Project Completion Report

Project for Capacity Development of

Faculty of Engineering, Science and Technology

National University of Timor-Lorosa'e, Phase 2

Contents of the Project Completion Report.

I. Basic Information of the Project

1. Country

The Democratic Republic of Timor-Leste

2. Title of the Project

The Project for Capacity Development of the Faculty of Engineering, Science and Technology, the National University of Timor-Lorosa'e(UNTL) Phase 2

3. Duration of the Project (Planned and Actual)

August 2016 to August 2021 (Planned)
August 2016 to March 2023 (Actual)

4. Background (from Record of Discussions(R/D))

The National University of Timor-Lorosa'e is the only national public higher education institution in Timor-Leste, which was established in November 2000. The Faculty of Engineering was established, based on the former Dili Polytechnic, for the development of technology-based human resources who play a major role in nation-building. The capacity of lecturers, however, was not enough. In addition, more than 70% of the infrastructure in the country, including educational institutions facility, was destroyed on the aftermath of the referendum for the independence in 1999, which paralyzed education system including higher education.

JICA started its cooperation with the Faculty of Engineering, UNTL, by dispatching experts, procurement of equipment and long-term training in response to the request from the government of Timor-Leste. In April 2006, the technical cooperation project "Capacity Development for Teaching Staff in Faculty of Engineering, National University of Timor-Lorosa'e (CADETES)" was launched for the purpose of capacity building of lecturers of the Faculty of Engineering. Between February 2011, and March 2016, another technical cooperation project "the Project for Capacity Development of the Faculty of Engineering, Science and Technology the National University of Timor-Lorosa'e (CADEFEST)" was implemented in order to improve the education and research capacity of the Faculty of Engineering, Science and Technology, in the fields of Mechanical Engineering, Civil Engineering, and Electrical & Electronic

Engineering. In the project, in addition to the improvement of the research capacity of the lecturers and development of the curriculum, JICA supported transition from a 3-year program to 4-year “licenciatura” undergraduate program. Meanwhile, the faculty of engineering, science and technology, UNTL needs to strengthen their research and education capacity more to fulfill social needs in the country, Timor-Leste. Under such circumstances, the Government of Timor-Leste requested to the Government of Japan for further cooperation to the faculty of Engineering, Science and Technology, the National University of Timor-Lorosa’e (hereinafter, referred to as “FoEST-UNTL”).

5. Overall Goal and Project Purpose (from Record of Discussions(R/D))

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.

6. Implementing Agency

Ministry of Higher Education, Science and Culture

Faculty of Engineering, Science and Technology (FoEST), National University of Timor-Lorosa’e (UNTL)

Japan International Cooperation Agency (JICA)

II. Results of the Project

1. Results of the Project

1-1 Input by the Japanese side

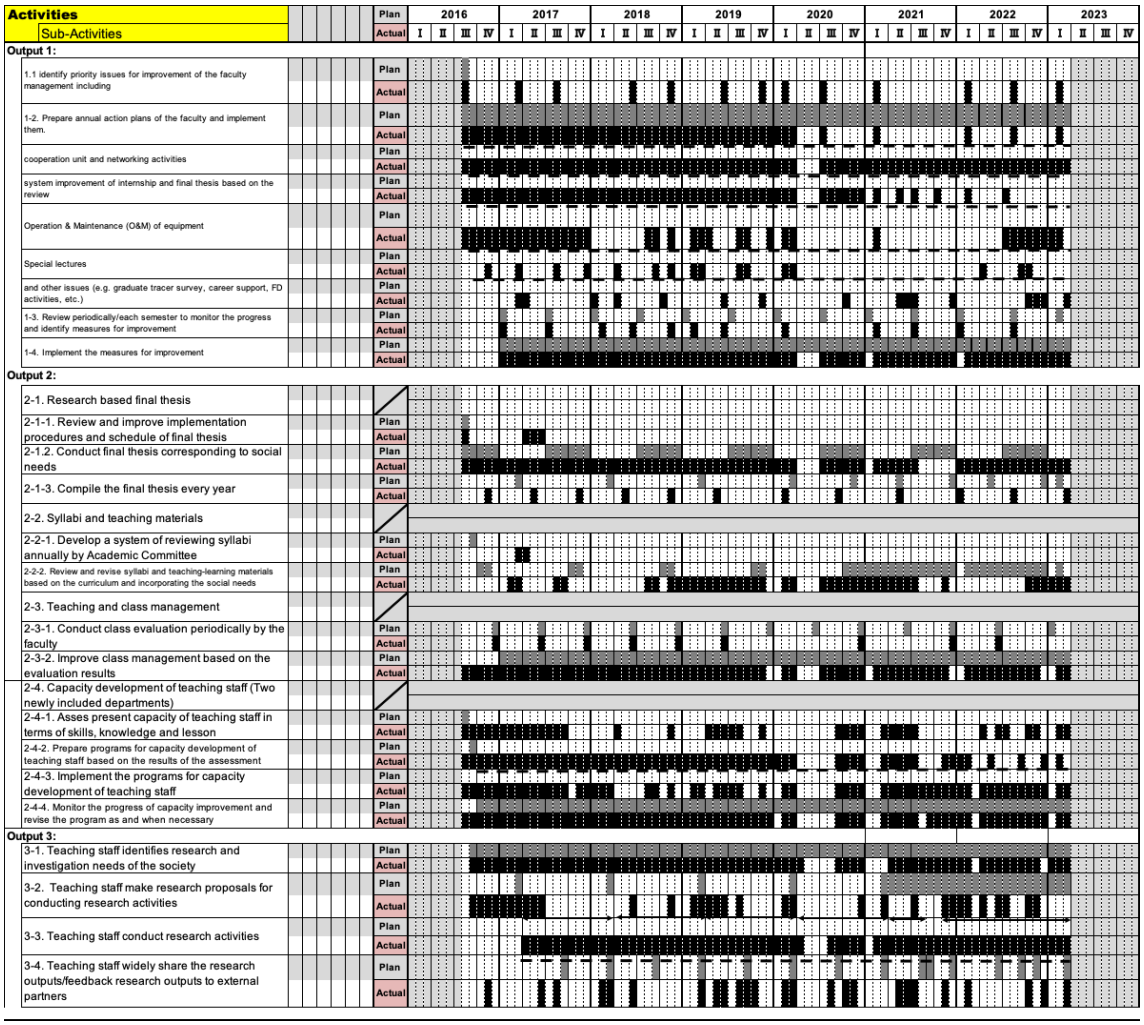
It is shown as ANNEX 1.

1-2 Input by the Timor-Leste side

The following items were provided as stated in R/D

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

1-3 Activities (Planned and Actual)



2. Achievements of the Project

2-1 Outputs and indicators

Output 1: Mechanism of faculty management to address priority issues is enhanced (Achieved)

PDM Indicator	June. 2019 (Mid. Rev)	Mar. 2023
1.1 List of external partners (present and potential) is prepared and updated regularly	Prepared and Updated	Prepared and Updated (Achieved)
1.2 Number of activities for networking with external partners (such as Industries, governments, communities, universities in the region) (**to be defined) : 30/Year	24 activities in 2019	45 activities / Project 6th year (Achieved)
1.3 Syllabi for internship and final thesis are prepared.	Guidelines for internship and final thesis were prepared.	*Guidelines for internship and final thesis were prepared and available FoEST web site. (*Guidelines contains the contents of syllabi, thus, the guidelines are substantially equivalent to syllabi.) (Achieved)
1.4 Guidelines and manuals of Operation & Maintenance (O&M) of equipment are developed	Initial Operation training for new equipment has done	Planed operational & maintenance training has been done (Especially ,Mechanical, Electrical, Geology and Petroleum) (Achieved)

1.5 Responsible personnel and procedures for requesting updates /repair of facilities and equipment are clearly defined.	Contract Technicians are allocated and expected to become permanent.	Technicians are employed as fixed term contract and assigned to each department. One technician will become permanent in 2023. Permanent status expected for all technicians. (Achieved)

1.1 List of external partners (present and potential) is prepared at the beginning of the project and updated every half a year. The list of external partners is attached as Annex 2.

1.2 Number of activities for networking with external partners

The target number of activities with external partners is 30 per year and the number of activities, which the project conducted in its sixth year, was 45 (15 activities over the target) (Fig.1). With the situation of COVID-19 returning to normal, the faculty was able to catch up and accelerate the activities with external partners.

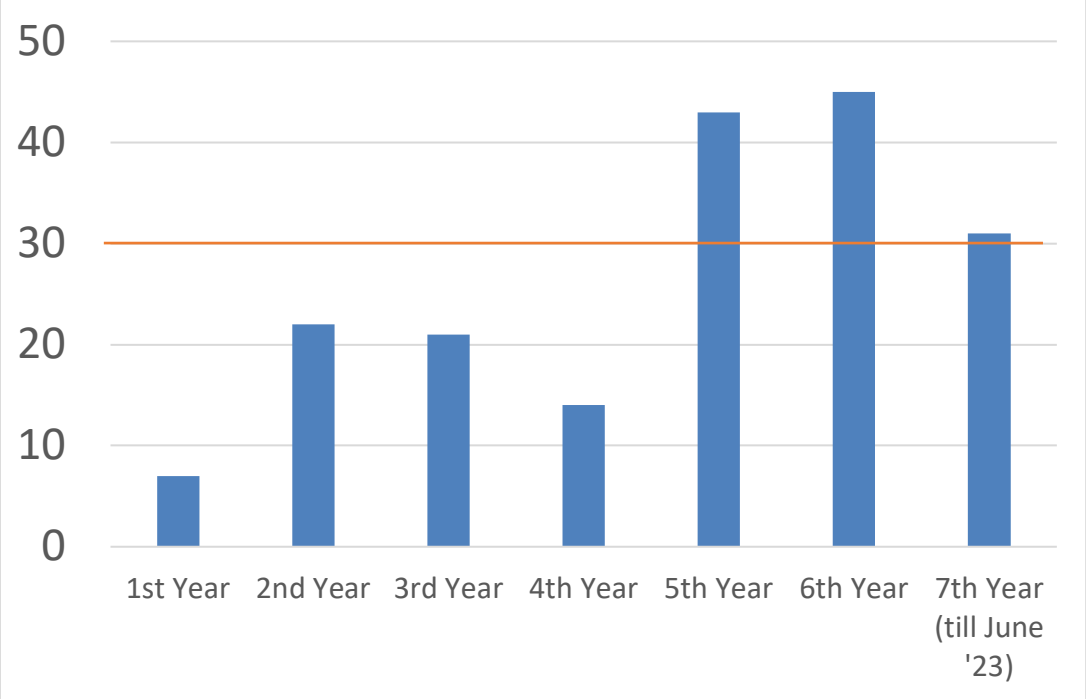


Fig. 1 Number of activities with external partners

1.3 Syllabi for internship and final thesis are prepared.
The final thesis and internship guidelines, which are substantially equal to Syllabi, have been prepared and are available on the FoEST website below:
http://fect.untl.edu.tl/st-7-tp.html

1.4 Guidelines and manuals of Operation & Maintenance (O&M) of equipment are developed.
Training has been conducted as planned and are mainly the following topics:
- Mechanical Engineering (CAD/CAM)
- Water level sensor and rain gauge
- Students' Electrical Experiments
- Equipment for petroleum analysis in Geology and Petroleum Field

1.5 Responsible personnel and procedures for requesting updates /repair of facilities and equipment are clearly defined.
When this project started, the best performance alumni were newly employed as contract laboratory assistants in each department. Although the two young laboratory assistants in the civil department moved to the institution of polytechnic Betano, there is still one senior permanent staff member for equipment maintenance in the civil department. All laboratory assistants are expected to become permanent but only one laboratory assistant had gained a permanent position in the mechanical engineering department as of the end of the project. FoEST will continue to request UNTL HQ to provide more employment opportunities.

Output 2: Education Corresponding to Social Needs is Improved at FoEST-UNTL (Mostly Achieved)

PDM Indicator	June. 2019 (Mid. Rev)	Mar. 2023
2.1 More than 80% of final thesis pass the examination based on the agreed criteria	4 years program's first batch students graduated.	90% Intake 2012 90% Intake 2013 85% Intake 2014 79% Intake 2015

	86% (as of June 2019 Graduation Ceremony)	(Mostly Achieved)
2.2 More than 90 % of students are satisfied with the education provided by the faculty.	More than 90 % of students are satisfied according to survey at graduation	100% Satisfied (Survey at graduation in 2023) (Achieved)
2.3 Class evaluation results get more than 4 averaged points.	Average 3.8 points	Average 4.4 points in 2022 (Achieved)

2.1 More than 80% of final thesis pass the examination based on the agreed criteria.

More than 80% students who admitted the faculty from 2012 to 2014 have passed final theses. According to the UNTL Academic regulations, students have to complete their final thesis within 6 years. However, most students could not finish within this timeframe (Fig.2).

Although the COVID-19 pandemic negatively affected their final thesis preparation in this project period, the students should be encouraged to finish their final thesis finish within the 6-year timeframe.

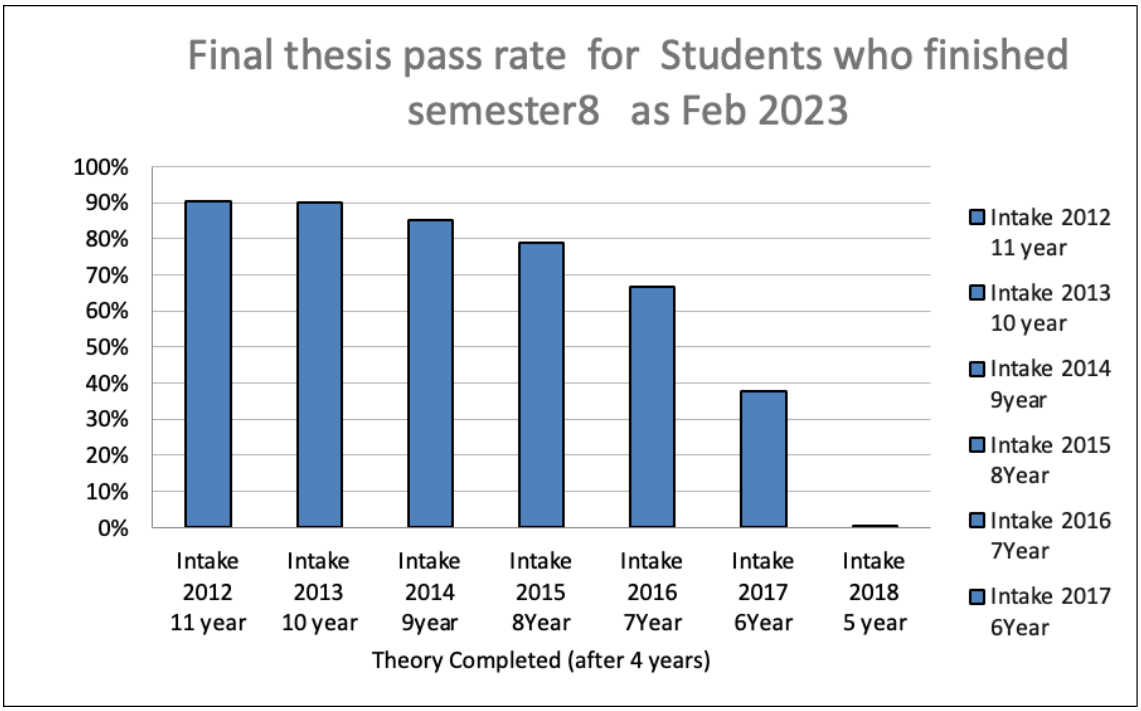


Fig. 2 Final Thesis Pass Rate for Students who finished semester8 (as of Feb 2023)

2.2 More than 90 % of students are satisfied with the education provided by the faculty.

According to the questionnaire survey which was completed at the registration for the 2022 graduation ceremony, 18% said they were satisfied and 82% were very satisfied. This meets our goal for student satisfaction (Fig.3).

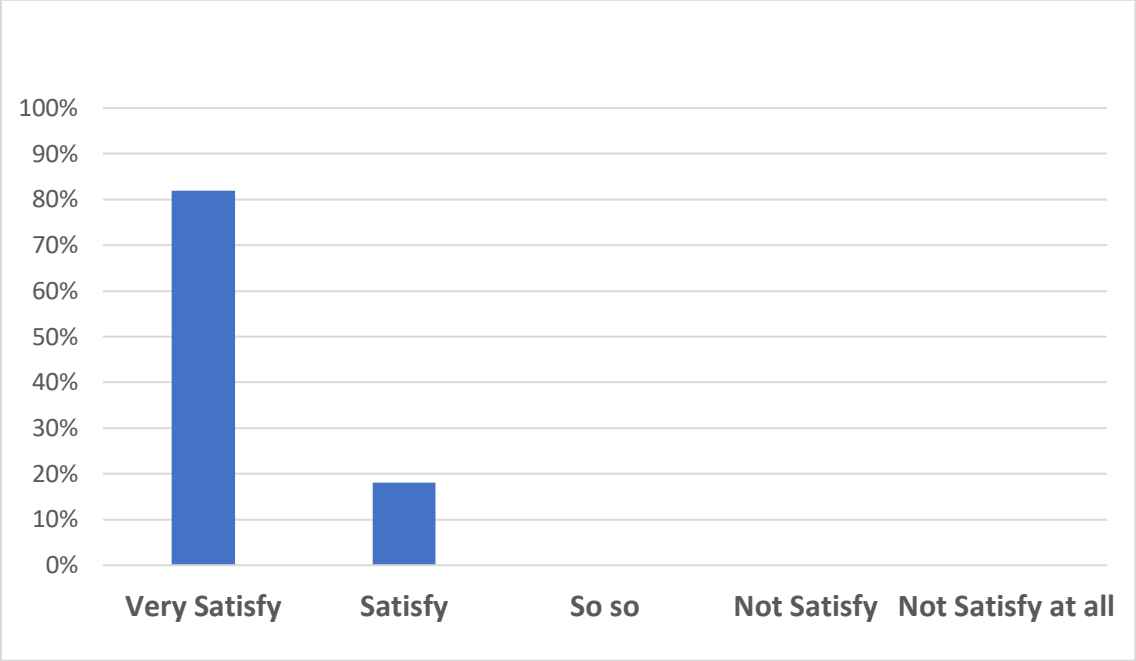


Fig. 3 Student's Satisfaction Rate in 2022

2.3 Class evaluation results get more than 4 averaged points.

Online students' Class Evaluation reached 4.4 in Even Semester 2022.

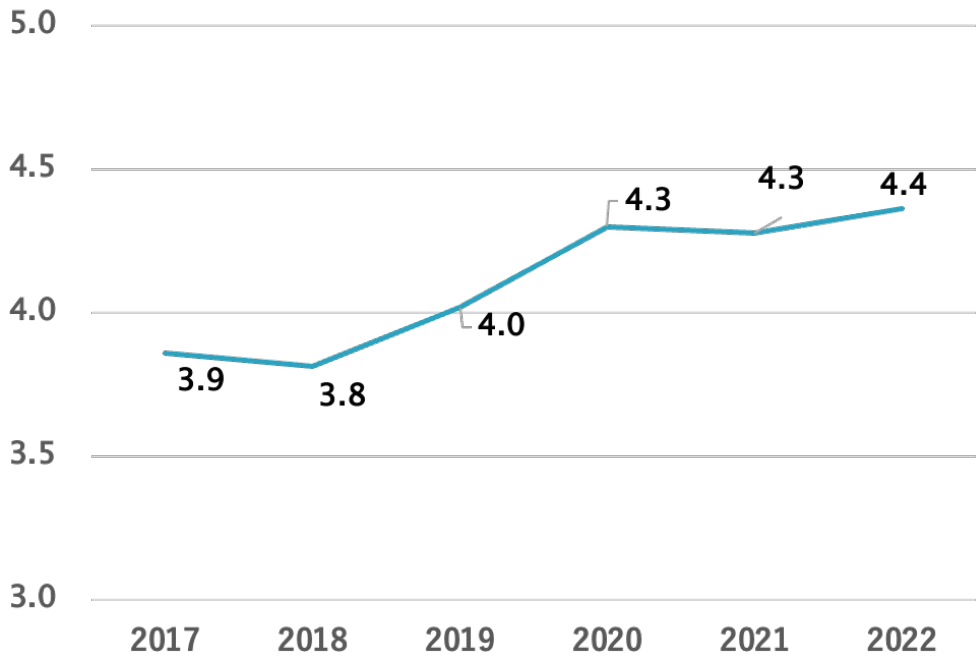


Fig. 4 Class Evaluation

(Points Criteria)

5. Very Satisfied
4. Satisfied
3. Neither satisfied nor unsatisfied
2. Could be improved
1. Needs serious improvement

When students register for classes through the online system, they are asked to complete an evaluation for the classes they took in the previous semester. Thus, all students participate in this evaluation. Thanks to improve class contents through lectures' short/long term training and the improved classroom environment in the faculty new building, the evaluation results gradually improved and achieved our target (Fig.4).

Output 3: Research corresponding to social needs are conducted by teaching staff of FoEST-UNTL (by Cooperation unit) (All achieved)

PDM Indicator	June. 2019 (Mid. Rev)	Mar. 2023

3.1 Percentage of faculty staff who submitted research proposals corresponding to social needs: 70 %	Average. 40 %	78 % (Including lecturers pursued in Ph.D Portugal and Japan) (Achieved)
3.2 Number of research corresponding to social needs conducted: 50	18	167 (Achieved)
3.3 Number of research papers published: 10 Publication/year	14/year	29/year (Achieved)
3.4 Number of research presentations for sharing research outputs: 20 /year	16/year	23/year (Achieved)

3.1 Percentage of faculty staff who submitted research proposals corresponding to social needs: 70 %

Finally, 78% of lecturers have some experience of compiling a research proposal. This includes those who currently study in Portugal and Japan (Table1).

Table 1 Percentage of faculty staff who submitted research proposals.

Department	Number of Active Lecturers	Lectures who have experience for Research Proposals	%
Mechanical	25	18	72
Civil	18	13	72
Electrical	17	13	76
IT	11	9	82
GP	11	11	100
Total	82	64	**78**

3.2 Number of research corresponding to social needs conducted: 50

The number of conducted research projects was 167, which includes the research conducted during long-term training. The number of research projects went far beyond our target.

Table 2 The number of conducted research

Department	Number of Conducted Research
Mechanical	47
Civil	33
Electrical	41
IT	32
Geology / Petroreum	14
Total	167

3.3 Number of research papers published: 10 Publications / Year.

The 29 research papers that were submitted in the project's final year went beyond our yearly target (ANNEX 2). The papers were published mostly in the Timorese Academic Journal of Science and Technology (TAJST). Although 14 papers were submitted to international journals, we would like this number to increase (Table 3).

Table 3 Number of Papers by Publications

Publication	1st year	2nd year	3rd year	4th year	5th year	6th Year	7th Year	Number of Papers
TAJST	4	9	30	21	24	21	29	94
International Journals submitted from the FoEST	2	0	0	1	3	4	4	14
Conference Proceedings	2	7	4	4	1	0	0	18
Papers with peer review submitted during Training in Japan	0	0	8	2	2	0	0	12
Total	4	9	30	21	24	21	29	138

3.4 Number of research presentations for sharing research outputs: 20/year

Although there were restrictions to hold face-to-face seminars due to COVID-19, ultimately, 23 research presentations were conducted in the project's sixth year (ANNEX 2).

Table 4 Number of Presentation

Year	1st year	2nd year	3rd year	4th year	5th year	6th Year	7th Year	Total Number
Number of Presentations	4	18	14	3	16	23	16	94

2-2 Project Purpose and indicators

Project Purpose: Education and research functions corresponding to social needs are enhanced at FoEST-UNTL. (Mostly achieved)

PDM Indicator	June. 2019 (Mid. Rev)	Mar. 2023

1. Graduation rates of students within fixed duration are improved from 50 % to 80%	67%Intake2012 60%Intake2013 18%Intake2014	71% Intake 2012 70% Intake 2013 68% Intake2014 66% Intake 2015 (Not achieved yet)
2. Number of collaborative activities with external partners (*): 130 (after 5 years)	50	178 (Achieved)
3. 70 % of graduation theses obtain score 8.0 or more.	This indicator was added during Mid-Term Rev in 2019. Base line is 69% in 2019.	88% in 2022 (Achieved)
4.Number of research papers published: 50 (after 5 years)	43 in 2019	138 papers (Achieved)

1. **Graduation rates of students within fixed duration are improved from 50 % to 80%**

   Fig. 5 shows the graduation rate for the number of students who enrolled in semester one by each intake. Although the academic regulations state that students have to graduate within six years (allowed to register up to semester 12), UNTL does not strictly impose this regulation and still accepts students. As fig. 4 shows, the graduation rate is approaching 70%. However, there is still room for improvement in order to reach our target. In addition, the faculty needs to encourage students to graduate within the 6-year timeframe.

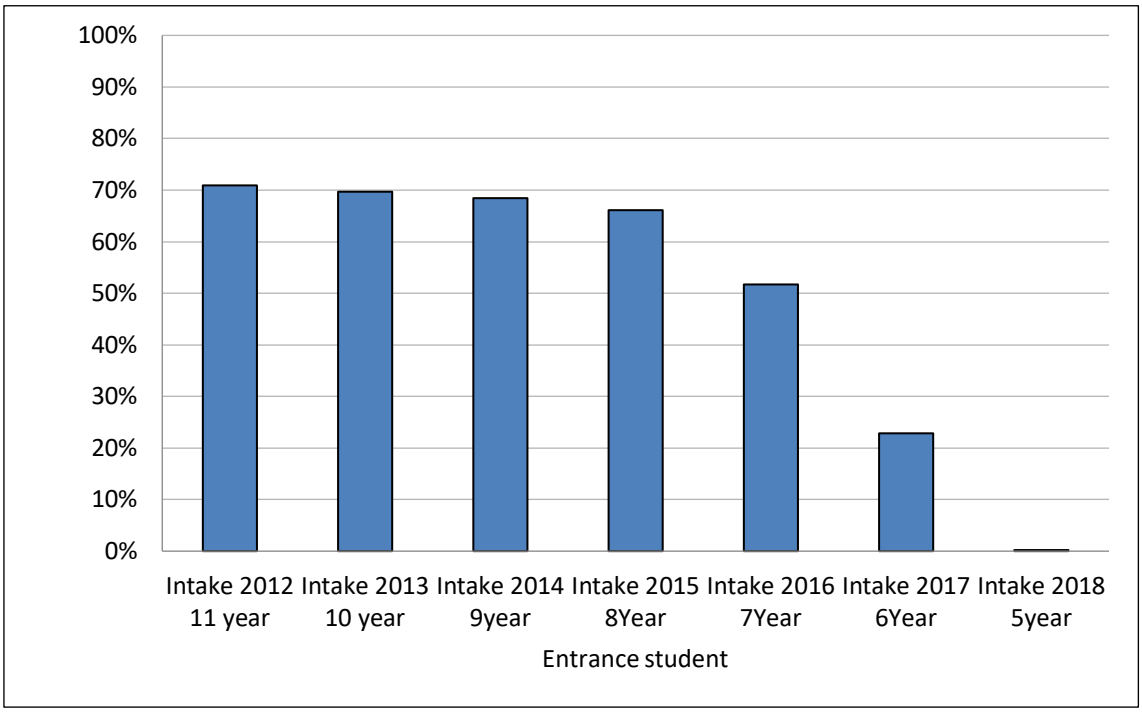


Fig. 5 Graduation rate for Students who enrol in semester1 (as of Feb 2023)

The first batch of students for the 4-year bachelor program enrolled in 2012. Fig. 6 shows the number of intakes of first batch students in each semester for 2012. As fig. 6 shows, about 60 students (approx. 20%) left the program or postponed their studies between semester one and semester eight. Other batches also have the similar trends. According to the interviews with both lecturers and students, most students left the faculty in semester one or two in order to study abroad with a scholarship or self-funding. This should be investigated more and take necessary countermeasures to keep high students' registration rate.

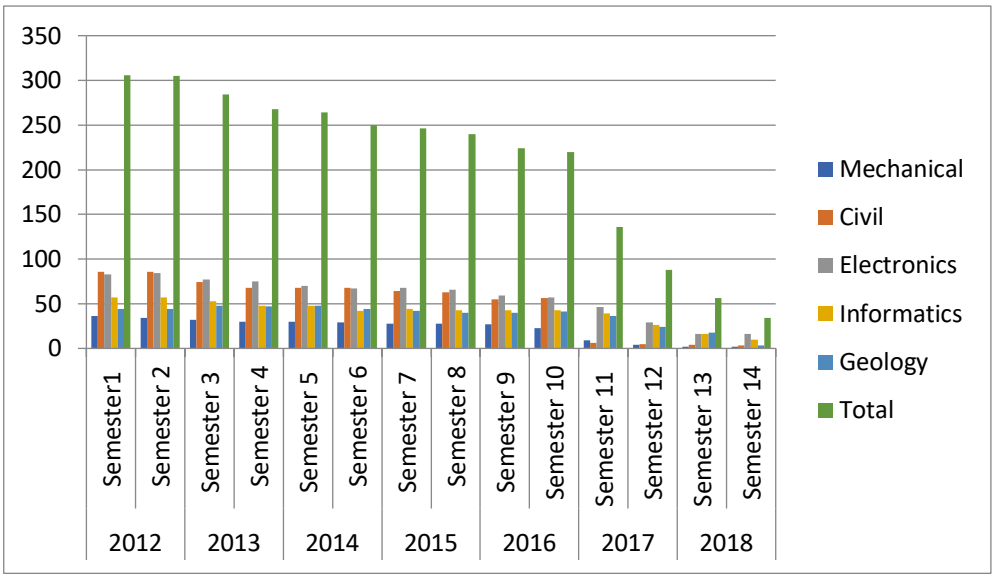


Fig. 6 Number of students (intake 2012) in each semester

2. **Number of collaborative activities with external partners: 130 (after 5 years)**

   The total accumulated number of activities is 178 as of March 2023, which was beyond our target (130) at the completion of the project. These activities promoted enhanced relationships with external partners.

3. **70% of graduation thesis obtains score 8.0 or more.**

   This indicator was newly introduced at the mid-term review in 2019 to maintain the quality of final theses. In 2022, 90 final students out of 104 gained a score of 8.0 or higher. Thus, 87% of graduation theses met the target.

Table 5 Graduation theses grades

Score Range	Number of Students
More 9 - Less 10	19
More 8 - Less 9	72
More 7 - Less 8	13
More 6 - Less 7	1
More 5 - Less 6	0
Total	104

4. **Number of research papers published: 50 (after 5 years)**
   138 papers were published; thus going beyond the target. However, most of the publications were published in TAJST. There should be an increase in the number of papers published in international journals.

3. History of PDM Modification

On the occasion of the 4th JCC (12th September 2019), the revised points in the PDM, based on the mid-term review mission recommendations and the current situation were suggested as follows:

1) Objectively Verifiable Indicators for output 1 (1-2. Number of activities for networking). The target number of activities should be set at 30 per year without categorizations in accordance with the current socio-economic circumstances in Timor-Leste.
2) Objectively Verifiable Indicators for output 2 (2-4. Evaluation results of the capacity of teaching staff). These should be deleted since there is no additional input to these two departments and hence no reason to expect additional output.
3) Objectively Verifiable Indicators for output 3 (3-2. Number of research corresponding to social needs conducted). It is difficult to count the number of research by year, therefore, the target number of research will be set at 50 as an accumulated target number during the project period.
4) Objectively Verifiable Indicators for output 3 (3-4. Number of research presentations). The sharing of knowledge among faculty members should be included. Therefore, “for sharing research outputs” will be added to the description.
5) Objectively Verifiable Indicators for project purpose (1. Graduation rates of students within fixed duration). Since UNTL is to execute the regulation that the enrolment period should not be more than 6 years, “6 years” should be added to the description.
6) Objectively Verifiable Indicators for project purpose (2. Number of collaborative activities with external partners). This should change from 280 to 130, based on the socio-economic circumstances in Timor-Leste. However, a deepening of collaborative activities should be expected, as well as an increase in the number of meetings.
7) New objectively verifiable indicator for project purpose should introduce that “70% of graduation theses obtain a score of 8.0 or more”. This is

because the indicator for improvement of education corresponding to social needs should be added.

8) Objectively Verifiable Indicators for overall goal (3. Number of collaborative activities with external partners). The target number of activities should change from 450 to 200 due to the socio-economic circumstances in Timor-Leste.
9) Due to the delay of inputs from the Japanese side caused by JICA's Inevitable circumstances relating to resource mobilization, FoEST and the Team suggested extending the project period for up to 8 months till March 2022.
10) After confirmation from both the rector of UNTL and the chief representative of JICA Timor-Leste office, M/M for Modification of Project Design Matrix (PDM) was signed on 6th February 2020.
11) The project period again extended for one year to catch up on the activities since some activities were suspended due to COVID-19 and M/M for modification of Record of Discussion was signed on 23rd August 2021.

III. Results of Joint Review

1.Results of Review based on DAC Evaluation Criteria

(Rating scales (High, Relatively high, Moderate, Relatively low, Low) were applied to evaluate each criterion.)

Relevance (High)

Aspect	June. 2019 (Mid. Rev) (High)	Mar. 2023 (High)
Policies	The Project is consistent with policies of the Government of Timor-Leste.	Same as left
Needs	The UNTL Strategic Plan 2011-2020 defines UNTL's mission as achieving excellence through academic, research and community services; long term strategies for 2016-2020 include preparing highly qualified academic staff. Following UNTL's strategic plan, FoEST has published its development plan	Same as left

	for 2015-2020, which states that FoEST aims to become the center of excellence in science and technology in Timor-Leste	
Approach/ Design	UNTL is the only state university in Timor-L4este and aims to become the center of excellence for higher education in the country. The Project puts in Japanese academia, targeting the FoEST that should be a major resource institution for industrial human resources development in Timor-Leste.	Same as left

As for the relevance to the government policies, the Timor-Leste strategic development plan (SDP) 2011-2030(2011, P32) stated that “University education will focus on investigating and creating knowledge, which provides a broad scientific, technical, and cultural preparation for further study and research, or entry to the labour market.” The project is complying with this strategy since the project outputs are including the capacity building for research activities and also support the students’ employment. The SDP also mentioned that “To support the critical area of training in engineering, a modern Faculty of Engineering complex will be built at Hera(P23)”. It has been realized though Japanese grant aid to build new campus building at Hera in 2019.

The project also aims at fostering human resources who have the advanced skills and knowledge for engineering fields to contribute to country’s infrastructure development. This is also aligned with long term goal (2030) in the national education strategic plan (2011-2030), which stated that “Graduates of the higher education system will have the advanced skills and knowledge to analyses, design, build and maintain the social and economic infrastructure of Timor-Leste (P105) ”

To corresponding to social needs as one of the main elements for the project is also follows the UNTL academic affair strategic plan. It says that “ Prepare and improve community services systems for serving the society needs” in broad objectives (UNTL strategic plan 2011-2020, P31). Therefore, it could be concluded that the project is still relevant to policies in higher education in Timor-leste.

Coherence (High)

Aspect	June. 2019 (Mid. Rev) (N/A)	Mar. 2023 (High)
ODA Policy	(Coherence is newly introduced in 2020)	JICA Timor-Leste focus on three priority area, which are relevant for this project, such as ● Development and improvement of socioeconomic infrastructure ● Promotion of Industry Diversification ● Improvement and Expansion of Social Service Delivery
Relation with Other JICA Project		The project had collaborations (research & education activities, internship) with other JICA projects, namely, ● The Capacity Development of Road Services in Timor-Leste ● Urgent relocation of Ferry Terminal in Dili port ● Construction of upriver Comoro bridge
Relation with other international activities		The research activities in cooperation unit contributes international issues such as SDGs. (Renewable energy for forest conservation, pet-asphalt, cooking oil recycle, solar pump feasibility study with UNDP project)

According to Japan's Country Assistance Policy for Timor-Leste (May 2017) https://www.mofa.go.jp/files/000328282.pdf, There are three priorities as bellows:

(1) Development and Improvement of Socioeconomic Infrastructure

(2) Promotion of Industry Diversification

(3) Improvement and Expansion of Social Service Delivery

The faculty produces the quality graduates who can serve infrastructure fields and also encourages students to become entrepreneurs to promote industry diversification. Therefore, three priorities above are covered by the project.

As for the relation with other JICA projects in Timor-Leste, the collaboration activities with other JICA technical Cooperation and their outcomes are as follows;

- The Project for the Capacity Building of Road Maintenance in the Democratic Republic of Timor-Leste

  The Informatics Engineering Department and civil engineering department jointly conducted the research for road condition monitoring system with support of JICA experts. Through the collaboration research activities, nine peer reviewed papers are published.

- The Project of Urgent Shift of Ferry Terminal in Dili Port

  Lectures in Civil engineering department did the site visits with JICA experts and organized students site visit activities. The construction company staff gave the special lecture for the civil engineering students.

- The Project for Construction of Upriver Comoro Bridge

  Lectures in civil engineering department and JICA experts visited the site and discuss with the consultants to study bridge construction. The faculty also organized the students' internship for one and half months.

Regarding to the SDGs related activities, the faculty conducted the following activities.

- Renewable energy for forest conservation

  Mechanical department developed prototype small hydropower system which the local communities can utilize in the river. The Department also developed the cocking stove which can reuse the used oil. Other than those, they develop the palm wine brewery system which can reduce the CO2 emission and preserve the wood materials in rural area. Those activities shared through research publication such as Timorese Academic Journal of Science and Technology (TAJST) and also AUN-SEED Net regional conference.

- Pet-asphalt (Re-use pet-bottles)

  Civil Engineering department did the research with collaboration of international NGOs to re-use the used pet-bottles or plastic for mixing asphalt aggregate. The outcomes are shared as one published paper in Timorese Academic Journal of Technology (TAJST).

- Solar pump feasibility study / flood damaged house survey with UNDP project
  The faculty, including all five departments, joined the UNDP project which is feasibility study for installation of water pump with solar panel. The lecturers and students visited the target area and do the study with local communities and reported to UNDP. In addition, UNDP requested to the faculty to do the damaged house survey, which affected by the Tropical Cyclone Seroja hit the Timor-Leste on 4th April 2021.

Through the summaries of our activities and ODA policies above, we evaluated the coherence is high.

Effectiveness （High）

Aspect	June. 2019 (Mid. Rev) (Relatively high)	Mar. 2023 (High)
Achievement of Project Purpose	The Project has effectively supported the capacity development of FoEST. It should be possible to increase the numbers of collaborative activities and publications, supposing that the project activities should be further accelerated based on the achievement in the former half of the Project and the strong motivation of FoEST to enhance education and research.	Although some issues are remaining, (such as graduation and employment rates, research publication quality), most objectively verifiable Indicators in PDM achieved their target.

The most objectively verifiable indicators in PDM have been achieved except graduation rates. The lecturers actively participated in project activities and produced expected deliverables, such as research papers, reviewed syllabus and teaching materials with JICA experts. Due to the close relationship between lecturers and Japanese professors, their online communications were effectively conducted. Although the graduation rates could not achieve the target in this project phase, some improvement showed from 4-year bachelor program

students (4year bachelor program started intake from 2012), if we see the graduation rates from 2002 to 2015 (Fig.7)

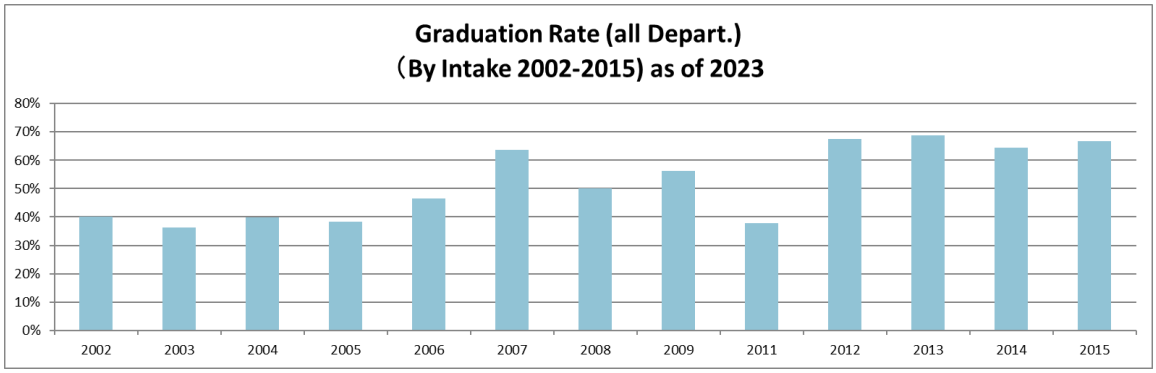


Fig. 7 Graduation Rates by Intake 2002-2015 in 2023

To sum up, the lecturers and JICA experts effectively conducted the project activities and produce good outcomes, we concluded ,therefore, Effectiveness of the project is high.

Efficiency （Moderate）

Aspect	June. 2019 (Mid. Rev) (Moderate)	Mar. 2023 (Moderate)
Level of achievement by Output	• Ccollaborative activities with external partners need acceleration (Output1). • Registration for the final project (Output2) is yet to be strategically promoted. • Research that corresponds to social needs (output 3) has been implemented; however, the upgrading the quality is challenging. • Delay of equipment delivery and short-term experts dispatch should have affected the enhancement of equipment maintenance system.	• The number of collaboration activities have been reached the target (output1) • Yet, most students still need to graduate more than 6 years (output2) • Need more qualified research to be accepted by high impact factor international journals. (output3) • The provision of equipment has been recovered, while planned short-term training still affected by Covid-19. (output2)

Some more qualitative improvement is required specially for the research activities while quantitative targets have been achieved. Since five lecturers are now pursuing their Ph.D degrees abroad, more contributions for publishing international journals are expected once they return to the faculty with their degrees.

According to the academic guideline in UNTL, students have to complete their study within semester 12 (6 Years). As figure 6 shows ,however, some still need more years to complete the program. This may imply that more close consultation to students is required to improve the situation.

As for equipment delivery, experts dispatch and short-term training, COVID-19 negatively affected specially for short term training due to the restriction of international travels, though the provision of equipment were progressed after the mid-term review mission.

Considering all these, there is still room for improvement for efficiency. It is, therefore, concluded that the efficiency of the project is moderate.

Impact （High）

Aspect	June. 2019 (Mid. Rev) (Uncertain)	Mar. 2023 (High)
Prospect of achieving Overall Goal	Impact may be achieved, depending on the progress of the latter half of the Project. It is too early to evaluate the impact at this time.	Project activities widely contribute social issues such as research survey on natural disaster due to the Ceylon “Seroja”. In addition, six lecturers are assigned as top decision maker in government institutions in Timor Leste. Furthermore, Agência Nacional para a Avaliação e Acreditação Académica (ANAAA) *evaluation shows huge improvement of CE, IE.

* (ANAAA is an autonomous agency. It is under the supervision of the Minister of Higher Education, Science, and Culture (MESCC), with the principal aim of promoting the quality

assessment and accreditation of higher education institutions and study cycles in Timor-Leste.)

One of the noticeable impacts is the flood research collaboration between the faculty and Yamaguchi university. On 4th April 2021, cyclone seroja hit the Timor-Leste and a part of Indonesia and the flood caused 44 fatalities and critical infrastructures were damaged. Immediately after this disaster, the lecturers and students from civil engineering department and geology and petroleum department built the survey teams with support from professors from Yamaguchi University. They collected the data and made hazard maps and flood inundation maps in Dili City. The results were directly presented to both prime minister and vice prime minister who is in charge of infrastructure. One of the lecturers in civil engineering department, who just completed his Ph.D in Yamaguchi university was nominated as a coordinator of technical working group for infrastructure identification and collective public equipment to represent the government of Timor-Leste. They also organized the online seminar with Yamaguchi University to share the outcomes of their flood research survey among Japanese researchers in the field of disaster prevention. The faculty also held the flood seminar to share their research to the public in Timor-Leste.
Another impact is that lectures who participated in JICA long-term /short term training were assigned as top management posts in government institutions as follows.

- Dr. Victor da C. Soares, **Minister of Petroleum and Mineral Re-sources**. He obtained his Master's degree from Nagaoka University of Technology, Japan in 2004 .
- Mr. Mariano Renato M. da Cruz, **Executive Director of the National Development Agency (ADN)**. He gained his master's degree from Hiroshima University, Japan in 2004.
- Dr. Paulo da Silva, **President of the Electricity of Timor-Leste (EDTL)**. He obtained his Doctoral degree from Nagaoka University of Technology, Japan in 2020.
- Dr. Ruben Jeronimo Freitas, **President of the National Authority for the Electricity (ANE)**. He gained his Doctoral degree(Ron-paku) from Gifu University, Japan in 2017.
- Dr. Benjamim Hopffer O. Martins, **Coordinator of Technical Working Group for infrastructure identification and collective public**

equipment. He graduated from Yamaguchi University, Japan and gained his Ph.D in 2020.

- Mr. Gabriel Gaspar Aparício de Oliveira, **President of Instituto do Petréleo e Geologia (IPG)**. He participated in short-term training in Kyushu University in 2019.

As for the quality assurance for the faculty, as mentioned in Chapter IV, the great progress of the results of evaluation made(Table 8). Accordingly, we concluded that the impact of the project is high.

Sustainability:(Moderate)

Aspect	**June. 2019 (Mid. Rev) (High with several conditions)**	**Mar. 2023 (Moderate)**
Policy	The project is sustainable in terms of the policies of Timor-Leste and UNTL unless external conditions are changed.	Same as left
Organizational	Organizational sustainability of the project should depend on the stable human resources assignment to certain positions such as those related to equipment maintenance and collaboration with external partners.	UNTL allocated five permanent employment quotas for the FoEST in 2023. One of them allocated to technician in mechanical engineering department. Other departments still seeking the opportunities.
Financial	Research grants are indispensable for promoting research that address social needs and sustaining the Project activities. Securing internal and external research funds that could be used for actual research activities including 8th semester students' final projects is indispensable for FoEST to	Although some budget for research equipment was allocate to the FoEST in 2022, it is still not enough to cover the research activities and equipment maintenance.

	continue capacity development and correspond to social needs.	
Technical	Partnership with Japanese universities nurtured through the Project should be constantly maintained in order to continuously update the quality of education and research of FoEST. The considerable number of co-authored papers is positive evidence of sustainability.	The relationship between Japanese professors and lecturers of FoEST is strengthened due to online research discussion. To maintain this situation, internet connection should be improved and need more budget allocation for online communications.

Regarding the sustainability, the budget allocation of the faculty is the crucial issue. Although there are some additional allocations of the budget such as journal printing costs and laboratory equipment, the total budget still not enough to purchase equipment and consumable for continuing research activities.

As for the faculty staff employment, more permanent staff are required since most laboratory technicians are fixed-term contract. Laboratory technicians are essential to maintain laboratory facility and equipment for education and research activities. In order to secure the sustainability, the faculty will continue to propose the authorities concerned to take countermeasures. It concluded, therefore, that sustainability is moderate.

2. Key Factors Affecting Implementation and Outcomes

The global COVID-19 pandemic affected the project inputs and activities. All Japanese experts returned to Japan and did their best to communicate with lecturers through online. Since lecturers and Japanese professors had close relationship, the online communications are effectively worked to proceed research and education activities. Consequently, it showed good outcomes, such as the flood survey research with Yamaguchi University and the publication of the faculty journal (TAJST vols. 4 and 5). Furthermore, one mechanical lecturers gained Ph.D (Ronpaku) through the online instruction and defense from Nagaoka University of Technology in Japan.

As for the outcomes for long term trainees, two long-term training participants who gained their Ph.D in Japanese universities and one shot-term training participant were assigned the top management of Government institutions.

3. Lessons Learnt

- The selection of candidates for long-term training needs to be discussed carefully well in advance between the faculty and the project. Although the examinations, written tests and interviews, were conducted fairly, the results could not be accepted by the faculty due to the following reasons;
  - Some candidates did not meet the UNTL's regulation to study abroad (UNTL Lecturers have to serve in UNTL for three years at least, after the completion of the previous scholarship).
  - Some candidates' research fields are similar with other lecturers who already gained their degree in the department and not priority research fields in the department.

  To avoid this situation, JICA and the faculty should discuss more about the priority of the candidates in each department before conducting the selection test and carefully confirm the eligible applicants for the scholarship program.

- Japanese experts need to develop teaching and learning methods to Timorese lecturers carefully. some lecturers and students need to study more basic mathematics and science subjects since they could not study under the sufficient learning environment due to the post-conflict confused situation in the county. Japanese experts, therefore, should instruct step by step and make sure their understanding, especially for mathematics related topics.

IV. For the Achievement of Overall Goals after the Project Completion

1.Prospects to achieve Overall Goal

FoEST-UNTL contributes to solving social problems through its education and research activities corresponding to social needs.

Indicator	**June. 2019 (Mid. Rev)**	**Mar. 2023**

1. Number (or employment rates) of graduates working in related fields : 50%	60 % for alumni who graduated in May 2018, which is over the target	76% for alumni who graduated in January 2022, while 7% is for fresh graduate in April 2023
2. Employers' satisfaction rates are increased from 85% to 90%	N/A	93% (n=35) (Reference of ANAAA evaluation)
3. Number of collaborative activities with external partners (*): 200(after 8 years)	45 activities	178 activities, which suggests high possibility of achieving the target
4. Number of research papers published: 80 (after 8years of the project completion)	24 papers	138 papers Yet, need more international journals.

* *Overall Goal is expected to be achieved in about 3 years after completion of the* project.

1. Number (or employment rates) of graduates working in related fields.
   Since there is no periodical job recruitment for fresh graduates in Timor-Leste, it takes some time for the graduates to find their job. Considering these circumstances, the mid-term review mission has decided to take the employment rate for one year later of their graduation ceremony as objectively verifiable Indicators. The employment rate for engineering field in graduation group in January 2022 achieved 76% at the time of the survey in December 2022 (almost one year after their graduation) (Table6). Some alumni became entrepreneurs and developed their own businesses. Since there are few industries in Timor-Leste except for the oil industry, these entrepreneurships should be encouraged, and consideration should be given on how to promote them.

Table 6 Graduate Tracer Survey (conducted in Dec 2022)

Graduate Year/Month	After Graduation	Graduates	Response (A)	No Response	Employed (B) (excluded non-Engineering Field)	Employed (Non-Engineering Field)	Unemployment	Employment rate ((B)/(A)
2016 Nov	6 Year 2M	101	16	85	15	1	1	94%
2017 May	5 Year 7M	67	24	43	19	2	3	79%
2017 Nov	5 Year 2M	94	42	52	31	4	7	74%
2018 May	4 Year 7M	87	46	41	37	4	5	80%
2018 Dec	4 Year	80	48	32	31	11	6	65%
2019 Jun	3 Year 11M	92	61	31	49	6	6	80%
2019 Dec	3 Year 1 M	87	66	21	54	6	6	82%
2020 Sep	2 Year 3 M	61	38	23	21	7	9	55%
2021 May	1Year 7 M	33	20	13	20	0	0	100%
2021 Sep	1Year 3 M	26	18	8	14	1	2	78%
2022 January	11 Month	93	49	44	37	0	12	76%
2022 August	4 Month	91	69	22	19	1	50	28%
2023 February	-	137	133	4	9	4	124	7%

2. Employers' satisfaction rates are increased from 85% to 90%

Agência Nacional para a Avaliação e Acreditação Académica (ANAAA) has conducted the evaluation for IT department and Civil Department in 2022. The employers' satisfaction survey conducted by both departments through this evaluation process and the results show 93% of 35 stakeholders are satisfied with the alumni from the FoEST. This evaluation should be conducted every five years. The Table 7 shows the rating.

Table 7 ANAAA Accreditation Rating

ACCREDITATION RATING	POINT RANGE	REMARKS
A	361-400	Excellent
B	301-360	Good
C	200-300	Sufficient
Not Accredited	>200	Not Accredited

(Source: ANAAA)

The previous results of evolution were both C for IT and Civil Departments, while Civil department is evaluated as "A" and IT Department has gained "B" (Table 8). Other three departments will be evaluated in latter half of 2023.

Table 8 ANAAA Evaluation Results

Department	2016-2017	2022-2023
Mechanical	B	To be evaluated
Civil	C	A
Electrical and Electronics	B	To be evaluated
Informatics	C	B
Geology and Petroleum	C	To be evaluated

3. Number of collaborative activities with external partners: 200 (after 8 years from project completion)

   The accumulated number of collaborative activities with external partners is 178. Since the number of activities is 45 in project 5th year, the target number likely be achieved if this trend continues.

4. Number of research papers published: 80 (after 8years)

   The accumulated number of papers 138 papers (including the TAJST papers). Thus, the target number has already been achieved.

Table 9 Number of research papers published

	Mechanical	Civil	Electrical	IT	Geology / Petroreum	Total
Project 1st Year	0	0	4	0	0	4
Project 2nd Year	3	0	3	3	0	9
Project 3rd Year	8	3	9	10	0	30
Project 4th Year	9	5	5	2	0	21
Project 5th Year	6	6	5	4	3	24
Project 6th Year	6	2	8	2	3	21
Project 7th Year	5	10	5	6	3	29
Total	37	26	39	27	9	138

2.Plan of Operation and Implementation Structure of the Timor-Leste side to achieve Overall Goal

- Through the alumni association and final thesis presentation seminar, the faculty will continue to promote to get more job opportunities in the field of engineering.
- The faculty periodically conducts the seminar and vising interviews with stakeholders to report to ANAAA. Based on these activities and discussions, curriculum and syllabus are reviewed to fulfill the social needs.
- The Cooperation Unit continues to promote the collaborative activities with external partners. The activities could create research collaboration and connecting the student's internship and employment.
- The faculty Journal (TAJST) will continue to publish once a year so that lecturers will have experience their science writing skills and gain experience for their publish. The following this, lecturers aim at submitting internal journal with high impact factors.

3.Recommendations for the Timor-Leste side

- Keep encouraging prospective final year students to expedite the final research project and complete the Licenciadu program within the timeframe.
- Enhance collaboration with industries and communities to improve the employment rate, utilizing various opportunities including students' internships.
- Try to apply more external research fund to do the research activity and secure the publication fee budget for international journals.
- Maintaining and upgrading the daily class teaching are keys to become the center of excellence in Timor- leste to access international academic society.
- Overall, the faculty pay more attention to improve class education quality to support development of the next generation in Timor-Leste.

4.Monitoring Plan from the end of the Project to Ex-post Evaluation

The JICA HQ mission was dispatched in February 2022. The mission had a series of discussions with the Timor-Leste authorities concerned. As a result of the discussions, the mission and the Timor-Leste authorities concerned agreed on preparing the master's degree program in the faculty of engineering, science and technology, UNTL. JICA will support the establishment of the master's degree program from October

2023 to 2025 through the expert's dispatch and by providing country-focused training. Ex-post evaluation will be conducted in three years after the project completion. Thus, JICA and FoEST will continue to monitor and follow up on faculty management, education, and research activities to ex-post evaluation

ANNEX 1: Results of the Project
ANNEX 2: List of Products Produced by the Project
ANNEX 3: PDM (All versions of PDM)
ANNEX 4: R/D, M/M, Minutes of JCC (copy) (*)
ANNEX 5: Monitoring Sheet (copy) (*)
(Remarks: ANNEX4 and ANNEX5 are for internal reference only.)

ANNEX 1: Results of the Project

Inputs from JFY2016-JFY2023

1. Experts/Mission Dispatch

No	Department	Experts	Institutions	Support Fields	Arrival	Departure	Man / Month
1	Mechanical	Prof. Ikuo Tanabe	Nagaoka University of Technology	Production Engineering	27-Aug-16	6-Sep-16	0.33
2	Mechanical	Mr. Saotshi Takahashi	Nagaoka University of Technology	Machinery Engineering	20-Aug-16	30-Aug-16	0.33
3	Mechanical	Prof. Ikuo Tanabe	Nagaoka University of Technology	Production Engineering	25-Mar-17	1-Apr-17	0.23
4	Mechanical	Mr. Saotshi Takahashi	Nagaoka University of Technology	Machinery Engineering	21-Mar-17	1-Apr-17	0.37
5	Mechanical	Prof. Ikuo Tanabe	Nagaoka University of Technology	Production Engineering	26-Aug-17	2-Sep-17	0.23
6	Mechanical	Mr. Hideo Hoshino	Nagaoka University of Technology	Machinery Engineering	8-Aug-17	15-Aug-17	0.23
7	Mechanical	Mr. Kazuo Yoshii	Nagaoka University of Technology	Machinery Engineering	29-Nov-17	6-Dec-17	0.23
8	Mechanical	Prof. Ikuo Tanabe	Nagaoka University of Technology	Machinery Engineering	18-Aug-18	25-Aug-18	0.23
9	Mechanical	Prof. Tomonao Kobayashi	Gifu University	Wind Power	22-Sep-18	29-Sep-18	0.23
10	Mechanical	Mr. Hideo Hoshino	Nagaoka University of Technology	Machinery Engineering	30-Mar-19	13-Apr-19	0.47
11	Mechanical	Prof. Ikuo Tanabe	Nagaoka University of Technology	Production Engineering	30-Mar-19	6-Apr-19	0.23
12	Mechanical	Prof. Tomonao Kobayashi	Gifu University	Wind Power	16-Mar-19	6-Apr-19	0.70
13	Mechanical	Prof. Ikuo Tanabe	Nagaoka University of Technology	Production Engineering	25-Aug-19	30-Aug-19	0.17
14	Mechanical	Prof. Yamashita Minoru	Gifu University	Impact Deformation	1-Sep-19	7-Sep-19	0.20
15	Mechanical	Prof. Tomonao Kobayashi	Gifu University	Wind Power	22-Sep-19	1-Oct-19	0.30
16	Mechanical	Prof. Ikuo Tanabe	Sanjyo City University	Production Engineering	1-Sep-22	7-Sep-22	0.20
17	Mechanical	Prof. Hideo Hoshino	Sanjyo City University	Machinery Engineering	7-Sep-22	22-Sep-22	0.50
18	Mechanical	Prof. Tomonao Kobayashi	Gifu University	Wind Power	7-Sep-22	22-Sep-22	0.50
19	Civil	Prof. Masahiko Sekine	Yamaguchi University	Sanitary Engineering	10-Sep-16	24-Sep-16	0.47
20	Civil	Prof. Watanabe Gakuho	Yamaguchi University	Structure Engineering	8-Nov-16	12-Nov-16	0.13
21	Civil	Prof. Hiroyuki Sakakibara	Yamaguchi University	Project Management	8-Nov-16	12-Nov-16	0.13
22	Civil	Prof. Shiniichiro Nakashima	Yamaguchi University	Road Engineering	10-Nov-16	19-Nov-16	0.30
23	Civil	Prof. Koiji Asai	Yamaguchi University	Hydric Engineering	19-Nov-16	26-Nov-16	0.23
24	Civil	Dr. Yoshinori Fukubayashi	Community Road Empowerment	Technical Support	11-Feb-17	18-Feb-17	0.23
25	Civil	Prof. Masahiko Sekine	Yamaguchi University	Sanitary Engineering	4-Mar-17	18-Mar-17	0.47
26	Civil	Prof. Koiji Asai	Yamaguchi University	Hydric Engineering	4-Mar-17	11-Mar-17	0.23
27	Civil	Prof. Shiniichiro Nakashima	Yamaguchi University	Road Engineering	14-Mar-17	25-Mar-17	0.37
28	Civil	Prof. Shinichiro Nakashima	Yamaguchi Univiversity	Road Engineering	29-Jul-17	5-Aug-17	0.23
29	Civil	Prof. Masahiko Sekine	Yamaguchi University	Sanitary Engineering	12-Aug-17	26-Aug-17	0.47
30	Civil	Prof. Watanabe Gakuho	Yamaguchi University	Structure Engineering	22-Aug-17	29-Aug-17	0.23
31	Civil	Prof. Hidehiko Kazama	Saitama University	Soil Engineering	9-Sep-17	30-Sep-17	0.70
32	Civil	Prof. Koji Asai	Yamaguchi University	Hydric Engineering	17-Nov-17	26-Nov-17	0.30
33	Civil	Prof. Katsuhiko Takami	Yamaguchi University	Concrete Engineering	17-Nov-17	26-Nov-17	0.30
34	Civil	Prof. Shinichiro Nakashima	Yamaguchi University	Road Engineering	18-Aug-17	25-Aug-17	0.23
35	Civil	Prof. Masahiko Sekine	Yamaguchi University	Sanitary Engineering	15-Sep-17	22-Sep-17	0.23
36	Civil	Prof. Shinichiro Nakashima	Yamaguchi University	Road Engineering	18-Aug-18	25-Aug-18	0.23
37	Civil	Prof. Masahiko Sekine	Yamaguchi University	Sanitary Engineering	15-Sep-18	22-Sep-18	0.23
38	Civil	Prof. Hidehiko Kazama	Saitama University	Soil Engineering	13-Oct-18	27-Oct-18	0.47
39	Civil	Prof. Masahiko Sekine	Yamaguchi University	Sanitary Engineering	24-Nov-18	1-Dec-18	0.23
40	Civil	Prof. Koji Asai	Yamaguchi University	Hydric Engineering	2-Feb-19	9-Feb-19	0.23
41	Civil	Prof. Shinichiro Nakashima	Yamaguchi University	Road Engineering	23-Feb-19	2-Mar-19	0.23
42	Civil	Prof. Masahiko Sekine	Yamaguchi University	Sanitary Engineering	23-Mar-19	30-Mar-19	0.23
43	Civil	Prof. Shinichiro Nakashima	Yamaguchi University	Road Engineering	4-Aug-19	10-Aug-19	0.20
44	Civil	Prof. Masahiko Sekine	Yamaguchi University	Sanitary Engineering	18-Aug-19	24-Aug-19	0.20
45	Civil	Prof.Hisao Emoto	National Institute of Technology, Fukushima College	Structural Engineering,	16-Sep-19	21-Sep-19	0.17
46	Civil	Prof. Hidehiko Kazama	Saitama University	Soil Engineering	1-Oct-19	22-Oct-19	0.70
47	Civil	Prof.Sakakibara Hiroyuki	Yamaguchi University	Traffic Engineering	29-Sep-19	2-Oct-19	0.10
48	Civil	Prof. Hidehiko Kazama	Saitama University	Soil Engineering	22-Feb-20	20-Mar-20	0.90
49	Civil	Prof. Masahiko Sekine	Yamaguchi University	Sanitary Engineering	23-Feb-20	8-Mar-20	0.47
50	Civil	Prof. Masahiko Sekine	Yamaguchi University	Sanitary Engineering	27-Oct-22	6-Nov-22	0.33
51	Electronics and Electrical	Prof. Hiroki Yoshida	Gifu University	Generation and Control of Electric Energy	27-Aug-16	30-Aug-16	0.10
52	Electronics and Electrical	Prof. Yauhiro Takahashi	Gifu University	Electronic Engineering	30-Aug-16	3-Sep-16	0.13
53	Electronics and Electrical	Dr.Norikazu Kameyama	Gifu University	Laser Engineering	30-Aug-16	24-Sep-16	0.83
54	Electronics and Electrical	Prof. Hiroki Yoshida	Gifu University	Generation and Control of Electric Energy	21-Mar-17	28-Mar-17	0.23
55	Electronics and Electrical	Prof. YUN Kyyoul	Gifu University	Signal Electric	4-Mar-17	11-Mar-17	0.23
56	Electronics and Electrical	Prof. Yauhiro Takahashi	Gifu University	Electronic Engineering	19-Aug-17	29-Aug-17	0.33
57	Electronics and Electrical	Prof. YUN Kyyoul	Gifu University	Magnetic property	19-Aug-17	29-Aug-17	0.33
58	Electronics and Electrical	Prof. Hiroki Yoshida	Gifu University	Generation and Control of Electric Energy	12-Aug-17	19-Aug-17	0.23
59	Electronics and Electrical	Prof. Mitsuo Yamaga	Gifu University	Solid State Laser	12-Aug-17	30-Aug-17	0.60
60	Electronics and Electrical	Prof. Yauhiro Takahashi	Gifu University	Electronic Engineering	1-Sep-18	8-Sep-18	0.23

61	Electronics and Electrical	Prof. Mitsuo Yamaga	Gifu University	Solid State Laser	12-Sep-18	29-Sep-18	0.57
62	Electronics and Electrical	Prof. Mitsuo Yamaga	Gifu University	Solid State Laser	23-Feb-19	16-Mar-19	0.70
63	Electronics and Electrical	Prof. Yauhiro Takahashi	Gifu University	Electronic Engineering	23-Mar-19	30-Mar-19	0.23
64	Electronics and Electrical	Prof. Hiroki Yoshida	Gifu University	Generation and Control of Electric Energy	16-Mar-19	30-Mar-19	0.47
65	Electrical and Electronics	Prof. Mitsuo Yamaga	Gifu University	Solid State Laser	8-Sep-19	28-Sep-19	0.67
66	Electrical and Electronics	Prof. Yauhiro Takahashi	Gifu University	Electronic Engineering	22-Sep-19	28-Sep-19	0.20
67	Electrical and Electronics	Prof. Hiroki Yoshida	Gifu University	Generation and Control of Electric Energy	23-Sep-19	5-Oct-19	0.40
68	Electrical and Electronics	Prof. Mitsuo Yamaga	Gifu University	Solid State Laser	1-Feb-20	20-Mar-20	1.60
69	Electrical and Electronics	Prof. Hiroki Yoshida	Gifu University	Generation and Control of Electric Energy	27-Feb-20	7-Mar-20	0.30
70	Informatics	Prof. Hidekazu Fukai	Gifu University	Multivariate Analysis	11-Aug-16	20-Aug-16	0.30
71	Informatics	Prof. Satoshi Tamura	Gifu University	Information Processing of Perception	11-Aug-16	20-Aug-16	0.30
72	Informatics	Ms.Mayumi Kawase	Gifu University	System Design	11-Aug-16	20-Aug-16	0.30
73	Informatics	Prof. Hidekazu Fukai	Gifu University	Multivariate Analysis	1-Dec-16	10-Dec-16	0.30
74	Informatics	Prof. Hidekazu Fukai	Gifu University	Multivariate Analysis	14-Mar-17	25-Mar-17	0.37
75	Informatics	Prof. Satoshi Tamura	Gifu University	Information Processing of Perception	14-Mar-17	25-Mar-17	0.37
76	Informatics	Prof. Hidekazu Fukai	Gifu University	Multivariate Analysis	9-Sep-17	19-Sep-17	0.33
77	Informatics	Prof. Satoshi Tamura	Gifu University	Information Processing of Perception	9-Sep-17	19-Sep-17	0.33
78	Informatics	Prof. Akira ITO	Gifu University	Artificial intelligence	9-Sep-17	19-Sep-17	0.33
79	Informatics	Prof. Hidekazu Fukai	Gifu University	Multivariate Analysis	3-Nov-17	12-Nov-17	0.30
80	Informatics	Prof. Akira ITO	Gifu University	Artificial intelligence	3-Nov-17	12-Nov-17	0.30
81	Informatics	Prof. Hidekazu Fukai	Gifu University	Multivariate Analysis	4-Aug-18	11-Aug-18	0.23
82	Informatics	Prof. Satoshi Tamura	Gifu University	Information Processing of Perception	6-Aug-18	11-Aug-18	0.17
83	Informatics	Prof. Hidekazu Fukai	Gifu University	Multivariate Analysis	24-Nov-18	1-Dec-18	0.23
84	Informatics	Prof. Hidekazu Fukai	Gifu University	Multivariate Analysis	23-Feb-19	9-Mar-19	0.47
85	Informatics	Prof. Satoshi Tamura	Gifu University	Information Processing of Perception	16-Mar-19	23-Mar-19	0.23
86	Informatics	Prof. Shan Lu	Gifu University	Coding Theory	16-Mar-19	23-Mar-19	0.23
87	Informatics	Prof. Hidekazu Fukai	Gifu University	Multivariate Analysis	1-Aug-19	10-Aug-19	0.30
88	Informatics	Prof. Satoshi Tamura	Gifu University	Information Processing of Perception	25-Sep-19	5-Oct-19	0.33
89	Geology and Petroleum	Prof. Shoichi Kiyokawa	Kyushu Univ.	Geology	17-Sep-16	20-Sep-16	0.10
90	Geology and Petroleum	Prof. Shoichi Kiyokawa	Kyushu Univ.	Geology	25-Mar-17	1-Apr-17	0.23
91	Geology and Petroleum	Prof. Shoichi Kiyokawa	Kyushu Univ.	Geology	26-Aug-17	6-Sep-17	0.37
92	Geology and Petroleum	Prof. Haruyoshi Maeda	Kyushu Univ.	Paleontology	26-Aug-17	2-Sep-17	0.23
93	Geology and Petroleum	Prof. Shoichi Kiyokawa	Kyushu Univ.	Geology	28-Apr-17	10-May-17	0.40
94	Geology and Petroleum	Prof. Shoichi Kiyokawa	Kyushu Univ.	Geology	28-Apr-18	10-May-18	0.40
95	Geology and Petroleum	Prof. Shoichi Kiyokawa	Kyushu Univ.	Geology	16-Mar-19	30-Mar-19	0.47
96	Geology and Petroleum	Prof.Atsuko Yamazaki	Kyushu Univ.	Geology (Coral)	16-Mar-19	30-Mar-19	0.47
97	Geology and Petroleum	Prof. Kiichiro Kawamura	Yamaguchi University	Marine Geology	16-Jun-19	20-Jun-19	0.13
98	Geology and Petroleum	Prof. Yuichi Sugai	Kyushu University	Petroleum Engineering	4-Aug-19	9-Aug-19	0.17
99	Geology and Petroleum	Prof. Shoichi Kiyokawa	Geology and Petroleum	Geology	1-Dec-19	18-Dec-19	0.57
100	Geology and Petroleum	Prof. Atsuko Yamazaki	Kyushu University	Geology (Coral)	8-Dec-19	18-Dec-19	0.33
101	Geology and Petroleum	Prof. Shoichi Kiyokawa	Geology and Petroleum	Geology	7-Apr-22	27-Apr-22	0.67
102	Geology and Petroleum	Prof. Atsuko Yamazaki	Kyushu University	Geology (Coral)	7-Apr-22	27-Apr-22	0.67
103	Geology and Petroleum	Prof. Tsuyoshi Watanabe	Hokkaido University	Geology (Coral)	7-Apr-22	27-Apr-22	0.67
104	Geology and Petroleum	Prof. Kiichiro Kawamura	Yamaguchi University	Marine Geology	7-Sep-22	22-Sep-22	0.50

36.40

2. Chief Advisor Dispatch

No	Name	Arrival	Departure	Man / Month
1	Prof.Dr.Koichi Shimakawa	11 August 2016	27 September 2016	1.57
2		1 November 2016	17 December 2016	1.53
3		31 January 2017	8 April 2017	2.23
4		23 May 2017	1 August 2017	2.33
5		22 August 2017	30 September 2017	1.30
6		24 October 2017	25 November 2017	1.07
7		2 June 2018	3 July 2018	1.03
8		25 August 2018	29 September 2018	1.17
9		10 November 2018	15 December 2018	1.17
10		2 February 2019	30 March 2019	1.87
11		2 June 2019	20 July 2019	1.60
12		20 August 2019	31 October 2019	2.40
13		13 November 2019	18 December 2019	1.17
14		12 January 2020	19 March 2020	2.23
15		18 August 2022	1 September 2022	0.47
16		12 February 2023	12 March 2023	0.93
				24.07

3. Project Coordinator Dispatch

No	Name	Arrival	Departure	Man / Month
1	Mr. Atsushi Takahashi	11-Aug-16	23-Aug-16	0.4
2		13-Sep-16	27-Sep-16	0.5
3		1-Nov-16	29-Mar-20	41
4		20-Jan-21	31-Mar-23	27
				69

4. Short Term Training

Short Term Training in JFY2016

Depaertment	Lecturers	Japanese University	Supervisor	Start	End	Man/ Month
Mechanical	Joviano Antonio da Costa	Nagaoka University of Technology	Prof.Koguchi Hideo	07/12/2016	27/01/2017	1.7
Electrical	Jaime Godinho Soares	Gifu University	Prof.YUN Kyyoul	11/01/2017	10/02/2017	1.0
	Celestino Correia	Gifu University	Prof.Yasuhiro Takahashi	11/01/2017	10/02/2017	1.0
Informatics	Carlito Pinto	Gifu University	Prof. Hidekazu Fukai	11/01/2017	30/06/2017	5.7
	Borja Loedace Cauthe Petrocinio	Gifu University	Prof.Satoshi Tamura	11/01/2017	30/06/2017	5.7
						15.0

Short Term Training in JFY2017

Depaertment	Lecturers	Japanese University	Supervisor	Start	End	Man/Month
Mecahnical	Nozario Maria dos Santos	Nagaoka University of Technology	Prof.Ikuo Tanabe	04/06/2017	14/07/2017	1.3
	Noviano Gusmao Robbinso	Nagaoka University of Technology	Prof.Ikuo Tanabe	04/06/2017	14/07/2017	1.3
Civil	Justino da Costa Soares	Yamaguchi University	Prof.Masahiko Sekine	24/05/2017	30/06/2017	1.2
	Francisco Guterres O.Ximenes	Yamaguchi University	Prof.Motoyasu Suzuki	24/05/2017	30/06/2017	1.2
Electronics and Electrical	Olga Maria de Sousa	Gifu University	Prot.Hiroki Yoshida	12/11/2017	22/12/2017	1.3
	Joel de Sousa	Gifu University	Prof.YUN Kyyoul	04/06/2017	14/07/2017	1.3
Information	Aristidis de Jesus Ornai	Gifu University	Prof.Satoshi Tamura	04/06/2017	24/08/2017	2.7
	Mateus Pinto	Gifu University	Prof. Hidekazu Fukai	04/06/2017	24/08/2017	2.7
Geology& Petroleum	Aquiles Tomás Freitas	Kyushu University	Prof.Shoichi Kiyokawa	04/06/2017	14/07/2017	1.3
	Agostinho Andy	Kyushu University	Prof.Shoichi Kiyokawa	04/06/2017	14/07/2017	1.3
						15.9

Short Term Training in JFY2018

Depaertment	Lecturers	Japanese University	Supervisor	Start	End	Man/ Month
Mecahnical	Domingos de Sousa Freitas	Gifu University	Prof. Minoru Yamashita	03 November 2018	22 December 2018	1.63
	Evangelino Cândido Gaio	Gifu University	Prof. Minoru Yamashita	03 November 2018	22 December 2018	1.63
	António Pedro Belo	Gifu University	Prof.Tonoao Kobayashi	03 November 2018	22 December 2018	1.63
	Victor da C. Soares	Gifu University	Prof.Tonoao Kobayashi	03 November 2018	22 December 2018	1.63
Civil	Raimundo Pereira	Yamaguchi University	Prof.Gakuho Watanabe	03 November 2018	22 December 2018	1.63
Electronics and Electrical	Câncio Monteiro	Gifu University	Prof.Yasuhiro Takahashi	03 November 2018	22 December 2018	1.63
Informatics	Marcelino Caetano Noronha	Gifu University	Prof.Satoshi Tamura	03 November 2018	02 February 2019	3.03
	José Soares Pinto	Gifu University	Prof.Hidekazu Fukai	03 November 2018	02 February 2019	3.03
Geology& Petroleum	Aniceta de Araujo	Kyushu University	Prof.Shoichi Kiyokawa	09 February 2019	16 March 2019	1.17
	Maria Elias	Kyushu University	Prof.Shoichi Kiyokawa	09 February 2019	16 March 2019	1.17
						18.2

Short Term Training in JFY2019

Department	Participants	Japanese University	Supervisor	Depart from Dili	Arrive at Dili	Man/ Month
Mechanical	Marfim Guimaraes	Gifu University	Prof. Minoru Yamashita	15 June 2019	04 August 2019	1.67
	Mario Marques Cabral	Gifu University	Prof. Minoru Yamashita	15 June 2019	04 August 2019	1.67
	Gabriel António de Sá	Gifu University	Prof. Minoru Yamashita	09 November 2019	22 December 2019	1.43
	José Maria Xavier	Gifu University	Prof. Minoru Yamashita	09 November 2019	22 December 2019	1.43
Civil	Mariano Renato Monteiro da Cruz	Yamaguchi University	Prof. Shinichiro Nakashima	15 June 2019	04 August 2019	1.67
	Marcelo Marques	Yamaguchi University	Prof. Gakuho Watanabe	15 June 2019	04 August 2019	1.67
	Alfredo Ferreira	Yamaguchi University	Prof. Masaiko Sekine	09 November 2019	22 December 2019	1.43
	Tomás Soares Xavier	Yamaguchi University	Prof. Sakakibara	09 November 2019	22 December 2019	1.43
Electronics and Electrical	Reinaldo Guterres da Cruz	Gifu University	Prof. Yasuhiro Takahashi	15 June 2019	04 August 2019	1.67
	Adias Pires	Gifu University	Prof. Yasuhiro Takahashi	15 June 2019	04 August 2019	1.67
Informatics	Zulmira Ximenes da Costa	Gifu University	Prof. Hidekazu Fukai	15 June 2019	08 September 2019	2.83
	Kristiayani Ambarwati	Gifu University	Prof. Satoshi Tamura	15 June 2019	15 September 2019	3.07
	Abreu Andre Boavida	Gifu University	Prof. Shan LU	09 November 2019	09 February 2020	3.07
Geology and Petroleum	Nene Soares V. Cristovão	Kyushu University	Prof.Yuichi Sugai	09 November 2019	22 December 2019	1.43
	Gabriel Gaspar A. de Oliveira	Kyushu University	Prof.Yuichi Sugai	09 November 2019	22 December 2019	1.43
	Osvaldo da Cruz	Kyushu University	Prof.Atsuko Yamazaki	08 February 2020	14 March 2020	1.17
	Bhencao N. G. Morgado Monteiro	Kyushu University	Prof.Atsuko Yamazaki	08 February 2020	14 March 2020	1.17
						29.9

Short Term Training in JFY2022

Department	Participants	Japanese University	Supervisor	Depart from Dili	Retuern to Dili	Man/ Month
Mechnical	Mr.Marfim Guimarães	Gifu University	Prof.Minoru Yamashita	05 October 2022	22 November 2022	1.60
	Mr.Domingos de Jesus	Gifu University	Prof.Minoru Yamashita	05 October 2022	22 November 2022	1.60
	Mr.Noviano G. Robbinson	Gifu University	Prof.Minoru Yamashita	05 October 2022	22 November 2022	1.60
Civil	Ms.Humbelina Maia S. Viegas	Yamaguchi University	Prof.Shinichiro Nakashima	04 June 2022	26 July 2022	1.73
	Mr.José Gomes Mali Sura	Yamaguchi University	Prof.Masahiko Sekine	04 June 2022	26 July 2022	1.73
Electronics and Electrical	Mr.Abelito Filipe Belo	Gifu University	Prof. Tomonao Kobayashi	05 October 2022	22 November 2022	1.60
	Mr.Vital de Jesus Ximenes	Gifu University	Prof.Yasuhiro Takahashi	05 October 2022	22 November 2022	1.60
	Mr.João Guterres	Gifu University	Prof.Hiroki Yoshida	05 October 2022	22 November 2022	1.60
	Mr.Benedito Freitas Ribeiro,	Gifu University	Prof.Yasuhiro Takahashi	05 October 2022	22 November 2022	1.60
Informatics	Mr.Vosco Pereira	Gifu University	Prof. Hidekazu Fukai	04 June 2022	15 August 2022	2.40
	Mr.Ferdinando da C. Soares	Gifu University	Prof. Satoshi Tamura	04 June 2022	15 August 2022	2.40
Geology and Petroleum	Mr.Aquiles Tomás Freitas	Kyushu University	Prof.Yuichi Sugai	05 February 2023	19 March 2023	1.40
	Mr.Cornelio C. Moniz	Kyushu University	Prof.Yuichi Sugai	05 February 2023	05 March 2023	0.93
						21.8

5. Long Term Training

Department	Lecturers	Degree	Host Institutions	Supervisors	Enroll	Completion
Mechanical	Paulo Da Silva	Ph.D	Nagaoka University of Technology	Prof. Ikuo Tanabe	Mar-17	Sep-20
Civil	Benjamin De O. Hopfeer	Ph.D	Yamaguchi University	Prof.Motoyasu Suzuki	Mar-17	Sep-20
Civil	Aleixo Sarmento	Master	Yamaguchi University	Prof.Gakuho Watanabe	Mar-17	Sep-19
Electronics and Electrical	Bonifacio Da Costa	Master	Gifu University	Prof.Yasuhiro Takahashi	Mar-17	Mar-19
Informatics	Frederico Soares Cabral	Master	Gifu University	Prof.Hidezu Fukai	Mar-17	Mar-19
Informatics	Vosco Perira	Master	Gifu University	Prof.Satoshi Tamura	Mar-17	Mar-19
Geology and Petroleum	Jovita Elisa Fatima da Costa	Master	Kyushu University	Prof.Kiyokawa Shoichi	Mar-17	Sep-19

6. Local Activity Expense

Operational Costs borne by the Japanese side

CADEFEST Project Phase 2　JFY2016-2023

Category	2016(JFY)	2017(JFY)	2018(JFY)	2019(JFY)	2020(JFY)	2021(JFY)	2022(JFY)
Overseas Activities Cost	**$25,126.28**	**$64,456.08**	**$43,764.13**	**$51,864.31**	**$19,756.94**	**$60,446.13**	**$45,271.90**
Detail							
Air Fare	$0.00	$3,392.00	$0.00	$2,981.00	$0.00	$0.00	$0.00
Travel Allowance (Excl. Air Fare)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Contract with Local Based Consultant	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Miscellaneous	$25,126.28	$61,064.08	$43,764.13	$48,883.31	$19,756.94	$60,446.13	$45,271.90
Grand Toal from JFY2016-JFY2023	**$310,685.77**						

7. Equipment List

Attachment 1 : JICA CADEFEST 2 EQUIPMENT

No.	Equipment	JICA Numner	Model	Price
1	Air Conditioner	16-1-001167	Daikin 2 PK	$550.00
2	Air Conditioner	16-1-001168	Daikin 2 PK	$550.00
3	Printer	16-1-001169	CANNON IP110 Puma	$565.00
4	Server	16-1-001476	HP ML10 E31225 V5	$1,050.00
5	Camera	16-1-001477	Canon 750 D	$725.00
6	Projector	16-1-001478	Acer(1183G)/61500041559	$405.00
7	Projector	16-1-001479	Acer(1183G)/ 60800357959	$405.00
8	Projector	16-1-001480	Acer(1183G)/ 61300253359	$405.00
9	Projector	16-1-001481	Acer(1183G)/ 61300233859	$405.00
10	Projector	16-1-001482	Acer(1183G)/ 64200317159	$405.00
11	Air Meter	16-1-001495	MIC-138-0-02	¥ 167,205
12	Science Camera	16-1-001788	IR500mi	¥ 76,680
13	ADOBE ACROBAT	16-1-002294	STANDARD	$600.00
14	Photocopy Machine	16-1-002295	Cannon IR2004N	$2,748.00
15	Graphics Card	16-1-002296	GTX 1070	$750.00
16	Desktop Computer	17-1-000005	HP280i7	$1,185.00
17	Mobile	17-1-000409	Samsumg S8	$765.00
18	Microscope	17-1-000564	Stemi305 Stm3T-EDU	¥ 189,000
19	Machine Cutter	17-1-000565	MC-110	¥ 411,480
20	Grinders	17-1-000566	BP (2) 0702-101	¥31,644
21	Grinders	17-1-000567	RP-5U(300rpm)	¥ 606,960
22	PC Server	18-1-000026	Lenovo Tink Station	$2,680.00
23	PC Server	18-1-000027	Lenovo Tink Station	$2,680.00
24	Drone	18-1-000123	DJ I MARVERIC Pro COMBO	$1,200.00
25	IPAD MINI 4	18-1-000124	128G Wifi	$510.00
26	Electronic Balance	18-1-000176	Weighing: 300g Sensibility : 0,0 1g	¥65,550
27	Universal Trimer	18-1-000177	Maruto seisaku S26-5A φ35,50,60mm	¥153,410
28	Min/Max Densimeter Container	18-1-000178	Maruto seisaku SF-78	¥60,361
30	Sharing Mechine	18-1-000833	SF-PR(1.5 K 4P)	¥54,648
31	Clear Pipe	18-1-000834	TVP2H4	¥77,706
32	Vibration Analizer	18-1-000837	RION VA12	¥481,950
33	Flow Meter	18-1-000838	FM3101-PD-XP-K	¥110,854
29	Printer	18-3-000864	Pixma P110	$565.00
34	Projector	18-3-001711	Acer X1185	$488.00
35	Pyranometer	19-1-000046	CHF-SR05-A-TMBL	¥87,500
36	Automatic Weather Station	19-1-000047	CPK-AWS-10	¥614,400
37	Tripot	19-1-000048	CO-CM6	¥166,600
38	Piezoeletric accelerometer	19-1-000100	PV-85	¥53,800
39	Piezoeletric accelerometer	19-1-000101	PV-90B	¥86,200
40	Charger Combater	19-1-000102	VP-40	¥63,700
41	Stamp mill	19-1-000166	ANS-143PS	¥409,800
42	Stainless Mortar	19-1-000167	AS-143P	¥119,100
43	Sealer Plus	19-1-000346	IDEXX 98-0002570-00	¥424,000
44	Desk Top Balance	19-1-000347	BX32KH	¥216,600
45	Load cell	19-1-000348	TCLP-05KNB	¥154,330
46	Displacement Gauge	19-1-000349	DDP-50A	¥75,600
47	Coating Thickness Gauge	19-1-000404	DCFN-3000EZ-E	¥95,040
48	Laptop	19-3-000015	HP 14-CK0003TX	$1,000.00
49	Smart Glass	20-3-001770	Epson MOVEIRO (BT-30C)	$1,100.00
50	Printer	20-3-001771	HP OfficeJet Pro 7740	$550.00
51	Desktop PC	20-3-002437	HP AIO24 (SNLN)	$1,335.00
52	Desktop PC	20-3-002438	HP AIO24 (SNLN)	$1,335.00
53	Desktop PC	20-3-002439	HP AIO XA0187 (i7-9700)	$1,900.00
54	Laptop PC	21-3-002127	HP 14S-CF2502TX Core i7	$1,435.00
55	Laptop PC	21-3-002128	HP 14S-CF2502TX Core i7	$1,435.00
59	Laptop PC	21-3-002129	HP 14S-DQ2556TU	$1,349.00
57	Desktop PC	21-3-002130	HP PC 280 G3 PCI MT (i7-4C)	$1,338.00
58	Laptop PC	21-3-002131	HP 14S-DQ2556TU	$1,349.00
56	Laptop PC	21-3-002132	HP Pavilion 14-ce3088TX i5 2GB	$1,235.00
61	Desktop PC	21-3-003565	HP 27-dp1006p AIO i7	$2,250.00
60	Camera	21-3-003566	Olympus Tough TG-6	$650.00
62	Drone	21-3-004215	DJI Phantom 4 RTK + D-RTK 2 Mobile Combo	$14,104.00

Attachment 2 : JICA CADEFEST 2 EQUIPMENT

Item No.	Product Name	Model	Fabricant	Country of Origin	Quantity	Unit Price	CIP Amount (JPY)
1-1	Folder	MWLNR 2020K 06	SANDVIK	INDIA	6	13,500	81,000
1-2	Cut Folder	RF123G22-2020D	SANDVIK	SWEDEN	6	203,500	1,221,000
2-1	Shankbite	PTFNR1616H 16	SANDVIK	SWEDEN	4	12,100	48,400
2-2	Shankbite	PTFNR2020K 16	SANDVIK	SWEDEN	4	13,500	54,000
2-3	Shankbite	PTFNR2525M16	SAVDVIK	SWEDEN	4	14,300	57,200
2-4	Shankbite	DCLNR 2020K 12	SANDVIK	SWEDEN	6	13,500	81,000
3-1	Tip for thread cutting	R166.0L-11MM01-050 1020	SANDVIK	SWEDEN	50	2,600	130,000
3-2	CoroCut 1-2 Tip for parting	N123G2-0300-0001-CF 1125	SANDVIK	JAPAN	50	3,200	160,000
3-3	Tip for turning	TNMG 16 04 08-PF 4315	SANDVIK	JAPAN	50	1,200	60,000
4	Front milling cutter	ONGU0507ANEN-MJ T3225 (10pcs/box)	TUNGALOY	JAPAN	5	16,200	81,000
5	Machine saw blade	TSUNE MACHINE SAW No.2 size:350(12pcs/box)	TSUNE SEIKI CO.,LTD.	JAPAN	3	3,800	11,400
6	Lubricant	Chemicool SR-5 (20L/can)	CHEMIC	JAPAN	10	15,100	151,000
7	Spot welder	ART7902	TECNA	ITALY	4	372,200	1,488,800
	Special accessories						
	Air cooling arm Art.7402 L=250mm				4	15,600	62,400
	Air cooling arm Art. 7506 L=250mm				4	22,900	91,600
8	Oil hydraulics vise	VH-150	Tsudakoma Corp.	JAPAN	1	246,600	246,600
9	Power vise	VE125N-15	Kitagawa Corporation.	JAPAN	1	251,000	251,000
10	Vise	YV-65S	TRUSCO Nakayama Corporation	TAIWAN	2	8,100	16,200
11	Test piece molder	MIC-117-0-10 type	MARUI & Co.,LTD.	JAPAN	30	20,800	624,000
12	Marshal molder	A-343	Nishinihonshikenki.	JAPAN	24	19,000	456,000
13	Sieve	MIC-114-0-51	MARUI & Co.,LTD.	JAPAN	1	119,600	119,600
14	Digital caliper	DT-200	Niigata seiki Co.,Ltd.	CHINA	1	11,700	11,700
15	Dial gauge	Dial gauge for TS-461	Freesia Macross Co.,Ltd.	JAPAN	2	21,700	43,400
16	Maximum density measuring device	A-308	Nishinihonshikenki.	JAPAN	1	233,700	233,700
	Special accessory						
	220V-100V down transformer with Adaptor	PAL1000EP	SWALLOW Electric Co.,Ltd.		1	21,700	21,700
17	Electromagnetic sieve shaker	15-D0407	Controls	ITALY	1	127,200	127,200
18-1	Elongation tester	DUCTIMETER 81-PV10B02	Controls	ITALY	1	1,059,700	1,059,700
18-2	Mold plate for sample	81-B0141	Controls	ITALY	4	14,100	56,400
18-3	Mold plate	81-B0142	Controls	ITALY	4	10,500	42,000
18-4	Cooling chiller	81-PV1002	Controls	ITALY	1	247,200	247,200
18-5	Support stand	81-PV10010	Controls	ITALY	1	141,300	141,300
18-6	Load cell	81-PV10020	Controls	ITALY	4	42,400	169,600

19-1	Total station	iM103	Sokkia Topcon Co., Ltd.	JAPAN	2	1,236,400	2,472,800
	Special accessory						
	Pin pole prism set【A set】	STS-5 type unit 【A set】	STS Corporation.		2	46,200	92,400
	Adaptor	T-HPASEWH(SE type)	ELECOM CO.,LTD.		2	500	1,000
19-2	Stand for Total station	TP-210S	Sokkia Topcon Co., Ltd.	JAPAN	2	16,300	32,600
20	USB cable	HQK45000	NIKON-TRIMBLE CO., LTD.	JAPAN	1	24,500	24,500
21-1	Digital viscometer	LVDV1M XDV1MLVTJ00U00	Brookfield	USA	1	509,700	509,700
21-2	Thermal cell set	HT-110 230 220A DP with Spindle SC4-18	Brookfield	USA	1	722,800	722,800
21-3	Silicon standard viscosity liquid	5 CPS	Brookfield	USA	1	19,700	19,700
21-4	Silicon standard viscosity liquid	10 CPS	Brookfield	USA	1	19,700	19,700
21-5	Silicon standard viscosity liquid	100 CPS	Brookfield	USA	1	19,700	19,700
22	Marshal automatic tamping device	A-351	Nishinihonshikenki.	JAPAN	1	566,000	566,000
	Special accessory						
	220V~100V down transformer with adaptor(SE type)	PAL1000EP	SWALLOW Electric Co.,Ltd.		1	21,700	21,700
23	Visara rain gauge / thermometer	SESAMEII-05d	Midori Engineering Laboratory Co., Ltd.	JAPAN	8	756,000	6,048,000
	Special accessories						
	Steel pipe or stainless pipe for construction				8	108,000	864,000
	Steel pipe anchor concrete and other fixing parts for construction				8	32,000	256,000
24	Ultrasonic water level gauge	SESAMEII-02d (less than 10m)	Midori Engineering Laboratory Co., Ltd.	JAPAN	6	562,000	3,372,000
	Special accessories						
	Mounting base for construction				6	160,000	960,000
25	Ultrasonic water level gauge	SESAMEII-02d	Midori Engineering Laboratory Co., Ltd.	JAPAN	1	611,600	611,600
	Special accessories						
	Mounting base for construction				1	160,000	160,000
26	Simple river monitoring camera	SESAME CAMERA	Midori Engineering Laboratory Co., Ltd.	JAPAN	7	461,400	3,229,800
	Special accessories						
	Steel pipe or stainless pipe for construction				7	108,000	756,000
	Steel pipe anchor concrete and other fixing parts for construction				7	32,000	224,000
28	Data logger for rain gauge	UA-003-64	Onset	USA	8	12,800	102,400
29	Digital microscope	AR-DMZ205	ARMSSYSTEM Co., Ltd.	CHINA	1	148,000	148,000
	Special accessories						
	Auxiliary objective lense 2.0X WD:30mm	DMZ-2.0X			1	18,000	18,000
	Adaptor (SE type)				1	2,100	2,100
30-1	Motor 200W motor for Nichika Bench saws	Motor for Nichika 8L(s) 100V 200W	Nichika Inc.	THAILAND	2	17,600	35,200
	Special accessories						
	220V~100V down transformer with adaptor(SE type)	PAL1000EP	SWALLOW Electric Co.,Ltd.		2	21,700	43,400

30-2	Motor 300W motor for Nichika Bench saws	Motor for Nichika UC8 100V 300W	Nichika Inc.	THAILAND	2	25,000	50,000
	Special accessories						
	220V–100V down transformer with adaptor(SE type)	PAL1000EP	SWALLOW Electric Co.,Ltd.		2	21,700	43,400
31	Sodium Hydroxide	198-18863 5kg	FUJIFILM Wako Pure Chemical Corporation	JAPAN	2	11,800	23,600
32-1	Digital viscometer	LVDV1M XDV1MLVTJ00U00	Brookfield	USA	1	509,000	509,000
32-2	Thermal cell set with transformer	HT-110 115 ADP with Spindle SC4-18	Brookfield	USA	1	722,000	722,000
32-3	Silicon standard viscosity liquid	5 CPS	Brookfield	USA	1	19,700	19,700
32-4	Silicon standard viscosity liquid	10 CPS	Brookfield	USA	1	19,700	19,700
32-5	Silicon standard viscosity liquid	100 CPS	Brookfield	USA	1	19,700	19,700
33	Handheld density meter	DMA35 Standard	Anton Paar Japan K.K.	Austria	1	425,000	425,000
	Special accessories						
	Calibration Certificate				1	65,200	65,200
	Filling tube 180 mm				1	4,300	4,300
	BENT FILLING TUBE 70 mm / 180 mm				1	15,200	15,200
	Filling tube 600 mm				1	7,600	7,600
34-1	Contact angle meter	DMs-401	Kyowa Interface Science Co., Ltd	JAPAN	1	1,515,200	1,515,200
	Special accessories						
	Laptop for analysis				1	222,800	222,800
34-2	Three-state kit for contact angle meter	Three-state kit for contact angle meter145ml	Kyowa Interface Science Co., Ltd	JAPAN	1	156,500	156,500
34-3	Three-state cell	Three-state cell 145ml	Kyowa Interface Science Co., Ltd	JAPAN	1	106,000	106,000
34-4	Reverse needle for three-state system	Reverse needle for three-state system 145ml 28G 2pcs/set	Kyowa Interface Science Co., Ltd	JAPAN	2	13,500	27,000
34-5	Glass cell	Glass cell (quartz) 2pcs/set	Kyowa Interface Science Co., Ltd	JAPAN	5	16,100	80,500
34-6	Syringe set	Syringe set 22G 5pcs/set	Kyowa Interface Science Co., Ltd	JAPAN	1	12,400	12,400
34-7	PD reverse needle	PD reverse needle 28G 2pcs/set	Kyowa Interface Science Co., Ltd	JAPAN	5	6,600	33,000
	Packing & delivery				1	1,900,000	1,900,000
	Insurance				1	108,424	108,424

Total 35,065,424

Attachment 3: JICA CADEFEST 2 EQUIPMENT

LABORATORY EQUIPMENTS FOR THE NATIONAL UNIVERSITY OF TIMOR-LESTE

1-1	MANUAL PULSE GENERATOR	MANUAL PULSE GENERATOR (TEPA)	@JPY	28,400	1 PC(S)	JPY	28,400
1-2	LINUXCNC SOFTWARE INSTALLED PC	PC OPTION LINUX CNC BUILT-IN	@JPY	49,500	1 PC(S)	JPY	49,500
1-3	MACHINE VISE	MACHINE VISE 100mm	@JPY	15,200	1 PC(S)	JPY	15,200
2-1	COMBINED WEATHER SENSOR	CPK-AWS-10	@JPY	850,000	1 PC(S)	JPY	850,000
2-2	PYRANOMETER	CHF-SR05-A	@JPY	87,500	1 PC(S)	JPY	87,500
2-2-A	SR05 OPTION BALL LEVELING BL01(CHF-SR05 BL01)	CHF-SR05-BL01	@JPY	8,800	1 PC(S)	JPY	8,800
2-2-B	SR05 OPTION PIPE ASSEMBLE TM01(CHF-SR05-TM01)	CHF-SR05-TM01	@JPY	4,500	1 PC(S)	JPY	4,500
2-2-C	SR30/SR6 CONNECTOR CABLE 10m(CHF-Cable10-SR301505)	CHF-Cable10-SR301505	@JPY	24,500	1 PC(S)	JPY	24,500
2-3	OPTIONAL ORTHOGONAL CLAMP SET FOR PYRANOMETER	CHF-PIPE-60	@JPY	15,500	1 PC(S)	JPY	15,500
2-4	PROGRAM CUSTOMIZATION AND OPERATION CHECK FEE	C-SV31	@JPY	80,000	1 PC(S)	JPY	80,000
2-5	DATA STORAGE SERVER	PowerEdge T140 SERVER	@JPY	132,000	1 PC(S)	JPY	132,000
3-1	AUTOMATIC LEVEL	B40A	@JPY	31,800	2 PC(S)	JPY	63,600
3-1-A	METAL TRIPOD (SPHERICAL)TP-210SD	TP-210SD	@JPY	10,000	2 PC(S)	JPY	20,000
3-2	TURNING PLATE	STP430	@JPY	2,000	4 PC(S)	JPY	8,000
4-1	BOOK	ISBN 10: 0442041585	@JPY	2,500	1 PC(S)	JPY	2,500
4-2	BOOK	ISBN 10: 0442041969	@JPY	10,000	1 PC(S)	JPY	10,000
4-3	BOOK	ISBN 10: 0442041993	@JPY	63,000	1 PC(S)	JPY	63,000
5	TEST SIEVE	TEST SIEVE 200MM DIAMETER STAINLESS STEEL OPENING 425µm	@JPY	7,500	2 PC(S)	JPY	15,000
6-1	BUCKET FOR AUTOCLAVE	VN2121	@JPY	15,000	1 PC(S)	JPY	15,000
6-2	HYDRAZINUM SULFATE	081-00552	@JPY	2,100	1 PC(S)	JPY	2,100
6-4	TURBIDITY SENSOR	TURBIDITY SENSOR 7800 PART'S NO. 3200172803	@JPY	57,800	1 PC(S)	JPY	57,800
6-5	IDEXX REAGENT COULERT18	99-19152	@JPY	32,300	1 PC(S)	JPY	32,300
7-1	OPTICAL COMMUNICATION EXPERIMENT KIT	IF-E-10	@JPY	900	50 PC(S)	JPY	45,000
7-2	TIE CLIP MICROPHONE WITH DETACHABLE POWER MODULE	NZ-M863	@JPY	4,900	20 PC(S)	JPY	98,000
7-2-A	COIN BATTERY(LR44)	LR44	@JPY	500	20 PC(S)	JPY	10,000
7-3	AUDIO CABLE SPLITTER	1MT-02F-30	@JPY	900	10 PC(S)	JPY	9,000
7-4	INTERNAL MAGNET SPEAKER	a13080600ux0275	@JPY	500	10 PC(S)	JPY	5,000
7-5	CANAL TYPE EARPHONE	RP-HJE150-W	@JPY	900	20 PC(S)	JPY	18,000
7-6	ELECTRIC BUZZER	8883	@JPY	200	100 PC(S)	JPY	20,000
7-7	CDS CELL PHOTORESISTOR	GL5528	@JPY	300	20 PC(S)	JPY	6,000
7-8	DIODE	1N4002RLG	@JPY	100	1000 PC(S)	JPY	100,000
7-9	GERMANIUM DIODE	1N60	@JPY	150	50 PC(S)	JPY	7,500
7-10	ZENER DIODE	BZX55C5V1 R0	@JPY	3,500	5 PC(S)	JPY	17,500
7-11	LIGHT EMITTING DIODE	B081WSH8LV	@JPY	600	20 PC(S)	JPY	12,000
7-12	SILICON TRANSISTOR	2SA1162-GR(F)	@JPY	700	50 PC(S)	JPY	35,000
7-13	SILICON TRANSISTOR	2SC2712-BL(F)	@JPY	650	50 PC(S)	JPY	32,500
7-14	OPERATIONAL AMPLIFIER	LM324AMX/NOPB	@JPY	100	550 PC(S)	JPY	55,000
7-15	MINI POWER RELAY	MY2 DC24	@JPY	750	30 PC(S)	JPY	22,500
7-16	CERAMIC FUSE	F1200	@JPY	650	100 PC(S)	JPY	65,000
7-17	INDUCTOR	Wal frontu6gthmr05w	@JPY	2,000	20 PC(S)	JPY	40,000
7-18	STEP-DOWN TRANSFORMER	R2-121	@JPY	1,200	20 PC(S)	JPY	24,000
7-19	SINGLE BOARD COMPUTER STARTER KIT	Raspberry Pi 4 4B-64GB	@JPY	18,100	1 PC(S)	JPY	18,100
7-20	ELECTRONIC PARTS KIT FOR SINGLE BOARD COMPUTER	Raspberry Pi 4 B 3 B+ 400	@JPY	4,500	1 PC(S)	JPY	4,500
7-21	TOUCH MONITOR FOR SINGLE BOARD COMPUTER	7inch Raspberry Pi Touch Monitor	@JPY	7,000	1 PC(S)	JPY	7,000
8-1	MICROSCOPE	SZ61-C-SET	@JPY	136,800	10 PC(S)	JPY	1,368,000
8-2	LED RING LIGHT	SZ-LW61	@JPY	43,700	10 PC(S)	JPY	437,000
8-2-A	PLUG CONVERSION ADAPTER WP-5	WP-5	@JPY	200	10 PC(S)	JPY	2,000
9	LCD MONITOR	GB-12TV	@JPY	52,200	1 PC(S)	JPY	52,200
9-A	PLUG CONVERSION ADAPTER WP-6	WP-5	@JPY	200	1 PC(S)	JPY	200
10	CAMERA	HDCE-30B3T	@JPY	30,500	1 PC(S)	JPY	30,500
11	TABLETOP DRAFT	3-4060-01	@JPY	112,000	1 PC(S)	JPY	112,000
11-A	DOWN TRANSFORMER PE-350E	PE-350E	@JPY	12,000	1 PC(S)	JPY	12,000
11-B	PLUG CONVERSION ADAPTER WP-6	WP-5	@JPY	160	1 PC(S)	JPY	160
12-1	DRUG PACKING PAPER	1-4560-02	@JPY	300	10 PC(S)	JPY	3,000
12-2	SAMPLE BAG	G-8	@JPY	1,000	10 PC(S)	JPY	10,000
12-3	SAMPLE TUBE	No.7	@JPY	120	100 PC(S)	JPY	12,000
12-4	SAMPLE TUDE	No.3	@JPY	50	500 PC(S)	JPY	25,000
12-5	SPOON	6-522-02	@JPY	100	10 PC(S)	JPY	1,000
12-6	TWEEZERS	TSP-25	@JPY	150	10 PC(S)	JPY	1,500
12-7	PETRI DISH	2-5169-04 80/15	@JPY	250	50 PC(S)	JPY	12,500
13-1	PETROGRAPHIC POLISHER	RP-SU	@JPY	639,000	1 PC(S)	JPY	639,000
13-2	PAPER CAVITY SLIDE	PS-1	@JPY	3,600	1 PC(S)	JPY	3,600
13-2-A	ALUMINUM PROTECTION CASE FOR MICROFOSSILS 160 PCS WITH GLASS PS-C	PS-C	@JPY	14,800	1 PC(S)	JPY	14,800
13-3	PAPER CAVITY SLIDE	PS-2	@JPY	3,600	1 PC(S)	JPY	3,600
13-3-A	ALUMINUM PROTECTION CASE FOR MICROFOSSILS 160 PCS WITH GLASS PS-C	PS-C	@JPY	14,800	1 PC(S)	JPY	14,800
14-1	WRITING BRUSH	62977217	@JPY	120	10 PC(S)	JPY	1,200
14-2	BRUSH SET	20552936	@JPY	300	2 PC(S)	JPY	600
15-1	GRINDING MATERIALS	NC-#80	@JPY	9,600	2 PC(S)	JPY	19,200
15-2	GRINDING MATERIALS	NC-#120	@JPY	9,600	1 PC(S)	JPY	9,600
15-3	GRINDING MATERIALS	NC-#220	@JPY	9,600	1 PC(S)	JPY	9,600
15-4	GRINDING MATERIALS	NC-#600	@JPY	22,000	2 PC(S)	JPY	44,000
15-5	GRINDING MATERIALS	NC-#1000	@JPY	24,000	1 PC(S)	JPY	24,000
15-6	GRINDING MATERIALS	NC-#3000	@JPY	28,000	1 PC(S)	JPY	28,000
16-1	SLIDE GLASS	SLIDE GLASS FOR MINERALS	@JPY	800	10 PC(S)	JPY	8,000
16-2	COVER GLASS	C013301	@JPY	950	10 PC(S)	JPY	9,500
16-3	SLIDE BOX	23-7871-03	@JPY	1,200	10 PC(S)	JPY	12,000
17-1	ELECTRONIC MICROSCOPE	CM-7000	@JPY	10,663,600	1 PC(S)	JPY	10,663,600
17-1-A	ANTI-VIBRATION TABLE	TAP-56	@JPY	750,000	1 PC(S)	JPY	750,000
17-2	STAGE NAVIGATION SYSTEM	MP-013405N5	@JPY	360,000	1 PC(S)	JPY	360,000
17-3	ENERGY DISPERSIVE X-RAY SPECTROMETER	EDS Standard Unit	@JPY	3,500,000	1 PC(S)	JPY	3,500,000
17-4	PARTICLE ANALYSIS SOFTWARE	EX-36320P43	@JPY	1,150,000	1 PC(S)	JPY	1,150,000
18-1	COATER	DII-29030SCTR	@JPY	430,000	1 PC(S)	JPY	430,000
18-2	OIL MIST TRAP	OMT-050A	@JPY	10,000	1 PC(S)	JPY	10,000
26	LABORATORY TABLE	HTO-1575SG	@JPY	115,000	1 PC(S)	JPY	115,000
					FOB YOKOHAMA, JAPAN TOTAL	JPY	22,135,960

LABORATORY EQUIPMENTS FOR THE NATIONAL UNIVERSITY OF TIMOR-LESTE

6-3	HEXAMETHYLENETETRAMINE	UN1328	@JPY	2,500	1 PC(S)	JPY	2,500
19	ASETONE	UN1090	@JPY	7,000	2 PC(S)	JPY	14,000
20	ETHANOL	UN1170	@JPY	10,500	18 PC(S)	JPY	189,000
21	ACETIC ADID	UN2789	@JPY	1,000	10 PC(S)	JPY	10,000
23	HYDROCHLORIC ACID	UN1789	@JPY	1,800	48 PC(S)	JPY	86,400
24	PETROPOXY	UN3082/ 1760	@JPY	29,800	3 PC(S)	JPY	89,400
25	BOND	UN3082/2735	@JPY	6,000	2 PC(S)	JPY	12,000
					FOB YOKOHAMA, JAPAN TOTAL	JPY	403,300

ANNEX 2: List of Products Produced by the Project

ANNEX 2: List of Products (Report, Manuals, Handbooks, etc.) Produced by the Project

- List of External Partners
- Guidelines for final thesis
- Online Class Evaluation System
- Tracer Survey Records
- Research Proposals/ Research Papers
- Timorese Academic Journal of Science and Technology (TAJST) Vol.1-5
- Syllabus (4 years Bachelor Course) (Jointly Reviewed by Project and Lectures)
- Teaching Materials
- M/M of Steering Committee Meeting(SCM)
- Needs Survey for establishment of FECT Master's Degree Program
- Syllabus draft for New Master's Degree Program
- Proposal for Establishing Master's Degree Program
- Project Newsletters

External Partners for Network Activity

Department	External Partners	Category
ME	Heineken	Industry
	Conoco Philips (SANTOS)	Industry
	National Petroleum Agency	Industry
	Toyota Auto	Industry
	Pabrica Cement	Industry
	NCBA Company	Industry
	Timor Global Company	Industry
	Auto Tilosa Company	Industry
	EDTL	Government
	Power Plant	Government
	ITB	University
	Nagaoka University of Technology	University
	Water Aid	Community
	Lospalos Munisipaliy	Community
	Timor Cement	Industry
	Teri (the energy and resource institute) Indo	Institution
CE	Pires Architecture	Industry
	Geneno Unipessoal.Lda	Industry
	Ensul	Industry
	Carya Timor Leste	Industry
	Jonize Construction	Industry
	Surik Mas	Industry
	Salvador Architecture	Industry
	Public Works	Government
	PMU for disaster	Government
	Ministry of Ambient	Government
	A D N	Government
	Udayana University	University
	Yamaguchi University	University
	Water Aid	Community
	Engineers Without Borders	Others
	APORITL	Government
EE	Telemor	Industry

	Timo Telecom	Industry
	Telkmcel	Industry
	EDTL	Government
	A D N	Government
	ANC	Government
	DNSAS	Government
	RTTL	Government
	National Airport Authority	Government
	Gifu University	University
IT	Quidgest	Industry
	English Language Center	Industry
	ANC	Government
	Naiotnal Police	Government
	Secretary of State for Youth and Sports	Government
	Ministry of Agriculture	Government
	Universidade do Porto	University
	Veteran University	University
	Gifu University	University
	Timor Leste Open Source Community	Community
	UNESCO Timor Satellite office	Int.Organization
GP	SSI	Industry
	Shlumberger Company	Industry
	Florentino	Industry
	Kyushu University	University
	Hokkaido University	University
	KIKAI college for coral reef sciences	Institution
	University of the Western Australia	University
	ITB	University
	Padjadjaran University	University
	University of Philippines	University
	Sabbah University	University
	Department of Energy (the Philippines)	Others

List of Conducted Research

No.	No.by Department	Department	Research Member	Research Theme	Supervisor	Collaborator/External Resources/Conference
1	1	Mechanical	Gabriel Antonio de Sa	Maintenance of Future of Climate in Timor-Leste from World database	Prof.Tomonao Kobayashi	
2	2	Mechanical	Junior Raimundo da Cruz, Domingos de Sousa Freitas and Chris Mares	A Design of Pelton Turbine with Head 4m for Remote Area in Timor-Leste		
3	3	Mechanical	Paulo Da SILVA	A review on Electricity sector development in Timor Leste	Prof.Ikuo Tanabe	
4	4	Mechanical	Domingos de Sousa Freits, Junior Raimundo da Cruz, Domingos de Regulau dos Santos, Octavio da Costa and Miguel da Costa Soares	An Optimization of Cross-Flow Turbine Vanes in Enhancing Efficiency of Generating Voltage	Prof.Tomonao Kobayashi	
5	5	Mechanical	Domingos de Sousa Freits, Junior Raimundo da Cruz, Domingos de Regulau dos Santos, Octavio da Costa and Miguel da Costa Soares	An Optimization of Cross-Flow Turbine Vanes in Enhancing Efficiency of Generating Voltage		
6	6	Mechanical	Paulo Da SILVA	Analytical models for machine tool motion behavior assessment bench mark subjected to great earthquake	Prof.Ikuo Tanabe	
7	7	Mechanical	Marfim Guimarães and Mario Marques Cabral]	Assessment of Traffic Noise Pollution in Dili, Capital of Timor-Leste		
8	8	Mechanical	Marfim Guimaraes, Noviano Gusmao Robbinson , and Minoru Yamashita	Axial Compression of Square Steel Tubes		
9	9	Mechanical	Marfim Guimaraes, Noviano Gusmao Robinson and Minoru Yamashita	Collapse Behavior of Square steel Tubes in three-Point Bending	Prof.Minoru Yamashita	
10	10	Mechanical	Domingos de Sousa Freitas, Junior Raimundo da Cruz and Chris Mares	Design and Analyze Pelton Turbine with Head 4m for the Remote Area in Timor-Leste		
11	11	Mechanical	Valerio de Sousa, Hideo Hoshino, Hiroshi Kawanishib, Ikuo Tanabeb and Lucas da Costa	Design and Fabricate New Top Slide for Making Ball and Radius Shape in Conventional Lathe Machine		
12	12	Mechanical	Valerio DE SOUSA GAMA , Yoshifumi ISE, Satoshi Hiromi ISOBE.	Development of a High Speed Mirror Like Finish Polishing Technology for Minute Parts Based on a Linear Motor		
13	13	Mechanical	Paulo Da SILVA	Development of cooling fluid with lower friction coefficient for environmentally friendly	Prof.Ikuo Tanabe	
14	14	Mechanical	Paulo Da SILVA	DEVELOPMENT OF ENVIRONMENTALLY-FRIENDLY TECHNOLOGIES BASED ON THE DOUBLE-ECO MODEL – AN EVALUATION PLATFORM	Prof.Ikuo Tanabe	
15	15	Mechanical	Valerio de Sousa Gama, M.Eng (JICA Long-Term, Nagaoka Univ.)	Development of High Speed Polishing System Using Polymer a Minute Part	Prof.Ikuo Tanabe (Nagaoka)	Presented in AUN/SEED-Net Regional Conference in November
16	16	Mechanical	Paulo Da SILVA	DEVELOPMENT OF MATERIAL OPTIMIZATION TECHNOLOGY FOR INNOVATION	Prof.Ikuo Tanabe	
17	17	Mechanical	Paulo Da SILVA	Development of material optimization technology for small structure	Prof.Ikuo Tanabe	
18	18	Mechanical	Valerio de Sousa Gama and Adelson Lopes	Development of New Top Slide for Ball and Radius Shape Cutting on Conventional Lathe Machine	Prof.Ikuo Tanabe	
19	19	Mechanical	Marfim Guimaraes	Effects of Transmission Errors on Noise and Vibration of Gears		
20	20	Mechanical	Domingos de Sousa Freitas and Junior Raimundo da Cruz	Efficiency Improvement of Hydram Pump with Head 12m for Rural Area in Timor-Leste		
21	21	Mechanical	Valerio de Sousa GAMA, Junior Raimundo da CRUZ, Paulo da SILVA, Leandro Madeira BRANCO , and Diego José Elisabeth RIBEIRO]	Evaluation of Mechanical Properties of Hollow Steel in Timor-Leste Market		
22	22	Mechanical	Domingos de Sousa Freitas, Jose Maria Xavier, Evangelino Candido Gaio, Adalfredo Guterres da Silva Ximenes , José Elias Pereira Tilman and Tomonao Kobayashi	Evaluation of Rainfall for Generating of Micro Hydro Power in Seiçal River Basin		
23	23	Mechanical	Marfim Guimaraes	Experimental Study on Noise of Gear System		
24	24	Mechanical	Jose Maria Xavier	Fesibility Study on Solar PV Potencial of Island of Atauro		
25	25	Mechanical	Valerio de Sousa Gama, Agostinho Soares Madeira	Improvement of Surface Roughness of Ball and Radius Shape Workpiece by Using New Grinding Tools	Prof.Ikuo Tanabe	
26	26	Mechanical	Paulo Da SILVA	MACHINE TOOL DISTORTION ESTIMATION DUE TO ENVIRONMENTAL THERMAL FLUCTUATIONS – A FOCUS ON HEAT TRANSFER COEFFICIENT	Prof.Ikuo Tanabe	
27	27	Mechanical	Gabriel Antonio de Sa, Victor C. Soares, Antonio Pedro Belo and Tomonao KOBAYASHI	Maintenance of Future of Climate in Timor-Leste from World database	Prof.Tomonao Kobayashi	
28	28	Mechanical	Francisco Xavier Ximenes , and Antonio Torres Marques	Mechanical Testing of Fibre Reinforced Pipes Manufactured under Two Different Orientations		
29	29	Mechanical	Francisco Xavier Ximenes	Milling Process of Silica Oxide (SiO2) Powder in Timor-Leste		
30	30	Mechanical	Valerio de Sousa GAMA , Ikuo TANABE , Estevão Daniel SOARES	Mirror Like Surface Of The Workpiece By Using Diamond And Polymer Slurry As A Polishing Agent		
31	31	Mechanical	Domingos de Sousa Freitas, Junior Raimundo da Cruz and Chris Mares	Multiple-Household Fuel Use in Timor-Leste: A Balanced Choices Between Firewood and Waste-Oil Cookstove		
32	32	Mechanical	Marfim Guimaraes	Natural Frequency of the Rotaton System of the Discs		
33	33	Mechanical	Jose Maria Xavier	Performance Analysis of a PV System at the Universidade Nasional Timor Lorosa'e	Prof.Tomonao Kobayashi	
34	34	Mechanical	Paulo DA SILVA, Jose Maria XAVIER and Antonio Pedro BELO	Power Options for Timor-Leste by Analytical Hierarchy Process (AHP)		
35	35	Mechanical	Valerio de Sousa Gama , Leandro Madeira Branco and Fabricius da Cruz Correira	Quality of Reinforcing Bar in Timor-Leste Market	Prof.Ikuo Tanabe	
36	36	Mechanical	Gabriel António de Sá and Tomonao Kobayashi	Rainfall Analysis in Little Rain Years at Dili Under Future Climate Classification and Kinematic Analysis		
37	37	Mechanical	Paulo Da SILVA	RISK ASSESSMENT CRITERIA FOR MACHINE TOOLS SUBJECTED TO LARGE EARTHQUAKE HAZARDS: A PROPOSAL	Prof.Ikuo Tanabe	
38	38	Mechanical	Domingos de Sousa Freitas, M.Eng (Principal Investigator) Victor Soares, Dr.Eng (JICA Long-Term , Nagaoka Univ.) Junior Raimundo da Cruz, Dr.Eng (MEXT Scholarship, Nagaoka Univ.) Evangelino Cândido Gaio	Study and Analysis the Production Process of Local Beverage (Pone Wine to Tua Sabu) with Traditional Method for Improvement Livelihood; a Case Study in Sub-District Laclubar.	Prof.Ikuo Tanabe	Japan-ASEAN Science, Technology and Innovation Platform (Kyoto University) Presented AUN/SEED-Net Regional Conference in 2017
39	39	Mechanical	Junior Raimundo da Cruz , Domingos de Sousa Freitas and Sabino Freitas	Study on Comparison Among CO2 Emission Level of Firewood and Waste Oil Cook Stoves		
40	40	Mechanical	Junior Raimundo da Cruz, Domingos de Sousa Freitas, Bendito M. dos Reis Carvalho and Ze Marisco Piedade	Study on Different Penstock Slope for Improvment of Pelton Turbine Efficiency		
41	41	Mechanical	Lelis Gonzaga Fraga , José Carlos F. Teixeira , and Manuel Eduardo C. Ferreira	Study the Thermal Equilibrium of The Materials and the Decomposition of Wood Pellets at Low Temperature		
42	42	Mechanical	Lelis Gonzaga Fraga, Jose Carlos F. Texeira and Manuel Eduardo C. Ferreira	Technical Review on Biomass Resource for Wood Pellets in Timor-Leste		
43	43	Mechanical	Paulo Da SILVA	THE ANALYSIS OF ENVIRONMENTAL AND HUMAN IMPACTS OF USING STRONG ALKALINE WATER FOR COOLING DURING MACHINING	Prof.Ikuo Tanabe	
44	44	Mechanical	Victor Soares, Dr.Eng (JICA Long-Term, Nagaoka Univ.) António Pedro Belo	The Characterization of Wind Flow in Timor Leste	Prof.Tomonao Kobayashi	
45	45	Mechanical	Lelis Gonzaga Fraga	The Influence of Various Parameters on Wood Pellets Combustion: A Review		
46	46	Mechanical	José Maria Xavier, Victor da Conceição Soares, António Pedro Belo and Tomonao Kobayashi	Weather Observation at Hera for Installing Renewable Energies		
47	47	Mechanical	José Maria Xavier, Victor C. Soares, Domingos de Sousa Freitas, José Elias Pereira Tilman, and Tomonao Kobayashi	Weather with Tropical Cyclone Seroja Simulated with Numerical Meteorological Model		

48	1	Civil	Aleixo Sarmento and Gakuho WATANABE	The Influence of Torsional Deformation on Sesmic Performance of Midle-Rise Building Structures by Utilizing Advance Egineering Tools	Prof.Gakuho Watanabe	
49	2	Civil	Aleixo Sarmento and Joao F. Soares	Avaliasaun kondisaun infra-estruturas iha mota Moloa husi impaktu siklone tropikal no inundasaun 4 de Abril 2021		
50	3	Civil	Humbelina Maia Soares Viegas and Nakashima S.	Case Study of Asphalt Pavement Desing in Consideration of Temperature in Timor-Leste	Prof. Shinichiro Nakashima	
51	4	Civil	José M. Ximenes , and José B. Aguiar	Characteristics of Solid Cement Block and Mortars for Masonry		
52	5	Civil	Humbelina Maia Soares Viegas	Characterization of Climatic Conditions in Timor-Leste for Pavement Dimensioning	Prof. Shinichiro Nakashima	
53	6	Civil	Viegas, H.M.S., José António Dias, and Shinishiro Nakashima, S	Comparison Study of AASHTO and Bina Marga Standards in Design Road Construction in Timor-Leste		
54	7	Civil	Hugo da Costa Ximenes	Comprehensive Evaluation of Video Data by using the Analytic Hierarchy Process (AHP) Method	Prof. Shinichiro Nakashima	
55	8	Civil	Elfrido Elias Tita, Shao Peilun , and Gakuho Watanabe	Development of the Parametric Building Information Modeling of Bridge Components and the Integration of Bridge Model by Visual Programming Language		
56	9	Civil	Masahiko Sekine, Alfredo Ferreira, and Aleixo Sarmento	Drawing inundation map based on remote collaborative works among Japan and Timor Lorosa'e		
57	10	Civil	Justino da Costa Soares/Alfredo	Environment Condition Improvement by Using Palm Fiber and Geotextile	Prof.Masahiko Sekine (Yamaguchi)	
58	11	Civil	Hugo Ximenes, Diamentino Denilson Leite , and Hiroyuki Sakakibara	Estimating Queuing Time of the Heavy Vehicles at Dili Port Gate		
59	12	Civil	Benjamnin de Oliveira Hopffer MARTINS	Factors Triggering landslides in Timor Leste	Prof.Motoyuki Suzuki	
60	13	Civil	Mariano Renato Monteiro da Cruz, Fernao Antonio Lopes Nobre Mouzinho, Hidekazu Fukai and Shinichiro Nakashima	Field Performance Test of the Smatphone Android Aplication for Inspection of Roads	Prof. Shinichiro Nakashima	
61	14	Civil	Hugo Ximenes and Shinichiro Nakashima	Flood damage in the middle reach of the Manleuana river in Dili, Timor-Leste		
62	15	Civil	Hugo da Costa Ximenes	Fumdamental Properties of Porous Concrete using Marble Waste as Coarse Aggregate	Prof. Shinichiro Nakashima	
63	16	Civil	Hugo Ximenes, Teobaldo Filipe Ximenes, and Shinichiro Nakashima	Fundamental properties of PET-Phalt Using Shredded PET Bottles as Binder		
64	17	Civil	Benjamnin de Oliveira Hopffer MARTINS	Geo-disasters consciousness and preparedness of the people in Timor-Leste	Prof.Motoyuki Suzuki	
65	18	Civil	Francisco Guterres Ornai Ximenes and Hidehiko Kazama	Geotechnical Issue with Road Construction in Balibo-Leolima Area, Timor-Leste	Prof.Hidekazu Kazama (Saitama)	
66	19	Civil	Benjamnin de Oliveira Hopffer MARTINS, Motoyuki SUZUKI, Eguchi TSUYOSHI, Nopphawan TAMKUAN, Masahiko NAGAI	Ground Subsidence Inducted by Shallow Earthquake in Timor-Leste	Prof.Motoyuki Suzuki	
67	20	Civil	Benjamnin de Oliveira Hopffer MARTINS	Ground Surface Deformation Detection in Complex Landslide Area – Bobonaro, Timor-Leste – Using SBAS DInSAR, UAV Photogrammetry and Field Observations	Prof.Motoyuki Suzuki	
68	21	Civil	Leonardo Madeira Branco	Initial Studies of Physical Properties of Fine Aggregates and Its Aplication to Concrete in Timor Leste	Prof.Katshiko Takami	
69	22	Civil	Oktoviano V. T. de Jesus, Benjamim Hopffer Martins, Felix J. G. Jones, Abílio Fernandes, and Hamude Alkatiri	Proposed of sedimentation removal along Comoro River Field Report		
70	23	Civil	Koichi Yamamoto and Motoyuki Suzuki	Report on the online debriefing on the April 2021 floods in Timor-Leste		
71	24	Civil	Hugo da Costa Ximenes	Simple Numerical Analysis on Road Pavement Condition Assesment (RPCA) as Maintenance Strategy	Prof. Shinichiro Nakashima	
72	25	Civil	Hugo da Costa Ximenes	Simple Numerical Analysis on Road Pavement Condition Assesment (RPCA) as Maintenance Strategy		
73	26	Civil	Francisco Gutteres Ornai Ximenes	Survey of Geotechnical and Landslide with the Arterial road A03 the cases of Timor-Leste	Prof.Hidekazu Kazama (Saitama)	
74	27	Civil	Leandro Madeira Branco, Prezenzio L. C. D. Ximenes and Evalina I. C. Vidigal	The effect Utilizes Cutting of Polythylene Terephthalate (PET) Botle as Coarse Aggregate for Reinforced Concrete (RC): Initial Study		
75	28	Civil	Aleixo Sarmento and Gakuho WATANABE	The Influence of Torsional Deformation on Sesmic Performance of Midle-Rise Building Structures by Utilizing Advance Egineering Tools		
76	29	Civil	Lelis Gonzaga Fraga	The Study on the Use of Fuel for Cooking in a Household in Dili		
77	30	Civil	Marinano Renato Monteiro da Cruz (JICA Long Term , Hiroshima Univ.)	Utilization of GIS program to Create Database System for Road Network in Timor Leste	Prof. Shinichiro Nakashima	Road and Transportation lab. Ministry of Public Works, Prof. Hidekazu Fukai (Gifu University) and Frederico Soares Cabral in Informatics Engineering
78	31	Civil	Leandro Madeira Branco (JICA Long-Term Trainee, Yamaguchi Univ.)	Utilize Waste Pet Bottle in Concrete in Increase Flexural Strength in Plat and Beam Concrete	Prof.Katsuhiko Takami (Yamaguchi)	
79	32	Civil	Fernando Moniz Guterres and Benjamim Hopffer Martins	Viabilidade Ponte Becussi ho Tipo 6 Box Culvert		
80	33	Civil	Alfredo Ferreira, C. Santos and P. Rosa-Santos	Water Elevation using the Flow Energy		
81	1	Electronics and Electrical	Abelito Filipe Belo	Measurement and Analysis of Fluctuation in Wind Power	Prof. Tomonao Kobayashi (Gifu) and Prof.Koichi Shimakawa(CA)	The Port Authority of Timor-leste IP (Aportil), Mr.Kenji Sasa (JICA Expert for APORTIL)
82	2	Electronics and Electrical	B DA COSTA, Y TAKAHASHI	8 GHz Trans-impedance Amplifier Using Floating Active Inductor		
83	3	Electronics and Electrical	BonifacioDa Costa and Takahashi Yasuhiro	A design of trans-impedance amplifier using negative impedance converter	Prof.Yasuhiro Takahashi	
84	4	Electronics and Electrical	Bendito Freitas Ribeiro and Takashi Yukawa	A Hybrid Recommendation System For Hotel Room Reservation		
85	5	Electronics and Electrical	Ruben Jeronimo Freitas, Dr.Eng	A study on resistance drift phenomena in phase ahcnge materials	Prof.Koichi Shimakawa	
86	6	Electronics and Electrical	Cância Monteiro and Yasuhiro Takahashi	Adiabatic FinFETs Logic Design for Low Power and DPA Resistant IoT Devices	Prof.Yasuhiro Takahashi	Presented in 2018 International Symposium on Intelligent Signal Processing and Communication Systems, Okinawa Japan
87	7	Electronics and Electrical	Abelito Filipe Belo and Adolfo da Costa Ribeiro	Analysis of Air Temperature Fluctuation in Dili Airport: Low Pass Filter in Nature		
88	8	Electronics and Electrical	Abelito Filipe Belo, Kenji Sasa, Jose Madeira Marques and Koichi Shimakawa	Analysis of Tide Level in Frequency Domain at Dili Port: Origin of 1/f Fluctuations.	Prof.Koichi Shimakawa	
89	9	Electronics and Electrical	Ruben Jeronimo Freitas and Eurico Mateus da Costa	Angle of a PV Panel and Its Direction of Installation for Optimum Output Performance	Prof.Koichi Shimakawa	
90	10	Electronics and Electrical	Ruben J. Freitas, Koichi Shimakawa	Chapter 13:Persistent Photocurrents and Defects		
91	11	Electronics and Electrical	K. Shimakawa and Ruben Jeronimo Freitas	Comments on the electronic transport mechanisms in the crystalline state of Ge-Sb-Te phase-change materials		
92	12	Electronics and Electrical	Jaime G. Soares and S. H. L Cabral	Contingencies Study for New Transmission Network in Timor-Leste		
93	13	Electronics and Electrical	JBR. Fernandes Cabral and Yales Rômulo de Novaes	Current-Mode Control of High Gain Non-Isolated DC/DC Boost Converter		
94	14	Electronics and Electrical	Ruben Jeronimo Freitas and Koichi Shimakawa	Current-Voltage Characteristics of Si-Based Solar Cells: Effects of Potential Induced Degradation	Prof.Koichi Shimakawa	
95	15	Electronics and Electrical	Cancio Monteiro, Fatima R. dos Santos, and Celestion Correia	Design and Analysis of 2M-6T-SRAM Memory Cell		
96	16	Electronics and Electrical	Cancio Monteiro, Sérgio J.S. da Costa , and Celestion Correia	Design of Trapezoidal Power Clock Signal Generator Circuit for Dual-Rail Adabatic Logic Power Supply		
97	17	Electronics and Electrical	Yoshiki Mizuno, Fumitaka Ohashi, Hiroki Yoshida,Hiroya Kosuga, Taishi Furuya , Ruben Jerónimo Freitas,Yukiko Hara, Atsushi Masuda , Shuichi Nonomura	Distributions of Na and Na Compounds on Solar Cell migrated by Recovery Test of Potential Induced Degradation		
98	18	Electronics and Electrical	Abelito Filipe Belo	Domestic Wind-Power System with Low-Cost BLDC Motor/Generator		
99	19	Electronics and Electrical	Olga Maria de Sousa	ES Cell Segmentation Based on Level Set Method and Watershed Segmentation Using Phase Contrast and Fluorescent Images		
100	20	Electronics and Electrical	Ruben Jeronimo Freitas and Koichi Shimakawa	Kinetics of persistent photoconductivity in crystalline III–V semiconductors		
101	21	Electronics and Electrical	Ruben Jeronimo Freitas, Koichi Shimakawa andTomas Wagner	Kinetics of the persistent photocurrent in semiconductors: a case example for amorphous Calcogenides		
102	22	Electronics and Electrical	Cância Monteiro and Yasuhiro Takahashi	Low Power SBSAL $xS-bits Multiplier LSI Measurement	Prof.Yasuhiro Takahashi	
103	23	Electronics and Electrical	Cancio Monteiro	Low-Power CMOS/FinFETs Circuit Using Adiabatic Switching Principle		
104	24	Electronics and Electrical	Cância Monteiro, Bernardino de Castro, Celestino Correia and Yasuhiro Takahashi	Low-Power Secure 4-bits AES S-Box Circuit Design Using Adiabatic Logic		
105	25	Electronics and Electrical	Cancio Monteiro; Yasuhiro Takahashi	Low-Power Two-Phase Clocking Adiabatic PUF Circuit		
106	26	Electronics and Electrical	Cância Monteiro and Yasuhiro Takahashi	Measurement Verification of CSSAL AES S-box LSI Implemented using 0.18 µm CMOS Technology	Prof.Yasuhiro Takahashi	
107	27	Electronics and Electrical	Hiroki Yoshida, Takuya Shichi, Fumitaka Ohashi, Ruben Jerónimo Freitas, Yukiko Hara, Atsushi Masuda, and Shuichi Nonomura	Observation of Reverse Biased Electroluminecence From Local Shunt of P-Type C-Si Solar Cell		
108	28	Electronics and Electrical	Hiroki Yoshida, Takuya Shichi, Ruben Jerónimo Freitas,Yukiko Hara , Atsushi Masuda, Shuichi Nonomura	Optical pinpoint of PID affected location of solar cell		
109	29	Electronics and Electrical	Olga Maria de Sousa and Leonito Alito Barros	Performance Evaluation of Filtering Technique (Median, Gaussian and Wiener) in Microscope Image from ES Cellular		
110	30	Electronics and Electrical	Olga Maria de Sousa	Pothole Size Calculation System Using Reference Object Based on Image Processing	Prof.Hidekazu Fukai	
111	31	Electronics and Electrical	Ruben Jeronimo Freitas	Presistent Photocurrent in Photosensitive Semiconductors	Prof.Koichi Shimakawa	
112	32	Electronics and Electrical	Olga Maria de Sousa, and Emerson M. D. de Sousa	Reading Four Band Resistor Value Based on Image Processing Technique		
113	33	Electronics and Electrical	Abelito Filipe Belo, Reinaldo Guterres, Adias Pires and Koichi Shimakawa	Satical and Spectral Analyaia of Wind Power in Hera Campus	Prof.Koichi Shimakawa	
114	34	Electronics and Electrical	Fumitaka Ohashi, Yoshiki Mizuno, Hiroki Yoshida, Hiroya Kosuga, Taishi Furuya,Ruben Jerónimo Freitas, Yukiko Hara, Atsushi Masuda, and Shuichi Nonomura	Sodium Distribuions at the Surface of Silicon Nitride Film After Potential Induced Degradation Test and Recovery Test of PV Modules		
115	35	Electronics and Electrical	Abelito Filipe Belo, Koichi Shimakawa	Statistical and spectral analysis of wind power: Fractional oscillation dynamics		
116	36	Electronics and Electrical	Ruben Jeronimo Freitas and Koichi Shimakawa	Temporal Resistance Drift in the Amorphous States of GST Phase Change Semiconductors: An Intrinsic Phenomenon in Nonequilibrium Systems		
117	37	Electronics and Electrical	Constantino Pires Pereira and JBR. Fernandes Cabral	The Load Analysis of TIP147 Power Transistor versus IRFZ50N Power MOSFET Applied to Buck Boost DC-DC Converter		
118	38	Electronics and Electrical	Abelito Filipe Belo, Reinaldo Guterres, Adias Pires and Koichi Shimakawa	Tide level in time and frequency domains at Dili port: Characteristic feature of a Lorentz oscilator		
119	39	Electronics and Electrical	Ruben Jeronimo Freitas , Eurico Mateus da Costa	Tilted Angle of a PV Panel and Its Direction of Installation for Optimum Output Performance		
120	40	Electronics and Electrical	Abelito F. Belo, K. Shimakawa & Y. Sakaguchi	Transient photodarkening induced by a nanosecond pulsed laser in amorphous and liquid As2Se3: fractal characteristics in relaxation dynamics		
121	41	Electronics and Electrical	Cancio Monteiro; Yasuhiro Takahashi	Ultra-Low Power FinFETs-Based TPCA-PUF Circuit for Secure IoT Devices		

122	1	Informatics	Abreu Andre Boavida and Shan Lu	The Research and Implementation on the Waste Bin Real-Time Monitoring System	Prof.Lu Shan	
123	2	Informatics	Carlito Pinto and Koichi Shimakawa	A compressed logistic equation on bacteria growth: inferring time-dependent growth rate		
124	3	Informatics	Vosco Pereira	A Deep Learning-Based Approach for Road Pothole Detection in Timor Leste	Prof.Satoshi Tamura	
125	4	Informatics	Frederico Soares Cabral	A Machine Learning based System for Road Condition Monitoring using Smartphone Sensors	Prof.Hidekazu Fukai	JICA Project for the Capacity Development of Road Services in Timor-Leste （CDRS）in Ministry of Public Works
126	5	Informatics	Frederico Soares Cabral, Hidekazu Fukai, Satoshi Tamura	An Automatic Survey System for Paved and Unpaved Road Classification and Road Anomaly Detection using Smartphone Sensor		
127	6	Informatics	Zulmira Ximenes da Costa	ANN Modelling for water pollution and Environments Degradation in Dili/Timor Leste	Prof.Koichi Shimakawa	National Directorate for Water Services(DNSA), Mr.Toshikazu Sakurai (JICA Expert for DNSA)
128	7	Informatics	Carmelita Afonso and Hidekazu FUKAI	Classification of Coffee Bean Images Based on Defect Types using SVM		
129	8	Informatics	Carlito Pinto	Classification of Green Coffee Bean Images Based on Defect Types Using Convolutional Neural Network	Prof.Hidekazu Fukai	International Conference in Bali, Indonesia
130	9	Informatics	Junya Furukawa, Hiroki Katsuragawa, Carlito Pinto, Carmelita Afonso, Hidekazu Fukai	Classification of Green Coffee Beans Using Convolutional Neural Network and its Implementation on Raspberry Pi		
131	10	Informatics	Vosco Pereira, Satoshi Tamura, Satoru Hayamizu, Hidekazu Fukai	Classification of paved and unpaved road image using convolutional neural network for road condition inspection system		
132	11	Informatics	Abreu Andre Boavida , and Shan Lu	Classifying Images of Multi-Class Mikrolet Vehicles Using Convolutional Neural Network Models		
133	12	Informatics	Marcelino Caetano Noronha, Kristiyani Ambarwati, and Hugo António da Costa Ximenes	Data Base Implemetation for F-FDTL Navy Component in Hera		
134	13	Informatics	Marcelino Ceatano Noronha, Jose Saores Pinto , and Quintino Soares	Data Mining Informatics Engineering Student Graduation with the Naive Bayes Classifier Algorithm		
135	14	Informatics	Hidekazu Fukai, Satoshi Tamura, Frederico Soares Cabral, Vosco Pereira	Development of automatic road condition monitoring system using smartphone sensors in vehicles		
136	15	Informatics	Borja Leodaci Cauthe Patrocínio Antonino	Development of TetumText and Speech Corpora in cloud database and their application	Prof.Satoshi Tamura	International Conference in Soul, Korea
137	16	Informatics	Frederico Soares Cabral, Hidekazu Fukai, Satoshi Tamura	Feature Extraction Methods Proposed for Speech Recognition Are Effective on Road Condition Monitoring Using Smartphone Inertial Sensors		
138	17	Informatics	Carlito Pinto and Koichi Shimakawa	Glassy dynamics in bacterial growth rate temperature dependence		
139	18	Informatics	José Soares Pinto and Doutora Dora Maria de Oliveira Simões Ribeiro Pereira	ICT: Virtual Learning Environment to Support Education Process of High Institution in Timor-Leste		
140	19	Informatics	Frederico Soares Cabral, Vosco Pereira, Natalino Guterres, Mariano Renato M. da Cruz , and Hidekazu Fukai	Image Segmentation for Road and Retaining Wall Using U-Net Architecture		
141	20	Informatics	Vosco Pereira, Frederico Soares Cabral, Lourenço A. L. Pereira, Mariano Renato M. da Cruz , and Hidekazu Fukai	Implementation of U-Net Deep Learning Framework for Road and Road Line Segmentation		
142	21	Informatics	Jose Elias P. Tilman, Quintino Soares, Lucia Jorge Pereira, Ferdinando da Conceicao, Nicolau Castro Ximenes, Abreu Andre Boa Vida and Frederico Soares Cabral	Machine Learning Based System for Motorbike Mode Detection Using a Smartphone Sensor		
143	22	Informatics	Frederico Soares Cabral, Hidekazu Fukai and Satosi Tamura	Road Rougness Estimation Using Smartphone Sensor	Prof.Hidekazu Fukai	
144	23	Informatics	Vosco Pereira, Satoshi Tamura, Satoru Hayamizu, Hidekazu Fukai	Semantic segmentation of paved road and pothole image using U-net architecture		
145	24	Informatics	Jose Soares Pinto, Frederico Soares Cabral, Marcelino C. Noronha , and Milania Isabel Assunção Nunes	Sentiment Analysis for Tourism Sites in Timor Leste		
146	25	Informatics	Jose Soares Pinto, Aristidis de Jesus Ornai and Satoshi Tamura	Student Performance Evaluation for Basic Math Score of FoEST	Prof.Satoshi Tamura	
147	26	Informatics	Hidekazu Fukai, Frederico Soares Cabral, Fernao AL Nobre Mouzinho, Vosco Pereira, Satoshi Tamura	The development of integrated road condition monitoring system for developing countries using smartphone sensors and dashcam in vehicles		
148	27	Informatics	Frederico Soares Cabral, Carlito Pinto	The Importance of Geographic Information System for Rice Field Management in Timor-Leste		
149	28	Informatics	Abreu Andre Boavida and Shan Lu	The Research and Implementation on the Waste Bin Real-Time Monitoring System		
150	29	Informatics	Borja L. C. Patrocino Antonino, Satoshi Tamura, Hidekazu Fukai and Satoru Hayamizu	Towar Building Speech Databases in Timor-Leste	Prof.Satoshi Tamura	
151	30	Informatics	Borja L.C, Patrocinio Antonino, Satochi Tamura, Hidekazu Fukai, Satoru Hayamizu	Toward Building Speech Databases in Timor Leste		
152	31	Informatics	Zulmira Ximenes da Costa a) and Bia Ble Hitu Carvalho de Jesusb)	Urban Solid Waste Management in Dili Community		
153	32	Informatics	José Soares Pinto and Doutora Dora Maria de Oliveira Simões Ribeiro Pereira	Virtual Learning Environment to Support Education Process of High Institution in Timor-Leste		
154	1	Geology and Petroleum	Jovita Costa, Shoichi KIYOKAWA, Takashi ITO, Yukiyashu TSUTSUMI and Vital VILANOVA	U-Pb Detrital Zircon Age Dating of Central Portion of East Timor: Estimate Stratigraphy of the Aileu Formation and Depositional Ages and Source of Sediments	Prof.Kiyokawa Shoichi	
155	2	Geology and Petroleum	Cornélio Cardoso Moniz, Kiichiro Kawamura, Maria Elias, Gabriel G. Aparí cio de Oliveira , and Apolinário E. Alves	Characteristics of Detailed Lithology and Large-Scale Landslides of the Bobonaro Melange (Bobonaro Scaly Clay) at Balibo - Leolima area, West Timor-Leste		
156	3	Geology and Petroleum	Aquiles Tomás Freitas (Principal Investigator) Joaninha Belo Ornai Osvaldo da Cruz Sarmento	Coral Calcification and Diageneses changes in late Pleistocene Reef Terraces	Prof.Atsuko Yamazaki	
157	4	Geology and Petroleum	Osvaldo da Cruz Sarmento, Aquilis Tomas Freitas, Bhencao Natalia M. Monterio, Vital Cruz M. Vilanova, Elizario Moniz, Aniceta Araujo, Cornelio	Effect of Diagenesis on the Microstructure of Fosil Coral Skeletons from Atauro Island, Timor-Leste	Prof.Atsuko Yamazaki	
158	5	Geology and Petroleum	Takumi Maekawa, Shoichi Kiyokawa, Haruyoshi Maeda, Gengo Tanaka, Jovita E. F. Costa, Aquiles T. Freitas	First Report of Early Permian Albaillellarian Radiolarians from East Timor.		
159	6	Geology and Petroleum	Apolinário ALVES, Jovita COSTA, Nazário BOAVIDA, Agostinho ANDY, Osvaldo SARMENTO, Cornélio CARDOSO, Maria ELIAS and Kiichiro KAWAMURA	Flood Risk Assessment in Dili: An Integrated GIS-Based Multi-Criteria Analysis Approaches		
160	7	Geology and Petroleum	Jovita COSTA, Apolinário ALVES, C. CARDOSO, Leandro Branco, A. SOARES, Aniceta ARAUJO, Aquiles FREITAS, , Nene CRISTOVAO and O. SARMENTO	Geochemical and Physical Assessment of Limestone of the Aituto and Maubise Formations for Industrial Uses		
161	8	Geology and Petroleum	Vital Cruz Malai Araujo Vilanova	Geochemistry and Petrogenesis of Pliocene Igneous Rocks of Ataúro Island. Implication for Genesis, Geochronology and Metalogenesis.	Prof.Satoru Kojima	
162	9	Geology and Petroleum	António de J. Lira, Delio Manuel , Juanito Fernandes, Moises Soaresa, Mafaldo J. Faria, Nazario F. Boavida, Osvaldo da C. Sarmento , Cornelio C. Moniz |	Geodiversity Assessment of Atauro Volcanic Island, Timor Leste: A New Method Approach Based on GIS Analysis		
163	10	Geology and Petroleum	Nene V.S. Cristovão	Mapping and Study of potential hydrocarbon geochemistry in Suai Region	Prof.Yuichi Sugai	
164	11	Geology and Petroleum	Apolinário ALVES, Jovita COSTA, C. CARDOSO, L. Branco, A. SOARES, Aniceta ARAUJO, Aquiles FREITAS, Nene CRISTOVAO, and Osvaldo SARMENTO	Physical Assessment of Calcilutite and Crinoidal Limestone of Cribas and Beheda Area of Timor-Leste for ornamental Uses		
165	12	Geology and Petroleum	Cornélio Cardoso, Osvaldo Sarmento, Nazário Boavida and Kiichiro Kawamura	Stability Assessment of Rock Slopes along Becora-Metinaro Roadway: Rock Mass Classification and Kinematic Analysis		
166	13	Geology and Petroleum	Gabriel G. A. de Oliveira (Principal Investigator) Maria Elias	Tectonic Setting Reconstruction by Major and Trace Element Analysis of Basaltic Rocks in Timor Island	Prof.Shoichi Kiyokawa (Kyushu)	
167	14	Geology and Petroleum	Jovita Costa, Shoichi KIYOKAWA, Takashi ITO, Yukiyashu TSUTSUMI and Vital VILANOVA	U-Pb Detrital Zircon Age Dating of Central Portion of East Timor: Estimate Stratigraphy of the Aileu Formation and Depositional Ages and Source of Sediments		

List of Presentations

No.	By Project Year	Date	Presenter	Department	Venue	Seminar/Conference	Topic
1	1	9-Nov-16	Hugo Ximenes	Civil	Tower Conference Room	4th Joint Seminar Civil Engineering and it's application for Development in Timor-Leste	Road Maintenance Method
2	2	9-Nov-16	Sergio Miguel Freitas	Civil	Tower Conference Room	4th Joint Seminar Civil Engineering and it's application for Development in Timor-Leste	Water Quality Analysis in Dili
3	3	9-Nov-16	Francisco Guterres	Civil	Tower Conference Room	4th Joint Seminar Civil Engineering and it's application for Development in Timor-Leste	Geotechnical
4	4	29-May-17	Junior Raimundo da Silva	Mechanical	Auditorium Liceu	Seminar in UNTL	Desenho no Estuda Performane Multifuncao Fugaum Oli-Foer iha Timor-Leste
5	1	16-Aug-2017	Carlito Pinto	Informatics	Denpasar, Indonesia	Interntional Conferenc on Advanced Informatics in Denpasar, Indonesia	Classification of Green Coffee Beans by Convolutional Neural Network and its Implementation on Rasberry Pi and Camera
6	2	1 till 3 - Nov - 2017	Borja L. C. Patrocino Antonino	Informatics	Seoul, Korea	2017 Conference of the Oriental Chapter of International committee for Cordination and Standadization of Speech Databasse and Assesment Technique (Oriental-COCOSDA 2017)	Towar Building Speech Databases in Timor-Leste
7	3	9 till 10-Nov-2017	Domingos de Sousa Freitas	Mechanical	Myanmar	The 10th AUN/SEED-NET Regional Conference on Energy Engineering	Design and Analyze Pelton Turbine with Head 4m for the Remote Area in Timor-Leste
8	4	16-Feb-18	Hugo Ximenes	Civil	JL Vila Hotel	5th Joint Seminar on Civil Engineering and it's Appropriate Technology for Development inTimor - Leste	Road Maintenance Method
9	5	16-Feb-18	Leonel Madeira	Civil	JL Vila Hotel	5th Joint Seminar on Civil Engineering and it's Appropriate Technology for Development inTimor - Leste	The Efficiency and effectivity of a composit steel deck'slab on aplication to a reinforced concrete frame
10	6	7 till 9-Mar-2018	Bonifacio da Costa	Electronics	Hitachi, Yokohama	Technical Meeting of Electrical Circuits	A Design of Trans-Impedance Converter
11	7	23-Mar-2018	Frederico Soares Cabral	Informatics	Fundasaun Oriente	Seminar for ICT Development and Its Implementation in Timor Leste	Road Anomaly Detection Using Smartphone Sensor
12	8	23-Mar-2018	Carmelita Afonso	Informatics	Fundasaun Oriente	Seminar for ICT Development and Its Implementation in Timor Leste	Classification of Coffee Bean Images Based on Defect Types using SVM
13	9	19-Jun-2018	Nicolau Roberto da Costa, ST., M. Eng.	Electronics	JL Vila Hotel	Electrical and Electronic Engineering Role for National Development	Papel de Engenharia Electrica e Electrica para o Desenvolvimento Nacional
14	10	19-Jun-2018	Abelito Filipe Belo	Electronics	JL Vila Hotel	Electrical and Electronic Engineering Role for National Development	Domestic Wind - Power System with Low - Cost BLDC Motor/Generator
15	11	19-Jun-2018	Cancio Monteiro and Apolinario Maria (DEEE Alumni)	Electronics	JL Vila Hotel	Electrical and Electronic Engineering Role for National Development	Low - Power LSI Design Using Adiabatic Switching Technique
16	12	19-Jun-2018	Ruben Jeronimo Freitas	Electronics	JL Vila Hotel	Electrical and Electronic Engineering Role for National Development	Research Activities on Photovoltaic at PV Laboratory of EEED
17	13	19-Jun-2018	Victor da C. Soares Dr. Eng	Mechanical	JL Vila Hotel	Electrical and Electronic Engineering Role for National Development	The Sustainability of Ulng Wind Energy in TL
18	14	19-Jun-2018	Olga Maria de Sousa	Electronics	JL Vila Hotel	Electrical and Electronic Engineering Role for National Development	Pothole Size Estimation Based on Image Processing
19	15	19-Jun-2018	Bendito Freitas Ribeiro	Electronics	JL Vila Hotel	Electrical and Electronic Engineering Role for National Development	A Hybrid Recomedation System For Hotel Room Reservation
20	16	31-Jul till 2-Aug-2018	Frederico Soares Cabral	Informatics	Furuma River Front, Singapore	2018, IEEE International Conference on Service Operations and Logistics	An Automatic Survey System for Paved and Unpaved Road and Anormaly Detection Using Smartphone Sensor.
21	17	2-Aug-2018	Vosco Pereira	Informatics	Furuma River Front, Singapore	IEEE International Conference on Service Operations and Logistics and Informatic	A Deep Learning - Based Approach for Road Pothole Detection in Timor - Leste
22	18	6-Aug-2018	Vosco Pereira	Informatics	Beyond Resort, Krabi, Thailand	5th International Conference on Advanced Informatics Concepts, Theory and Applications	Classification of Paved and Unpaved Road Image Using Convolutional neural network for Road Condition Inspectio System
23	1	5-Sep-2018	Jovita Elisa Fatima da Costa	Geology	Hokaido	Geological Society of Japan	Zircon Age Dating of meta-sandstone from the Aileu Formation, Timor-Leste
24	2	8-Oct-2018	Frederico Soares Cabral	Informatics	Informatics Dep.	Long Term Training Progress Seminar	An Automatic Survey System for Paved and Unpaved Road Classification and Road Anormaly Detection Using Smartphone Sencor
25	3	8-Oct-2018	Vosco Pereira	Informatics	Informatics Dep.	Long Term Training Progress Seminar	A Deep Learning - Based Approach for Road Pothole Detection in Timor - Leste
26	4	31-Oct till 2-Nov-2018	Bonifacio da Costa	Electronics	Chiang Mai, Thailand	2018 International Conference on Analog VLSI Circuits	8 GHz Trans-Impedance Amplifier Using Floating Active Inductor
27	5	4 till 7 March 2019	Aniceta de Araujo	Geology	Okayama	Project A in Okayama	Geological Mapping and Petrological Caracterization of Magmatic Sequence the Aileu Formation in Dili : Implication for Industrial Using.
28	6	8-Mar-2019	Abelito Filipe Belo	Electronics	APORTIL	Joint Reserch Popsal Presentation	Measurement and Analysis of Fluctuation of Tide Level
29	7	11 till 13 -Apr-2019	Benjamin de Oliveira Hopffer Rego Silveira Martins	Civil	Karst, Karl Terzaghi, Croatia	8th Conference of Croatian Geotechnical Society Geotechnical Challenges	Ground Subsidence Inducted by Shallow Earthquake in Timor-Leste
30	8	30-May-2019	Jovita Elisa Fatima da Costa	Geology	Chiba	Japan Geociene Union Meeting	U-Pb detrital zircon age dating from the Aileu Formation of Timor-Leste; Estimate depositional age and provenance of the sediment
31	9	11-Jun-2019	Frederico Soares Cabral	Informatics	Informatics Dep.	Seminar in IT Department (Sharing Results of JICA Long Term Training)	A Machine Learning based System for Road Condition Monitoring Using Smartphone Sensors
32	10	11-Jun-2019	Vosco Pereira	Informatics	Informatics Dep.	Seminar in IT Department (Sharing Results of JICA Long Term Training)	Road Condition Inspection by Classification and Segmentation of Road Surface Usig Deep Learning
33	11	11-Jun-2019	Bonifacio da Costa	Electronics	Informatics Dep.	Seminar in IT Department (Sharing Results of JICA Long Term Training)	A Design of Trans-Impedance Amplifier Using Floating Active Inductor
34	12	8-Aug-2019	Mariano Renato M. da Cruz	Civil	Facuity	Smartphone application for Road Maintaince	Smartphone application for Road Maintaince
35	13	8-Aug-2019	Frederico Soares Cabral	Informatics	Facuity	Smartphone application for Road Maintaince	Smartphone application for Road Maintaince
36	14	8-Aug-2019	Vosco Pereira	Informatics	Facuity	Smartphone application for Road Maintaince	Smartphone application for Road Maintaince
37	1	9-Sep-2019	Reinaldo Guterres da Cruz	Electronics	Electronics Dept.	Report on Short Term Training	Report on Short Term Training
38	2	9-Sep-2019	Adias Pires	Electronics	Electronics Dept.	Report on Short Term Training	Report on Short Term Training
39	3	13-Sep-2019	Vosco Pereira	Informatics	Informatics Dep.	IOT Seminar	The way of IOT Implementation in Timor Lorosa'e
40	1	14-Sep-20	Domingos de Sousa Freitas	Mechanical	JICA Dili	REER Meetings	Study and Optimization of Water Cross Flow Turbine in Enhancing Power Generating Voltage
41	2	14-Sep-20	Abelito Filipe Belo	Electronics	JICA Dili	REER Meetings	Measurement and Analysis of Fluctuation of Tide Level
42	3	17-Nov-20	Marfim Guimaraes	Mechanical	Facuity	UNTL Aniversary	Axial Compression of Square Steel Tubes
43	4	15-Sep-20	Frederico Soares Cabral	Informatics	Facuity	Cientifc Conference: International Conference: Reinforce the role of UNTL in the process of wealth creation and well-being in Timor-Leste	An Automatic Survey System for Paved and Unpaved Road Classification and Road Anormaly Detection Using Smartphone Sencor
44	5	16-Sep-20	Jose Maria Xavier	Mechanical	Facuity	Cientifc Conference: International Conference: Reinforce the role of UNTL in the process of wealth creation and well-being in Timor-Leste	Feasibility Study on Solar PV Potential of Island of Atauro
45	6	17-Sep-20	Osvaldo da Cruz Sarmento	Geology	Facuity	Cientifc Conference: International Conference: Reinforce the role of UNTL in the process of wealth creation and well-being in Timor-Leste	Effect of Diagnesis on Microstructure of Fossil Coral Skeletons from Atauro Island
46	7	4-Mar-21	Dr. Benjamim H. de O. Martins	Civil	Web Conference	The 1st International Alumni Online Seminar on Disaster Prevention and Environment	Local disaster problems to be solved
47	8	30-Mar-21	Dr.Victor da C. Soares	Mechanical	Web Conference	Gifu Renewable Energy System Research Center (G-RESRC), Gifu University, Japan.	Wind Characterization of Baucau High Land in The Period of Six Months : May - October 2019
48	9	29-May-21	Mr. Alexo Sarmento	Civil	FoEST new Building, Web Conference	Yamaguchi University Seminar, Japan	River Infrastructure Dameges Survey The Dili City of Dili Caused by Tropical Cyclone Seroja
49	10	29-May-21	Dr. Benjamim H. de O. Martins	Civil	FoEST new Building, Web Conference	Yamaguchi University Seminar, Japan	Dili City Inundation extantion Assesment and Causes Identification
50	11	24-Jun-21	Ms. Jovita Eliza F. da Costa	Geology and Petroleum	MOP	Flood research result presentaion to MoP	Flood Risk Assesment In Dili: An Integrated GIS-Based Multi-Criteria Analisys Approaches
51	12	20-Jul-21	Ms. Jovita Eliza F. da Costa	Geology and Petroleum	Minister of Urban Planing	Flood research result presentaion to Vice Primer Minister	Flood Risk Assesment In Dili: An Integrated GIS-Based Multi-Criteria Analisys Approaches
52	13	29-Jul-21	Dr. Benjamim H. de O. Martins	Civil	Auditorium FoEST	National Flood Symposium	Identifikasaun Kauza Sira No Avaliasaun Extensaun Inundasaun Iha Sidade Dili
53	14	29-Jul-21	Mr. Alexo Sarmento	Civil	Auditorium FoEST	National Flood Symposium	Danus Ba Infrastruturas Mota Iha Sidade Dili Kauza Husi Tropikal Siklone Seroja
54	15	29-Jul-21	Mr. Alfredo Ferreira	Civil	Auditorium FoEST	National Flood Symposium	Introdusaun Hidroloji no Hidraulika Mota Ba Prevensaun No Mitigasaun Dezastre Inundasaun Iha Futuru
55	16	29-Jul-21	Mr. Apolinario Eusebio Alves	Geology and Petroleum	Auditorium FoEST	National Flood Symposium	Hamutuk Rona No Hare Hodi Fo Solusaun Ba Prevensaun Dezastre Inundasaun Iha Futuru Hare Husi Aspektu Geolojiku
56	1	11-Nov-21	João Bosco Fernandes Cabral, M.Eng.,	Electronics	Auditorium FoEST	Seminsar for TAIST	Current-Mode Control of High Gain Non-Isolated DC/DC Boost Converter.
57	2	11-Nov-21	Mr.Gabriel G Aparicio de Oliveira	Geology and Petroleum	Auditorium FoEST	Seminsar for TAIST	Estudo Qualidade de Água e estratigrafia Nomenclatura de e Riscos Geológicos Timor-Leste
58	3	11-Nov-21	Mariano Renato Monteiro da Cruz,	Civil	Auditorium FoEST	Seminsar for TAIST	Quality Certification Standards in Timor Leste
59	4	11-Nov-21	Humbelina Viegas, M.Eng.	Civil	Auditorium FoEST	Seminsar for TAIST	Comparison Study of AASHTO and Bina Marga Standards in Design Road Construction in Timor-Leste
60	5	11-Nov-21	Hugo Ximenes, M.Eng.	Civil	Auditorium FoEST	Seminsar for TAIST	Fundamental Properties of PET-Phalt using Shredded PET Bottles as Binder
61	6	12-Nov-21	Mr.Abelito Filipe Belo	Electronics	Auditorium FoEST	Seminsar for TAIST	Analysis of Air Temperature Fluctuation in Dili Airport: Low Pass Filter in Nature
62	7	12-Nov-21	Dr.Ruben Jeronimo Freitas	Electronics	Auditorium FoEST	Seminsar for TAIST	Energy for All: "Harnessing the Renewable Energy and Its Policy in Responding to Social Needs.
63	8	12-Nov-21	Dr.Paulo da Silva	Mechanical	Auditorium FoEST	Seminsar for TAIST	Power Options for Timor-Leste by Analytical Hierarchy Process (AHP)
64	9	12-Nov-21	Ms. Jovita Eliza F. da Costa	Geology and Petroleum	Auditorium FoEST	Seminsar for TAIST	U-Pb detrital zircon age dating of the Aileu Formation of East Timor: Estimate depositional age and source of sediments.
65	10	12-Nov-21	Mr. Alexo Sarmento	Cvil	Auditorium FoEST	Seminsar for TAIST	The Influence of Torsional Deformation on Seismic Performance of Middle-Rise Building Structures by Utilizing Advance Engineering Tools
66	11	12-Nov-21	Dr. Benjamim H. de O. Martins	Cvil	Auditorium FoEST	Seminsar for TAIST	Doctorate Dissertation
67	12	12-Nov-21	Mr.Vosco Pereira	Informatics	Auditorium FoEST	Seminsar for TAIST	Implementation of U-Net Deep Learning Framework for Road Surface and Road Line Sematic Segmentation.
68	13	12-Nov-21	Mr.Frederico Soares Cabral	Informatics	Auditorium FoEST	Seminsar for TAIST	Image Segmentation for Road and Retaining Wall Using U-Net Architecture
69	14	12-Nov-21	Jose Maria Xavier	Mechanical	Auditorium FoEST	Seminsar for TAIST	Weather Observation at Hera for Installing Renewable Energies.
70	15	16-Nov-21	Dr. Benjamim H. de O. Martins	Cvil	Hotel Timor	Dili Flood Early Warning System	Update on Dili River Monitoring
71	16	12-Oct-21	Mr.Abelito Filipe Belo	Electronics	(Online) Neutron Science and Technology Center	1st joint meeting; UNTL-Neutron Science & Technology-project	Analysis of Dynamic Response of Fast Optical Memory in Amorphous and Liquid Chalcogenides
72	17	24-Nov-21	Mr.Abelito Filipe Belo	Electronics	(Online) Neutron Science and Technology Center	2nd joint meeting; UNTL-Neutron Science & Technology-project	Analysis of Dynamic Response of Fast Optical Memory in Amorphous and Liquid Chalcogenides
73	18	22-Dec-21	Mr.Abelito Filipe Belo	Electronics	(Online) Neutron Science and Technology Center	3rd joint meeting; UNTL-Neutron Science & Technology-project	Analysis of Dynamic Response of Fast Optical Memory in Amorphous and Liquid Chalcogenides
74	19	25-Feb-22	Mr.Abelito Filipe Belo	Electronics	(Online) Neutron Science and Technology Center	4th joint meeting; UNTL-Neutron Science & Technology-project	Analysis of Dynamic Response of Fast Optical Memory in Amorphous and Liquid Chalcogenides
75	20	7-Mar-22	Mr.Hugo Ximenes	Civil	(Online) Yamaguhi University	Yamaguchi University Seminar, Japan	"Flood damage in the middle reach of the Manleuana river in Dili, TimorLeste"
76	21	16-Mar-22	Dr. Benjamim H. de O. Martins	Civil	Auditorium FoEST	Constitation workshop on Feasibilty study of Joint contractors classification in Timor-Leste	Natural Dister in Timor-Leste
77	22	25-Jul-22	Ms.Humbelina and Mr.Marisara	Civil	(Online) Yamaguhi University	The training report for country focused training	Comparison Study of AASHTO and Bina Marga Standards in Design Road Construction in Timor-Leste
78	23	25-Jul-22	Dr. Benjamim H. de O. Martins	Civil	Hotel Timor	Presentation on Draft Final Report Output of the flood Analysis and Studies	Comments on draft final report output of the flood analysis and studies
79	1	13-Sep-22	Mr.Abelito Filipe Belo	Electronics	Project Office	Research Presentaion	Analysis of Dynamic Response of Fast Optical Memory in Amorphous and Liquid Chalcogenides
80	2	27-Oct-22	José Maria Xavier	Mechanical	Auditorium FoEST	Seminsar for TAIST	"Weather with Tropical Cyclone Seroja Simulated with Numerical Meteorological Model"
81	3	27-Oct-22	Jovlano António da Costa, Dr.Eng.	Mechanical	Auditorium FoEST	Seminsar for TAIST	Effects of Ageing Levels on Mode I Fatigue Life of Adhesives
82	4	27-Oct-22	Lelis Fraga, Dr.Eng.	Mechanical	Auditorium FoEST	Seminsar for TAIST	"The study on Using of Fuel for Cooking in a Household in Dili"
83	5	27-Oct-22	Domingos de Sousa Freitas,	Mechanical	Auditorium FoEST	Seminsar for TAIST	Evaluation of Rainfall for Generating of Micro Hydro Power in Seiçal River Basin
84	6	27-Oct-22	Francisco Xavier Ximenes	Mechanical	Auditorium FoEST	Seminsar for TAIST	The Process of Silica Oxide (SiO 2) Powder in Timor-Leste
85	7	27-Oct-22	Hugo Ximenes	Civil	Auditorium FoEST	Seminsar for TAIST	"Estimating queuing time of the heavy vehicles at Dili PortGate"
86	8	27-Oct-22	José M. Ximenes	Civil	Auditorium FoEST	Seminsar for TAIST	"Characteristics of Solid Cement Block and Mortars for Masonry"
87	9	27-Oct-22	Cância Monteiro, Dr.Eng.	Electronics	Auditorium FoEST	Seminsar for TAIST	"Design of Trapezoidal Power Clock Signal Generator Circuit for Dual-Rail Adiabatic Logic Power Supply"
88	10	27-Oct-22	Olga Maria de Sousa, M.Eng.	Electronics	Auditorium FoEST	Seminsar for TAIST	"Reading Four Band Resistor Value Based on Image Processing Technique"
89	11	27-Oct-22	Carlito Pinto	Informatics	Auditorium FoEST	Seminsar for TAIST	The Importance of Geographic Information System for Rice Field Management in Timor-Leste
90	12	27-Oct-22	Jose Soares Pinto	Informatics	Auditorium FoEST	Seminsar for TAIST	"Sentiment Analysis for Tourism Site in Timor Leste"
91	13	27-Oct-22	Marcelino Ceatano	Informatics	Auditorium FoEST	Seminsar for TAIST	"Data Mining Informatics Engineering Student Graduation with the Naïve Bayes Classifier Algorithm"
92	14	27-Oct-22	Apolinário ALVES	Geology and Petroleum	Auditorium FoEST	Seminsar for TAIST	Physical Assessment of Calcilutite and Crinoidal Limestone of Cribas and Beheda Area of Timor-Leste for ornamental Uses
93	15	27-Oct-22	António de Jesus Lira	Geology and Petroleum	Auditorium FoEST	Seminsar for TAIST	A New Insight for Sustainable Future of Timor Leste and Suggestions for its Management: Geodiversity, Geoheritage Conservation and Potential Geopark
94	16	27-Oct-22	Jovita Costa, M.Sc.	Geology and Petroleum	Auditorium FoEST	Seminsar for TAIST	Geochemical and Physical Assessment of Limestone of Aituto and Maubise Formations for Industries Uses.

List of Research Publications

No.		Date	Author	Department	Publication	Type	Title
1	1	Aug-16	Ruben Jeronimo Freitas, Koichi Shimakawa andTomas Wagner	Electronics	Philosophical Magazine Letters,	Int.journal	Kinetics of the persistent photocurrent in semiconductors: a case example for amorphous Calcogenides
2	2	Mar-17	Hiroki Yoshida, Takuya Shichi, Ruben Jerónimo Freitas,Yukiko Hara , Atsushi Masuda, Shuichi Nonomura	Electronics	The 64th JSAP Spring meeting 2017, Pacifico YOKOHAMA, Japan	Proceedings	Optical pinpoint of PID affected location of solar cell
3	3	Mar-17	Yoshiki Mizuno, Fumitaka Ohashi, Hiroki Yoshida,Hiroya Kosuga, Taishi Furuya , Ruben Jeró nimo Freitas,Yukiko Hara, Atsushi Masuda , Shuichi Nonomura	Electronics	The 64th JSAP Spring meeting 2017, Pacifico YOKOHAMA, Japan	Proceedings	Distributions of Na and Na Compounds on Solar Cell migrated by Recovery Test of Potential Induced Degradation
4	4	May-17	Ruben Jeronimo Freitas and Koichi Shimakawa	Electronics	Philosophical Magazine Letters, 97:7, 257-264,	Int.journal	Kinetics of persistent photoconductivity in crystalline III–V semiconductors
5	1	Oct-17	Carlito Pinto, Junya Furukawa, Hidekazu Fukai, Satoshi Tamura	Informatics	Proceedings - 2017 International Conference on Advanced Informatics: Concepts, Theory and Applications, ICAICTA	Proceedings	Classification of Green coffee bean images basec on defect types using convolutional neural network (CNN)
6	2	Oct-17	Borja L.C, Patrocinio Antonino, Satochi Tamura, Hidekazu Fukai, Satoru Hayamizu	Informatics	The 20th Conference of the Oriental Chapter of the International Coordinating Committee on Speech Databases and Speech I/O Systems and Assessment	Proceedings	Toward Building Speech Databases in Timor Leste
7	3	Nov-17	Hiroki Yoshida, Takuya Shichi, Fumitaka Ohashi, Ruben Jerónimo Freitas, Yukiko Hara, Atsushi Masuda, and Shuichi Nonomura	Electronics	The 27th International Photovoltaic Science and Engineering Conference	Proceedings	Observation of Reverse Biased Electroluminecence From Local Shunt of P-Type C-Si Solar Cell
8	4	Nov-17	Fumitaka Ohashi, Yoshiki Mizuno, Hiroki Yoshida, Hiroya Kosuga, Taishi Furuya,Ruben Jeró nimo Freitas, Yukiko Hara, Atsushi Masuda, and Shuichi Nonomura	Electronics	The 27th International Photovoltaic Science and Engineering Conference	Proceedings	Sodium Distribuions at the Surface of Silicon Nitride Film After Potential Induced Degradation Test and Recovery Test of PV Modules
9	5	Nov-17	Domingos de Sousa Freitas, Junior Raimundo da Cruz and Chris Mares	Mechanical	The 10th AUN/SEED-NET Regional Conference on Energy Engineering Proceeding	Proceedings	Design and Analyze Pelton Turbine with Head 4m for the Remote Area in Timor-Leste
10	6	1-Nov-17	Borja L. C. Patrocino Antonino, Satoshi Tamura, Hidekazu Fukai and Satoru Hayamizu	Informatics	2017 Conference of the Oriental Chapter of International committee for Cordination and Standadization of Speech Databasse and Assesment Technique (Oriental-COCOSDA 2017), Proceeding	Proceedings	Towar Building Speech Databases in Timor-Leste
11	7	Mar-18	Junior Raimundo da Cruz, Domingos de Sousa Freitas and Chris Mares	Mechanical	Multidisciplinary Scientific Journal of Timorese Society Vol 3. nº 1	TAJST	A Design of Pelton Turbine with Head 4m for Remote Area in Timor-Leste
12	8	Mar-18	Domingos de Sousa Freitas, Junior Raimundo da Cruz and Chris Mares	Mechanical	Multidisciplinary Scientific Journal of Timorese Society Vol 3. nº 1	TAJST	Multiple-Household Fuel Use in Timor-Leste: A Balanced Choices Between Firewood and Waste-Oil Cookstove
13	9	Mar-18	DA COSTA Bonifacio,TAKAHASHI Yasuhiro	Electronics	The papers of technical meeting on electronic circuits, IEE Japan 2018(10-42), 49-52	Proceedings	A Design of Trans-impedance Amplifier Using Negative Impedance Converter
14	1	Nov-18	B DA COSTA, Y TAKAHASHI	Electronics	Proceedings IEEJ AVIC 2018, 53 - 56	Proceedings	8 GHz Trans-impedance Amplifier Using Floating Active Inductor
15	2	Jul-18	Fumitaka Ohashi, Yoshiki Mizuno, Hiroki Yoshida, Hiroya Kosuga, Taishi Furuya, Ryo Fuseya, **Ruben Jeró nimo Freitas**, Yukiko Hara, Atsushi Masuda, and Shuichi Nonomura	Electronics	Japanese Journal of Applied Physics 57, 08RG05 (2018)	Training in Japan	Sodium distribution at the surface of silicon nitride film after potential-induced degradation test and recovery test of photovoltaic modules
16	3	Jul-18	Vosco Pereira, Satoshi Tamura, Satoru Hayamizu, Hidekazu Fukai	Informatics	2018 IEEE International Conference on Service Operations and Logistics, and Informatics (SOLI)	Training in Japan	A deep learning-based approach for road pothole detection in timor leste
17	4	Aug-18	Vosco Pereira, Satoshi Tamura, Satoru Hayamizu, Hidekazu Fukai	Informatics	2018 5th International Conference on Advanced Informatics: Concept Theory and Applications (ICAICTA)	Training in Japan	Classification of paved and unpaved road image using convolutional neural network for road condition inspection system
18	5	Oct-18	Hidekazu Fukai, Satoshi Tamura, Frederico Soares Cabral, Vosco Pereira	Informatics	8th Biennial Workshop on DSP for In-Vehicle and Mobile Systems	Training in Japan	Development of automatic road condition monitoring system using smartphone sensors in vehicles
19	6	Sep-18	Benjamnin de Oliveira Hopffer MARTINS	Civil	Proceedings Book, The 4th International Conference Geological and Geothecnical Engineering in Response to Climate Change and Sustainable Development of Infraestructure	Proceedings	Factors Triggering landslides in Timor Leste
20	7	6-Sep-2018	Valerio de Sousa, Hideo Hoshino, Hiroshi Kawanishib, Ikuo Tanabeb and Lucas da Costa	Mechanical	Timorense Journal of Science and Technology (TAJST)	TAJST	Design and Fabricate New Top Slide for Making Ball and Radius Shape in Conventional Lathe Machine
21	8	6-Sep-2018	Junior Raimundo da Cruz , Domingos de Sousa Freitas and Sabino Freitas	Mechanical	Timorense Journal of Science and Technology (TAJST)	TAJST	Study on Comparison Among CO2 Emission Level of Firewood and Waste Oil Cook Stoves
22	9	6-Sep-2018	Valerio de Sousa Gama and Adelson Lopes	Mechanical	Timorense Journal of Science and Technology (TAJST)	TAJST	Development of New Top Slide for Ball and Radius Shape Cutting on Conventional Lathe Machine
23	10	6-Sep-2018	Domingos de Sousa Freitas and Junior Raimundo da Cruz	Mechanical	Timorense Journal of Science and Technology (TAJST)	TAJST	Efficiency Improvement of Hydram Pump with Head 12m for Rural Area in Timor-Leste
24	11	6-Sep-2018	Junior Raimundo da Cruz, Domingos de Sousa Freitas, Bendito M. dos Reis Carvalho and Ze Marisco Piedade	Mechanical	Timorense Journal of Science and Technology (TAJST)	TAJST	Study on Different Penstock Slope for Improvment of Pelton Turbine Efficiency
25	12	6-Sep-2018	Alfredo Ferreira, C. Santos and P. Rosa-Santos	Civil	Timorense Journal of Science and Technology (TAJST)	TAJST	Water Elevation using the Flow Energy)
26	13	6-Sep-2018	Hugo da Costa Ximenes	Civil	Timorense Journal of Science and Technology (TAJST)	TAJST	Comprehensive Evaluation of Video Data by using the Analytic Hierarchy Process (AHP) Method
27	14	6-Sep-2018	Câncio Monteiro and Yasuhiro Takahashi	Electronics	Timorense Journal of Science and Technology (TAJST)	TAJST	Measurement Verification of CSSAL AES S-box LSI Implemented using 0.18 μm CMOS Technology
28	15	6-Sep-2018	Ruben Jeronimo Freitas , Eurico Mateus da Costa	Electronics	Timorense Journal of Science and Technology (TAJST)	TAJST	Tilted Angle of a PV Panel and Its Direction of Installation for Optimum Output Performance
29	16	6-Sep-2018	Constantino Pires Pereira and JBR. Fernandes Cabral	Electronics	Timorense Journal of Science and Technology (TAJST)	TAJST	The Load Analysis of TIP147 Power Transistor versus IRF250N Power MOSFET Applied to Buck Boost DC-DC Converter
30	17	6-Sep-2018	Bendito Freitas Ribeiro and Takashi Yukawa	Electronics	Timorense Journal of Science and Technology (TAJST)	TAJST	A Hybrid Recommendation System For Hotel Room Reservation
31	18	6-Sep-2018	Olga Maria de Sousa and Leonito Alito Barros	Electronics	Timorense Journal of Science and Technology (TAJST)	TAJST	Performance Evaluation of Filtering Technique (Median, Gaussian and Wiener) in Microscope Image from ES Cellular
32	19	6-Sep-2018	Abelito Filipe Belo	Electronics	Timorense Journal of Science and Technology (TAJST)	TAJST	Domestic Wind-Power System with Low-Cost BLDC Motor/Generator
33	20	6-Sep-2018	Jaime G. Soares and S. H. L Cabral	Electronics	Timorense Journal of Science and Technology (TAJST)	TAJST	Contingencies Study for New Transmission Network in Timor-Leste
34	21	6-Sep-2018	Zulmira Ximenes da Costa a) and Bia Ble Hitu Carvalho de Jesusb)	Informatics	Timorense Journal of Science and Technology (TAJST)	TAJST	Urban Solid Waste Management in Dili Community
35	22	6-Sep-2018	José Soares Pinto and Doutora Dora Maria de Oliveira Simões Ribeiro Pereira	Informatics	Timorense Journal of Science and Technology (TAJST)	TAJST	ICT: Virtual Learning Environment to Support Education Process of High Institution in Timor-Leste
36	23	6-Sep-2018	Marcelino Caetano Noronha, Kristiyani Ambarwati, and Hugo António da Costa Ximenes	Informatics	Timorense Journal of Science and Technology (TAJST)	TAJST	Data Base Implemetation for F-FDTL Navy Component in Hera
37	24	6-Sep-2018	Carmelita Afonso and Hidekazu FUKAI	Informatics	Timorense Journal of Science and Technology (TAJST)	TAJST	Classification of Coffee Bean Images Based on Defect Types using SVM
38	25	6-Sep-2018	Paulo Da Silva ,Ikuo TANABE,Da Cruz R. JUNIOR,Satoshi TAKAHASHI	Mechanical	Journal of Machine Engineering, 2018, Vol. 18, No. 1, 32-44	Training in Japan	THE ANALYSIS OF ENVIRONMENTAL AND HUMAN IMPACTS OF USING STRONG ALKALINE WATER FOR COOLING DURING MACHINING
39	26	6-Sep-2018	Paulo Da SILVA,Luis Edoardo PENA-GONZALEZ,Ikuo TANABE,Satoshi TAKAHASHI	Mechanical	Journal of Machine Engineering, 2018, Vol. 18, No. 2, 17-30	Training in Japan	MACHINE TOOL DISTORTION ESTIMATION DUE TO ENVIRONMENTAL THERMAL FLUCTUATIONS – A FOCUS ON HEAT TRANSFER COEFFICIENT
40	27	6-Sep-2018	PAULO DA SILVA & IKUO TANABE	Mechanical	Structures Under Shock and Impact XV 193	Training in Japan	RISK ASSESSMENT CRITERIA FOR MACHINE TOOLS SUBJECTED TO LARGE EARTHQUAKE HAZARDS:A PROPOSAL
41	28	1-Dec-2018	Junya Furukawa, Hiroki Katsuragawa, Carlito Pinto, Carmelita Afonso, Hidekazu Fukai	Informatics	IEEE Technological Innovations in ICT for Agriculture and Rural Development, International Conference on 2018	Proceedings	Classification of Green Coffee Beans Using Convolutional Neural Network and its Implementation on Raspberry Pi
42	29	1-Dec-2018	Frederico Soares Cabral, Hidekazu Fukai, Satoshi Tamura	Informatics	IEEE International Conference on Service Operations and Logistics, and Informatics, IEEE SOLI 2018	Proceedings	An Automatic Survey System for Paved and Unpaved Road Classification and Road Anomaly Detection using Smartphone Sensor
43	30	11-Jul-2019	Frederico Soares Cabral, Hidekazu Fukai, Satoshi Tamura	Informatics	sonsors 19(16) 3481-3501	Training in Japan	Feature Extraction Methods Proposed for Speech Recognition Are Effective on Road Condition Monitoring Using Smartphone Inertial Sensors
44	1	6-Sep-2019	Paulo da Silva & Ikuo TANABE	Mechanical	Int. J. of Safety and Security Eng., Vol. 9, No. 2 (2019) 121–136	Training in Japan	Analytical models for machine tool motion behavior assessment bench mark subjected to great EARTHQUAKE
45	2	13 Apr2019	Benjamnin de Oliveira Hopffer MARTINS, Motoyuki SUZUKI, Eguchi TSUYOSHI, Nopphawan TAMKUAN, Masahiko NAGAI	Civil	Proceedings Book,8th Conference of Croatian Geotechnical Society	Proceedings	Ground Subsidence Inducted by Shallow Earthquake in Timor-Leste
46	3	15th Nov 2019	Benjamnin de Oliveira Hopffer MARTINS, Motoyuki SUZUKI	Civil	Proceedings of Technical Forum on Mitigation of Geo-disasters in Asia, 13th – 15th November 2019, Kumamoto, Japan. 2019, pp19-22.	Proceedings	Geo-disasters consciousness and preparedness of the people in Timor-Leste
47	4	12-Sep-2019	Ruben Jeronimo Freitas and Koichi Shimakawa	Electronics	Timorense Journal of Science and Technology (TAJST) V2	TAJST	Current-Voltage Characteristics of Si-Based Solar Cells: Effects of Potential Induced Degradation
48	5	12-Sep-2019	Abelito Filipe Belo, Kenji Sasa, Jose Madeira Marques and Koichi Shimakawa	Electronics	Timorense Journal of Science and Technology (TAJST) V2	TAJST	Analysis of Tide Level in Frequency Domain at Dili Port: Origin of 1/ƒ Fluctuations.
49	6	12-Sep-2019	Jose Maria Xavier	Mechanical	Timorense Journal of Science and Technology (TAJST) V2	TAJST	Performance Analysis of a PV System at the Universidade Nasional Timor Lorosa'e
50	7	12-Sep-2019	Lelis Gonzaga Fraga, Jose Carlos F. Texeira and Manuel Eduardo C. Ferreira	Mechanical	Timorense Journal of Science and Technology (TAJST) V2	TAJST	Technical Review on Biomass Resource for Wood Pellets in Timor-Leste
51	8	12-Sep-2019	Domingos de Sousa Freits, Junior Raimundo da Cruz, Domingos de Regulau dos Santos, Octavio da Costa and Miguel da Costa Soares	Mechanical	Timorense Journal of Science and Technology (TAJST) V2	TAJST	An Optimization of Cross-Flow Turbine Vanes in Enhancing Efficiency of Generating Voltage
52	9	12-Sep-2019	Valerio de Sousa Gama, Agostinho Soares Madeira	Mechanical	Timorense Journal of Science and Technology (TAJST) V2	TAJST	Improvement of Surface Roughness of Ball and Radius Shape Workpiece by Using New Grinding Tools
53	10	12-Sep-2019	Valerio DE SOUSA GAMA , Yoshifumi ISE, Satoshi Hiromi ISOBE.	Mechanical	Journal of machine engineering, Vol.19, No.1, pp.71 85,	Training in Japan	Development of a High Speed Mirror Like Finish Polishing Technology for Minute Parts Based on a Linear Motor
54	11	12-Sep-2019	Valerio de Sousa GAMA , Ikuo TANABE , Estevão Daniel SOARES	Mechanical	Proceeding THE 10TH AUN/SEED NET REGIONAL CONFERENCE ON MECHANICAL AND MANUFACTURING ENGINEERING	Proceedings	Mirror Like Surface Of The Workpiece By Using Diamond And Polymer Slurry As A Polishing Agent
55	12	12-Sep-2019	Marfim Guimaraes	Mechanical	Timorense Journal of Science and Technology (TAJST) V2	TAJST	Effects of Transmission Errors on Noise and Vibration of Gears
56	13	12-Sep-2019	Marfim Guimaraes	Mechanical	Timorense Journal of Science and Technology (TAJST) V2	TAJST	Experimental Study on Noise of Gear System
57	14	12-Sep-2019	Viegas, H.M.S and Nakashima S.	Civil	Timorense Journal of Science and Technology (TAJST) V2	TAJST	Case Study of Asphalt Pavement Desing in Consideration of Temperature in Timor-Leste
58	15	12-Sep-2019	Hugo da Costa Ximenes	Civil	Timorense Journal of Science and Technology (TAJST) V2	TAJST	Simple Numerical Analysis on Road Pavement Condition Assesment (RPCA) as Maintenance Strategy
59	16	12-Sep-2019	Leonardo Madeira Branco	Civil	Timorense Journal of Science and Technology (TAJST) V2	TAJST	Initial Studies of Physical Properties of Fine Aggregates and Its Aplication to Concrete in Timor Leste
60	17	12-Sep-2019	Olga Maria de Sousa	Electronics	Timorense Journal of Science and Technology (TAJST) V2	TAJST	Pothole Size Calculation System Using Reference Object Based on Image Processing
61	18	12-Sep-2019	Jose Elias P. Tilman, Quintino Soares, Lucia Jorge Pereira, Ferdinando da Conceicao, Nicolau Castro Ximenes, Abreu Andre Boa Vida and Frederico Soares Cabral	Informatics	Timorense Journal of Science and Technology (TAJST) V2	TAJST	Machine Learning Based System for Motorbike Mode Detection Using a Smartphone Sensor
62	19	12-Sep-2019	Cancio Monteiro and Yasuhiro Takahashi	Electronics	Timorense Journal of Science and Technology (TAJST) V2	TAJST	Low Power SBSAL x-bits Multiplier LSI Measurement
63	20	20-Sep-2019	Vosco Pereira, Satoshi Tamura, Satoru Hayamizu, Hidekazu Fukai	Informatics	2019 International Conference of Advanced Informatics: Concepts, Theory and Applications (ICAICTA)	Proceedings	Semantic segmentation of paved road and pothole image using U-net architecture
64	21	1-Dec-2019	Ruben Jeronimo Freitas , Koichi Shimakawa	Electronics	Optical Properties of Materials and Their Applications, 2nd Edition, Chapter 20	Int.journal	Kinetics of the Persistent Photoconductivity in Crystalline III-V Semiconductors
65	1	17-Nov-2020	Ruben Jeronimo Freitas	Electronics	Timorense Journal of Science and Technology (TAJST) V3	TAJST	Presistent Photocurrent in Photosensitive Semiconductors
66	2	17-Nov-2020	Jose Maria Xavier, Victor da Conceicao Soares, Antonio Pedro Belo, Gabriel Antonio de Saa and Tomonao KOBAYASHI	Mechanical	Timorense Journal of Science and Technology (TAJST) V3	TAJST	Fesibility Study on Solar PV Potencial of Island of Atauro
67	3	17-Nov-2020	Benjamim Hopffer Martins, Motoyuki Suzuki, Putu Edi Yastika, Norikazu Shimizu	Civil	Geosciences Volume, Issue and Pages: 2020,10(6),245. Special Issue "Scientific Assessment of Recent Natural Hazard Events"	Training in Japan	Ground Surface Deformation Detection in Complex Landslide Area – Bobonaro, Timor-Leste – Using SBAS DInSAR, UAV Photogrammetry and Field Observations
68	4	17-Nov-2020	Abelito Filipe Belo, Reinaldo Guterres, Adias Pires and Koichi Shimakawa	Electronics	Timorense Journal of Science and Technology (TAJST) V3	TAJST	Satical and Spectral Analyaia of Wind Power in Hera Campus
69	5	17-Nov-2020	Gabriel Antonio de Sa, Victor C. Soares, Antonio Pedro Belo and Tomonao KOBAYASHI	Mechanical	Timorense Journal of Science and Technology (TAJST) V3	TAJST	Maintenance of Future of Climate in Timor-Leste from World database
70	6	17-Nov-2020	Lelis Gonzaga Fraga, Jose Carlos F. Texeira and Manuel Eduardo C. Ferreira	Mechanical	Timorense Journal of Science and Technology (TAJST) V3	TAJST	The Influence of Various Parameters on Wood Pellets Combustion: A Review
71	7	17-Nov-2020	Abreu Andre Boavida and Shan Lu	Informatics	Timorense Journal of Science and Technology (TAJST) V3	TAJST	The Research and Implementation on the Waste Bin Real-Time Monitoring System
72	8	17-Nov-2020	Frederico Soares Cabral, Hidekazu Fukai and Satosi Tamura	Informatics	Timorense Journal of Science and Technology (TAJST) V3	TAJST	Road Rougness Estimation Using Smartphone Sensor
73	9	17-Nov-2020	Mariano Renato Monteiro da Cruz, Fernao Antonio Lopes Nobre Mouzinho, Hidekazu Fukai and Shinichiro Nakashima	Civil	Timorense Journal of Science and Technology (TAJST) V3	TAJST	Field Performance Test of the Smatphone Android Aplication for Inspection of Roads
74	10	17-Nov-2020	Osvaldo da Cruz Sarmento, Aquilis Tomas Freitas, Bhencao Natalia M. Monterio, Vital Cruz M. Vilanova, Elizario Moniz, Aniceta Araujo, Cornelio Cardoso Moniz ans Atsuko Yamazaki	Geology	Timorense Journal of Science and Technology (TAJST) V3	TAJST	Effect of Diagenesis on the Microstructure of Fosil Coral Skeletons from Atauro Island, Timor-Leste
75	11	17-Nov-2020	Jovita Costa, Shoichi KIYOKAWA, Takashi ITO, Yukiyashu TSUTSUMI and Vital VILANOVA	Geology	Timorense Journal of Science and Technology (TAJST) V3	TAJST	U-Pb Detrital Zircon Age Dating of Central Portion of East Timor: Estimate Stratigraphy of the Aileu Formation and Depositional Ages and
76	12	17-Nov-2020	Marfim Guimaraes, Noviano Gusmao Robinson and Minoru Yamashita	Mechanical	Timorense Journal of Science and Technology (TAJST) V3	TAJST	Collapse Behavior of Square steel Tubes in three-Point Bending
77	13	17-Nov-2020	Valerio de Sousa Gama , Leandro Madeira Branco and Fabricius da Cruz Correira	Mechanical	Timorense Journal of Science and Technology (TAJST) V3	TAJST	Quality of Reinforcing Bar in Timor-Leste Market
78	14	17-Nov-2020	Marfim Guimaraes and Cristovao Soares Joao	Mechanical	Timorense Journal of Science and Technology (TAJST) V3	TAJST	Natural Frequency of the Rotaton System of the Discs
79	15	17-Nov-2020	Leandro Madeira Branco, Prezenzio L. C. D. Ximenes and Evalina I. C. Vidigal	Civil	Timorense Journal of Science and Technology (TAJST) V3	TAJST	The effect Utilizes Cutting of Polythylene Terephthalate (PET) Botle as Coarse Aggregate for Reinforced Concrete (RC): Initial Study
80	16	17-Nov-2020	Hugo da Costa Ximenes	Civil	Timorense Journal of Science and Technology (TAJST) V3	TAJST	Fumdamental Properties of Porous Concrete using Marble Waste as Coarse Aggregate
81	17	17-Nov-2020	Francisco Guterres Ornai Ximenes and Hidehiko Kazama	Civil	Timorense Journal of Science and Technology (TAJST) V3	TAJST	Geotechnical Issue with Road Construction in Balibo-Leolima Area, Timor-Leste
82	18	17-Nov-2020	Aleixo Sarmento and Gakuho WATANABE	Civil	Timorense Journal of Science and Technology (TAJST) V3	TAJST	The Influence of Torsional Deformation on Sesmic Performance of Midle-Rise Building Structures by Utilizing Advance Egineering Tools
83	19	17-Nov-2020	Jose Soares Pinto, Aristidis de Jesus Ornai and Satoshi Tamura	Informatics	Timorense Journal of Science and Technology (TAJST) V3	TAJST	Student Performance Evaluation for Basic Math Score of FoEST
84	20	1-Feb-2021	Abelito Filipe Belo, Reinaldo Guterres, Adias Pires and Koichi Shimakawa	Electronics	Physics of Complex Systems Vol. 2 No. 1 (2021)	Int.journal	Tide level in time and frequency domains at Dili port: Characteristic feature of a Lorentz oscilator
85	21	1-Jan-21	Takumi Maekawa, Shoichi Kiyokawa, Haruyoshi Maeda, Gengo Tanaka, Jovita E. F. Costa, Aquiles T. Freitas	Geology	Paleontological Research	Training in Japan	First Report of Early Permian Albaillellarian Radiolarians from East Timor.
86	22	29-Apr-2021	Hidekazu Fukai, Frederico Soares Cabral, Fernao AL Nobre Mouzinho, Vosco Pereira, Satoshi Tamura	Informatics	6th International Conference on Road and Rail Infrastructure	Proceedings	The development of integrated road condition monitoring system for developing countries using smartphone sensors and dashcam in
87	23	1-May-21	Cancio Monteiro; Yasuhiro Takahashi	Electronics	MDPI Electronics Journal, Vol. 10, 1258.	Int.journal	Low-Power Two-Phase Clocking Adiabatic PUF Circuit
88	24	1-Jun-21	K. Shimakawa and Ruben Jeronimo Freitas	Electronics	Physics of Complex System, Vol.2 No.2 (2021)	Int.journal	Comments on the electronic transport mechanisms in the crystalline state of Ge-Sb-Te phase-change materials
89	1	9-Dec-21	Cancio Monteiro; Yasuhiro Takahashi	Electronics	MDPI Sensors Journal, (ISSN 1424-8220)	Int.journal	Ultra-Low Power FinFETs-Based TPCA-PUF Circuit for Secure IoT Devices
90	2	20-Oct-2021	Ruben Jeronimo Freitas and Koichi Shimakawa	Electronics	Physica status solidi (RRL) Rapid Research Letters	Int.journal	Temporal Resistance Drift in the Amorphous States of GST Phase Change Semiconductors: An Intrinsic Phenomenon in Nonequilibrium Systems
91	3	30-Dec-2021	Abelito Filipe Belo, Koichi Shimakawa	Electronics	Physics of Complex SystemsVol. 2 No. 4 (2021)	Int.journal	Statistical and spectral analysis of wind power: Fractional oscillation dynamics
92	4	15-Feb-2022	Apolinário ALVES, Jovita COSTA, Nazário BOAVIDA, Agostinho ANDY, Osvaldo SARMENTO, Cornélio CARDOSO, Maria ELIAS and Kiichiro KAWAMURA	Geology	Timorense Journal of Science and Technology (TAJST) V4	TAJST	Flood Risk Assessment in Dili: An Integrated GIS-Based Multi-Criteria Analysis Approaches
93	5	15-Feb-2022	Cornélio Cardoso, Osvaldo Sarmento, Nazário Boavida and Kiichiro Kawamura	Geology	Timorense Journal of Science and Technology (TAJST) V4	TAJST	Stability Assessment of Rock Slopes along Becora-Metinaro Roadway: Rock Mass Classification and Kinematic Analysis
94	6	15-Feb-2022	Gabriel António de Sá and Tomonao Kobayashi	Mechanical	Timorense Journal of Science and Technology (TAJST) V4	TAJST	Rainfall Analysis in Little Rain Years at Dili Under Future Climate
95	7	15-Feb-2022	José Maria Xavier, Victor da Conceição Soares, António Pedro Belo and Tomonao Kobayashi	Mechanical	Timorense Journal of Science and Technology (TAJST) V4	TAJST	Weather Observation at Hera for Installing Renewable Energies
96	8	15-Feb-2022	Paulo DA SILVA, Jose Maria XAVIER and Antonio Pedro BELO	Mechanical	Timorense Journal of Science and Technology (TAJST) V4	TAJST	Power Options for Timor-Leste by Analytical Hierarchy Process (AHP)
97	9	15-Feb-2022	Marfim Guimarães and Mario Marques Cabral |	Mechanical	Timorense Journal of Science and Technology (TAJST) V4	TAJST	Assessment of Traffic Noise Pollution in Dili, Capital of Timor-Leste
98	10	15-Feb-2022	Olga Maria de Sousa	Electronics	Timorense Journal of Science and Technology (TAJST) V4	TAJST	ES Cell Segmentation Based on Level Set Method and Watershed Segmentation Using Phase Contrast and Fluorescent Images
99	11	15-Feb-2022	Câncio Monteiro, Bernardino de Castro, Celestino Correia and Yasuhiro Takahashi	Electronics	Timorense Journal of Science and Technology (TAJST) V4	TAJST	Low-Power Secure 4-bits AES S-Box Circuit Design Using Adiabatic Logic
100	12	15-Feb-2022	JBR. Fernandes Cabral and Yales Rômulo de Novaes	Electronics	Timorense Journal of Science and Technology (TAJST) V4	TAJST	Current-Mode Control of High Gain Non-Isolated DC/DC Boost Converter
101	13	15-Feb-2022	Abelito Filipe Belo and Adolfo da Costa Ribeiro	Electronics	Timorense Journal of Science and Technology (TAJST) V4	TAJST	Analysis of Air Temperature Fluctuation in Dili Airport: Low Pass Filter in Nature
102	14	15-Feb-2022	Frederico Soares Cabral, Vosco Pereira, Natalino Guterres, Mariano Renato M. da Cruz , and Hidekazu Fukai	Informatics	Timorense Journal of Science and Technology (TAJST) V4	TAJST	Image Segmentation for Road and Retaining Wall Using U-Net Architecture
103	15	15-Feb-2022	Vosco Pereira, Frederico Soares Cabral, Lourenço A. L. Pereira, Mariano Renato M. da Cruz , and Hidekazu Fukai	Informatics	Timorense Journal of Science and Technology (TAJST) V4	TAJST	Implementation of U-Net Deep Learning Framework for Road and Road Line Segmentation
104	16	15-Feb-2022	Viegas, H.M.S., José António Dias, and Shinishiro Nakashima, S	Civil	Timorense Journal of Science and Technology (TAJST) V4	TAJST	Comparison Study of AASHTO and Bina Marga Standards in Design Road Construction in Timor-Leste
105	17	15-Feb-2022	Hugo Ximenes, Teobaldo Filipe Ximenes, and Shinichiro Nakashima	Civil	Timorense Journal of Science and Technology (TAJST) V4	TAJST	Fundamental properties of PET-Phalt Using Shredded PET Bottles as Binder
106	18	15-Feb-2022	Valerio de Sousa GAMA, Junior Raimundo da CRUZ, Paulo da SILVA, Leandro Madeira BRANCO , and Diego Jose Elizabeth RIBEIRO |	Mechanical	Timorense Journal of Science and Technology (TAJST) V4	TAJST	Evaluation of Mechanical Properties of Hollow Steel in Timor-Leste Market
107	19	15-Feb-2022	Francisco Xavier Ximenes , and Antonio Torres Marques	Mechanical	Timorense Journal of Science and Technology (TAJST) V4	TAJST	Mechanical Testing of Fibre Reinforced Pipes Manufactured under Two Different Orientations
108	20	15-Feb-2022	Antonio de J. Lira, Delio Manuel, Juanito Fernandes, Moises Soaresa, Malaldo J. Parra, Nazario F. Boavida, Osvaldo da C. Sarmento, Cornelio C. Moniz |	Geology	Timorense Journal of Science and Technology (TAJST) V4	TAJST	Geodiversity Assessment of Atauro Volcanic Island, Timor Leste: A New Method Approach Based on GIS Analysis
109	21	17-Jun-2022	Ruben J. Freitas, Koichi Shimakawa	Electronics	photoconductivity and Photoconductive Materials: Fundamentals, Techniques	Int.journal	Chapter 13:Persistent Photocurrents and Defects

110	1	15-Sep-2022	Carlito Pinto and Koichi Shimakawa	Informatics	Phys. Biol. 19 (2022)	Int.journal	A compressed logistic equation on bacteria growth: inferring time-dependent growth rate	
111	2	7-Oct-2022	Cancio Monteiro	Electronics	DOI: 10.5772/intechopen.107151	Int.journal	Low-Power CMOS/FinFETs Circuit Using Adiabatic Switching Principle	
112	3	9-Sep-2022	Abelito F. Belo, K. Shimakawa & Y. Sakaguchi	Electronics	Journal of Materials Science: Materials in Electronics volume 33, pages22541–22548 (2022)	Int.journal	Transient photodarkening induced by a nanosecond pulsed laser in amorphous and liquid As_2Se_3: fractal characteristics in relaxation dynamics	
113	4	31-Jan-2023	Carlito Pinto and Koichi Shimakawa	Informatics	AIP Advances 13, 025126 (2023)	Int.journal	Glassy dynamics in bacterial growth rate temperature dependence	
114	5	1-Mar-2023	Frederico Soares Cabral, Carlito Pinto	Informatics	Timorense Journal of Science and Technology (TAJST) V5	TAJST	The Importance of Geographic Information System for Rice Field Management in Timor-Leste	
115	6	1-Mar-2023	Cancio Monteiro, Fatima R. dos Santos, and Celestion Correia	Electronics	Timorense Journal of Science and Technology (TAJST) V5	TAJST	Design and Analysis of 2M-6T-SRAM Memory Cell	
116	7	1-Mar-2023	Cancio Monteiro, Sérgio J.S. da Costa , and Celestion Correia	Electronics	Timorense Journal of Science and Technology (TAJST) V5	TAJST	Design of Trapezoidal Power Clock Signal Generator Circuit for Dual-Rail Adiabatic Logic Power Supply	
117	8	1-Mar-2023	José Maria Xavier, Victor C. Soares, Domingos de Sousa Freitas, José Elias Pereira Tilman, and Tomonao Kobayashi	Mechanical	Timorense Journal of Science and Technology (TAJST) V5	TAJST	Weather with Tropical Cyclone Seroja Simulated with Numerical Meteorological Model	
118	9	1-Mar-2023	Domingos de Sousa Freitas, Jose Maria Xavier, Evangelino Candido Gaio, Adalfredo Guterres da Silva Ximenes , José Elias Pereira Tilma	Mechanical	Timorense Journal of Science and Technology (TAJST) V5	TAJST	Evaluation of Rainfall for Generating of Micro Hydro Power in Seiçal River Basin	
119	10	1-Mar-2023	Francisco Xavier Ximenes	Mechanical	Timorense Journal of Science and Technology (TAJST) V5	TAJST	Milling Process of Silica Oxide (SiO_2) Powder in Timor-Leste	
120	11	1-Mar-2023	Marfim Guimaraes, Noviano Gusmao Robbinson , and Minoru Yamashita	Mechanical	Timorense Journal of Science and Technology (TAJST) V5	TAJST	Axial Compression of Square Steel Tubes	
121	12	1-Mar-2023	Lelis Gonzaga Fraga , José Carlos F. Teixeira , and Manuel Eduardo C. Ferreira	Mechanical	Timorense Journal of Science and Technology (TAJST) V5	TAJST	Study the Thermal Equilibrium of The Materials and the Decomposition of Wood Pellets at Low Temperature	
122	13	1-Mar-2023	Lelis Gonzaga Fraga	Civil	Timorense Journal of Science and Technology (TAJST) V5	TAJST	The Study on the Use of Fuel for Cooking in a Household in Dili	
123	14	1-Mar-2023	José M. Ximenes , and José B. Aguiar	Civil	Timorense Journal of Science and Technology (TAJST) V5	TAJST	Characteristics of Solid Cement Block and Mortars for Masonry	
124	15	1-Mar-2023	Elfrido Elias Tita, Shao Peilun , and Gakuho Watanabe |	Civil	Timorense Journal of Science and Technology (TAJST) V5	TAJST	Development of the Parametric Building Information Modeling of Bridge Components and the Integration of Bridge Model by Visual Programming Language	
125	16	1-Mar-2023	Hugo Ximenes, Diamentino Denilson Leite , and Hiroyuki Sakakibara	Civil	Timorense Journal of Science and Technology (TAJST) V5	TAJST	Estimating Queuing Time of the Heavy Vehicles at Dili Port Gate	
126	17	1-Mar-2023	Juvita COSTA, Apolinario ALVES, C. CARDOSO, Leandro Branco, A. SOARES, Aniceta ARAUJO, Aquiles FREITAS, , Nene CRISTOVAO and O. SARMENTO	Geology	Timorense Journal of Science and Technology (TAJST) V5	TAJST	Geochemical and Physical Assessment of Limestone of the Aituto and Maubise Formations for Industrial Uses	
127	18	1-Mar-2023	Apolinario ALVES, Juvita COSTA, C. CARDOSO, L. Branco, A. SOARES, Aniceta ARAUJO, Aquiles FREITAS, Nene CRISTOVAO, and Osvaldo SARMENTO	Geology	Timorense Journal of Science and Technology (TAJST) V5	TAJST	Physical Assessment of Calcilutite and Crinoidal Limestone of Cribas and Beheda Area of Timor-Leste for ornamental Uses	
128	19	1-Mar-2023	Cornélio Cardoso Moniz, Kiichiro Kawamura, Maria Elias, Gabriel G. Aparício de Oliveira , and Apolinário E. Alves	Geology	Timorense Journal of Science and Technology (TAJST) V5	TAJST	Characteristics of Detailed Lithology and Large-Scale Landslides of the Bobonaro Melange (Bobonaro Scaly Clay) at Bailbo - Leolima area, West Timor-Leste	
129	20	1-Mar-2023	Olga Maria de Sousa, and Emerson M. D. de Sousa	Electronics	Timorense Journal of Science and Technology (TAJST) V5	TAJST	Reading Four Band Resistor Value Based on Image Processing Technique	
130	21	1-Mar-2023	Abreu Andre Boavida , and Shan Lu	Informatics	Timorense Journal of Science and Technology (TAJST) V5	TAJST	Classifying Images of Multi-Class Mikrolet Vehicles Using Convolutional Neural Network Models	
131	22	1-Mar-2023	Jose Soares Pinto, Frederico Soares Cabral, Marcelino C. Noronha , and Milania Isabel Assunção Nunes	Informatics	Timorense Journal of Science and Technology (TAJST) V5	TAJST	Sentiment Analysis for Tourism Sites in Timor Leste	
132	23	1-Mar-2023	Marcelino Ceatano Noronha, Jose Saores Pinto , and Quintino Soares	Informatics	Timorense Journal of Science and Technology (TAJST) V5	TAJST	Data Mining Informatics Engineering Student Graduation with the Naive Bayes Classifier Algorithm	
133	24	1-Mar-2023	Hugo Ximenes and Shinichiro Nakashima	Civil	Timorese Academic Journal of Science and Technology (TAJST) Special Volume	TAJST	Flood damage in the middle reach of the Manleuana river in Dili, Timor-Leste	
134	25	1-Mar-2023	Aleixo Sarmento and Joao F. Soares	Civil	Timorese Academic Journal of Science and Technology (TAJST) Special Volume	TAJST	Avaliasaun kondisaun infra-estruturas iha mota Moloa husi impaktu siklone tropikal noinundasaun 4 de Abril 2021	
135	26	1-Mar-2023	Fernando Moniz Guterres and Benjamim Hopffer Martins	Civil	Timorese Academic Journal of Science and Technology (TAJST) Special Volume	TAJST	Viabilidade Ponte Becussi ho Tipo 6 Box Culvert	
136	27	1-Mar-2023	Oktoviano V. T. de Jesus, Benjamim Hopffer Martins, Felix J. G. Jones, Abílio Fernandes, and Hamude Alkatiri	Civil	Timorese Academic Journal of Science and Technology (TAJST) Special Volume	TAJST	Proposed of sedimentation removal along Comoro River Field Report	
137	28	1-Mar-2023	Masahiko Sekine, Alfredo Ferreira, and Aleixo Sarmento	Civil	Timorese Academic Journal of Science and Technology (TAJST) Special Volume	TAJST	Drawing inundation map based on remote collaborative works among Japan and Timor Lorosa'e	
138	29	1-Mar-2023	Koichi Yamamoto and Motoyuki Suzuki	Civil	Timorese Academic Journal of Science and Technology (TAJST) Special Volume	TAJST	Report on the online debriefing on the April 2021 floods in Timor-Leste	

ANNEX 3: PDM (All versions of PDM)

Project Design Matrix

Project Title: Project for Capacity Development of the Faculty of Engineering, Science and Technology, the National University of Timor-Lorosa'e Phase 2 (CADEFEST Phase 2)

Version

Dated 18 March 2016

Implementing Agency: National University of Timor-Lorosa'e (UNTL), Ministry of Education

Target Group (Direct) : Faculty Staff of 5 Departments (Mechanical Engineering, Civil Engineering, Electrical & Electronics Engineering, Informatics Engineering, Geology & Petroleum) of the Faculty of Engineering, Science and Technology (FoEST) of UNTL

Target Group (Indirect) : Students of 4-year "Licenciatura" Undergraduate Program of the 5 Departments of the Faculty of Engineering, Science and Technology (FoEST) of UNTL

Period of Project: August 2016 - August 2021 (5 years)

Project Site: Hera Campus, FoEST-UNTL

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Overall Goal					
FoEST-UNTL contribute to solving social problems through its education and research activities corresponding to social needs.	1. Number (or employment rates) of graduates working in related fields : XX 2. Employers' satisfaction rates are increased from XX (baseline to be decided) to XX 3. Number of collaborative activities with external partners (*): XX 4. Number of research papers published: XX	1. Employment data for graduates 2. Employers' satisfaction survey results 3. Records of collaborative activities 4. Research paper publications			
Project Purpose					
Education and research functions corresponding to social needs are enhanced at FoEST-UNTL.	1. Graduation rates of students within fixed duration are improved from XX (baseline to be defined) to XX 2. Number of collaborative activities with external partners (*): XX 3. Number of research papers published:	1. FoEST student data 2. Records of collaborative activities 3. Research paper publications	1. Economic situation including job market does not drastically deteriorate. 2. Duration of licensure undergraduate program does not drastically change.		

ANNEX I

Outputs					
Output 1 Mechanism of faculty management to address priority issues is enhanced.	**Cooperation function** 1-1. List of external partners (present and potential) is prepared and updated regularly 1-2. Number of activities for networking (**to be defined) : - with Industries: XX - with governments: XX - with communities: XX - with universities in the region: XX - with others: XX **System improvement of internship and final thesis** 1-3. Syllabi for internship and final thesis are prepared. **O & M for Equipment** 1-4. Guidelines and manuals of Operation & Maintenance (O&M) of equipment are developed 1-5. Responsible personnel and procedures for requesting updates/repair of facilities and equipment are clearly defined. Additional indicators to be decided when other priority issues/activities are selected	1. List of external partners 2. List of networking activities 3. Syllabi for internship and final thesis 4. Guidelines and manuals of O&M for equipment 5. Documents to define personnel and procedures of O& M for equipment	Curriculum framework does not drastically change.		
Output 2 Education corresponding to social needs is provided at FoEST-UNTL.	**Common for the 5 departments** 2-1. More than XX% of final thesis (or registered students for the final year or registered students for final thesis) pass the examination based on the agreed criteria 2-2. More than XX % of students are satisfied with the education provided by the faculty. 2-3. Class evaluation results get XX averaged points.	1. FoEST student data 2. Results of students satisfaction survey on licensure undergraduate program 3. Results of class evaluation			

	Specific for the 2 newly included departments 2-4. Evaluation results of the capacity of teaching staff is improved from the baseline to XX in terms of knowledge and skills of teaching/class management (evaluation methods to be defined)	4. Evaluation results of capacity of teaching staff
Output 3 Researches corresponding to social needs are conducted by teaching staff of FoEST-UNTL.	3-1. Percentage of faculty staff who submitted research proposals corresponding to social needs: XX % 3-2. Number of researches corresponding to social needs conducted : XX 3-3. Number of research papers published: XX 3-4. Number of research presentations: XX	1. FoEST research activity reports 2. FoEST research activity reports 3. FoEST research activity reports 4. FoEST research activity reports

Activities	**Inputs**		**Important Assumption**
	The Japanese Side	**The Timor-Lest (UNTL) Side**	
Output 1: 1-1. Identify priority issues for improvement of the faculty management including - cooperation unit and networking activities(**) - system improvement of internship and final thesis based on the review - Operation &Maintenance (O&M) of equipment - special lectures and other issues (e.g. graduate tracer survey, career support, FD activities, etc.) 1-2. Prepare annual action plans of the faculty and implement them. 1-3. Review periodically/each semester to monitor the progress and identify measures for improvement 1-4. Implement the measures for improvement **Output 2:** **2-1. Research based final thesis** 2-1-1. Review and improve implementation procedures and schedule of final thesis 2-1.2. Conduct final thesis corresponding to social needs 2-1-3. Compile the final thesis every year	1. Dispatch of Experts 1) Long-term experts - Chief Advisor - Project Coordinator/Partnership Building 2) Short-term experts - Mechanical Engineering - Civil Engineering - Electrical & Electronic Engineering - Informatics Engineering - Geology & Petroleum - Faculty management - other necessary fields 2. Training 3. Equipment 4. Project implementation costs	1. Counterpart personnel 1) Rector of UNTL (Project Director) 2) Dean of FoEST (Project Manager) 3) Faculty teaching staff 4) Faculty administration staff 2. Facility and equipment 1) Project office space for Project experts 2) Office equipment 3) Education and research equipment 3. Project Implementation costs and operational budget for FoEST (including operational and maintenance costs for equipments)	Number of students admitted does not drastically exceed the capacity of FoEST-UNTL.

2-2. Syllabi and teaching materials
2-2-1. Develop a system of reviewing syllabi annually by Academic Committee
2-2-2. Review and revise syllabi and teaching-learning materials based on the curriculum and incorporating the social needs by Academic Committee

2-3. Teaching and class management
2-3-1. Conduct class evaluation periodically by the faculty
2-3-2. Improve class management based on the evaluation results

2-4. Capacity development of teaching staff (Two newly included departments)
2-4-1. Asses present capacity of teaching staff in terms of skills, knowledge and lesson conduct to identify areas for development
2-4-2. Prepare programs for capacity development of teaching staff based on the results of the assessment
2-4-3. Implement the programs for capacity development of teaching staff
2-4-4. Monitor the progress of capacity improvement and revise the program as and when necessary

Output 3
3-1. Teaching staff identifies research and investigation needs of the society
3-2. Teaching staff make research proposals for conducting research activities
3-3. Teaching staff conduct research activities
3-4. Teaching staff widely share the research outputs/feedback research outputs to external partners

Pre-Conditions

1. FoEST-UNTL define function of Cooperation Unit

2. FoEST-UNTL appoint faculty staff in Cooperation Unit

3. FoEST-UNTL conduct a comprehensive assessment and submit a report on the on-going 4-year "licenciatura" undergraduate program with concrete measures for improvement and revisions including syllabi and implementation plan of the internship program and final

<Issues and countermeasures>

* "collaborative activities with external partners" may include funded research, joint research, advisory, special lectures, funded lectures, industrial visits, academic exchanges, testing service using faculty equipments, etc.

** Networking activities may include needs surveys, needs investigation visits and discussions with external partners, seminars, journals, brochures, academic exchange for academic networking, tracer survey for graduates, employers' survey, Career Day etc.

Note: Definitions and target figures XX of all indicators to be decided at the beginning of the project and/or when baseline data being available.

Project Monitoring Sheet I (Revision of Project Design Matrix)

Project Title: Project for Capacity Development of the Faculty of Engineering, Science and Technology, the National University of Timor-Lorosa'e Phase 2 (CADEFEST Phase 2)

Version 1

Dated 15 Septemeber 2017

Implementing Agency: National University of Timor-Lorosa'e (UNTL), Ministry of Education

Target Group (Direct) : Faculty Staff of 5 Departments (Mechanical Engineering, Civil Engineering, Electrical & Electronics Engineering, Informatics Engineering, Geology & Petroleum) of the Faculty of Engineering, Science and Technology (FoEST) of UNTL

Target Group (Indirect) : Students of 4-year "Licenciatura" Undergraduate Program of the 5 Departments of the Faculty of Engineering, Science and Technology (FoEST) of UNTL

Period of Project: August 2016 - August 2021 (5 years)

Project Site: Hera Campus, FoEST-UNTL

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement
Overall Goal				
FoEST-UNTL contribute to solving social problems through its education and research activities corresponding to social needs.	1. Number (or employment rates) of graduates working in related fields : 50% 2. Employers' satisfaction rates are increased from 85% (baseline to be decided) to 90% 3. Number of collaborative activities with external partners (*): 450 (after 8 years) 4. Number of research papers published: 80 (after 8years)	1. Employment data for graduates 2. Employers' satisfaction survey results 3. Records of collaborative activities 4. Research paper publications		
Project Purpose				
Education and research functions corresponding to social needs are enhanced at FoEST-UNTL.	1. Graduation rates of students within fixed duration are improved from 50 % (baseline to be defined) to 80% 2. Number of collaborative activities with external partners (*): 280 (after 5 years) 3. Number of research papers published: 50 (after 5 years)	1. FoEST student data 2. Records of collaborative activities 3. Research paper publications	1. Economic situation including job market does not drastically deteriorate. 2. Duration of licensure undergraduate program does not drastically change.	

Outputs				
Output 1 Mechanism of faculty management to address priority issues is enhanced.	**Cooperation function** 1-1. List of external partners (present and potential) is prepared and updated regularly	1. List of external partners	Curriculum framework does not drastically change.	
	1-2. Number of activities for networking (**to be defined) : - with Industries: 10 / year - with governments: 15 / year - with communities: 10 / year - with universities in the region: 15/year - with others: 5 / year	2. List of networking activities		
	System improvement of internship and final thesis 1-3. Syllabi for internship and final thesis are prepared.	3. Syllabi for internship and final thesis		
	O & M for Equipment 1-4. Guidelines and manuals of Operation & Maintenance (O&M) of equipment are developed	4. Guidelines and manuals of O&M for equipment		
	1-5. Responsible personnel and procedures for requesting updates/repair of facilities and equipment are clearly defined.	5. Documents to define personnel el and procedures of O& M for equipment		
	Additional indicators to be decided when other priority issues/activities are selected			

Output 2 Education corresponding to social needs is provided at FoEST-UNTL.	**Common for the 5 departments** 2-1. More than 80% of final thesis (or registered students for the final year or registered students for final thesis) pass the examination based on the agreed criteria	1. FoEST student data		
	2-2. More than 90 % of students are satisfied with the education provided by the faculty.	2. Results of students satisfaction survey on licensure undergraduate program		
	2-3. Class evaluation results get 4 averaged points.	3. Results of class evaluation		
	Specific for the 2 newly included departments 2-4. Evaluation results of the capacity of teaching staff is improved from the baseline to 4 points out of 5 in terms of knowledge and skills of teaching/class management (evaluation methods to be defined)	4. Evaluation results of capacity of teaching staff		
Output 3 Researches corresponding to social needs are conducted by teaching staff of FoEST-UNTL.	3-1. Percentage of faculty staff who submitted research proposals corresponding to social needs: 70 %	1. FoEST research activity reports		
	3-2. Number of researches corresponding to social needs conducted : 20 /year	2. FoEST research activity reports		
	3-3. Number of research papers published: 10 / year	3. FoEST research activity reports		
	3-4. Number of research presentations: 20 / year	4. FoEST research activity reports		

Activities	Inputs		Important Assumption
	The Japanese Side	The Timor-Lest (UNTL) Side	
Output 1: 1-1. Identify priority issues for improvement of the faculty management including - cooperation unit and networking activities(**) - system improvement of internship and final thesis based on the review - Operation &Maintenance (O&M) of equipment - special lectures and other issues (e.g. graduate tracer survey, career support, FD activities, etc.) 1-2. Prepare annual action plans of the faculty and implement them. 1-3. Review periodically/each semester to monitor the progress and identify measures for improvement 1-4. Implement the measures for improvement	1. Dispatch of Experts 1) Long-term experts - Chief Advisor - Project Coordinator/Partnership Building 2) Short-term experts - Mechanical Engineering - Civil Engineering - Electrical & Electronic Engineering - Informatics Engineering - Geology & Petroleum - Faculty management - other necessary fields 2. Training 3. Equipment 4. Project implementation costs	1. Counterpart personnel 1) Rector of UNTL (Project Director) 2) Dean of FoEST (Project Manager) 3) Faculty teaching staff 4) Faculty administration staff 2. Facility and equipment 1) Project office space for Project experts 2) Office equipment 3) Education and research equipment 3. Project Implementation costs and operational budget for FoEST (including operational and maintenance costs for equipments)	Number of students admitted does not drastically exceed the capacity of FoEST-UNTL.
Output 2: **2-1. Research based final thesis** 2-1-1. Review and improve implementation procedures and schedule of final thesis 2-1.2. Conduct final thesis corresponding to social needs 2-1-3. Compile the final thesis every year			

2-2. Syllabi and teaching materials
2-2-1. Develop a system of reviewing syllabi annually by Academic Committee
2-2-2. Review and revise syllabi and teaching-learning materials based on the curriculum and incorporating the social needs by Academic Committee

2-3. Teaching and class management
2-3-1. Conduct class evaluation periodically by the faculty
2-3-2. Improve class management based on the evaluation results

2-4. Capacity development of teaching staff (Two newly included departments)
2-4-1. Asses present capacity of teaching staff in terms of skills, knowledge and lesson conduct to identify areas for development
2-4-2. Prepare programs for capacity development of teaching staff based on the results of the assessment
2-4-3. Implement the programs for capacity development of teaching staff
2-4-4. Monitor the progress of capacity improvement and revise the program as and when necessary

Output 3
3-1. Teaching staff identifies research and investigation needs of the society
3-2. Teaching staff make research proposals for conducting research activities
3-3. Teaching staff conduct research activities
3-4. Teaching staff widely share the research outputs/feedback research outputs to external partners

Pre-Conditions

1. FoEST-UNTL define function of Cooperation Unit

2. FoEST-UNTL appoint faculty staff in Cooperation Unit

3. FoEST-UNTL conduct a comprehensive assessment and submit a report on the on-going 4-year "licenciatura" undergraduate program with concrete measures for improvement and revisions including syllabi and implementation plan

<Issues and countermesures>

Activities of Cooperation unit should be encouraged and reflect peronnel assesment of lecturers

4-year "Licenciatura" program contunite to be assessd to improve graduation rates

* "collaborative activities with external partners" may include funded research, joint research, advisory, special lectures, funded lectures, industrial visits, academic exchanges, testing service using faculty equipment, etc.

** Networking activities may include needs surveys, needs investigation visits and discussions with external partners, seminars, journals, brochures, academic exchange for academic networking, tracer survey for graduates, employers' survey, Career Day etc.

Note: Definitions and target figures XX of all indicators to be decided at the beginning of the project and/or when baseline data being available.

Version 2
Dated 12 September 2019

Project Monitoring Sheet I (Revision of Project Design Matrix)

Project Title: Project for Capacity Development of the Faculty of Engineering, Science and Technology, the National University of Timor-Lorosa'e Phase 2 (CADEFEST Phase 2)

Implementing Agency: National University of Timor-Lorosa'e (UNTL), Ministry of Education

Target Group (Direct) : Faculty Staff of 5 Departments (Mechanical Engineering, Civil Engineering, Electrical & Electronics Engineering, Informatics Engineering, Geology & Petroleum) of the Faculty of Engineering, Science and Technology (FoEST) of UNTL

Target Group (Indirect) : Students of 4-year "Licenciatura" Undergraduate Program of the 5 Departments of the Faculty of Engineering, Science and Technology (FoEST) of UNTL

Period of Project: August 2016 - March 2022 (5 years and 8months)

Project Site: Hera Campus, FoEST-UNTL

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption
Overall Goal			
FoEST-UNTL contribute to solving social problems through its education and research activities corresponding to social needs.	1. Number (or employment rates) of graduates working in related fields :50% 2. Employers' satisfaction rates are increased from 85% (baseline to be decided) to 90% 3. Number of collaborative activities with external partners (*): 200(after 8 years) 4. Number of research papers published: 80 (after 8years)	1. Employment data for graduates 2. Employers' satisfaction survey results 3. Records of collaborative activities 4. Research paper publications	
Project Purpose			
Education and research functions corresponding to social needs are enhanced at FoEST-UNTL.	1. Graduation rates of students within fixed duration (6years) are improved from 50 % (baseline to be defined) to 80% 2. Number of collaborative activities with external partners (*): 130 (after 5 years) 3. 70 % of graduation theses obtain a score of 8.0 or more. 4. Number of research papers published: 50 (after 5 years)	1. FoEST student data 2. Records of collaborative activities 3. Research paper publications	1. Economic situation including job market does not drastically deteriorate. 2. Duration of licensure undergraduate program does not drastically change.

Outputs			
Output 1 Mechanism of faculty management to address priority issues is enhanced.	**Cooperation function** 1-1. List of external partners (present and potential) is prepared and updated regularly	1. List of external partners	Curriculum framework does not drastically change.
	1-2. Number of activities for networking with external partners(such as Industries, goverments, communities, uviversities in the region) (**to be defined) : 30/year	2. List of networking activities	
	System improvement of internship and final thesis 1-3. Syllabi for internship and final thesis are prepared.	3. Syllabi for internship and final thesis	
	O & M for Equipment 1-4. Guidelines and manuals of Operation & Maintenance (O&M) of equipment are developed	4. Guidelines and manuals of O&M for equipment	
	1-5. Responsible personnel and procedures for requesting updates/repair of facilities and equipment are clearly defined.	5. Documents to define personnel and procedures of O& M for equipment	

Output 2 Education corresponding to social needs is provided at FoEST-UNTL.	2-1. More than 80% of final thesis (or registered students for the final year or registered students for final thesis) pass the examination based on the agreed criteria	1. FoEST student data	
	2-2. More than 90% of students are satisfied with the education provided by the faculty.	2. Results of students satisfaction survey on licensure undergraduate program	
	2-3. Class evaluation results get 4 averaged points.	3. Results of class evaluation	
Output 3 Researches corresponding to social needs are conducted by teaching staff of FoEST-UNTL.	3-1. Percentage of faculty staff who submitted research proposals corresponding to social needs: 70 %	1. FoEST research activity reports	
	3-2. Number of researches corresponding to social needs conducted : 50	2. FoEST research activity reports	
	3-3. Number of research papers published: 10 / year	3. FoEST research activity reports	
	3-4. Number of research presentations for sharing research outputs: 20 / year	4. FoEST research activity reports	

Activities	Inputs		Important Assumption
Output 1:	**The Japanese Side**	**The Timor-Lest (UNTL) Side**	
1-1. Identify priority issues for improvement of the faculty management including - cooperation unit and networking activities(**) - system improvement of internship and final thesis based on the review - Operation &Maintenance (O&M) of equipment - special lectures and other issues (e.g. graduate tracer survey, career support, FD activities, etc.) 1-2. Prepare annual action plans of the faculty and implement them. 1-3. Review periodically/each semester to monitor the progress and identify measures for improvement 1-4. Implement the measures for improvement	1. Dispatch of Experts 1) Long-term experts - Chief Advisor - Project Coordinator/Partnership Building 2) Short-term experts - Mechanical Engineering - Civil Engineering - Electrical & Electronic Engineering - Informatics Engineering - Geology & Petroleum - Faculty management - other necessary fields 2. Training 3. Equipment 4. Project implementation costs	1. Counterpart personnel 1) Rector of UNTL (Project Director) 2) Dean of FoEST (Project Manager) 3) Faculty teaching staff 4) Faculty administration staff 2. Facility and equipment 1) Project office space for Project experts 2) Office equipment 3) Education and research equipment 3. Project Implementation costs and operational budget for FoEST (including operational and maintenance costs for equipments)	Number of students admitted does not drastically exceed the capacity of FoEST-UNTL.
Output 2: **2-1. Research based final thesis** 2-1-1. Review and improve implementation procedures and schedule of final thesis 2-1.2. Conduct final thesis corresponding to social needs 2-1-3. Compile the final thesis every year			

2-2. Syllabi and teaching materials 2-2-1. Develop a system of reviewing syllabi annually by Academic Committee 2-2-2. Review and revise syllabi and teaching-learning materials based on the curriculum and incorporating the social needs by Academic Committee **2-3. Teaching and class management** 2-3-1. Conduct class evaluation periodically by the faculty 2-3-2. Improve class management based on the evaluation results **2-4. Capacity development of teaching staff (Two newly included departments)** 2-4-1. Asses present capacity of teaching staff in terms of skills, knowledge and lesson conduct to identify areas for development 2-4-2. Prepare programs for capacity development of teaching staff based on the results of the assessment 2-4-3. Implement the programs for capacity development of teaching staff 2-4-4. Monitor the progress of capacity improvement and revise the program as and when necessary			**Pre-Conditions** 1. FoEST-UNTL define function of Cooperation Unit 2. FoEST-UNTL appoint faculty staff in Cooperation Unit 3. FoEST-UNTL conduct a comprehensive assessment and submit a report on the on-going 4-year "licenciatura" undergraduate program with concrete measures for improvement and revisions including syllabi and implementation plan of the internship program and final thesis.
Output 3 3-1. Teaching staff identifies research and investigation needs of the society 3-2. Teaching staff make research proposals for conducting research activities 3-3. Teaching staff conduct research activities 3-4. Teaching staff widely share the research outputs/feedback research outputs to external partners			<Issues and countermesures> Activities of Cooperation unit should be encouraged and reflect peronnel assesment of lecturers 4-year "Licenciatura" program contunite to be assessd to improve graduation rates

* "collaborative activities with external partners" may include funded research, joint research, advisory, special lectures, funded lectures, industrial visits, academic exchanges, testing service using faculty equipment, etc.

** Networking activities may include needs surveys, needs investigation visits and discussions with external partners, seminars, journals, brochures, academic exchange for academic networking, tracer survey for graduates, employers' survey, Career Day etc.