.*
- c. Yes, to some extent. *Los , Balun muda.*
- d. Yes, definitely with details. *Los, Klaru ho detailu*
- w. I don't know. *Hau lahatenen.*

26.1 If your answer to question 26. is b. or c. or d., which topic do you think it is necessary to be set? (Multiple answers allowed)

Karik ita responde pergunta no 26. mak b. ka c. no d., ita nia hanoin topikulu ida ne'ebe mak neesesariu atu bele implementa. (Responde bele barak)

- a. Management of Faculty Meeting *Jestaun konaba reuni fakuldade*
- b. Management of each Committee *Jestaun ba kada komisaun*
- c. Office Regulation *Regulasaun servisu fatin (Edifisiu)*
- d. Management of Student Registration *Jestaun resjista estudante nian*
- e. Management of academic record of the student *Jestaun ba lista studente akademiku*
- f. Personnel affairs of lecturer and staff *Asuntu pesoa Dosente no Staff*
- g. Management of campus and facilities *Jestaun ba Campus no Fasilidade*
- h. Management of equipments *Jestaun ba Ekipamentus*
- i. Management of Workshops *Jestaun ba Ofinsina /*
- j. Others *No seluk tan ()*

27. Do you think it is necessary to set the rules and regulations for the management of the Department?

Ita hanoin katak ida ne'e nesesariu atu implementa regra no regulation ba Jestaun departementu nian?

- a. No, I don't think so. *Lae, Hau la hanoin hanesan ne'e.*
- b. Yes, but it depends on the contents. *Los, maibe depende ba kontestu.*
- c. Yes, to some extent. *Los, balun muda.*
- d. Yes, definitely with details. *Los, klaru ho detailu*
- w. I don't know *Hau la hatene.*

27.1. If your answer to question 27. is b. or c. or d., which topic do you think it is necessary to be set? (Multiple answers allowed)

Karik ita responde perguntas 27. mak b. ka c no d., Ita nia hanoïn topiku ida ne'ebe mak presija atu implementa? (Perguntas bele barak)

- a. Management of Department Meeting *Jestaun konaba reuniaun Departamentu nian*
- b. Department works and allocation *Servisu Departamentu no alokasaun*
- c. Class allocation *Alokasaun Aula*
- d. Management of registered student *Jestaun ba lista estudantee*
- e. Management of academic record of the student *Jestaun ba valor (Nilai) studente*
- f. Personnel affairs of lecturer *Asuntu pesoal Dosente nian*
- g. Management of equipments *Jestaun ba ekipamentus*
- h. Management of Workshop *Jestaun ba Ofisina / Bengkel*
- i. Research activities *Aktividade Peskija nian*
- j. Others *No seluk tan ()*

28. How do you think about Faculty Management since 2012, in comparison with the past?

Tuir ta nia hanoïn konaba Jestaun Fakuldade nina durante 2012, kompara tinan hirak liu ba?

- a. It becomes worse. *Sai a'at liu.*
- b. It becomes worse a little. *Sai a'at oituan.*
- c. No change. *Laiha mudansa.*
- d. It is improve a little. *Sa'e oituan deit.*
- e. It is improved. *La sa'e.*

29. Do you have a pride as a lecturer of Faculty of Engineering, Science and Technology in UNTL?

Ita senti kontenti hanesan dosente ba Fakuldade Enjineria nian, Sensia no Tegnolojia iha UNTL?

- a. Not at all *La iha liu*
- b. Yes, but a little *Los, la dum*
- c. Yes, very much *Los, Konetenti liu*
- d. I don't know *Hau lahatene*

29.1. If your answer to question 29. is b. or c., please select the reason why you have a pride. (Multiple answers allowed)

Karik ita responde pergunta 29. mak b ka c., hili rajaun tamba sa ita senti konteti? (Pergunta bele barak)

- a. To be a lecturer of University. *Sai dosente ba Universidade.*
- b. UNTL is the highest institution in the higher education. *UNTL hanesan instituisaun edukasaun ne'ebe aas*
- c. High academic background. *Akademin A'as (Background).*
- d. Having abundant knowledge. *Iha konesementu ne'ebe diak.*
- e. Having high technical skill. *Tekniku Skill ne'ebe aas.*
- f. Having high expertise. *Iha konesementu matenek ne'ebe aas.*
- g. Experience in study abroad. *Iha eperensia ba estuda rai liur.*
- h. Having world-class capability. *Iha kapasidade ba eskola nivel internasional*
- i. High salary. *Salariu Aas.*
- j. Others *No seluk tan ()*

VI CADEFEST Project *Projetu CADEFEST*

30. Do you think the environment for conducting lectures and experiment in the Faculty is improved by the CADEFEST Project?

Oinsa Ita boot nia hanoïn katak kondisaun ba hanorin klase no experimentu iha mudansa iha Fakuldade tamba Projetu CADEFEST?

- a. Strongly disagree *La konkorda liu*
- b. Disagree *La konkordda*
- c. So so *Oladun konkordat*
- d. Agree *Konkorda*
- e. Strongly agree *Konkorda liu*

31. Do you think the CADEFEST project is useful for improvement of your academic ability?
Oinsa ita boot nia hanoin katak Projetu CADEFEST ne'e iha benefisiu no lori mudansa ba ita nia abilidade akademiku?
 a. Not at all *La iha liu* b. Not so useful *Ladun benifisiu* c. So so *Naton deit*
 d. Useful *Benefisiu* e. Very useful *Benefisiu liu*
32. Do you think the CADEFEST project is useful for improvement of your teaching quality?
Oinsa ita boot nia hanoin konaba Projetu CADEFEST ne'e iha benefisiu no lori mudansa ba ita nia kualidade hanorin?
 a. Not at all *La iha liu* b. Not so nseful *Ladun benifisiu* c. So so *Naton deit*
 d. Useful *Benefisiu* e. Very useful *Benefisiu liu*
33. Do you think the research ability of lectures in the Faculty is improved by the CADEFEST Project?
Oinsa ita boot nia abilidade ba peskiza ba docente sira iha mudansa tamba Projetu CADEFEST?
 a. Strongly disagree *La konkorda liu* b. Disagree *La konkordda* c. So so *Oladun konkordat*
 d. Agree *Konkorda* e. Strongly agree *Konkorda liu*
34. Do you think the CADEFEST project is useful for improvement of your research ability ?
Oinsa ita boot nia hanoin konaba Projetu CADEFEST ne'e iha benefisiu no lori mudansa ba ita nia abilidade ba peskiza?
 a. Not at all *La iha liu* b. Not so useful *Ladun benifisiu* c. So so *Naton deit*
 d. Useful *Benefisiu* e. Very useful *Benefisiu liu*
35. Do you think Faculty management system is improved by CADEFEST Project?
Oinsa ita boot nia hanoin katak jestaun Fakuldade iha mudansa tamba Projetu CADEFEST?
 a. Strongly disagree *La konkorda liu* b. Disagree *La konkordda* c. So so *Oladun konkordat*
 d. Agree *Konkorda* e. Strongly agree *Konkorda liu*
36. The CDAFEST Project will be finished in January 2015. How much do you hope a new project by JICA after the end of this project?
Projetu CADEFEST sei remata iha Jeneiru 2015. Ita hakarak sei iha projetu foun / kontinuasaun waihira projetu ne remata?
 a. Not at all *La presiza* b. Hardly *Ladun presiza* c. So so *Neutral*
 d. Comparatively *Bele Kontinua* e. Strongly *Tenki Kontinua*
- 36.1 If your answer to question 36. is d. or e., what kind of support do you hope by JICA? (Multiple answers allowed)
Karik ita nia responde pergunta 36. mak d. ka e., Ajuda / kooperasaun modulu oinsa mak ita hakarak husi JICA?
 a. Academic ability *Abilidade akademiku*
 b. Teaching method *Metodu hanorin*
 c. Teaching quality *Kualidade ba hanorin*
 d. Research ability *Abilidade ba peskiza*
 e. Faculty management *Jestaun fakuldade*
 f. Short-tem training *Treinamentu ho durasaun badak*

- g. Long-term training *Treinamentu ho durasaun narak*
- h. Teaching equipment *Ekipamentu ba hanorin*
- i. Research equipment *Ekipamentu ba peskiza*
- j. Others *No seluk tan (* _____ *)*

37. Please, write freely your opinions and requests about CADEFEST Project.

Favor, bele hakerek ho vontade tuir ita nia opiniaun no proposta konaba Projetu CADEFEST.

.....

.....

.....

.....

.....

.....

----- **Thank you very much for your cooperation** *Obligado barak ba ita nia koperasaun* -----

FoEST-UNTL/FoEST-UNTL	OPERATING PLANS FOR 2013-2017
FACULTY OF ENGINEERING, SCIENCE AND TECHNOLOGY/ FACULDADE DE ENGENHARIA, CIÊNCIAS E TECNOLOGIA	

TEMPLATE

STRATEGIC PRIORITY NO. AND DESCRIPTION: GENERAL OBJECTIVES:		EXPECTED RESULTS:			
ACTIVITIES	TIME FRAME [START-END]	RESPONSIBILITY	KEY PERFORMANCE INDICATOR [KPI]	RESOURCES	BUDGETS
<ol style="list-style-type: none"> 1. Institutional position/Enquadramento institucional 2. Capability for Administration and Management/Capacitação de Administração e Gestão 3. Quality teaching/Qualidade de Ensino 					
Movement of the Lecturers, Administration Staffs and Students, Dili-Hera. (continually)/Movimentos dos Docentes, Funcionários Administrativos e Estudantes, Dili-Hera. (continua)	2013-2017	UNTL Logistic Direction/Direção Logística da UNTL.	Transport support for the lecturers, staffs and students/Transportes apoiados aos docentes, funcionários e estudantes.		
Transfer the facilities dormitories utilization for students/Transferência de Utilização das facilidades dos dormitórios para estudantes.	2013	Logistic, Deputy Rector and FoEST/Logística, Pró-Reitor e FECT.	Dormitories, mobility facilities, water and electricity/Dormitório, facilidade mobiliária, água e electricidade.		
Construction and emergency Rehabilitate the parts of the building danification, water supply canalization, Internet network instalation/Construção e Reabilitação emergência das partes dos edifícios	2013-2017	UNTL-RDTL	Laboratories for Informatic, Geology & Petroleum departments/Laboratórios dos departamentos de		



<p>danificados, canalização da água, instalação da rede de internet.</p>	<p>2013</p>	<p>(Team) of FoEST, Vice-Rector for Academics Affair and International Experts/(Grupo) da FECT, Vice-Reitor dos Assuntos Académicos e Péritos Estrangeiros</p>	<p>Informática, Geologia e Petróleo. Norms and Internal Regulation of Faculty/Normas e Regulamento Interno da Faculdade.</p>	
<p>Elaboration of internal statute regiment of faculty/Elaboração do estatuto e regimento interna da faculdade.</p>	<p>2013-2017</p>	<p>Team) of FoEST, Vice-Rector for Academics Affair and International Experts/(Grupo) da FECT, Vice-Reitor dos Assuntos Académicos e</p>	<p>Curriculum and Syllabus appropriate for perspective field work and profile of graduates students/Curriculo e Sílabas adequado com perspectivas do campo de trabalho e perfil dos</p>	
<p>Revision and Elaboration the Curriculum + Syllabus, Dossier and Module for the Bachelor Degree Course in five departments of FoEST-UNTL/Revisão e Elaboração dos Currículos + Sílabas, Dossier e Módulos para o Curso de Licenciatura nos cinco departamentos da FECT-UNTL.</p>				



			Péritos Estrangeiros.	estudantes graduados.	
Capacity informatics área for administration staffs and lecturers in faculty/Capacitação na área informática aos funcionários administrativos e docentes da faculdade.	2013-2017	FoEST, UNTL, JICA/FECT, UNTL, JICA.	Knowledge to use the programs of M. Word, M.Excel, PowerPoint, Internet program, etc./Conhecimento de utilizar programas de Microsoft M. Word, M.Excel, PowerPoint, Programação de Internet, etc.		
Recruitment for new administration staffs, lecturers, instructors/technician for each department/Recrutamento dos novos pessoais administrativos, docentes, instrutores/técnico em cada departamento.	2013-2017	Human Resources- UNTL, Public Services, Faculty/Recursos Humanos- UNTL, Função Pública, Faculdade	Complete necessary number in each department to promote the quality control of theory and practical classes /Completar número necessário em cada departamento para promover a qualidade do controlo nas aulas teóricas e práticas.		



<p>Availability materials for laboratorial. practical/ Disponibilizar os materiais para prática laboratorial.</p> <p>Supplying Practical Material and instruments for each department/ Suportar Materiais e ferramentas práticas em cada departamento.</p>	2013-2017	<p>Administrator General-UNTL, Faculty/Administrador Geral-UNTL, Faculdade.</p>	<p>Equipments, Materials, Instruments for practical class/ Equipamentos, Materiais, Instrumentos da aula prática.</p> <p>Promove technical and professional ability/ Promover habilidade técnico profissional.</p>		
<p>Faculty Website Instalation/ Instalar Website da faculdade.</p>	2013	<p>IT-UNTL, Faculty/Técnicos Informáticos da UNTL, Faculdade.</p>	<p>Promove Academics quality Faculty/ Promover qualidade Académica da Faculdade.</p>		
<p>Supervise Professional Apprentice for finalist students/ Supervisionar Estágio Profissional dos estudantes finalistas.</p>	2013-2017	<p>FoEST-UNTL, Local and International Company/ FECT-UNTL, Companhia Local e Internacional.</p>	<p>Orientation to support society work and Professional/ Orientação do trabalho de apoio humanitária e Profissional.</p>		



Elaboration and conclusion the thesis/Elaboração e conclusão da tese.	2013-2017	FoEST-UNTL/ FECT-UNTL.	Correction and prepare to final examination/ Correcção e preparação para a Defesa pública.	
Judicium and graduate/Judicium e graduação	2013-2017	FoEST, UNTL/ FECT, UNTL	Verification of graduates list, prepare Diploma, DIII & S1 (IT- Informatic), Academics Transcription and other necessary documents/Verificação da Lista dos graduados, preparar Diploma, DIII e Licenciatura (Informática), Transcrição das Notas e mais alguns documentos necessários.	
Scientific Research/Pesquisa Científica	2013-2017	FoECT-UNTL,JICA, CNIC/FECT- UNTL,JICA, CNIC	Discovery and analize technical Scientific fields/Descobrir e analisar áreas técnicas Científicas.	
Technical Assistant/Assistência técnica	2013-2017	FoEST-UNTL, each department/FECT-UNTL, cada departamento.	Support theory and practical classes/Apoio em aulas teóricas e práticas.	
Equipments and Assessors Laboratory Management/Organizar Equipamentos e	2013-2017	FoEST-UNTL, each	Mark the Conventional Machines/Marcação das	



Assessores do Laboratório.			department/FECT-UNTL, cada departamento.	Máquinas Convencionais.		
Faculty Academic Exposition/Exposição Acadêmica da Faculdade.	2014-2017		FoEST-UNTL, each department/FECT-UNTL, cada departamento.	Promotion scientific concrete work to society/Promoção dos trabalhos científicos concretas para a sociedade.		
Training and capacity of lecturers in Portuguese and English language/Treinamento e capacitação dos docentes na língua portuguesa e Inglesa.	2013-2017		UNTL, Portugal, Australia,JICA/UNTL,Portugal, Austrália,JICA.	Capability and dominate of languages/Capacidade e domínio das línguas.		
Training and capacity of lectures for laboratorium assessors/Treinamento e capacitação dos docentes nos assessorias dos laboratórios.	2013-2017		FoEST-UNTL, JICA	Module and Manual utilized/Módulos e Manual utilizadora.		
Availability Bibliography References/Disponibilizar referências bibliográficas.	2013-2017		FoEST-UNTL, UNTL Library, JICA/FECT-UNTL, Biblioteca da UNTL, JICA.	Library, Library digital online/Biblioteca, Biblioteca digital online.		
Comparatives Studies, National and International/Estudos de Comparativos	2013-2017		FoEST-UNTL,	Exchange for students and lecturers/		



<p>Nacional e Internacional.</p>		<p>Indonesia, Japan, Australia, Portugal. Etc./FECT-UNTL, Indonésia, Japão, Austrália, Portugal. Etc.</p>	<p>Intercâmbio entre estudantes e docentes; National and International Journey/Viagens Nacional e Internacional.</p>		
<p>Extension Classes/Night Classes./ Classe de Extensão/Nocturna</p>	<p>2014-2017</p>	<p>FoEST, UNTL/ FECT, UNTL</p>	<p>Upgrade Diploma degree to Bachelor degree/Elevar o Curso de Bacharelato para a Licenciatura.</p>		

Class Evaluation of FoEST UNTL

授業評価の質問項目

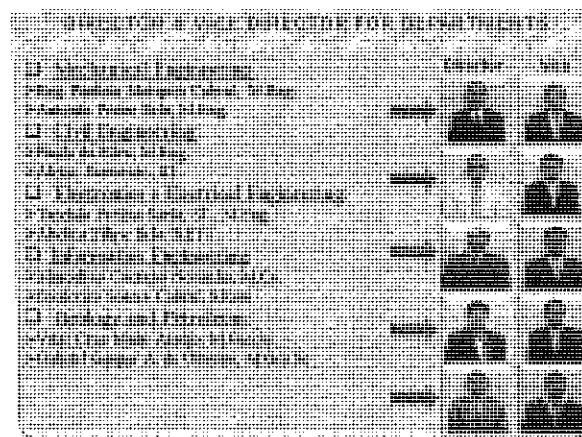
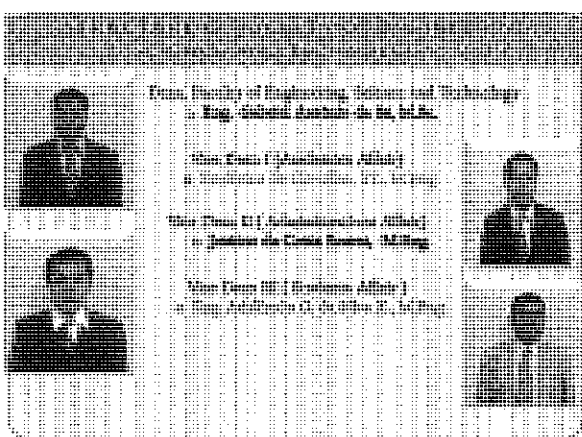
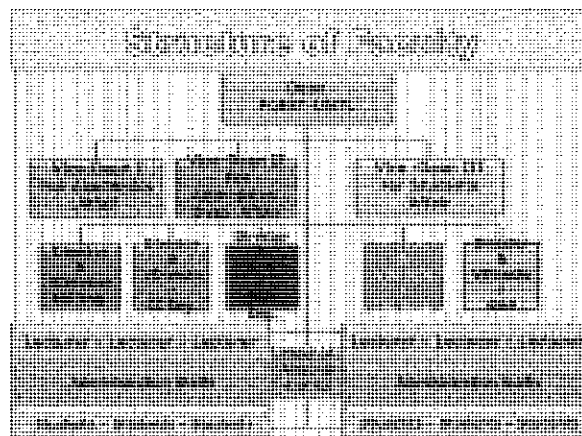
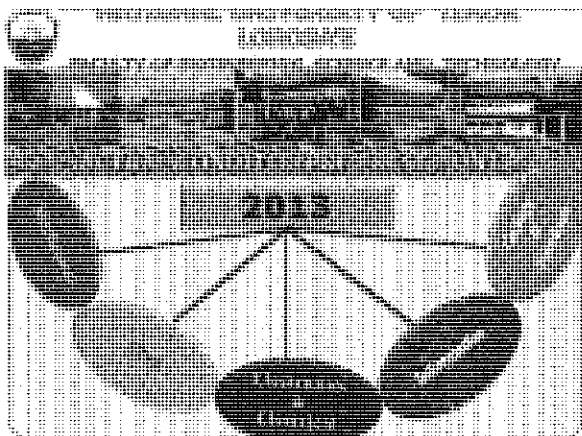
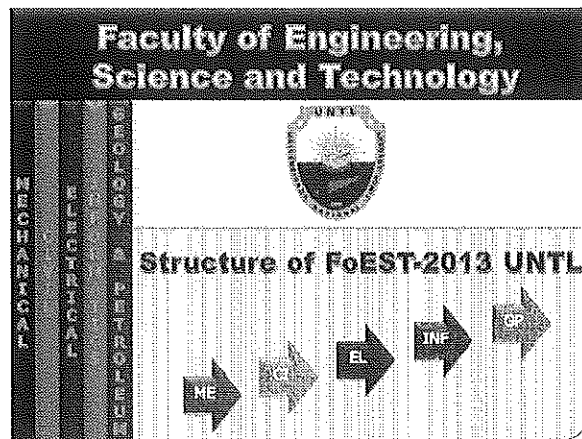
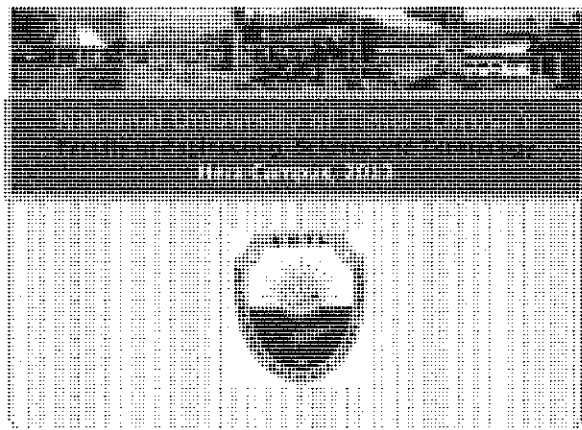
Questions for students

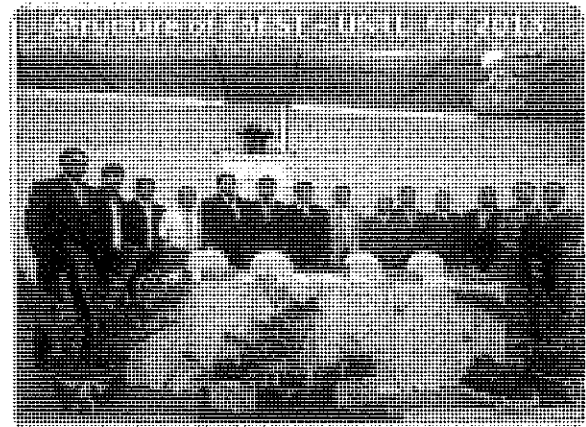
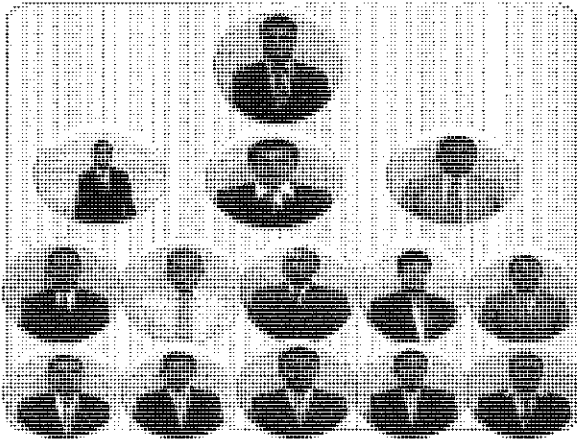
- | | | |
|---|---|---|
| Q1. How many weeks were the classes held in this semester?
<i>5 points mean 16 times class, and 0 point means no class.</i> | } | Times of class |
| Q3. How many classes were canceled without notice?
<i>5 points mean no cancel and 0 point means cancel of five times.</i> | | |
| Q2. How many weeks did you attend the class?
<i>5 points mean attendance of 16 times.</i> | } | Times of student's attendance |
| Q4. Were the classes performed according to the time table? | | |
| Q5. How much short was the class in comparison with the timetable? | } | Implementation of class
based on timetable |
| Q6. Can you understand the contents of the class? | | |
| Q7. Was the subject difficult or easy for you? | } | Comprehension of students |
| Q8. How many percentages do you satisfy this class? | | |
| Q9. Can you understand the contents which a teacher writes on the
blackboard and the contents of the handout? | | |
| Q10. Did the teacher perform the class eagerly? | } | Zeal and effort of lecturers |
| Q11. Did the teacher accept your questions? | | |
| Q12. Did a teacher give clear explanation for your questions? | | |
| Q13. Did you make a preparation for the class? | } | Zeal and effort of students |
| Q14. Did you make effort to understand the contents during the classes? | | |
| Q15. Did you review for the class ? | | |
| Q16. How many hours did you study for one day except for the school hours?
<i>5 points mean 3 hour of studying and 0 point means 0 hour.</i> | | |

Evaluation score by student

- M** : Q1 & Q2 : $M = 5n/16$ n : Times of class
 Q3 $M = 5 - n$ n : Times of canceled class without notice
 Q16 $M = (5/3)n$ n : Studying time at home

8. 工学部の現状 (2013年4月2日学部長プレゼンテーション資料)





ACTUAL CONDITION

Faculty of Engineering, Science and Technology have five Departments;

- 1) Department of Mechanical Engineering
- 2) Department of Civil Engineering
- 3) Department of Electronics and Electrical Engineering
- 4) Department of Informatics Engineering
- 5) Department of Geology and Petroleum

Total Lecturer for Mechanical Engineering

Mechanical Engineering, total lecturer are 26 persons, consist of:

- Master Degree (S2) : 20 persons
- Bachelor Degree (S1) : 2 persons
- Bachelor/Diploma (D3) : 4 persons

Study Abroad:

- Japan : 2 persons (Master)1, (Doctor)1
- Portugal : 3 persons (Master)2, (Doctor)1
- Australia : 1 person (Master)
- America : 1 person (Doctor)

Name of Mechanical Engineering Lecturer

- ✓ Joviano António da Costa, ST., M.Eng.
- ✓ António Pedro Belo, M.Eng.
- ✓ Eng. Gabriel António de Sá, M.Sc. (Ph.D Candidate)
- ✓ Marfim Guimarães, M.Eng.
- ✓ Eng. Duarte da Costa Sarmento, M.Eng. (Ph.D Candidate)
- ✓ Constâncio António Pinto, ST., M.Eng. (Ph.D Candidate)
- ✓ Eng. Adalberto da Silva Guterres Ximenes, M.Eng.
- ✓ Eng. Paulino Marques Cabral, M.Eng.
- ✓ Eng. João Sarmento Pinto, M.Eng.
- ✓ Eng. Victor da Conceição Soares, M.Eng. (Ph.D Candidate)

Name of Mechanical Engineering Lecturer

- ✓ Inácio Freitas Moreira, M.Sc. (Ph.D Candidate)
- ✓ Joaquim da Costa, ST., M.Eng.
- ✓ Mário Marques Cabral, Spd., M.Eng.
- ✓ José Barreto, M.Eng.
- ✓ Baptista P. F. Correia, B.Sc. (Master Candidate) Portugal
- ✓ Félix de Oliveira, ST., M.Eng.
- ✓ Agapito Morato, ST., (Master Candidate) Portugal
- ✓ Paulo da Silva, B.Eng., M.Eng.

Name of Mechanical Engineering Lecturer

- ✓ Lelis Gonzaga Fraga, ST., MT.
- ✓ Domingos de Sousa Freitas, ST., M.Eng (Ph.D Candidate) America
- ✓ Evangelino Candido Gaio, ST. MAP
- ✓ José Maria Xavier, ST., (Master Candidate) Australia
- ✓ Junior Raimundo da Cruz, M.Eng (Ph.D Candidate) Japan
- ✓ Francisco Xavier Ximenes, B.Mc.
- ✓ Valério de Sousa Gama, B.Mc. (Master Candidate) Japan
- ✓ Domingos de Jesus, B.Mc. (Assistant Lecturer)

Total Lecturer for Civil Engineering:

Civil Engineering, total lecturer are 17 persons, consist of;

- Master Degree (S2) : 7 persons
- Bachelor Degree (S1) : 7 persons
- Bachelor/Diploma (D3) : 3 persons

Study Abroad:

Japan : 2 persons (Master)
Portugal : 2 persons (Master)

Name of Civil Engineering Lecturer

- ✓ Paulo da Silva, M.Eng.
- ✓ Justino da Costa Soares, M.Eng.
- ✓ Mariano Renato M. da Cruz, ST., M.Eng.
- ✓ Leonel da Silva G. Madrin, ST., M.Eng.
- ✓ Lourenço Soares, ST., M.Eng.
- ✓ José Maria G. Belo Ximenes, M.Eng.
- ✓ Leandro Madeira Branco, B.C.C. (Master Candidate) Japan
- ✓ Tomás Soares Xavier, Spid. (Master Candidate) Portugal
- ✓ Eng. Benjamin de Oliveira Martins, M. Geom. (Ph.D Candidate)
- ✓ Francisco G.O. Ximenes, ST.
- ✓ Alfredo Ferreira, ST.
- ✓ Raimundo Pereira, ST. (Master Candidate) Portugal
- ✓ Sérgio Miguel Freitas, ST.
- ✓ Humbelina Mala S. Viegas, B.C.C.
- ✓ Hugo da Costa Ximenes, ST. (Master Candidate) Japan
- ✓ Afonso Sarmiento, ST.
- ✓ Marcelo Marques, B.C.C.

Total Lecturer for Electronics and Electrical Engineering:

Electronics and Electrical Engineering, total lecturer are 15 persons, consist of;

- Master Degree (S2) : 6 persons
- Bachelor Degree (S1) : 5 persons
- Bachelor/Diploma (D3) : 4 persons

Study Abroad:

Japan : 2 persons (Master) 1 (Doctor) 1
Portugal : 3 persons (Master)
Brasil : 1 person (Master)

Name of Electronics and Electrical Engineering Lecturer

- ✓ Rui Manuel de O.A. Sarmiento, ST., M.Eng.
- ✓ Frederico de Carvalho, ST., M.Eng.
- ✓ Ruben Jerónimo Freitas, ST., M.Eng.Sc.
- ✓ Miguel M. Monteiro, ST., M.Eng.
- ✓ Reinaldo Guterres da Cruz, ST.
- ✓ Tereisio Freitas Sávio, ST., M.Eng.
- ✓ Nicolau R. da Costa, ST. (Master Candidate) Portugal
- ✓ Celestino Correia, ST. (Master Candidate) Portugal
- ✓ Vital de Jesus Ximenes, ST. (Master Candidate) Portugal
- ✓ João Bosco R.F. Cabral, ST. (Master Candidate) Brasil
- ✓ Cândia Monteiro, M.Eng. (Ph.D Candidate)
- ✓ João Guterres, B.ETT.
- ✓ Abelito Filipe Belo, B.FIT.
- ✓ Ilencito Freitas Ribeiro, B.ETT.
- ✓ Olga Maria de Sousa, B.ETT. (Master Candidate) Japan

Total Lecturer for Informatics Engineering:

Informatics Engineering, total lecturer are 10 persons, consist of;

- Master Degree (S2) : 4 persons
- Bachelor Degree (S1) : 2 persons
- Bachelor/Diploma (D3) : 4 persons

Study Abroad:

Portugal : 3 persons (Master)

Name of Informatics Engineering Lecturer

- ✓ Zulmira Ximenes da Costa, M.Sc.
- ✓ Carlito Pinto, M.Sc.
- ✓ Angelo da Costa, ST., M.Cs.
- ✓ Marcelino Caetano Noronha, M.Cs.
- ✓ Emância Emma Soares Magno, B.Inf. (Master Candidate) Portugal
- ✓ Guido Sarmiento, B.Inf. (Master Candidate) Portugal
- ✓ José Elias Pereira Tilman, B.Inf. (Master Candidate) Portugal
- ✓ Vosco Pereira, ST.
- ✓ José Soares Pinto, B.EIT.
- ✓ Frederico Soares Cabral, S.Kom.

Total Lecturer for Geology and Petroleum:

Geology and Petroleum, total lecturer are 6 persons, consist of;

- Master Degree (S2) : 6 persons
- Bachelor Degree (S1) : 0 person

Study Abroad:

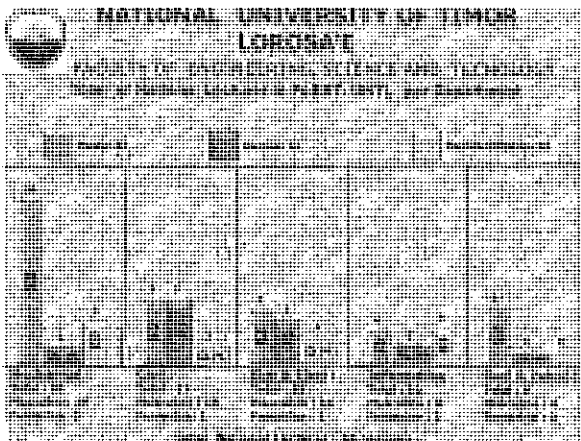
No Person

Name of Geology and Petroleum Lecturer

- ✓ Eng. Vital Cruz Malai Araújo Vila Nova, M.Geo.Sc.
- ✓ Eng. Gabriel Gaspar Aparício de Oliveira, M.Geo.Sc.
- ✓ Eng. Aquiles Tomás Freitas, M.Geo.Sc.
- ✓ Eng. Apolinário Eusébio Alves, M.Geo.Sc.
- ✓ Eng. Nene Soares Valente Crietovão, M.Geo.Sc.
- ✓ Eng. Henrique Gusmao Mendonça Pereira, M.Geo.Sc.

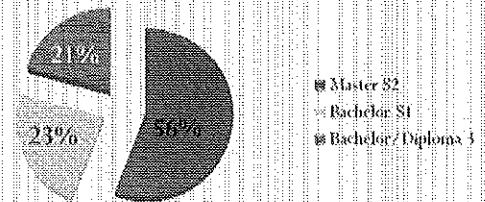
Total Lecturer

FoEST-UNTL	S3 (PhD)	S2 (Master)	S1 (Bachelor)	D3 (Bachelor/Diploma)
Mechanical	0	20	2	4
Civil	0	7	7	3
Electronics & Electrical	0	6	5	4
Informatics	0	4	2	4
Geology & Petroleum	0	6	0	0
Total:	0	43	16	15



IVERSIDADE NACIONAL TIMOR LOROSA'E
FACULDADE DE ENGENHARIA, CIÊNCIAS E TECNOLOGIA

Academics Background of the Lecturer (0%)

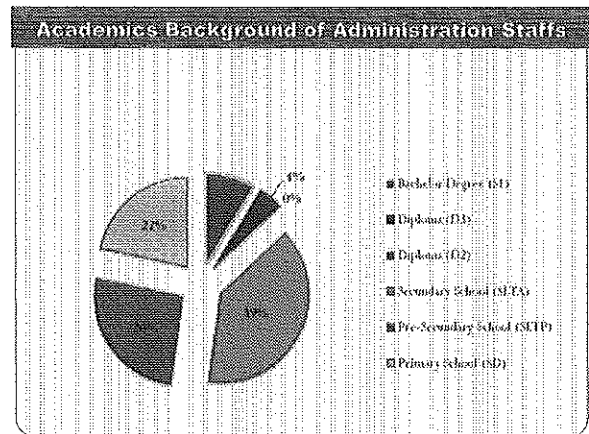
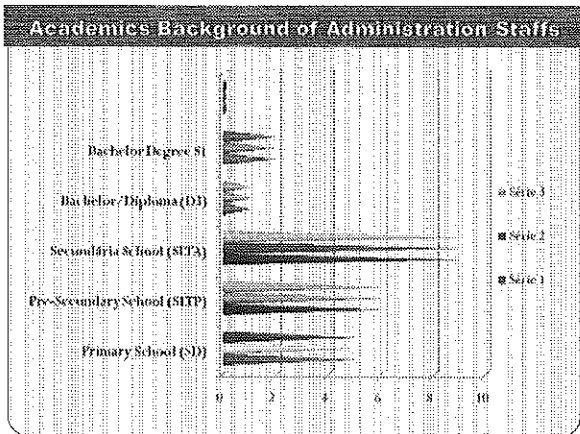


Parte-time Lecturer	
1)	
2)	
3)	
4)	
5)	
6)	

NAME OF ADMINISTRATIVE STAFFS	
✓	Eduardo Ruas Ximenes, L.Ec. (Chief of Administration)
✓	Agapito José Neto, L.Ec.
✓	Antônio de Oliveira Carvalho
✓	Domingos Pereira
✓	Pedro de Carvalho
✓	Pedro Fernandes
✓	Cristovão Tomé Moreira, B.E.T.
✓	Júlio Nicolau Belo
✓	José da Silva
✓	Camilo de Carvalho
✓	Luís António Freitas
✓	Raimundo Moreira

NAME OF ADMINISTRATIVE STAFFS	
✓	João Gonçalo Baptista
✓	António Mendonça
✓	Marcos Pereira de A. P.
✓	José Redentor da Costa
✓	Alberto M. da Silva
✓	Francisco de Carvalho
✓	Lucas Amaral
✓	Marcelina da Costa
✓	Mateus Canizio
✓	Alfredo da Costa Sarmiento
✓	José Gomes Mali Sura

Total of Administration Staffs	
❖ Administration Staffs are 23 Persons:	
Consist of;	
➤ Bachelor Degree (SI)	: 2 pessoas
➤ Bachelor/Diploma (D3)	: 1 pessoa
➤ Secondary School (SLTA)	: 9 pessoas
➤ Pre-Secondary School (SLTP)	: 6 pessoas
➤ Primary School (SI)	: 5 pessoas



**Statistics Students of
FoEST - UNTL, Academic Year 2013**

Total Students, 2270 persons, consist of:

- > Mechanical Engineering, 395 persons
- > Civil Engineering, 616 persons
- > Electronics & Electrical Engineering, 752 persons
- > Informatics Engineering, 406 persons
- > Geology and Petroleum, 101 persons

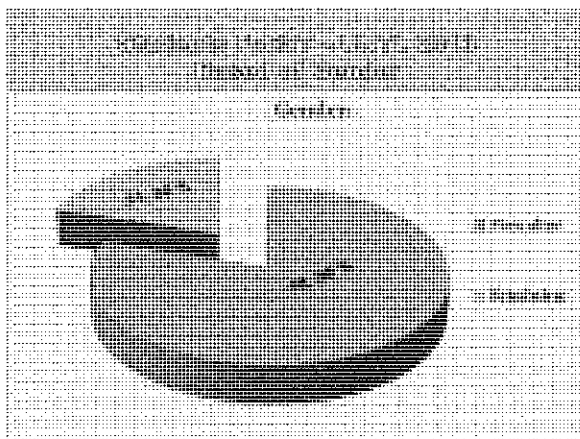
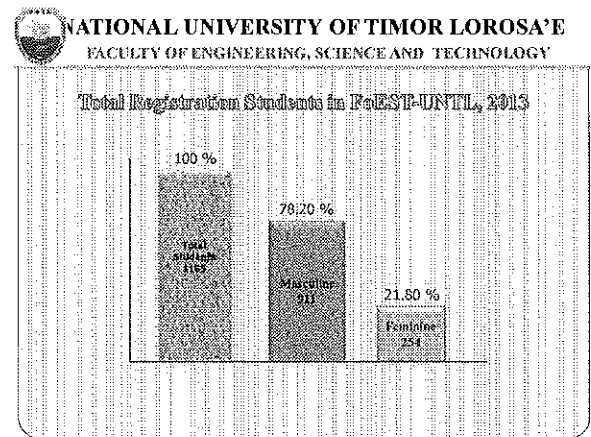
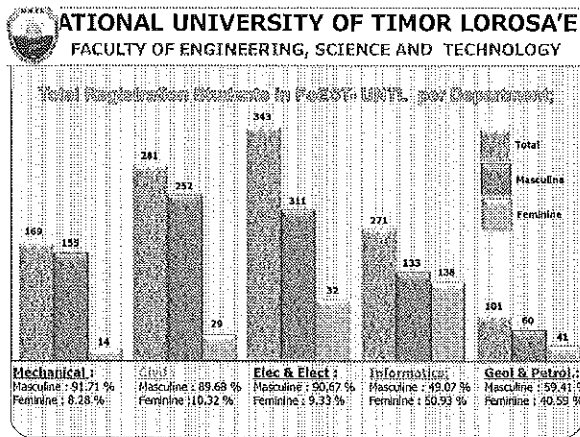
Total Number of Registration Students, 1165 persons, Consist of:

- > Mechanical Engineering, 169 persons
- > Civil Engineering, 281 persons
- > Electronics & Electrical Engineering, 343 persons
- > Informatics Engineering, 271 persons
- > Geology and Petroleum, 101 persons

**Statistics Students of
FoEST - UNTL, Academic Year 2013**

Gender:

	Masculine	Feminine	&
Mechanical Engineering	= 14	= 155	
Civil Engineering	= 29	= 252	
Electronics & Electrical Engineering	= 32	= 311	
Informatics Engineering	= 133	= 138	
Geology & Petroleum	= 41	= 60	
Total	= 254	= 911	



Registration of Student Degrees Awarded in 2013

Mechanical Engineering: Bachelor Degree (B.Eng) Program in Mechanical Engineering (5.5 years, started in 2011)

Civil Engineering: Bachelor Degree (B.Eng) Program in Civil Engineering (5.5 years, started in 2011)

Electronics & Electrical Engineering: Bachelor Degree (B.Eng) Program in Electronics & Electrical Engineering (5.5 years, started in 2011)

Informatics Engineering: Bachelor Degree (B.Eng) Program in Informatics Engineering (5.5 years, started in 2011)

Geology and Petroleum: Bachelor Degree (B.Eng) Program in Geology and Petroleum (5.5 years, started in 2011)

System Members and Organizational Structure		
System Member	Organizational Structure	Notes
...
...
...
...
...
...
...
...

System Members and Organizational Structure		
System Member	Organizational Structure	Notes
...
...
...
...
...
...
...
...

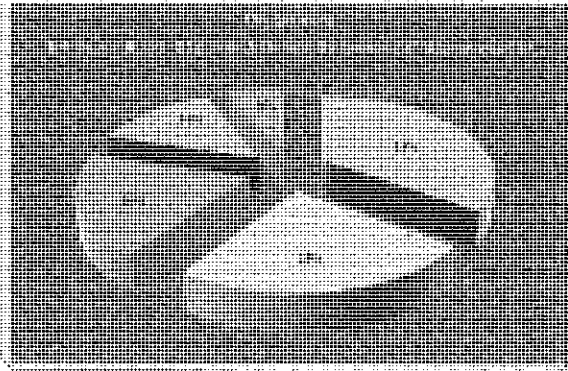
System Members and Organizational Structure		
System Member	Organizational Structure	Notes
...
...
...
...
...
...
...
...

System Members and Organizational Structure		
System Member	Organizational Structure	Notes
...
...
...
...
...
...
...
...

System Members and Organizational Structure		
System Member	Organizational Structure	Notes
...
...
...
...
...
...
...
...

System Members and Organizational Structure		
System Member	Organizational Structure	Notes
...
...
...
...
...
...
...
...

Percentage of International Students in FoEST-UNTL

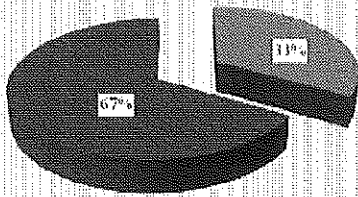


Country	International Staff	International Students	Total Staff
Japanese	11	11	22
Portuguese	67	67	134
Total	78	78	156

Lecturer & Expert for International Cooperation

Cooperation

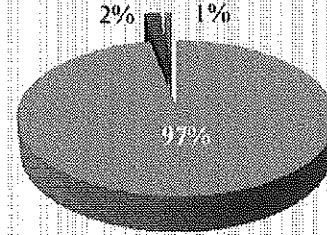
Portuguese Japanese



Total National & International Staffs in FoEST-UNTL

Total 97+ Staffs

Japanese Japanese Portuguese



Cooperation with foreign Universities

NO.	UNIVERSITY	COLLABORATION	COUNTRY
1.	Nagasaki University	JICA	Japan
2.	Yamaguchi University	JICA	Japan
3.	Gifu University	JICA	Japan
3.	Institut Teknologi Sepuluh Nopember	JICA	Indonesia
4.	Evora University	FUP	Portugal

- Mechanic (RU + ITS)
- Civil (YU + ITS)
- Electronic & Electrical (GU + ITS)
- Informatics (EU/FUP)
- Geology & Petroleum (EU)

DIII, March 2013

Thank You Very Much

By

Eng. Gabriel Antonio de M. M. Sc.
Dean FoEST-UNTL

9. 活動進捗リスト

Technical Cooperation Project for Capacity Development of the Faculty of Engineering, Science and Technology, The National University of Timor-Lorosa'e”
PROGRESS OF ACTIVITIES
 活動進捗リスト

As of March 2013

Activities 活動	Progress 進捗
0-0 Base-line survey is conducted for measurement of degree of future achievement. 工学部がプロジェクトの進捗を把握するためのベースライン調査を行う。	<p>実施済</p> <p>Base-line 調査は 2011 年 5~6 月に</p> <p>① 教官を対象にした教育・研究などに関するアンケート調査</p> <p>② 工学部長に学部の管理運営に関するアンケート調査</p> <p>③ 工学部事務職員の勤務・業務・運営などに関する面接調査を実施し、集計されている。</p> <p>2012 年 6 月の運営指導調査の前に①と類似の調査を行った。2013 年 3 月に①と同様なアンケート調査を行い、現在集計中である。ただし、2013 年の調査内容は 2011 年の内容とおおむね同じであるが、2 年間の状況変化に伴って一部内容を変更した。</p>

アウトプット 1: 工学部における授業（講義・実験）の実施環境が改善する。

<p>指標 1-1: 工学部の 4 年制学士プログラムのカリキュラムが国内標準カリキュラムに基づいて整備されているか</p> <p>指標 1-2: 4 年制学士プログラムのカリキュラムに従い、90%以上の科目でシラバスが整備されているか</p> <p>指標 1-3: ファカルティ・ディベロップメント委員会 (FDC) により、2 年ごとにカリキュラム、シラバスがレビューされているか</p> <p>指標 1-4: 90%以上の授業において、工学部教官により講義ノート・実験実習書が整備されているか</p>	
<p>1-1 Each department designs the curriculum for licensure program (4-year bachelor program), according to the national curriculum. 工学部3 学科が全国標準カリキュラムに沿った4 年制学士プログラムのカリキュラムを作成する。</p>	<p>作成済み</p> <p>プロジェクト発足当時に工学部は3 年制から4 年制に移行が決まっていた。2012 年 8 月ごろまでは、政府が定めた National Curriculum に基づいた教育が義務づけられていた。このカリキュラムは、国際レベルのため、工学部教官では実施不可能など、いろいろ問題があったため、大学本部からこれを無視してもよい指示があった。そして、National Curriculum を参考にして、各学科とも4 年制のカリキュラムを昨年末までに作成した。</p> <p>ただし、単位数についてインドネシアに準拠する考え方からポルトガルの制度に準拠するように変更する動きがあり、今後若干カリキュラムの変更がありそうである。</p>
<p>1-2 The Faculty applies number of qualified teaching staff for introduction of licensure program. 工学部が4年制学士プログラムの実施に向けて適切な教官の配置を行う。</p>	<p>進展中</p> <p>大学として、3 年制のプログラムでは、すべての教官が講義を担当できたが、4 年制のプログラムでは修士号以上の学位をもっている教官が講義を担当し、S1 と D3 の教官は実験や演習を担当するように決めて実施しつつある。そのために S1 と D3 教官を留学させて修士号取得を促進している。現在工学部 3 学科の修士号保持者は 31 名、さらに留学中教官は 17 名に及び、このうち 3 名は博士課程に留学中である。したがって、今後毎年数名程度の教官が修士号を取得する見込みである。</p>
<p>1-3 Teaching staff of the Faculty design the syllabus (syllabi) and teaching materials according to licensure program. 教官が4年制学士プログラムのカリキュラムに沿ったシラバス、教材等を作成する。</p>	<p>in progress but to be accelerated</p> <p>シラバスは部分的作成済、教材は？</p> <p>4 年制プログラムは 2012 年 1 月に始まり、現在学年進行中であり、一部の科目でシラバスが作成されている。シラバスの作成のために、プロジェクト側が様式を提供し、ITB の Satrio 客員教授に作成目的・意義・方法などを指導いただき、現在 1、2 年次の科目でシラバスが作成されているが、一部の科目はまだ作成されていない。</p>
<p>1-4 Teaching staff learns appropriate teaching skills on the subjects introduced under licensure program. 教官が新たに導入されたプログラムに基づき、適切な指導方法を習得する。</p>	<p>習得しつつある</p> <p>工学部教官は教育スキルもさることながら、基礎学力や専門科目の能力が不足している。そのために学力と教育スキルの向上のために、ITS 教官の集中講義、日本からの短期専門家による講義や模範講義を実施してきた。特に、日本の大学を定年退職した先生に長く滞在していただき、きめ細かい指導を行っている。</p> <p>ほとんどの教官はノートパソコンを所持し、Power point による授業、資料</p>

	<p>配付などが多く行われている。プロジェクト側は教科書（講義ノート）や実習書の印刷・製本の費用を負担して学生に配布するなど、教育教材の改善を推奨している。</p> <p>教育の質の向上を評価するひとつの方法として授業評価があり、2008年から毎年各学期に実施し、その解析結果をフィードバックの際に、教官に改善点などを指導している。</p>
<p>1-5 Faculty Development Committee (FDC) reviews curriculum and syllabus periodically, under licensure program. ファカルティ・ディベロップメント委員会 (FDC) がカリキュラム、シラバスの内容を期的にレビューする。</p>	<p>FDCの活性化が今後の課題</p> <p>4年制プログラムは始まって1年余りであり、カリキュラムやシラバスの見直しは時期尚早であるので、見直しを行っていない。通常、カリキュラムは極軽微な修正を除き、少なくともそのプログラムの最初の学生が卒業するまで改正は行わないのが通例である。ただし、シラバスは別であるものの、現在のシラバスは2012年9月に作成したので、まだ見直すところまで至っていない。しかし、FDCは現在休眠状態にあり、再構築して活動するようになる必要がある。</p>
<p>1-6 Teaching staff conduct class evaluation at the initiative of FDC. 教官がファカルティ・ディベロップメント委員会 (FDC) の指揮下で授業評価を実施する。</p>	<p>FDCの活性化が今後の課題</p> <p>現在の授業評価は、プロジェクト側が主体になって実施している。現在56名の教官のうち17名(30%)の教官が留学中であり、授業担当科目数も増加している。また、教官は研究の推進、教育に質の改善や各種の管理運営に携わっていることもあり、教官のロードが多くなっている。そのためにFDCを再構築したが、実質的に機能していない。今後、小人数でFDCを構成し、活動するように努力する必要がある。</p>

アウトプット2: 実践的な調査・研究活動に基づいて卒業研究指導が行われる。

<p>指標 2-1: 4年制学士プログラムの下で、実践的な調査・研究活動に基づく卒業研究の指導が行われているか 指標 2-2: 4年制学士プログラムに基づく学生による卒業研究の成果品が、毎年作成されているか</p>	
<p>2-1 Teaching staff identifies research and investigation needs of the society. 教官が地域の調査・研究ニーズを把握する。</p>	<p>教官により異なる</p> <p>教官に地域や社会的なニーズを把握やそのモチベーションを向上させるために、実務分野の技術者や日本の大学の先生による特別講義やセミナーを各学科毎年複数回開催している。また、現場見学や関係する省庁訪問を行い、教官が実務や業務の実情を学ぶ機会を設けている。</p>
<p>2-2 Teaching staff make research proposals for conducting research activity. 教官が実践的な調査・研究活動を実施するための研究計画書を作成する。</p>	<p>作成している</p> <p>教官の研究活動を促進するために、各年度研究プロポーザルを募集している。2011年度は応募18件、採択6件、2012年度応募11件、採択8件、2013年度応募13件、採択(9+α)件である。採択されるテーマのほとんどは東ティモールにニーズに応じた実践的な内容の研究である。</p> <p>以上の状況から、多くの教官は研究プロポーザルを作成することはできるが、研究プロポーザルを応募したことがない教官が少数いる。</p>
<p>2-3 Teaching staff (and students) conduct practical research activity. 教官(学生)が実践的な調査・研究活動を実施する。</p>	<p>実施している</p> <p>教官の研究活動状況は、2-2に示したとおりであり、多くの教官が研究を実施している。</p> <p>なお、学生は1、2年次のみであるので、調査研究活動を実施していない。実施開始は2015年からになる。ただし、3年制プログラムの学生の“Final Examination”において、供与機材を用いて実際に指導している教官もいる。</p>
<p>2-4 Teaching staff widely share the experience of practical research activity. 教官が実践的な調査・研究活動の経験を広く共有する。</p>	<p>共有する機会はプロジェクト活動以外では限られている</p> <p>採択された研究プロポーザルについて、毎年10～11月に研究の進捗状況や日本における短期研修の成果のセミナー、さらに3月には研究成果の発表セミナーを開催し、その成果を公表する機会を設けている。セミナーには多くの教官が出席し、専門分野を超えて熱心な質疑応答が行われている。また、各年度末には研究成果報告書の提出を義務づけ、誰もが報告書を閲覧できるようにしている。</p>
<p>2-5 Teaching staff (the faculty) establish the method of research activity for instructing to students. 教官(学部)が学生に指導するための調査・研究実施方法を確立する。</p>	<p>進展中</p> <p>採択された研究プロポーザルの研究代表者と分担者は支援大学の先生の指導の下で研究を推進している。教官は研究指導と実施を通して研究方法を学ぶことができる。また、支援大学の先生に研究計画、実施方法、解析方法、成果のまとめ方などの講義を行って指導している。このような活動を通して教官が学生の研究指導方法の確立をめざしている。</p>

<p>2-6 The Faculty introduces practical and research based final thesis to their students. 学部で学生に対する卒業研究指導が行われる。</p>	<p>4年制学士プログラムの卒業研究はプロジェクト終了後の活動 卒業研究は4年生科目であるので、2015年から開始される。現在の3年制プログラムには"Final Examination"という科目名で実践的な課題の演習や実習などを行い、その成果を発表し3名以上の教官がそれを審査している。</p>
<p>2-7 Teaching staff evaluates the final thesis appropriately through the presentation conducted by the students. 教官が学生による卒業研究発表を通じて適切に審査を行う。</p>	<p>4年制学士プログラムの卒業研究はプロジェクト終了後の活動 2-6に示したとおりである。卒業研究は"Final Examination"とは異なり、一種の研究である。そのために教官自身が学力と研究能力を向上させることが重要であり、1-4と2-2のように教官の能力向上に努めている。</p>
<p>2-8 Each department materializes students' final thesis into booklets so that it would be widely shared outside of UNTL. 各学科が卒業研究の成果を対外向けに公表できるようまとめる。</p>	<p>4年制学士プログラムの卒業研究はプロジェクト終了後の活動 現在、3年制プログラムの"Final Examination"の演習・実習成果は、各学科で製本して保管している。したがって、卒業研究の論文も同様に製本し、図書室に保管して、閲覧できるように指導していく予定である。優秀な論文については、公開セミナーなどによって、広く公表する方法も取り入れる必要がある。</p>

アウトプット3: 学部の管理体制が改善される。

<p>指標 3-1: 学部(学科)の活動計画が80%以上達成されているか 指標 3-2: 学部(学科)の管理状況のレビューが毎学期ごとに実施されているか</p>	
<p>3-1 The Faculty organizes committee for improvement of academic capacity based on the Statute. 工学部が学則に基づき、教育・指導体制改善のための学術委員会を組織する。</p>	<p>学術委員会は設立されていない要検討事項 UNTLは、学則に基づいて学術会議と管理運営会議を設けている。それぞれの会議の組織、規程、任務などが必ずしも明確でなく、活動状況も不明確である。そのため、学部の学術委員会は設立されていない。しかし、工学部の第1副学部長が教育・研究の担当であり、大学本部の意向を受けて改善に向けて対応している。</p>
<p>3-2 The Faculty organizes committee for improvement of management capacity based on the Statute. 工学部が学則に基づき、学部の管理体制改善のための検討委員会を組織する。</p>	<p>要検討事項/改善されつつある 学部の管理運営委員会も3-1と同様である。ただし、昨年6月の運営指導調査の際に、内部規程を整備する課題が提示されたために、Internal Regulation委員会(タスクフォース)が昨年発足し、工学部としての管理運営の規程のドラフトを作成し、学部会議に提案した。しかし、2013年中に施行される予定の全学の管理運営規程との整合性を保つ必要があるため、全学の運営管理規程の内容が確定したあとに修正を行ったうえで、施行される予定である。</p>
<p>3-3 The committee for improvement of management capacity settles the annual action plan for improvement of management system of the Faculty. 学部管理の検討委員会が工学部内の管理体制改善に向けた年間活動計画を設定する。</p>	<p>要検討事項 3-2に示したようにInternal Regulation委員会(タスクフォース)は内部規程の検討が任務であり、年間活動計画の立案まで担当していない。 プロジェクト側はITBのSatryo客員教授に学部の管理運営についての講義や指導をしていただいている。また、組織的ではないが、財務・アドミ担当の第2副学部長が管理運営体制改善に向けて対応している。</p>
<p>3-4 Teaching staff enhance the capacity of management of the Faculty according the action plan. 工学部が活動計画に基づき、教職員の管理能力強化を行う。</p>	<p>要検討事項 3-3の現状から工学部が活動計画を立案し、それに基づいて管理能力を行うことができていない。ただし、3-2の説明のとおり、これも大学全体の規程との整合性をとる必要があり、全学の規定制定が待たれるところである。ひとつの例として、昨年末に教官の給料が1.5~2倍に増加した。これに伴って教官の服務規程が変更になったはずであるが、大学本部がどのような対応をしようとしているか、いまだ不明確である。</p>

