

カンボジア国  
労働職業訓練省技術職業訓練教育総局

カンボジア国  
産業界のニーズに応えるための  
職業訓練の質向上プロジェクト  
事業完了報告書

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## **技術協カプロジェクト事業完了報告書**

### **カンボジア**

### **産業界のニーズに応えるための職業訓練の質向上プロジェクト**

## **1. プロジェクトの概要**

### **(1) 背景（プロジェクト開始時の状況。カッコ内の注は終了時の補足）**

カンボジアは、過去10年間に急速な経済成長を達成し、GDP成長率は2012年には7.3%を記録し、2014年も7%を超えることが予測されている。（注：その後も、コロナ禍によりマイナス成長となった2020年の前までは年7%前後の高成長を続けた。）このような経済成長の要因として、輸出部門及び海外直接投資の伸びが挙げられる。他方、現在の海外直接投資は、縫製業、単純な組立産業といった労働集約型産業や建設業が中心であり、2015年のASEAN 統合を控え、経済成長を維持していくためには、内需拡大による輸入品代替産業や裾野産業の発展を通じた産業構造の多様化、国際競争力を有する高付加価値産業の創出・育成が急務となっている。（注：ASEAN統合は予定どおり実施され、カンボジアは引き続き上記の課題に対応することが必要な状況である。）

しかし、産業構造の多様化や高付加価値産業に対応できるカンボジア国内の産業人材は不足している。なかでも、製造ラインの管理を行うラインマネジャーレベル（テクニシャン）が不足しており、現在カンボジアに進出している企業は、このような人材を第三国（企業の生産拠点が既に存在している他のアジア諸国）から連れてきている。高等教育を通じて育成されるエンジニア（Cambodian Qualification Framework: CQF のレベル6以上）レベルの人材に加え、実践的な技能を備えたテクニシアンCQF のレベル5）となりうる人材の需要が高まっており、このような産業人材需要に対応すべく、技術・職業教育・訓練（Technical and Vocational Education and Training: TVET）を担う公的職業訓練機関は訓練内容の改善や産業界との連携強化を進める必要がある。（注：カンボジアの高技能人材への需要はますます高まっている。）

このような現状及び課題に対応するため、本プロジェクトでは、プノンペン市で電気分野のディプロマ・コースを提供している公的職業訓練機関3校をパイロット校に選定し、電気分野のディプロマ・コースの標準訓練パッケージの開発等を目的として実施された。

### **(2) 上位目標・プロジェクト目標・成果**

#### ① 上位目標

全国の労働職業訓練省傘下の職業訓練校の電気分野のディプロマ・コースの質が強化される。

#### ② プロジェクト目標

パイロット校の電気分野のディプロマ・コースの質が強化される。

#### ③ 成果

- 1：電気分野のディプロマ・コースの標準訓練パッケージが開発される。
- 2：パイロット校の電気分野のディプロマ・コースの指導員が標準訓練パッケージを実践できる。
- 3：パイロット校以外で標準訓練パッケージを導入する支援体制が構築される。
- 4：パイロット校の施設・機材維持管理体制が強化される。
- 5：パイロット校と産業界の連携が強化される。

### **(3) 実施機関**

労働職業訓練省 (Ministry of Labour and Vocational Training; 以下MLVT) 技術職業訓練教育総局 (Directorate General of Technical Vocational Education and Training; 以下DGTVET)

### **(4) プロジェクトサイト/対象地域・パイロット校**

- プロジェクトサイト/対象地域：プノンペン市
- パイロット校
  - カンボジア国立ポリテク大学 (National Polytechnic Institute of Cambodia: NPIC)
  - 国立技術訓練大学 (National Technical Training Institute: NTTI)
  - プレ・コソマック・ポリテク大学 (Preah Kossomak Polytechnic Institute: PPI)

### **(5) PDMの変遷**

プロジェクト開始から合計3回のPDM改訂がなされた (PDMの変遷は添付資料0を参照)。

#### ① 第1回改訂 (2017年5月11日、第2回合同調整委員会)

備上したコンサルタントによる満足度調査結果から、上位目標等の目標値を設定し、文言についても定義を明確化した。また、最終実技試験実施後、関係する指標の目標値を設定することで合意した。

#### ② 第2回改訂 (2019年3月11日、第3回合同調整委員会)

前回の懸案事項であった目標値を設定し、文言の定義を明確化するために文章を変更し、指標のいくつかを再定義した。また、2018年度の予算大幅削減によるプロジェクト活動の遅延を取り戻すため、活動期間の半年間延長 (2020年3月27日まで⇒同年9月27日まで) についても合意された。

#### ③ 第3回改訂 (2020年7月12日)

COVID-19に伴う活動の遅れを取り戻し、所期の目的を達成するため、プロジェクト期間をさらに半年間延長する (2020年9月27日まで⇒2021年3月27日まで) ことが必要となり、JICAがミニッツを作成し、合意に至った。この変更時には、プロジェクトの日本人長期専門家3名は避難一時帰国中であったため (2020年8月中に再赴任)、合同調整委員会は開催しなかった。

## **2. プロジェクトの実績**

### **(1) プロジェクトの成果品一覧**

成果品としては、下記が挙げられる。

- ① パイロット職業訓練校3校における標準訓練パッケージ (実際に指導員が授業を行うにあたり参考となるシラバス、テキストブック)

- ② 国家承認の標準訓練パッケージ（Diploma Level Standard Training Package “Electrical Installation and Maintenance”）
- ③ 技術指導に関する作成資料（最終実技試験の試験問題と評価、指導員のスキルテスト、自己評価、活動参加者への質問票）
- ④ 開発した訓練機材の仕様
- ⑤ 定期的な管理用の訓練機材のリスト
- ⑥ 就職支援ハンドブック
- ⑦ 企業のカンボジアにおけるニーズ、満足度調査結果報告
- ⑧ プロジェクトのホームページ（ニュースで時系列に主な活動実績を整理しているほか、資料集等を収録）：<http://www.jica.go.jp/project/cambodia/018/index.html>

## **（２）投入実績**

### **【日本側の投入】**

#### **（２）－ １．専門家派遣実績（専門家氏名、指導分野、派遣期間、本邦所属先、業務概要）**

プロジェクト期間中、長期専門家 5 名、短期専門家 6 名が派遣された（添付資料1参照）。

長期専門家は、チーフアドバイザー、業務調整／産業連携、電気専門家の合計 3 名が配置された。短期専門家については、4 名が電気分野の専門家で、うち 2 名はマレーシアの職業訓練校の CIAST（Centre for Instructor and Advanced Skill Training；以下 CIAST と標記）から派遣された第三国専門家であったが、それぞれの電気の専門分野での技術移転、およびカリキュラム作成にかかる指導員の実習能力強化についての指導・助言が行われた。

残る 2 名は、労働安全の視点から、危険予知トレーニングを普及指導する専門家が派遣され、指導員技術再訓練 TOT（Training of Trainers；以下 TOT と標記）としての研修が段階を追って実施された。結果その内容は新卒指導員研修のカリキュラムにも反映されている。

#### **（２）－ ２．研修員受入れ実績（研修員氏名、研修分野、研修期間、主な研修先、研修概要）**

プロジェクト実施期間中、プロジェクト独自の海外研修としては合計 35 名（産業界と連携しての研修、JICA 課題別・青年研修を加えると合計 93 名）の研修員受入れを行った（詳細については添付資料2を参照のこと）。

1. カウンターパート研修（合計35名）		
(1)	本邦研修（厚生労働省、（独）高齢・障害・求職者雇用支援機構（JEED）、富士電機）	27
(2)	第三国研修（マレーシア CIAST/JMTI）	8
2. 独自に産業界と連携しての研修（タイ Denso/タイ 矢崎電線/富士電機/AOTS）		13

3. JICA課題別・青年研修（合計45名）		
(1)	Vocational Training Course for Young Leaders	30
(2)	Practical HRD in Electricity and Electronics Engineering-Aiming at Elimination of Technology Gap between Education-Field Site	1
(3)	Industrial Technology Education	4
(4)	Human Resources Development Administration	4
(5)	Enhancement of Training Management in Vocational Training Institute	6

上記の表のとおり、うち27名は本邦研修として、厚生労働省及び（独）高齢・障害・求職者雇用支援機構（以下JEEDと標記）所属の職業訓練校、並びに富士電機にて研修を実施した。

また、8名は第三国研修として、マレーシアのCIAS及びペナンにある職業訓練校JMTI（Japan-Malaysia Technical Institute；以下JMTIと標記）での研修を企画実施した。更に計13名についてはタイDenso、タイ矢崎電線、富士電機及びAOTSのご厚意により、プロジェクトが直接研修員の受入れをお願いし、在外事業強化費の活用により、品質管理、および工場見学等の短期研修を実施した。また、JICA課題別・青年研修についても、プロジェクトが仲立ちし、関係する機関からの研修生の選出を促し、プロジェクト活動との相乗効果の発揮を図った。

### **（3）－3. 供与・譲渡機材実績（リスト、機材到着日、設置場所、利用状況）**

プロジェクト前半では、主なカウンターパート機関である労働職業訓練省の技術職業教育訓練総局標準カリキュラム部並びにパイロット職業訓練校3校であるNPIC、NTTI及びPPIの計4カ所を中心に、コピー機、LCDプロジェクター等の一般的に使われる研修関連機材を導入した。

また、訓練校3校には、電気専門家の設計した訓練機材を特命随意契約で特注生産したもの、もしくは部品を輸入し、カンボジアで組み立て製作してもらったものを購入、活用した。

これらは、本邦調達よりも安価で、分解できるため、メンテナンスしやすく、消耗品や部品等も現地調達が容易であることから、電気専門家の開発の手間は非常にかかったが、限られた予算内で訓練機材の数量を確保するための手段としてこのような調達方法を行った。

詳細については添付資料3を参照のこと。

### **（3）－4. 現地業務費実績**

プロジェクト期間全体を通し、電気分野における技術移転や研修などでの消耗品類の購入費、パイロット訓練校の実習訓練用のワークショップ整備にかかる訓練機や機材用の鉄製の棚、就職支援関連のイベント実施等にかかる経費が主な支出として挙げられる。特にプロジェクト前半では成果1及び5に関係したカンボジア進出企業の電気分野のニーズや、訓練校卒業生に対する企業の満足度調査、訓練校卒業生の訓練校に対する満足度調査を行ったためのコンサルタント備上費、また後半も成果1

の標準訓練パッケージ作成にかかるコンサルタント備上費（2019年7月～2020年3月）の支出が大きかった。なお、年度ごとの金額実績詳細については添付資料4を、主な実施事業概要については、添付資料5の研修、セミナー、イベント等の実績を参照のこと。

### 【カンボジア側の投入】

労働職業訓練省の標準カリキュラム部（Dept. of Standard and Curriculum ; 以下DSC）は、JICA/TVETプロジェクトとの協働のために4名の職員を任命するとともに、執務スペース、電気や水道を提供した。

### （4）プロジェクトの実施体制

#### ① 全体の体制

プロジェクト開始当初にカウンターパートと調整を重ねた結果、フォーマルな会合として下記のJCC、PIG及びTWGを組織し、これらを有機的に連携させながら活動をモニタリングしていくこととした。

#### ② 合同調整委員会（JCC）

下記のとおり、合計4回の合同調整委員会が開催された。

会合	開催場所	参加人数	期間	開催日
第1回	MLVT	40	半日	2016年5月5日
第2回	MLVT	45	半日	2017年5月11日
第3回	MLVT	45	半日	2019年3月11日
第4回	MLVT	30	半日	2020年10月19日

#### ③ PIG及びTWG

プロジェクト開始当初、より実務レベルに近い意思決定機関として、2つのグループを発足させた。

まず、プロジェクトマネジャーであるDGTJET局長（技術職業教育訓練総局長）が議長となり、JCCの下でプロジェクト活動の進捗状況の報告や活動方針等を話し合い、実務レベルでの意思決定を行う、Project Implementation Group（以下PIG）というSteering Committeeの位置づけの定例会議を発足させ、合計10回開催した。

また、電気分野のカリキュラム開発、指導員の能力強化にかかる各種活動をはじめとする詳細な内容等について話し合い、関連のテキスト等資料を作成するために、パイロット職業訓練校3校の技術

指導員を中心としたTechnical Working Group（以下TWG）を開設した。プロジェクト活動の推進に活用し、合計39回開催した。

## **（５）活動開始時に見られた課題、対応と成果**

### **（５）－１．受入機関の状況と問題点**

本プロジェクトは労働職業訓練省（以下MLVT）の技術職業教育訓練総局（以下DGTVET）を中心に、プノンベン都内のみならずカンボジアをけん引する同省傘下の職業訓練校3校（NPIC、NTTI、PPI）を主なカウンターパート機関として活動した。プロジェクト開始時の職業訓練校における職業訓練の実施状況にかんがみると、3校へのターゲティングは適切であったと考える。

また、ディプロマレベルの電気分野の標準カリキュラムの作成と、プロジェクト終了後の全国展開を見据えて、非パイロット対象校の選定がPDM上設定されていた。DGTVETはプノンベンの他の5地域を管轄するリージョナル訓練校（RPI：Regional Polytechnic Institute）を5校（シエムリアップ、バタンバン、カンポット、タケオ及びスヴァイリエン）指定していたため、プロジェクトでも非パイロット対象校としてこの5校を活動に部分的に巻き込んだ。

上記のPIG及びTWGに加えて、Industrial Advisory Group（以下IAG）と称して、電気分野に関連する現地の企業や産業界の5社・団体（Minebea (Cambodia) Co., Ltd., Cambodia Constructors Association, Cambodia Power Transmission Lines Co., Ltd., Comin Khmère Co., Ltd., and Schneider）を任命し、必要に応じてJCCやPIG、カリキュラム案への意見出しや各種産業連携イベント等の支援を得た。

2020年以降のコロナ禍に伴い、同年3月以降、日本人長期専門家3名が約5か月間一時帰国を余儀なくされた。また、プロジェクト終了時（2021年3月）まで、（1）パイロット訓練校の閉鎖等による活動の制限、（2）2020年及び2021年のカンボジア政府のTVET予算の削減（労働職業訓練省主催の2020年TOTの中止等）、（3）大人数を集めるイベントの変更（オンライン開催または中止）など、影響は甚大であった。そのような中で、プロジェクト活動の計画的かつ効果的・効率的な実施に努めた。

#### **（５）－１－１．労働職業訓練省技術職業教育訓練総局（DGTVET）**

DGTVET内の6部署（Department）のうち、プロジェクトと直接かかわりがあったのはプロジェクト事務局に任命され、カリキュラム標準化にかかる業務を担当するDSC、指導員再訓練や指導員評価を担当する品質保証部（Dept. of Quality Assurance; DQA）、及び産業連携にかかる労働市場情報部（Dept. of Labour Market Information; DLMI）の3部署である。

プロジェクト開始当初は、DGTVET内のプロジェクト事務局に任命されたDSCから担当者が数名指名され、毎週のように定期会議を行った。しかしながら、担当者の主体性や意思決定の面で課題があったため、直接決裁指示のできるDSC部長と必要に応じて会議をし、その場で決定する方式に変



更した。

また、パイロット訓練校で実施する各種訓練や研修等に労働職業訓練省側の関係者(電気専門家等)の参画も求めたが、ADB等別の案件で不在のことが多く、積極的な協力を得るための努力が必要であった。

#### **(5) - 1 - 2. National Polytechnic Institute of Cambodia (NPIC)**

2005年にプノンペン郊外に設立されたトップ訓練校であり、2014年から開催されているロボットコンテストで上位に入る常連校である。敷地も広く、スタッフも充実している。プロジェクト開始時に電子工学や溶接の分野でシニアボランティアが入っており、JICAに対して好意的な印象を持っていた。また、校長以下の意思伝達や決裁システムが組織としてしっかりしており、電気学部の部長に相談すれば、必要に応じて副校長や校長等関係者に伝わり、非常に明確で業務は進めやすかった。

基本的に全日制コースのみのため、日本の職業訓練校のイメージに一番近い。カリキュラムも整っており、学生の就職先も適切に把握ができています。最も自主的な発展が期待できる。

#### **(5) - 1 - 3. National Technical Training Institute (NTTI)**

1999年に設立され、訓練校の指導員の新卒研修コース(Pedagogy)を唯一専門に持っているのが特徴の訓練校である。このため、このコースがあることでドナーの支援も入りやすいようである。

同校は全日制の学生よりも、日中フルタイムの仕事をして夜学に通う学生の方が多いのが特徴である。プロジェクト当初は、夜間コースについては1クラス当たりの学生数が十分制限できず、必要な訓練機材の台数やスペースも学生に対して十分確保できない状況にあった。

注意が必要なのは、他の2校に比べ、書類手続きの煩雑さや意思決定に時間を要することである。例えば、他の2校は特に正式文書がなくてもプロジェクトの活動ということでカウンターパートの会合参加等について問題はなかったが、この訓練校については必ず書類での正式依頼が必要となった。

なお、NTTIが設置されているエリアは、後述のPPIを含む職業訓練校4校が集積しており、「プノンペンTVETパーク」と呼ばれている。同パークは、2019年に開始したADBの新たなプロジェクト(S4C: Skills for Competitiveness)の対象となっている。エリア内では、同プロジェクトの支援により、新校舎等が建設中である。

労働職業訓練省DGT VETの建物が老朽化に伴い建て替えられることとなり、当プロジェクトのメインオフィスは、2019年12月にNTTI内へ移転した。これにより、NTTI及びPPIとの日常的な往来が促進された。

#### **(5) - 1 - 4. Preah Kossamak Polytechnic Institute (PPI)**

1965年に設立された伝統校で、電気分野では国内競技大会等で優勝者や入賞者を輩出している。NTTI同様に夜間学生が多く、訓練機材の確保や教室のスペースが課題となっている。

ADBのプロジェクト（TVETSDP: Technical and Vocational Education and Training Sector Development Program）により、電気分野のCenter of Excellenceに指定されているほか、同分野のセクター・スキル・カウンシル（Sector Skill Council）で産業界との対話を進めている。

### **（５）－２．成果１（標準訓練パッケージの開発）に関する活動**

（※）以下、5つの各成果の活動の冒頭に、指標（Objectively Verifiable Indicators）とその達成状況（カッコ内）を記載している。

指標1. 産業界のニーズに応えるための標準訓練パッケージの案が開発される。（TWG会合、IAG会合の開催に加えて、ローカル・コンサルタント（2019年7月～2020年3月）を備上して開発した。）

指標2. 標準訓練パッケージの案が、労働職業訓練省によって承認される。（2020年8月12日の全国訓練委員会（National Training Board）の小委員会（同年9月に本委員会に先立ち開催）において承認された。）

指標3. ディプロマ・コースの訓練が、パイロット職業訓練校において試行される。（パイロット校において、最終実技試験をはじめとする活動が実施された。）

指標4. 試行結果に基づき最終的に確定した標準訓練パッケージが、労働職業訓練省によって承認される。（2020年9月22日の全国訓練委員会において承認された。）

カンボジアでは、ASEANの職業資格の枠組み（域内の労働移動を促進し、経済成長と繁栄を目指すもの）に準拠したCQF（Cambodian Qualification Framework）という指針が策定されている。それに基づく職業訓練が現場で実践されるようにするための標準訓練パッケージ（STP: Standard Training package）の開発・実践が、職業訓練の入口レベル（CQF1）から高校相当レベル（CQF2, 3及び4）について、他の開発ドナー（ADB、ILO等）の支援を受けて進められていた。

CQFはコンピテンシー（competency）を中心的な概念としているが、カンボジアの職業訓練校におけるディプロマレベル（短大課程相当、2年制が基本）やバachelorレベル（CQF6、大学課程相当、4年制）（これら2つのレベルがプノンペンの職業訓練校の定員の多数を占めている）では、同概念が浸透しておらず、定着していなかった。そのような中で、ディプロマレベル（CQF5）のSTPの支援は、電気分野に限らず、当プロジェクトが初めてであった。

労働職業訓練省DGTvet/DSCのカリキュラム開発担当からは一貫して、全国の職業訓練校に一律適用されるSTP文書を整備することが必要と主張されたが、地域によっては訓練ニーズにそぐわないものとなることが危惧された。また、先方の主張するSTP文書のフォーマットは、職業訓練の現場において直ちに活用できるガイドラインとしては不十分なものであった。

このためプロジェクトでは、カウンターパートの合意を得ながら、電気専門家が現状を観察し作成したカリキュラム骨子（28科目のシラバス）を基に、パイロット職業訓練校3校において開発機材を

活用した実践的な技術移転を進め、実績を積み上げることとした。

パイロット3校におけるプロジェクトの産業界のニーズに応える実践的なカリキュラム活動の実績（指標1、指標3達成）を踏まえ、それと並行して、機が熟した2019年から、国家承認のためのSTP文書（Electrical Installation and Maintenance）の作成に着手することとし、同文書の開発の経緯やフォーマットに精通した現地コンサルタントを雇上した。同文書は、2020年9月の全国訓練委員会（NTB: National Training Board）において承認された（指標2、指標4達成）。

また、プロジェクト最終段階の2021年に入り、パイロット校で実践してきたシラバスを改訂したほか、別途TWGと独自に開発した優先科目のテキストを取りまとめた。

コロナ禍の下、カンボジア政府予算は厳しい状況となっており、資料一式はクメール語版が一部印刷配布されたほか、労働職業訓練省DGT VETのホームページ内にアップロードされる予定である。プロジェクトでは、効果的な普及のため、クメール語の増刷とともに英語版の印刷を支援した。

### **（5）－ 3. 成果2（標準訓練パッケージ実施にかかる職業訓練校指導員の能力強化）に関する活動**

指標1. 学生による、職業訓練校指導員の教授法の評価が、5段階評価で4.0以上となる。（2019年度に4.24となり、達成した。）

指標2. 専門家による、職業訓練校指導員の能力の評価が、4段階評価で3.0以上となる。（2020年度に3.19となり、達成した。）

指標3. 職業訓練校指導員の自己評価が、4段階評価で3.0以上となる。（2020年度に3.46となり、達成した。）

PDMの構造上は成果1の標準カリキュラムの完成を見越して、それを十分に指導できる指導員の能力強化を行うこととされていた。上記の成果1の進捗状況を踏まえ、指導員の実習指導能力の強化が図られた。

#### **① 訓練機材**

プロジェクト開始時は電気科と言っても座学が多く、技術習得可能な実習機材が十分に整備されていなかった。電気専門家が現場を観察し、訓練機材を設計し発注購入したものを供与することとした。故障した場合に現地で修理することが容易であること、日本からの輸入価格に比べて安価であるため、供与数を確保できることが大きなメリットとして挙げられ、カウンターパート関係者や他ドナーからも高く評価されている。開発した訓練機材の仕様については、定期的な管理用の訓練機材のリスト等の成果品とともに、カウンターパート（DSC）に加えて、カンボジアにおけるTVET分野の主要ドナーであるADB（ディプロマ・コースの活動を実施中）と共有している。

また、実際に部品を発注し、専門家が技術移転を意図して、訓練校指導員とともに訓練機材を製作した。この経験を通じて、より指導員自身の実習能力も強化されたと思料する。

## ② 最終実技試験

当初の成果2のPDM指標では、「最終試験の結果」が設定されていたが、訓練校での最終試験は実技なしの学科試験のみでほぼ100%に近い合格率であることがプロジェクト開始後に判明した。このため、学生の実技能力を担保し、指導員の試験実施にかかる能力強化を図ることを目指して、学生の最終実技試験を企画し導入した。開始初年度（2017年度）はNPIC1校のみのトライアルで、2年目（2018年度）は3校で実施したものの、科目は同じでもテスト問題はそれぞれの自主性に任せて実施した。このように改善を進め、3年目（2019年度）より問題を標準化して3校共通で試験を実施する運びとなった。また、夜間・土日コースも含めた多くの学生に4科目の実技試験を実施するため、各試験時間および評価時間をそれぞれ1時間で実施可能かつ、プロジェクト終了後の持続性を鑑み、実技試験に必要な消耗品を低価格（一人あたり2.8ドル未満）とする問題・評価を開発した。紆余曲折はあったが、その実施プロセスにおいて、関係する指導員達の自主性を重んじ、彼ら・彼女らが体感することで、より能力向上に資することができたと思料する。

この仕組みの導入はカウンターパートをはじめとする当地関係者に高く評価されており、プロジェクト終了後も3校とも引き続き最終実技試験をそれぞれ実施していくことが、最終のJCC（2020年10月）で確認されているほか、NPICでは電気学部以外での実施を検討する予定となっている。

## ③ 訓練機材の技術移転及びスキルテスト

2020年以降のコロナ禍において、労働職業訓練省による職業訓練校指導員へのTOTが中止される中、継続的に指導員の能力を強化するため、2020年10月から2021年2月にかけて、電気専門家がパイロット職業訓練校3校の指導員に対して、上述開発機材の知識及び技能を高めるための訓練を実施した。

また、パイロット校の指導員の技術系科目の能力を客観的に把握するため、コア教科のスキルテストを実施した。

## ④ 指導員技術再訓練TOT

職業訓練校の指導員が他校の指導員に対しての研修を実施した。これにより、指導員の教授能力の改善も図られ、普段あまり交流のない地方校の現状を知るいい機会になったと思われる（詳細は成果3、添付資料5を参照）。

## ⑤ 企業従業員向けの有料技術セミナー

もともとPDM上にはなかったが、成果5の活動とも関連して、主にカンボジア日本人商工会（Japanese Business Association of Cambodia; JBAC）傘下企業の技術者に対して、訓練校指導員が有料で行う、技術セミナーを合計16回述べ59社に対して実施した（添付資料5参照）。相乗効

果があり、指導員の教授能力向上に加え、企業側技術者からの質問や意見等を受けることで、企業側のニーズも間接的に知ることができ、個人的なつながりも形成され、有料にすることで指導員のモチベーションアップにもつながり、産業界との繋がりもより強まったと史料する。産業界側からも3-5日間の短期間で実技中心の研修が手軽にできると好評であった。

プロジェクトがコーディネートをしして訓練内容の検討、企業へのアナウンス等を行っていたが、終了後は各訓練校の自主性に任せる形となる。

#### ⑥ 厚生労働省の技能評価システム移転促進事業（通称SESPP\*）との連携

SESPPは、職業訓練と並び、人材育成の車の両輪である技能評価に関して、日本の熟練技能者育成のノウハウ（技能検定制度を含む）の経験を伝える事業として、カンボジアにおいてはプロジェクト開始前の2014年度より実施されていた。

プロジェクト活動期間中は、より電気分野に特化した技能（配電盤・制御版組立て、電気系保全、シーケンス制御（PLC）、電気工事）についての協力が行われた。プロジェクトは、職業訓練校から参加する指導員が適切に選定されるように関与したほか、事前準備（工具・機材・消耗品）、JBAC会合等の機会を活用して当地における民間企業の参加を募ったり、技能評価トライアルの事前講習を行ったりして、活動の成果が一層上がるように取り組んだ。

\* SESPP; Skills Evaluation System Promotion Program

（参考）日本式の訓練検定ノウハウの移転：[sespp.mhlw.go.jp](http://sespp.mhlw.go.jp)

### （5） - 4. 成果3（標準訓練パッケージのパイロット校以外への普及）に関する活動

指標1. 標準訓練パッケージの技術的な内容が、NTTI校において実施される指導員の事前養成訓練課程に統合される。（当プロジェクトが提案した労働安全衛生に関する訓練が、正式に承認されたカリキュラムに含まれた。）

指標2. 非パイロット校のうちディプロマ・コースの訓練を提供する5校が、標準訓練パッケージの普及セミナーに参加する。（TOT活動等を実施した。また、標準訓練パッケージを印刷し、労働職業訓練省が非パイロット校へ効果的に普及できるようにした。）

#### ① 新卒指導員研修への関与

カンボジア労働職業訓練省傘下の職業訓練校の新卒指導員研修を唯一運営実施するNTTIが、同研修カリキュラムの改訂に伴い当プロジェクトで短期専門家を招聘し実施した、労働安全（特に危険予知トレーニング）の内容を、追加し、正式承認されている（指標1達成）。ちなみにこの新卒指導員研修は訓練校のあらゆる分野を対象とした指導教授法を中心にした研修のため、電気に特化したものではなく、どの分野にも共通で汎用性の高い労働安全が採用されたものである。

## ② 労働職業訓練省によるTOTの支援

合計9回、92名（主にパイロット校に加えて非パイロット校指導員が対象）に対する指導員技術再訓練を実施することができた（添付資料5を参照）（指標2達成）。2年目からは労働職業訓練省DQAが指導員技術再訓練を主体的に実施していることが判明したため、プロジェクトが技術指導を行い、予算確保や予算管理はDQAが行う形で、DQAの主体性を重んじながら計画実施をした。実際のところ、カンボジア側の予算が毎年1月開始であるにもかかわらず、予算が承認になり実行できるようになるまでかなりの時間を要することから、TOT実施は早くても9月から10月での開催となっていた。また、DQAと実際訓練を実施する訓練校との間で、予定されていた額が立て替えたにもかかわらず支払われなかった等のトラブルもあり、プロジェクトが仲介することもあった。しかしながら、非パイロット校の地方リージョナル訓練校5校（上記(5)-1を参照）の指導員を招聘して再訓練できる貴重な機会となり、一連の実施を通してDQA担当者も研修運営能力が改善していると思料する。

## ③ 標準訓練パッケージの全国普及の支援

パイロット職業訓練校3校における標準訓練パッケージ（実際に指導員が授業を行うにあたり参考となるシラバス、テキストブック）、国家承認の標準訓練パッケージを非パイロット校へ効果的に普及できるよう、それらを印刷した（指標2達成）。

### （5）－ 5. 成果4（訓練に関する施設・機材の維持管理体制の強化）に関する活動

指標1. 維持・管理計画（人材や予算に関するものを含む）が開発される。（維持・管理マニュアルとしての、定期的な管理用の訓練機材のリスト等を開発した。）

指標2. 訓練施設や機材の更新や修繕のための責任ある人材や手順が、明確に定義される（維持・管理マニュアルとしての、定期的な管理用の訓練機材のリスト等を開発した。）

指標3. 訓練施設や機材の維持・管理が実行される。（パイロット職業訓練校において、維持メンテナンスが実施された。）

機材のID番号のつけ方について、ルールを設定し、半年に1度定期的に機材の状態確認を行い、記載するシステムを作成確立し（指標1及び2達成）、実施した（指標3達成）。簡易なエクセルのチェックシートを使った管理により、プロジェクト終了後も活用していくことができるものと思われる。

### （5）－ 6. 成果5（職業訓練校と産業界の連携強化）に関する活動

指標1. 職業訓練校における学生の就職や起業の支援活動のためのハンドブックが開発され、実行の

ために活用される。（ハンドブック作成活動経験を踏まえ、2021年に作成・印刷され、労働職業訓練省が非パイロット校へ効果的に普及することとなった。）

指標2. 産業界との協働活動の数、及び、それに参加する企業の数が増加する（ベースライン：2回、8社）。（2019年度までに15回開催され、38社が参加した。）

指標3. 就職促進活動の数が増加する（ベースライン：5回）（2019年度までに5回開催された。）

成果1のカリキュラムの内容ニーズ確認等も併せて、プロジェクト初期にカンボジア進出企業側の情報、ならびに電気技術者、訓練校に対するニーズや満足度等の調査を行った。カンボジア日本人商工会（JBAC）の製造業分野企業については、JBAC製造業部会の協力を仰ぎ、独自にアンケート調査を実施し、非日系企業については、2度現地コンサルタントを備上し、幅広く調査を実施した。

また、訓練校と企業との連携強化を模索し、パイロット校でのジョブフェア開催（プロジェクト活動期間中に3校で2回ずつ開催）や、他の機関が実施する各種イベントへの参加、企業に声がけしての訓練校のスタディーツアーなどを通して積極的に企業と関わる機会を増やし、カウンターパートを巻き込みながら様々なやり方を試みると同時に、各訓練校間や、カンボジアにおいて公的職業紹介サービスを提供している国家雇用機構（National Employment Agency; NEA）などの労働職業訓練省外の繋がりも強化できるよう、関係者を一同に会してのワークショップ開催などで情報交換の場を提供した（指標2達成）。これにより、各訓練校担当者の視野は以前に比べて広がったものと思われる。

パイロット3校において学生の就職支援を促進するためのハンドブックを作成した（指標1達成）ほか、全国的なイベント（DSC主催の国内技能競技大会National Skill Competition（以下NSCと標記）、DLMI主催のNational TVET Day、NEA主催のNational Career and Productivity Fair）に参画した。2017年と2019年のNSCでは、日系企業による競技大会にかかる消耗品や工具の寄贈（2017年：富士電機（スイッチ、ブレーカー等）、タイ矢崎電線（電線）、泰盛貿易（マキタ(株)の電動工具）、2019年：富士電機（スイッチ、ランプ等）、タイ矢崎電線（電線））をとりつけ、これに関するDSCとの調整の支援を行った。また、2018年開催のNational TVET Dayではプロジェクトが企画・仲介し、タイ資本の建設系企業であるSCG（株）よりCSR活動の一環としての資金援助を取り付け、2017年実施のNSC入賞者（PPIの学生）による電気配線やレンガ積みの実演を実施した。

プロジェクトでは、現地の日系企業が重要な関係者であることから、日本語での情報発信に力を入れた。ホームページ（上記1を参照）のコンテンツを充実させ、活動ニュースや参考資料を掲載したほか、JBACの製造業部会（ほぼ3か月に一回）で活動を紹介し、企業従業員向けの有料技術セミナーをはじめとする有益な情報を提供し、企業の方々に職業訓練校を身近に感じていただけるように心がけた（指標3達成）。

これらの活動もあり、プロジェクト終了前の2021年2月に現地の日系企業を対象に実施したアンケート調査により、パイロット3校を卒業した現在の従業員への満足度（5段階評価）をみると、総

平均スコアは3.69となり、4項目（知識、技術スキル、働く倫理（態度）及びコミュニケーション・スキル）のいずれも、上位目標Overall Goalに掲げる3.60を上回っている。

#### **（5）－ 7. DAC評価5項目に基づく評価結果**

上記の活動内容をDAC評価5項目に基づき評価すると、次のとおりである。

##### ① 妥当性（Relevance）

カンボジアの開発政策では、持続的な成長と繁栄のためにTVETなどによる人的資源開発を重視しており、当プロジェクトとの整合性は高い。また、電気分野への労働需給両面のニーズが高い。

2025年までを対象期間とする3つの基本的な政策として、「Cambodia Industrial Development Policy 2015-2025」（カンボジア産業開発政策2015-2025）、「National Employment Policy 2015-2025」（全国雇用政策2015-2025）及び「National TVET Policy 2017-2025」（全国TVET政策2017-2025）により、産業構造を労働集約型からスキル基盤型へ転換し現代化することを目指して、人材育成に取り組むこととされている。

2019年から2023年にかけては、「Rectangular Strategy Phase 4」（四辺形戦略フェーズ4）及び「National Strategic Development Plan 2019-2023」（国家戦略開発計画 2019-2023）により、人的資源開発が優先分野の一つと位置づけられ、労働職業訓練省は、職業訓練の質の強化、機会の拡充、官民連携（Public Private Partnership）の強化等によりTVETシステムを現代化することとしている。

コロナ禍においても、2020年12月に公表された2021年から2025年のマスタープランにあるように、TVETの質の改善は優先事項と考えられている。

さらには、電気はカンボジアにおける優先分野の一つであって来た。電気分野は用途が広く、近年、電気を専攻する学生は増加している（2017年のディプロマ・コースにかかる専攻科目別入学者数のデータでは、電気科は全体の38.2%を占めており、一番のシェアである（2位は土木科で11%）。また、2019年の電気科ディプロマ・コースの学生数は、2017年と比べ1.27倍となり、増加傾向である）。これらは、電気分野における労働需要の高さに対応した労働供給の高まりと推測される。

##### ② 有効性（Effectiveness）

MLVT及びパイロット職業訓練校は、プロジェクト目標「パイロット校の電気分野のディプロマ・コースの質が強化される」の達成に向けて尽力した。

パイロット校における最終実技試験については、ゼロベースから仕組みを作り上げ、実施し、改善を重ねてきた。プロジェクトはTWGを活用し、パイロット3校の能力向上のために意見を尊重し、結果のみならずプロセスを重視した。

プロジェクト終了時（2021年3月）にカウンターパートと合意したプロジェクト目標の達成度（2020年以降のコロナ禍による休校やデータ取得の困難さのため、2019年度のデータを評価に活用した）



では、下記のとおり、2項目（企業雇用・インターンシップの学生の割合、職業訓練校卒業生・在校生の実践的スキル訓練に関する満足度）は高評価、1項目（最終実技試験の合格率）で中程度となり、満足できる実績を残したと言える。

指標 1. パイロット職業訓練校における電気分野のディプロマ・コースの最終実技試験を受験した学生の80%以上が合格する。（2019年度：74.6%）

指標 2. 企業に雇われているか、インターンシップを通じて企業から仕事を提供された学生の割合が、39%から50%に上昇する。（2019年度：72.3%）

指標 3. パイロット職業訓練校における電気分野のディプロマ・コースの卒業生や在校生への実践的スキル訓練に関する満足度が、5段階評価で3.66から4.00以上に上昇する。（2019年度：4.25）

### ③ 効率性（Efficiency）

JICAの一時的な活動予算の制約により、中心的な活動のいくつかが延期され、活動の遅延をもたらしたが、6か月間の活動期間の延長により、当初の予算に加えて企業からの機材の無償供与等の他の資源も確保して活動を実施した。

2020年以降のコロナ禍は、プロジェクト活動にさらに大きな影響を及ぼした。パイロット職業訓練校3校は数度にわたって休校を余儀なくされ、直接の技術移転を阻害した。再度、活動期間が6か月間延長され、予定されていた予算を踏まえ、積み残しとなっていた活動を完了させることができた。

活動期間があわせて1年間延長されたが、プロジェクト外の理由によるものであり、予定されていた予算に基づきプロジェクト目標を達成できたので、効率性では中程度と評価することができる。

### ④ インパクト（Impact）

コロナ禍からの回復のペースや、カリキュラムの普及、TOTや最終実技試験の継続、官民連携（Public Private Partnership）などを含めたTVETの質の改善に向けた労働職業訓練省の努力次第であるが、上位目標「全国の労働職業訓練省傘下の職業訓練校の電気分野のディプロマ・コースの質が強化される」は達成が期待される。

カンボジア側の精力的な努力により、2020年9月、全国訓練委員会（NTB: National Training Board）による標準訓練パッケージが承認された。これはプロジェクト終了後を予定していたものが前倒して実現したものであり、上位目標達成に向けた兆しと判断できる。開発ドナー支援による初のディプロマレベルの承認であり、TVETの他の分野において標準訓練パッケージを策定する道筋をつけ、大きな波及効果をもたらした。

### ⑤ 持続性（Sustainability）

「インパクト」と同様、持続性については労働職業訓練省の努力によるところが大きい。このうちTOTについては、MLVTが毎年の予算を確保し、カウンターパートが良質な活動を改善し続けること

ができるよう、プロジェクトを通じて、訓練の管理や訓練機材を用いた訓練の質が確保されてきた。また、パイロット職業訓練校は、最終実技試験が学生、指導員、産業界にとって有益であることを認識し、予算を確保して効果的に運営しながら継続する意向を示している。

2020年以降のコロナ禍により、職業訓練を含むコロナ関連以外の政府予算は全般的に大幅な減少を余儀なくされており、予算の配賦も不透明な状況が続いている。しかしながら、「妥当性」で書いたように、そのような状況下においても、2020年12月に公表された2021年から2025年のマスタープランでは、TVETの質の改善が優先事項と考えられている。これに基づき、指導員の育成・配置、指導員の質を担保するためのTOTの実施を含めて、必要な予算を適切に確保する努力がなされており、持続性は高いと考えられる。

PDM指標（上位目標、プロジェクト目標、5つの成果ごと）のプロジェクト終了時の状況（2021年3月のPIG会合において、カウンターパートと達成度を含めて合意したものは、添付資料6のとおりである。以上にみたように、5つの成果のすべての活動の指標（Objectively Verifiable Indicators）の達成度は高評価となっている。

なお、上位目標（当プロジェクトの活動期間は当初2020年3月までの予定であったため、2023年を目指したものとなっている。コロナ禍等を考慮する必要がある）のプロジェクト終了時の達成度をみると、下記のとおり、3項目中、1項目（「使用者の職業訓練校卒業生への満足度」）で高評価となっている。一方、中程度の評価となった2項目のうち、「職業訓練校卒業生の雇用・起業の割合」は、コロナ禍の影響を考慮する必要がある。また、「国家標準カリキュラムを導入する職業訓練校数」については、今後、パイロット3校での定置・発展とともに、労働職業訓練省の熱意、努力とリーダーシップにより、標準カリキュラムのニーズに応じ、リージョナル訓練校5校をはじめとして幅広い全国への展開が期待できる。

指標 1. パイロット職業訓練校における電気分野のディプロマ・コースの卒業生のうち、雇用されているか起業した者の割合が、2015年に84%であったのが、2023年までに95%となる。（2020年度に75.2%となった。ただし、コロナ禍が職業訓練校の卒業生や訓練中の在職者の雇用状況に及ぼす影響が考慮される必要があると考える。）

指標 2. パイロット職業訓練校における電気分野のディプロマ・コースの卒業生の技術スキルについて、使用者の満足度が、5段階評価で、2016年の3.27から2023年までに3.60以上に上昇する。（2020年度に3.69となった。）

指標 3. 国家標準カリキュラムを導入する職業訓練校の数が、2023年までに8以上となる。（プロジェクト終了時点で、パイロット3校で実践的な標準カリキュラムが実施されている。また、内容の一部について、TOTによりリージョナル訓練校5校への普及も行った。2020年9月には、パイロット3校での実践を踏まえた標準カリキュラムが国家承認された。）

## (6) プロジェクトの自立発展性向上のための提言

プロジェクト終了時にカウンターパートへおこなった提言の内容（「産業界のニーズに応える実践的な活動の促進」、「持続性と普及」及び「協調、協働とコミュニケーション」）は、次のとおりである。

### ① 産業界のニーズに応える実践的な活動の促進

- ・ 職業訓練校が輩出する高技能人材への期待は高まっており、これに応えるためには、これまでに産業界、DGTVET、パイロット3校及びJICAで開発した実践的な経験やグッド・プラクティスを十分に活用することが重要である。
- ・ 訓練機材の制約もあって、カンボジアではプロジェクト開始まで、最終試験は理論に関する筆記試験が一般的に実施されていた。プロジェクトを通じて導入され、実施された最終実技試験は、卒業生の技術スキルの質をさらに保証し、指導員が試験の運営能力を高めることに寄与することを証明した。パイロット3校はすべて、プロジェクト後も最終実技試験を継続する意向を示している。プロジェクトは、DGTVETが最終実技試験を一つの良いモデルとして、パイロット3校の指導員を貴重な人材として、カンボジア全土の他の職業訓練校を支援していくことを勧める。
- ・ 職業訓練校と産業界の間を強く結びつけ、産業界を質の高い人材によって強化するために、ジョブフェア、従業員向け技術セミナーなどの多様な就職促進や連携活動が重要かつ有益である。
- ・ TVETの重要性を、産業界に従事する者を含めて広く知らせ、より広く深い関係を築いていくため、積極的な広報活動を継続していくことも重要である。

### ② 持続性と普及

- ・ プロジェクトは、TVETの一層の改善・発展のため、MLVTが引き続き、プロジェクトを通じて強化された人材を含む多様な資源を十分に活用し、積極的かつ実践的なTVET活動を計画し実施することを期待する。
- ・ プロジェクトは、最新の訓練ニーズに基づき、パイロット校での実践的な経験と、全国訓練委員会（National Training Board）が承認した標準訓練パッケージが、必要とされるところで十分に活用されることを期待する。そのため、プロジェクトは、MLVTが予算や必要な資源を確保し、パイロット校を効果的な普及のための資源のひとつとして活用することを勧める。
- ・ TVET活動の持続的な発展のためには、訓練機材・用具とそれを使いこなすことのできる訓練を経た指導員を含め、既に確保されている投入の効果的な活用を考慮することが重要である。
- ・ 職業訓練校の指導員の能力は、うまく学生に教える訓練機材の実践的なスキルを含めて、継続的に向上されていく必要がある。そのためには、知識やスキルが指導員の間で共有

されること、定期的に良く計画されたTOTや指導員のスキルテストなどの促進が考えられる。プロジェクトは、DGTVETが活動を適切に監督し、けん引し、指導員の能力開発のために、彼ら・彼女らを明確なTOT等の活動の計画によって導いていくことを勧める。

- ・ 訓練機材・用具の維持管理は、各訓練校において、日常的な5Sの習慣や、定期的な維持チェックシートによる規則的なチェックによって継続される必要がある。

### ③ 協調、協働とコミュニケーション

- ・ TVETの発展・改善のためには、MLVTの強力なリーダーシップと指導により、官民連携（Public Private Partnership）の考えに基づき、MLVT、職業訓練校、産業界、関係する企業や組織の間のコミュニケーションを促進していくことが引き続き必要とされる。例えば、全国職業訓練の日（National TVET Day）、国内技能競技大会（National Skill Competition）のような全国行事の機会を含めて、MLVTは産業界からの一層のスポンサーを得て、行事や訓練活動の活性化を模索することができる。
- ・ 強化された対話と、当事者間での職業訓練、行事の共催、資源の分担における可能な協働を通じて、開発ドナーによる活動の状況が共有され、協調される必要がある。そのためには、政府・開発ドナー・民間セクター間の協調・協働を向上させることを目指すTWG-TVET、セクター・スキル・カウンスルなど、既存の仕組みを十分に活用することが効果的である。
- ・ プロジェクトのパイロット3校のTWGは、当初から結成され、訓練校間の良好なコミュニケーションや情報共有の面で適切に機能し、カリキュラム開発、テキストブック、シラバス、最終実技試験の実施など、数多くのプロジェクトの実績の原動力となった。このグッド・プラクティスを継続するために、プロジェクトは、TWGを訓練校が協働しTVET活動を改善していくためのプラットフォームとして維持していくことを勧める。
- ・ 主導的な役割を果たす職業訓練校の指導員の間で少人数のワーキング・グループを結成することは、現場の第一線の訓練校におけるTVET活動を効果的に改善する。
- ・ 職業訓練校における企業従業員向け有料技術セミナーは、TVETや産業の状況についての情報交換の機会となり、訓練校・産業界双方の人材の能力強化に寄与するなど、関係者にとって有益である。そのため、プロジェクトは、職業訓練校・産業界の双方を強化するこの活動を、相互理解とより緊密なコミュニケーション、関係者間の協調した計画と実施に基づき、継続することを勧める。

以上と重複もあるが、カウンターパート機関及び指導員には、次の2点についても期待したい。

#### ① プロジェクトで強化されたリソースの有効活用

パイロット訓練校指導員は、プロジェクト活動を通して、訓練機材を使った実習能力も強化されて

おり、企業向けの技術セミナーの講師として活躍した者もいるため、人材リソースとして育成されている。労働職業訓練省が今後展開するであろう、カリキュラムの有効活用・普及に際して、これら指導員をリソースとして地方の訓練校指導員に向けてTOTを実施するなど、十分に活用し、更に能力を向上させ、地方校の指導員の能力改善を図る活動を強化してほしい。

まず、今後ADBのS4Cプロジェクトにより電気分野の訓練機材の購入配布が対象校の一部に対して予定されているため、こちらでのリソースの活用方法を考えてほしい。当プロジェクトでは、(5)-3-①に記載のとおり、開発した訓練機材の仕様、定期的な管理用の訓練機材のリスト等の成果品をADBと共有しており、S4Cプロジェクトでの活用が期待できる。

## ② 戦略的かつ主体的な政策の実行

プロジェクトでは、労働職業訓練省や職業訓練校における持続的な仕組み（指導員訓練、最終実技試験、ジョブフェア、企業従業員向け有料技術セミナー等）の構築に努めた。これらを維持・発展させていくかどうかは、カウンターパートに委ねられている。STPの国内職業訓練校において必要とされる場所への普及についても同様である。また、カウンターパートには、TVET/TWGを活性化し、開発ドナー等との情報共有や連携を進め、「カンボジアのTVETを、開発ドナーの協力を得ながらどのように発展させていくか」が戦略的に検討され、実行されること、政策目標やスケジュール管理を含めて、一層の主体性の発揮を期待する。

## (7) 類似プロジェクト、類似分野への今後の協力実施にあたっての教訓等

### ① プロジェクト事前調査における現地事情の理解の促進

プロジェクト実施前はPDMの構造上、成果1の標準カリキュラムの完成を見越して、それを十分に指導できる指導員の能力強化（成果2）や、非パイロット校へのカリキュラムの普及（成果3）が期待されていた。実際は、カリキュラム開発、標準化が最後まで合意形成・達成に時間がかかった。先行プロジェクトもなく、労働職業訓練省及び対象訓練校との関係性も少ない状態から、パイロット3校の間で標準訓練パッケージ案を作り、労働職業訓練省が最終承認をとるかたちのものを4年半（当初のプロジェクト活動期間）内で作成するというのは相当の時間と手間と根気を要する作業であり、初代の電気専門家の負担が大きかったのは事実である。

先行案件のないゼロベースからのスタートの案件の場合は、事前調査の段階で、PDMの構造も併せて現実的な落としどころがよく検討されるべき（当プロジェクトの場合、例えば、パイロット校における実践的な訓練の定着、標準化を最低限の目標としつつ、はじめに標準訓練パッケージ作成ありきではなく、ボトムアップ方式で現地での活動を通じて改善効果を実感してもらいつつ、最終的に訓練パッケージの標準化に持って行く方が結果的に中央省庁の承認が得られやすくなった。PDMの構造上は、成果2, 3の指導員の能力強化を現場で進めつつ、最後に成果1の標準パッケージ化に持って行ったのが実情である）と思料する。

### ③ PDMの臨機応変、柔軟な対応

事前調査時は、日本側は日本の全日制の感覚で職業訓練校を捉えていたようだが、カンボジアでは逆に夜間で学び、日中は働く学生が多いのが当たり前の認識となっている。この点でも双方の認識のずれ違いが起こっていたようである。実際のところNPICを除く2校は圧倒的に夜間コースの学生が多く、従って就職率という定義も日中フルタイムで働く学生にとっては既に就職済みのため、訓練校側の集計する就職率は高くなる。また、最終試験も訓練機材の不足からか、技術習得のコースであるにもかかわらず、筆記試験のみで合格率も100%に近いこともプロジェクト開始後に判明した。

プロジェクト開始後に簡易に定義や指標を変更できる場合はよいが、そうでない場合もあり得る。事前調査において日本の常識を前提とせず、虚心坦懐に現地の実態の把握に努めることとあわせて、現地での活動が始まって判明する事実も想定されることから、できるだけ臨機応変、柔軟な対応を可能とするかたちでPDMは作成されるべきと考える。

### ③ カウンターパートの理解と信頼を基盤とした、きめ細やかな協働

当プロジェクトのカウンターパートはMLVTと同省傘下の職業訓練校であったが、両者の間のコミュニケーションに改善の余地があることが見受けられた。訓練現場からのボトムアップを基本としつつ、グッド・プラクティスの全国的な普及や学内の普及をはじめ、MLVTや訓練校のトップが大きな活動の方向性を示し実行していくこととの組み合わせが重要と考えられる。

プロジェクトでは、カウンターパートの各関係者の自主性と持続性のため、好事例を示しつつ、信頼し、尊重し、実行させることを基本的な考えとした。例えば、最終実技試験やジョブフェアの導入と実行、改善は、パイロット校が試行錯誤の経験を通じてそのメリットを納得し自信をつけており、プロジェクト終了後も継続されることとなっている。

また、ニーズに即した実践的な訓練機材の開発を指導員とともに進めるプロセスを、技術移転と組み合わせることによって、指導員の理解は深まり、指導能力は効果的に高まったと史料する。

### ④ 組織を超えたヨコの連携

本プロジェクトは労働職業訓練省とパイロット訓練校3校が主なカウンターパートであったが、縦割りとなっており、訓練校同士でのつながりは不足していた。プロジェクトとしてTWGを組織し、機能させることで、情報共有の場ができ、カリキュラム作成やTOT、最終実技試験等の活動について具体的な決定や実施を促すことができた。プロジェクトで内容面の調整をおこないつつ、会場を3校のローテーションとして司会を任せるなど運営面でも工夫をし、参加者の主体性を尊重した。複数のカウンターパートを対象とする場合は、プロジェクトが主体となってヨコの連携を促すための組織づくりとその運用が有効である。

また、「ヨコの連携」という意味では、TVET/TWGの活性化による開発ドナー等のステークホル

ダー間、JICAのみならず日本の現地関係者間の情報共有をさらに進めていくことが、協力対象国における限られた資源の最大限の活用、効果的・効率的な成果の発現のために重要と考える。

#### ⑤ カウンターパートの育成・登用

特にパイロット訓練校3校の指導員は、訓練機材を使用しての実習能力を技術移転や本邦・第三国研修で強化し、その上で企業従業員向けの有料技術セミナーの講師や地方訓練校に対する技術TOTの講師として講義・実習を行ってもらった。

単に学生に教えるだけでなく、他校指導員や企業の技術者を指導することにより、更に指導員の人的交流や企業・他校の現状などの知識も広がり、彼らの教える能力が強化されるものと思われる。プロジェクト専門家による単発の研修や技術移転で終わりではなく、プロジェクトとしてこのような形でカウンターパートを育成・登用していくフローを創ることは、彼らの能力強化に資するのに非常に役に立つと思われる。

#### ⑥ JICA研修の一層効果的な活用

プロジェクト活動期間中、当プロジェクトの関係では、労働職業訓練省の研修員を対象に青年研修（2018年度まで）、課題別研修（技術的なものを含む）が実施された。2020年以降のコロナ禍では大幅なスケジュールの変更等を余儀なくされたが、これらJICA研修は、普段の活動とは異なる環境下で集中して専門的な知識、技術等を得ることのできる有用なツールであり、オンラインの活用を含めて、継続・拡充されていくことが期待される。

改善点として、研修成果をどのように活用するかが参加者の意欲如何となっていることを含めて、研修のPDCAサイクルがカウンターパートにおいて十分に機能していないことが挙げられる。研修後のより積極的な活用（研修参加者のみならず、所属する訓練校、さらには他校との共有など、現地でのフォローアップ）の仕組みを盛り込むことが考えられる。

以 上

## 添付資料 0 : PDM



## Project Design Matrix

**Project Title:** Project for Improving TVET Quality to Meet the Needs of Industries

**Implementing Agency:** Ministry of Labour and Vocational Training (MLVT)

**Target Group (Direct):**

- Directorate General of Technical Vocational Education and Training (DGTVE) of MLVT

- Instructors, staff and students of the higher diploma in electricity of the pilot TVET institutions (National Polytechnic Institute of Cambodia (NPIC), National Technical Training Institute (NTTI), Preah Kossamak Polytechnic Institute (PPI))

- Instructors, staff and trainees of pre-service teacher training course for the higher diploma in electricity at NTTI

**Target Group (Indirect):**

- Instructors and students of non-pilot TVET institutions in the higher diploma in electricity

- Industries

**Period of Project:** Sep.2015 - Mar.2020 (4.5 years)


**Project Site:** Phnom Penh

**Version 1.0**

**Dated: May 11th, 2017**

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
<p><b>Overall Goal</b></p> <p>Quality of training for the higher diploma in electricity in the TVET institutions under MLVT (nation-wide) is strengthened.</p>	<p>1. Percentage of graduates of the higher diploma in electricity of the pilot TVET institutions are employed/self-employed increases from 84% to 95% by 2023.</p> <p>2. Satisfaction rates of employers with the graduates of the higher diploma in electricity of the pilot TVET institutions increases from 3.27 to 3.60 (Out of 5) or higher in technical skills by 2023.</p> <p>3. Number of TVET institutions introducing the national standard curriculum reaches 8 or more by 2023.</p>	<p>1. Employment data of graduates</p> <p>2. Employer satisfaction survey</p> <p>3. MLVT records</p>			
<p><b>Project Purpose</b></p> <p>Quality of training for the higher diploma in electricity in TVET institutions under MLVT (pilot institutions) is strengthened.</p>	<p>1. XX % or more students successfully pass the final examination.</p> <p>2. Percentage of students who were employed or offered a job at companies through the internship is increased from 39% to 50%</p> <p>3. Satisfaction rates of graduates/students with training for the higher diploma increases from 3.66 to 4.00(Out of 5) or higher in practical skills .</p>	<p>1. Results of final examination</p> <p>2. Records of evaluation on internship by host industries/pilot TVET institutes</p> <p>3. Satisfaction survey of graduates (at the time of graduation) and students</p>	<p>1. Industrial needs for technical human resources in electricity do not drastically change. (Applications do not drastically decrease.)</p> <p>2. Socio-economic situation does not drastically deteriorate (Employment situation does not drastically deteriorate.)</p> <p>3. TVET policy and system does not drastically change.</p>		
<p><b>Outputs</b></p> <p><b>Output 1</b></p> <p>Standard Training Package (1) for the higher diploma in electricity is developed.</p>	<p>1-1 Draft Standard Training Package to meet the needs of industries is developed.</p> <p>1-2 Draft Standard Training Package is approved by MLVT</p> <p>1-3 Training for the higher diploma is piloted in the pilot TVET institutions.</p> <p>1-4 Standard Training Package finalized based on the piloting results is approved by MLVT.</p>	<p>1-1 Records of developing Standard Training Package</p> <p>1-2 Approved draft Standard Training Package</p> <p>1-3 M&amp; E reports on piloting</p> <p>1-4 Approved Standard Training Package</p>	<p>1. Substantial number of trained C/P do not transfer/resign.</p> <p>2. Cambodian Qualification Framework (CQF) and other qualification systems do not become irrelevant to the Project contents.</p>		
<p><b>Output 2</b></p> <p>Instructors of the pilot TVET institutions are able to provide training for the higher diploma in electricity based on Standard Training Package.</p>	<p>2-1 Students' degree of understanding reaches XX.</p> <p>2-2 Evaluation by experts on instructors' capacity is improved. (compared to the baseline)</p> <p>2-3 Self-evaluation by instructors reaches 3.0 or more(out of 4)</p>	<p>2-1 Results of lesson evaluation by students</p> <p>2-2 Results of lesson observation</p> <p>2-3 Results of self-evaluation by instructor</p>			
<p><b>Output 3</b></p> <p>Integrate System to disseminate Standard Training Package for the higher diploma in electricity to non-pilot TVET institutions is introduced.</p>	<p>3-1 Technical contents based on Standard Training Package are integrated in the pre-service teacher training (TOT) curriculum at NTTI.</p> <p>3-2 5 of non-pilot TVET institutions providing training for the higher diploma participate in the dissemination seminar on Standard Training Package. 全国展開をするためのモデルづくり</p>	<p>3-1 New curriculum of pre-service teacher training (TOT) at NTTI</p> <p>3-2 Records of dissemination seminar of Standard Training Package</p>			

<p><b>Output 4</b></p> <p>System to maintain and manage training facilities and equipment at the pilot TVET institutions is strengthened.</p>	<p>4-1 Maintenance and management plan (personnel and budgets included) is developed.</p> <p>4-2 Responsible personnel and procedures for requesting updates/repair of facilities and equipment are clearly defined.</p> <p>4-3 Maintenance and management of facilities and equipment is implemented.</p>	<p>4-1 Maintenance and management plan</p> <p>4-2 Documents to define personnel and procedures</p> <p>4-3 Records of maintained and management</p>	<p>1. Substantial number of trained C/P do not transfer/resign.</p> <p>2. Cambodian Qualification Framework (CQF) and other qualificati+E18on systems do not become irrelevant to the Project contents.</p>
<p><b>Output 5</b></p> <p>Partnership between the pilot TVET institutions and industries is strengthened.</p>	<p>5-1 A handbook of employment/self-employment support activities is developed and utilized for implementation(2)</p> <p>5-2 Number of collaborative activities with industries and its number of participating companies are increased. (compared to the baseline 2 times with total 8 companies) (3)</p> <p>5-3 Number of promotion activities is increased. (compared to the baseline as 5 times)(4)</p>	<p>5-1 Handbook of support activities &amp; records of utilization</p> <p>5-2 Records of collaborative activities with industries</p> <p>5-3 Records of promotion activities</p>	

Activities	Inputs		Important Assumption
<p>0-1. Implement a project baseline survey</p> <p>0-2. Monitor the project activities regularly</p>	<p style="text-align: center;"><b>The Japanese Side</b></p>		
<p>1-1. Establish a technical working group for developing Standard Training Package for the higher diploma in electricity (selection of members, defining roles and responsibilities of the members)</p> <p>1-2. Review present curricula and syllabi</p> <p>1-3. Conduct industrial needs survey to develop Standard Training Package</p> <p>1-4. Draft Standard Training Package</p> <p>1-5. Pilot training for the higher diploma in electricity in the pilot TVET institutions based on the draft Standard Training Package.</p> <p>1-6. Finalize Standard Training Package based on pilot results.</p> <p>1-7. Get approval for the finalized Standard Training Package from MLVT</p>	<p><b>1. Experts</b></p> <p>a) Long-term expert: Chief Advisor/Curriculum Development</p> <p>b) Long-term expert: Electricity</p> <p>c) Long-term expert: Project Coordinator/Partnership with industries</p> <p>d) Short-term experts: To be decided</p> <p><b>2. C/P training</b> (in Japan and third countries)</p> <p><b>3. Equipment:</b></p> <p>Equipment for training for the higher diploma in electricity in the pilot TVET institutions</p> <p><b>4. Part of th project implementation expenses</b></p>	<p><b>1. Counterpart personnel</b></p> <p>a) Project Director: Secretary of State, MLVT</p> <p>b) Project Manager: Director General, DGTVET</p> <p>c) Technical C/P: MLVT staff and staff/instructors of the pilot TVET institutions</p> <p><b>2. Facility and equipment</b></p> <p>a) Project office space for Japanese experts</p> <p>b) Office equipment</p> <p><b>3. Running expenses necessary for the project implementation</b></p> <p>a) expenses for piloting of draft Standard Training Package</p> <p>b) expenses for pre-service teacher training (TOT) at NTTI</p> <p>c) maintenance and management of facilities and equipment (procurement, installation, maintenance of necessary facilities and equipment, supplies in the pilot TVET institutions)</p>	<p>Necessary budget for project activities is provided at appropriate timing.</p>
<p>2-1. Assess capacity of instructors of the higher diploma in electricity in the pilot TVET institutions</p> <p>2-2. Develop a capacity development plan for the instructors</p> <p>2-3. Implement capacity development of the instructors (Off-JT &amp; OJT)</p> <p>2-4. Assess improved capacity of the instructors</p>			
<p>[Development of technical aspects of the pre-service teacher training (TOT) in the area of electricity ](5)</p> <p>3-1. Identify technical contents based on Standard Training Package to be incorporated in the TOT curriculum</p> <p>3-2. Develop TOT materials in line with the Standard Training Package</p> <p>3-3. Implement pilot TOT on technical contents</p> <p>3-4. Finalize TOT curriculum and materials based on the pilot results.</p> <p>[Facilitating introduction of Standard Training Package to non-pilot TVET institutions. ](6)</p> <p>3-5 Conduct a dissemination seminar on Standard Training Package</p>			<p style="text-align: center;"><b>Pre-Conditions</b></p> <p>1. NPIC, NTTI, PPI agree to participate as piloting institutions.</p> <div style="text-align: center;">  </div>

<p>4-1. Develop a system to maintain and manage facilities and equipment (personnel (7) and responsibilities)</p> <p>4-2. Review conditions of equipment</p> <p>4-3. Develop inventories and checklists for management of equipment</p> <p>4-4. Develop a plan to maintain and manage facilities and equipment (budget included)</p> <p>4-5. Identify needs for upgrading facilities and equipment based on Standard Training Package</p> <p>4-6. Prepare facilities, procure and install equipment based on the identified needs (8)</p> <p>4-7. Maintain and manage facilities and equipment</p>
<p>[Employment/self-employment support]</p> <p>5-1. Review present situation of employment/self-employment support activities</p> <p>5-2. Establish a system to coordinate with relevant agencies for employment/self-employment support activities (9)</p> <p>5-3. Develop and regularly update database on industries, recruitment, employment of graduates etc.</p> <p>5-4. Establish a system to implement employment/self-employment support activities (2)</p> <p>5-5. Implement employment/self-employment support activities</p> <p>5-6. Establish a system for analyzing employment/self-employment situation and conducting regular tracer studies</p> <p>[Partnership with industries]</p> <p>5-7. Review present status of partnership with industries</p> <p>5-8. Establish a system to implement activities for enhancing partnership with industries (3)</p> <p>5-9. Implement activities for enhancing partnership with industries</p> <p>[Promotion of TVET]</p> <p>5-10. Develop a plan for effective promotion activities(4)</p> <p>5-11. Establish a system for implementing promotion activities</p> <p>5-12. Implement promotion activities</p>

<p>&lt;Issues and countermeasures&gt;</p>
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(1) Standard Training Package consists of Competency Standard (CS), Curriculum, Learning Package (LP) and Assessment Package (AP)). The Project covers core subjects in electricity and will not cover basic subjects such as foreign language and mathematics. However, the contents of subjects such as safety (e.g. safety at workplace), quality control (e.g. 5S/KAIZEN and Total Quality Management (TQM) and entrepreneurship will be incorporated as part of basic

(2) Employment support service activities may include career counseling, job fair, internship, job announcement to students etc.

(3) Collaborative activities with industries may include job fair, internship, training of instructors in industries, lecturers to/from industries, visits to industries+A42.

(4) Promotion activities may include marketing through media (TV, newspaper, radio etc.), Job Fairs, National TVET Day, National Skill Competitions, Career guidance workshop for students. First priority target is industries and TVET students, NOT high schools students and teachers

(5) Targeting technical subjects in electricity/related engineering and excluding pedagogical subjects

(6) Targeting instructors of non-pilot TVET institutions

(7) Instructors of electrical departments planned

(8) Cambodian side is responsible for necessary upgrading of the facilities to install equipment.

(9) Students of TVET institutions are currently registered at NEA. Other activities may include services of career counselors from NEA and collaboration with the Cambodia-Japan Cooperation Center (CJCC).

**Project Design Matrix**

**Version 3.0**  
**Dated: March 11th, 2019**

**Project Title:** Project for Improving TVET Quality to Meet the Needs of Industries

**Implementing Agency:** Ministry of Labour and Vocational Training (MLVT)

**Target Group (Direct):**

- Directorate General of Technical Vocational Education and Training (DGTNET) of MLVT

- Instructors, staff and students of the higher diploma in electricity of the pilot TVET institutions (National Polytechnic Institute of Cambodia (NPIC), National Technical Training Institute (NTTI), Preah Kossamak Polytechnic Institute (PPI))

- Instructors, staff and trainees of pre-service teacher training course for the higher diploma in electricity at NTTI

**Target Group (Indirect):**

- Instructors and students of non-pilot TVET institutions in the higher diploma in electricity


- Industries

**Period of Project:** Sep.2015 - Sep.2020 (5 years)

**Project Site:** Phnom Penh

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
<p><b>Overall Goal</b></p> <p>Quality of training for the higher diploma in electricity in the TVET institutions under MLVT (nation-wide) is strengthened.</p>	<p>1. Percentage of graduates of the higher diploma in electricity of the pilot TVET institutions who are employed/self-employed increases from 84% in 2015 to 95% by 2023.</p> <p>2. Satisfaction rates of employers with the graduates of the higher diploma in electricity of the pilot TVET institutions increases from 3.27 in 2016 to 3.60 (Out of 5) or higher in technical skills by 2023.</p> <p>3. Number of TVET institutions introducing the national standard curriculum reaches 8 or more by 2023</p>	<p>1. Employment data of graduates</p> <p>2. Employer satisfaction survey</p> <p>3. MLVT records</p>			
<p><b>Project Purpose</b></p> <p>Quality of training for the higher diploma in electricity in TVET institutions under MLVT (pilot institutions) is strengthened.</p>	<p>1. 80 % or more participated students successfully pass the final practice examination.</p> <p>2. Percentage of students who were employed or offered a job at companies through the internship is increased from 39% to 50%</p> <p>3. Satisfaction rates of graduates/students with training for the higher diploma in pilot TVET institutions increases from 3.66 to 4.00(Out of 5) or higher in practical skills .</p>	<p>1. Results of final practice examination</p> <p>2. Records of evaluation on internship by host industries/pilot TVET institutes</p> <p>3. Satisfaction survey of graduates (at the time of graduation) and students</p>	<p>1. Industrial needs for technical human resources in electricity do not drastically change. (Applications do not drastically decrease.)</p> <p>2. Socio-economic situation does not drastically deteriorate (Employment situation does not drastically deteriorate.)</p> <p>3. TVET policy and system does not drastically change.</p>		
<p><b>Outputs</b></p> <p><b>Output 1</b></p> <p>Standard Training Package (1) for the higher diploma in electricity is developed.</p>	<p>1-1 Draft Standard Training Package to meet the needs of industries is developed.</p> <p>1-2 Draft Standard Training Package is approved by MLVT</p> <p>1-3 Training for the higher diploma is piloted in the pilot TVET institutions.</p> <p>1-4 Standard Training Package finalized based on the piloting results is approved by MLVT.</p>	<p>1-1 Records of developing Standard Training Package</p> <p>1-2 Approved draft Standard Training Package</p> <p>1-3 M&amp; E reports on piloting</p> <p>1-4 Approved Standard Training Package</p>	<p>1. Substantial number of trained C/P do not transfer/resign.</p> <p>2. Cambodian Qualification Framework (CQF) and other qualification systems do not become irrelevant to the Project contents.</p>		
<p><b>Output 2</b></p> <p>Instructors of the pilot TVET institutions are able to provide training for the higher diploma in electricity based on Standard Training Package.</p>	<p>2-1 Teaching method evaluation by students reaches 4.0 or more (Out of 5)</p> <p>2-2 Evaluation by experts on instructors' capacity reaches 3.0 or more(Out of 4)</p> <p>2-3 Self-evaluation by instructors reaches 3.0 or more(Out of 4)</p>	<p>2-1 Questionnaire results of Final Evaluation by students</p> <p>2-2 Results of lesson observation by instructors</p> <p>2-3 Results of self-evaluation by instructor</p>			
<p><b>Output 3</b></p> <p>Integrated System to disseminate Standard Training Package for the higher diploma in electricity to non-pilot TVET institutions is introduced.</p>	<p>3-1 Technical contents based on Standard Training Package are integrated in the pre-service teacher training (TOT) curriculum at NTTI.</p> <p>3-2 5 of non-pilot TVET institutions providing training for the higher diploma participate in the dissemination seminar on Standard Training Package.</p>	<p>3-1 New curriculum of pre-service teacher training (TOT) at NTTI</p> <p>3-2 Records of dissemination seminar of Standard Training Package</p>			

<p><b>Output 4</b></p> <p>System to maintain and manage training facilities and equipment at the pilot TVET institutions is strengthened.</p>	<p>4-1 Maintenance and management plan (personnel and budgets included) is developed.</p> <p>4-2 Responsible personnel and procedures for requesting updates/repair of facilities and equipment are clearly defined.</p> <p>4-3 Maintenance and management of facilities and equipment is implemented.</p>	<p>4-1 Maintenance and management plan</p> <p>4-2 Documents to define personnel and procedures</p> <p>4-3 Records of maintained and management</p>		<p>1. Substantial number of trained C/P do not transfer/resign.</p> <p>2. Cambodian Qualification Framework (CQF) and other qualificati+E18on systems do not become irrelevant to the Project contents.</p>
<p><b>Output 5</b></p> <p>Partnership between the pilot TVET institutions and industries is strengthened.</p>	<p>5-1 A handbook of employment/self-employment support activities is developed and utilized for implementation(2)</p> <p>5-2 Number of collaborative activities with industries and its number of participating companies are increased. (compared to the baseline 2 times with total 8 companies) (3)</p> <p>5-3 Number of promotion activities is increased. (compared to the baseline as 5 times)(4)</p>	<p>5-1 Handbook of support activities &amp; records of utilization</p> <p>5-2 Records of collaborative activities with industries</p> <p>5-3 Records of promotion activities</p>		

Activities	Inputs		Important Assumption
<p>0-1. Implement a project baseline survey</p> <p>0-2. Monitor the project activities regularly</p>	<p style="text-align: center;"><b>The Japanese Side</b></p>		
<p>1-1. Establish a technical working group for developing Standard Training Package for the higher diploma in electricity (selection of members, defining roles and responsibilities of the members)</p> <p>1-2. Review present curricula and syllabi</p> <p>1-3. Conduct industrial needs survey to develop Standard Training Package</p> <p>1-4. Draft Standard Training Package</p> <p>1-5. Pilot training for the higher diploma in electricity in the pilot TVET institutions based on the draft Standard Training Package.</p> <p>1-6. Finalize Standard Training Package based on pilot results.</p> <p>1-7. Get approval for the finalized Standard Training Package from MLVT</p>	<p><b>1. Experts</b></p> <p>a) Long-term expert: Chief Advisor/Curriculum Development</p> <p>b) Long-term expert: Electricity</p> <p>c) Long-term expert: Project Coordinator/Partnership with industries</p> <p>d) Short-term experts: To be decided</p> <p><b>2. C/P training</b> (in Japan and third countries)</p> <p><b>3. Equipment:</b></p> <p>Equipment for training for the higher diploma in electricity in the pilot TVET institutions</p> <p><b>4. Part of th project implementation expenses</b></p>	<p><b>1. Counterpart personnel</b></p> <p>a) Project Director: Secretary of State, MLVT</p> <p>b) Project Manager: Director General, DGTNET</p> <p>c) Technical C/P: MLVT staff and staff/instructors of the pilot TVET institutions</p> <p><b>2. Facility and equipment</b></p> <p>a) Project office space for Japanese experts</p> <p>b) Office equipment</p> <p><b>3. Running expenses necessary for the project implementation</b></p> <p>a) expenses for piloting of draft Standard Training Package</p> <p>b) expenses for pre-service teacher training (TOT) at NTTI</p> <p>c) maintenance and management of facilities and equipment (procurement, installation, maintenance of necessary facilities and equipment, supplies in the pilot TVET institutions)</p>	<p>Necessary budget for project activities is provided at appropriate timing.</p>
<p>2-1. Assess capacity of instructors of the higher diploma in electricity in the pilot TVET institutions</p> <p>2-2. Develop a capacity development plan for the instructors</p> <p>2-3. Implement capacity development of the instructors (Off-JT &amp; OJT)</p> <p>2-4. Assess improved capacity of the instructors</p>			
<p>[Development of technical aspects of the pre-service teacher training (TOT) in the area of electricity ](5)</p> <p>3-1. Identify technical contents based on Standard Training Package to be incorporated in the TOT curriculum</p> <p>3-2. Develop TOT materials in line with the Standard Training Package</p> <p>3-3. Implement pilot TOT on technical contents</p> <p>3-4. Finalize TOT curriculum and materials based on the pilot results.</p> <p>[Facilitating introduction of Standard Training Package to non-pilot TVET institutions. ](6)</p> <p>3-5 Conduct a dissemination seminar on Standard Training Package</p>			<p style="text-align: center;"><b>Pre-Conditions</b></p> <p>1. NPIC, NTTI, PPI agree to participate as piloting institutions.</p> <div style="text-align: center;">  </div>

<p>4-1. Develop a system to maintain and manage facilities and equipment (personnel (7) and responsibilities)          4-2. Review conditions of equipment          4-3. Develop inventories and checklists for management of equipment          4-4. Develop a plan to maintain and manage facilities and equipment (budget included)          4-5. Identify needs for upgrading facilities and equipment based on Standard Training Package          4-6. Prepare facilities, procure and install equipment based on the identified needs (8)          4-7. Maintain and manage facilities and equipment</p>			<p>&lt;Issues and countermeasures&gt;</p>
<p>[Employment/self-employment support]          5-1. Review present situation of employment/self-employment support activities          5-2. Establish a system to coordinate with relevant agencies for employment/self-employment support activities (9)          5-3. Develop and regularly update database on industries, recruitment, employment of graduates etc.          5-4. Establish a system to implement employment/self-employment support activities (2)          5-5. Implement employment/self-employment support activities          5-6. Establish a system for analyzing employment/self-employment situation and conducting regular tracer studies          [Partnership with industries]          5-7. Review present status of partnership with industries          5-8. Establish a system to implement activities for enhancing partnership with industries (3)          5-9. Implement activities for enhancing partnership with industries          [Promotion of TVET]          5-10. Develop a plan for effective promotion activities(4)          5-11. Establish a system for implementing promotion activities          5-12. Implement promotion activities</p>			

(1) Standard Training Package consists of Competency Standard (CS), Curriculum, Learning Package (LP) and Assessment Package (AP)). The Project covers core subjects in electricity and will not cover basic subjects such as foreign language and mathematics. However, the contents of subjects such as safety (e.g. safety at workplace), quality control (e.g. 5S/KAIZEN and Total Quality Management (TQM) and entrepreneurship will be incorporated as part of basic

(2) Employment support service activities may include career counseling, job fair, internship, job announcement to students etc.

(3) Collaborative activities with industries may include internship, training of instructors in industries, lecturers to/from industries, visits to industries.

(4) Promotion activities may include marketing through media (TV, newspaper, radio etc.), Job Fairs, National TVET Day, National Skill Competitions, Career guidance workshop for students.  
 First priority target is industries and TVET students, NOT high schools students and teachers

(5) Targeting technical subjects in electricity/related engineering and excluding pedagogical subjects

(6) Targeting instructors of non-pilot TVET institutions

(7) Instructors of electrical departments planned

(8) Cambodian side is responsible for necessary upgrading of the facilities to install equipment.

(9) Students of TVET institutions are currently registered at NEA. Other activities may include services of career counselors from NEA and collaboration with the Cambodia-Japan Cooperation Center (CJCC).

**Project Design Matrix**

**Version 4.0**  
**Dated: July 12th, 2020**

**Project Title:** Project for Improving TVET Quality to Meet the Needs of Industries

**Implementing Agency:** Ministry of Labour and Vocational Training (MLVT)

**Target Group (Direct):**

- Directorate General of Technical Vocational Education and Training (DGTNET) of MLVT

- Instructors, staff and students of the higher diploma in electricity of the pilot TVET institutions (National Polytechnic Institute of Cambodia (NPIC), National Technical Training Institute (NTTI), Preah Kossamak Polytechnic Institute (PPI))

- Instructors, staff and trainees of pre-service teacher training course for the higher diploma in electricity at NTTI

**Target Group (Indirect):**

- Instructors and students of non-pilot TVET institutions in the higher diploma in electricity


- Industries

**Period of Project:** Sep.2015 - Mar.2021 (5.5 years)

**Project Site:** Phnom Penh

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
<b>Overall Goal</b> Quality of training for the higher diploma in electricity in the TVET institutions under MLVT (nation-wide) is strengthened.	<ol style="list-style-type: none"> <li>Percentage of graduates of the higher diploma in electricity of the pilot TVET institutions who are employed/self-employed increases from 84% in 2015 to 95% by 2023.</li> <li>Satisfaction rates of employers with the graduates of the higher diploma in electricity of the pilot TVET institutions increases from 3.27 in 2016 to 3.60 (Out of 5) or higher in technical skills by 2023.</li> <li>Number of TVET institutions introducing the national standard curriculum reaches 8 or more by 2023</li> </ol>	<ol style="list-style-type: none"> <li>Employment data of graduates</li> <li>Employer satisfaction survey</li> <li>MLVT records</li> </ol>			
<b>Project Purpose</b> Quality of training for the higher diploma in electricity in TVET institutions under MLVT (pilot institutions) is strengthened.	<ol style="list-style-type: none"> <li>80 % or more participated students successfully pass the final practice examination.</li> <li>Percentage of students who were employed or offered a job at companies through the internship is increased from 39% to 50%</li> <li>Satisfaction rates of graduates/students with training for the higher diploma in pilot TVET institutions increases from 3.66 to 4.00(Out of 5) or higher in practical skills .</li> </ol>	<ol style="list-style-type: none"> <li>Results of final practice examination</li> <li>Records of evaluation on internship by host industries/pilot TVET institutes</li> <li>Satisfaction survey of graduates (at the time of graduation) and students</li> </ol>	<ol style="list-style-type: none"> <li>Industrial needs for technical human resources in electricity do not drastically change. (Applications do not drastically decrease.)</li> <li>Socio-economic situation does not drastically deteriorate (Employment situation does not drastically deteriorate.)</li> <li>TVET policy and system does not drastically change.</li> </ol>		
<b>Outputs</b> <b>Output 1</b> Standard Training Package (1) for the higher diploma in electricity is developed.	<ol style="list-style-type: none"> <li>1-1 Draft Standard Training Package to meet the needs of industries is developed.</li> <li>1-2 Draft Standard Training Package is approved by MLVT</li> <li>1-3 Training for the higher diploma is piloted in the pilot TVET institutions.</li> <li>1-4 Standard Training Package finalized based on the piloting results is approved by MLVT.</li> </ol>	<ol style="list-style-type: none"> <li>1-1 Records of developing Standard Training Package</li> <li>1-2 Approved draft Standard Training Package</li> <li>1-3 M&amp; E reports on piloting</li> <li>1-4 Approved Standard Training Package</li> </ol>	<ol style="list-style-type: none"> <li>Substantial number of trained C/P do not transfer/resign.</li> <li>Cambodian Qualification Framework (CQF) and other qualification systems do not become irrelevant to the Project contents.</li> </ol>		
<b>Output 2</b> Instructors of the pilot TVET institutions are able to provide training for the higher diploma in electricity based on Standard Training Package.	<ol style="list-style-type: none"> <li>2-1 Teaching method evaluation by students reaches 4.0 or more (Out of 5)</li> <li>2-2 Evaluation by experts on instructors' capacity reaches 3.0 or more(Out of 4)</li> <li>2-3 Self-evaluation by instructors reaches 3.0 or more(Out of 4)</li> </ol>	<ol style="list-style-type: none"> <li>2-1 Questionnaire results of Final Evaluation by students</li> <li>2-2 Results of lesson observation by instructors</li> <li>2-3 Results of self-evaluation by instructor</li> </ol>			
<b>Output 3</b> Integrated System to disseminate Standard Training Package for the higher diploma in electricity to non-pilot TVET institutions is introduced.	<ol style="list-style-type: none"> <li>3-1 Technical contents based on Standard Training Package are integrated in the pre-service teacher training (TOT) curriculum at NTTI.</li> <li>3-2 5 of non-pilot TVET institutions providing training for the higher diploma participate in the dissemination seminar on Standard Training Package.</li> </ol>	<ol style="list-style-type: none"> <li>3-1 New curriculum of pre-service teacher training (TOT) at NTTI</li> <li>3-2 Records of dissemination seminar of Standard Training Package</li> </ol>			

<p><b>Output 4</b></p> <p>System to maintain and manage training facilities and equipment at the pilot TVET institutions is strengthened.</p>	<p>4-1 Maintenance and management plan (personnel and budgets included) is developed.</p> <p>4-2 Responsible personnel and procedures for requesting updates/repair of facilities and equipment are clearly defined.</p> <p>4-3 Maintenance and management of facilities and equipment is implemented.</p>	<p>4-1 Maintenance and management plan</p> <p>4-2 Documents to define personnel and procedures</p> <p>4-3 Records of maintained and management</p>		<p>1. Substantial number of trained C/P do not transfer/resign.</p> <p>2. Cambodian Qualification Framework (CQF) and other qualificati+E18on systems do not become irrelevant to the Project contents.</p>
<p><b>Output 5</b></p> <p>Partnership between the pilot TVET institutions and industries is strengthened.</p>	<p>5-1 A handbook of employment/self-employment support activities is developed and utilized for implementation(2)</p> <p>5-2 Number of collaborative activities with industries and its number of participating companies are increased. (compared to the baseline 2 times with total 8 companies) (3)</p> <p>5-3 Number of promotion activities is increased. (compared to the baseline as 5 times)(4)</p>	<p>5-1 Handbook of support activities &amp; records of utilization</p> <p>5-2 Records of collaborative activities with industries</p> <p>5-3 Records of promotion activities</p>		

Activities	Inputs		Important Assumption
<p>0-1. Implement a project baseline survey</p> <p>0-2. Monitor the project activities regularly</p>	<b>The Japanese Side</b>	<b>The Cambodian Side</b>	
<p>1-1. Establish a technical working group for developing Standard Training Package for the higher diploma in electricity (selection of members, defining roles and responsibilities of the members)</p> <p>1-2. Review present curricula and syllabi</p> <p>1-3. Conduct industrial needs survey to develop Standard Training Package</p> <p>1-4. Draft Standard Training Package</p> <p>1-5. Pilot training for the higher diploma in electricity in the pilot TVET institutions based on the draft Standard Training Package.</p> <p>1-6. Finalize Standard Training Package based on pilot results.</p> <p>1-7. Get approval for the finalized Standard Training Package from MLVT</p>	<p><b>1. Experts</b></p> <p>a) Long-term expert: Chief Advisor/Curriculum Development</p> <p>b) Long-term expert: Electricity</p> <p>c) Long-term expert: Project Coordinator/Partnership with industries</p> <p>d) Short-term experts: To be decided</p> <p><b>2. C/P training</b> (in Japan and third countries)</p> <p><b>3. Equipment:</b></p> <p>Equipment for training for the higher diploma in electricity in the pilot TVET institutions</p> <p><b>4. Part of th project implementation expenses</b></p>	<p><b>1. Counterpart personnel</b></p> <p>a) Project Director: Secretary of State, MLVT</p> <p>b) Project Manager: Director General, DGTNET</p> <p>c) Technical C/P: MLVT staff and staff/instructors of the pilot TVET institutions</p> <p><b>2. Facility and equipment</b></p> <p>a) Project office space for Japanese experts</p> <p>b) Office equipment</p> <p><b>3. Running expenses necessary for the project implementation</b></p> <p>a) expenses for piloting of draft Standard Training Package</p> <p>b) expenses for pre-service teacher training (TOT) at NTTI</p> <p>c) maintenance and management of facilities and equipment (procurement, installation, maintenance of necessary facilities and equipment, supplies in the pilot TVET institutions)</p>	<p>Necessary budget for project activities is provided at appropriate timing.</p>
<p>2-1. Assess capacity of instructors of the higher diploma in electricity in the pilot TVET institutions</p> <p>2-2. Develop a capacity development plan for the instructors</p> <p>2-3. Implement capacity development of the instructors (Off-JT &amp; OJT)</p> <p>2-4. Assess improved capacity of the instructors</p>			
<p>[Development of technical aspects of the pre-service teacher training (TOT) in the area of electricity ](5)</p> <p>3-1. Identify technical contents based on Standard Training Package to be incorporated in the TOT curriculum</p> <p>3-2. Develop TOT materials in line with the Standard Training Package</p> <p>3-3. Implement pilot TOT on technical contents</p> <p>3-4. Finalize TOT curriculum and materials based on the pilot results.</p> <p>[Facilitating introduction of Standard Training Package to non-pilot TVET institutions. ](6)</p> <p>3-5 Conduct a dissemination seminar on Standard Training Package</p>			<p style="text-align: center;"><b>Pre-Conditions</b></p> <p>1. NPIC, NTTI, PPI agree to participate as piloting institutions.</p> <div style="text-align: center;">  </div>



<p>4-1. Develop a system to maintain and manage facilities and equipment (personnel (7) and responsibilities)          4-2. Review conditions of equipment          4-3. Develop inventories and checklists for management of equipment          4-4. Develop a plan to maintain and manage facilities and equipment (budget included)          4-5. Identify needs for upgrading facilities and equipment based on Standard Training Package          4-6. Prepare facilities, procure and install equipment based on the identified needs (8)          4-7. Maintain and manage facilities and equipment</p>			<p>&lt;Issues and countermeasures&gt;</p>
<p>[Employment/self-employment support]          5-1. Review present situation of employment/self-employment support activities          5-2. Establish a system to coordinate with relevant agencies for employment/self-employment support activities (9)          5-3. Develop and regularly update database on industries, recruitment, employment of graduates etc.          5-4. Establish a system to implement employment/self-employment support activities (2)          5-5. Implement employment/self-employment support activities          5-6. Establish a system for analyzing employment/self-employment situation and conducting regular tracer studies          [Partnership with industries]          5-7. Review present status of partnership with industries          5-8. Establish a system to implement activities for enhancing partnership with industries (3)          5-9. Implement activities for enhancing partnership with industries          [Promotion of TVET]          5-10. Develop a plan for effective promotion activities(4)          5-11. Establish a system for implementing promotion activities          5-12. Implement promotion activities</p>			

(1) Standard Training Package consists of Competency Standard (CS), Curriculum, Learning Package (LP) and Assessment Package (AP)). The Project covers core subjects in electricity and will not cover basic subjects such as foreign language and mathematics. However, the contents of subjects such as safety (e.g. safety at workplace), quality control (e.g. 5S/KAIZEN and Total Quality Management (TQM) and entrepreneurship will be incorporated as part of basic

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(4) Promotion activities may include marketing through media (TV, newspaper, radio etc.), Job Fairs, National TVET Day, National Skill Competitions, Career guidance workshop for students.  
 First priority target is industries and TVET students, NOT high schools students and teachers

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## 添付資料 1: 専門家派遣実績

## List of Dispatched Project Experts

JICA TVET Project

### <Long-term Expert>

No.	Name	Field	Duration	Place of work before dispatched
1	Mr. OKUMURA Hideki	Chief Advisor	Oct. 1, 2015 - Mar. 31, 2018	Ministry of Health, Labour and Welfare (MHLW)
2	Mr. TATEKABE Yasuro	Electricity	Oct. 31, 2015 - Oct. 30, 2017	Japan Organization for Employment of the Elderly, Persons with Disabilities and Job Seekers (JEED)
3	Ms. SAITO Kinuko	Project Coordinator	Sep. 26, 2015 - Mar. 27, 2021	N/A
4	Mr. MATSUMOTO Yoshitaka	Electricity	Oct. 9, 2017 - Mar. 27, 2021	JEED
5	Mr. YAMADA Koh	Chief Advisor	Jun. 1, 2018 - Mar. 27, 2021	MHLW

### <Short-term Expert>

#### JFY2016

No.	Name	Field	Duration	Place of work
1	Mr. SUZUKI Yuya	Electrical Maintenance	Jan. 10, 2017 - Feb. 3, 2017	JEED
2	Mr. Mohamed Lotfi b. Arifin	Installation of electrical wiring and testing	Jan. 30, 2017 - Feb. 24, 2017	CIAS(TMalaysia)

#### JFY2017

No.	Name	Field	Duration	Place of work
1	Mr. SUZUKI Hirohito	Occupational Safety and Health (KYT)	Apr. 2 - 7, 2017	Japan Industrial Safety and Health Association (JISHA)

#### JFY2018

No.	Name	Field	Duration	Place of work
1	Mr. SUZUKI Hirohito	Occupational Safety and Health (KYT)	Apr. 1 - 7, 2018	JISHA
2	Mr. Suzaini Bin Supingat	AC Motor Control Technology	Oct. 16 - 20, 22, 24 - 26, 2018	CIAS(TMalaysia)

#### JFY2019

No.	Name	Field	Duration	Place of work
1	Mr. Takayoshi Shiota	Electronic circuit design and assembly	Sep. 30, 2019 - Nov. 2, 2019	JEED

## 添付資料 2: 研修員受入れ実績

**List of Counterpart Trainings(Abroad)**

JICA TVET Project

No.	Name	Sex	Dept. Name/Title	Organization Name	Course Title	Period	Fiscal Year	Remarks
1	KHIN Chanta	M	Director, Dept. of Institution Management	MLVT	Enhancement of Vocational Training Management	Jul. 4-13, 2016	JFY2016	Project CP training
2	TEANG Sak	M	Director, Dept. of Curriculum Standard	MLVT				
3	MUONG Phasy	M	Vice President	NPIC				
4	CHHAR Khemarin	M	Deputy Director	NTTI				
5	CHUM Vong Chann	M	Deputy Director	PPI				
6	ORN Pichnarun	M	Lecturer, Faculty of Electricity	NPIC				
7	TEP Sokryth	M	Senior technical instructor, Electrical and Electronic Engineering Dept.	NTTI	Control panel and distributor production and electrical application technology	Oct.11-Nov.11, 2016	JFY2016	Project CP training@JEED
8	ROS Raksa	M	Vice Dean, Faculty of Electricity	PPI				
9	SOVAN Kakada	M	Instructor of Electricity Faculty	NPIC	Electrical Instruments and Measurements & Maintenance of Cubicle type High Voltage Receiving Equipment and Supervisory in Event	Oct.10-Nov.4, 2016	JFY2016	Project CP training@CIAS Malaysia
10	SUM Chanveasna	M	Instructor, Electrical and Electronic Engineering Dept.	NTTI				
11	KHEN Soeurn	M	Instructor, Faculty of Electricity	PPI				
12	SAN Sokna	F	Instructor of Electricity Faculty	NPIC	Electrical diagram and wiring processing	Sept. 5-22, 2017	JFY2017	Project CP training@JEED
13	TANG Heng	M	Instructor of Electricity Faculty	NPIC				
14	YAY Soheat	M	Instructor of Electricity Faculty	NPIC				
15	CHY Vanny	M	Vice Dean of Electricity Faculty	PPI				
16	SOUS Soheat	M	Instructor of Electricity Faculty	NTTI				
17	CHENG Horchhong	M	Dean of Faculty of Electricity	NPIC				
18	ROS Raksa	M	Vice Dean of Electricity Faculty	PPI	Study Tour to Thailand for industry's competency	Jan. 11-13, 2018	JFY2017	Project Study Tour
19	KEM Sam Ath	M	Electrical instructor	NTTI				
20	PRAK Chandararith	M	Staff of Dept. standard and curriculum, DGTVET	MLVT				

**List of Counterpart Trainings(Abroad)**

JICA TVET Project

No.	Name	Sex	Dept. Name/Title	Organization Name	Course Title	Period	Fiscal Year	Remarks
21	LAOV Him	M	Director General of DGTVET	MLVT	Enhancement of Vocational Training Management	Feb. 27- Mar. 10 2018	JFY2017	Project CP training
22	BUN Phearin	M	President	NPIC				
23	YOK Sothy	M	Director	NTTI				
24	TAING Yoeun	M	Deputy Director	PPI				
25	AN Thaysocheat	M	Deputy Director, Dept. of Curriculum Standard	MLVT				
26	MAM Pich	M	Head of Office, Dept. of Curriculum Standard	MLVT				
27	SOM Sothyrythea	M	Instructor of Electricity Faculty	PPI	Pneumatic Control and Maintenance	Feb. 11-23, 2019	JFY2018	Project CP training@JMTI Malaysia
28	IN Sokvan	M	Instructor of Electricity Faculty	NPIC				
29	NAM Sophea	M	Instructor of Electricity Faculty	NPIC				
30	KEO Sothim	M	Instructor of Mechanics Faculty	NPIC				
31	PEAN Bopha	F	Instructor of Electricity Faculty	NTTI				
32	SOM Sothyrythea	M	Instructor of Electricity Faculty	PPI	Quality Control Training @Denso Thailand	Apr. 22-27, 2019	JFY2019	Project's Training to Thailand
33	CHHEM Khemarith	M	Instructor of Electricity Faculty	PPI				
34	Y Menghong	M	Instructor of Electricity Faculty	NPIC				
35	KONG Vong Chhay	M	Instructor of Mechanics Faculty	NPIC				
36	SENG Sotheara	M	Instructor of Electricity Faculty	NTTI				
37	PEAN Bopha	F	Instructor of Electricity Faculty	NTTI				
38	CHOEUNG Chivon	M	Instructor of Electricity Faculty	NPIC				
39	KHEANG Sokeang	M	Instructor of Electricity Faculty	NPIC				
40	KON Sochea	M	Instructor of Electricity Faculty	PPI				
41	MORNH Samnang	M	Instructor of Electricity Faculty	NTTI				

**List of Counterpart Trainings(Abroad)**

No.	Name	Sex	Dept. Name/Title	Organization Name	Course Title	Period	Fiscal Year	Remarks
42	TEP Sokryth	M	Instructor, Electrical and Electronic Engineering Dept.	NTTI	Practical inverter and designing servo system technique	Dec. 9-25, 2019	JFY2019	Project CP training@Fuji Electric
43	YAY Socheat	M	Instructor of Electricity Faculty	NPIC				
44	ANG Sovann	M	Instructor of Electricity Faculty	NPIC				
45	CHRIN Chiva	M	Instructor of Electronics Faculty	PPI				
46	CHEN Horchhong	M	Dean, Faculty of Electricity	NPIC	Enhancement of Training Management in Vocational Training Institute	Jun.20-Jul.22, 2016	JFY2016	JICA Group Training
47	KEM Sam Ath	M	Senior technical instructor, Electrical and Electronic Engineering Dept.	NTTI				
48	KIT Sopheap	M	Deputy Chief Office, DLMI	MLVT	Vocational Training Course for Young Leaders	Sep. 26-Oct. 13, 2016	JFY2016	JICA Group Training
49	SAR Kheam	M	Vice Chief of Information Training Office, DT	MLVT				
50	HANG Bochita	F	Official of Scholarship and Relation Office, DIM	MLVT				
51	KIM Vandy	M	Administrative Officer, DSC, DGTVET	MLVT				
52	YI Sinoeun	M	Administrative Officer, DSC, DGTVET	MLVT				
53	CHHON Reth	M	Vice Chief of Information Training Office	RPITS Battambang				
54	CHENG Youra	M	Technical Instructor, Department of Foreign Languages	RPITS Takeo				
55	SOM Charkya	M	Teacher	RPITS Svay Rieng				
56	REN Sarith	M	Lecturer, Electrical and Electronic Department	RPITS Siem Reap				
57	SAM Saing	M	Technical Lecturer	RPITS Kampot				
58	DUONG Chanthea	F	Instructor, Director Job Center	NTTI	Enhancement of Training Management in Vocational Training Institute	Jun.13-Jul.22, 2017	JFY2017	JICA Group Training
59	KHIEV Kongchanveasna	M	Staff of Competency base standard and curriculum office, DSC, DGTVET	MLVT	Industrial Technology Education	Oct. 17-Nov.25, 2017	JFY2017	JICA Group Training

**List of Counterpart Trainings(Abroad)**

JICA TVET Project

No.	Name	Sex	Dept. Name/Title	Organization Name	Course Title	Period	Fiscal Year	Remarks
60	OUNG Youthvitu	M	Head of Reserch Office	NTTI	Vocational Training Course for Young Leaders	Sept. 11-28, 2017	JFY2017	JICA Group Training
61	TEP Senghorn	M	Vice chief of office, DLMI, DGTVET	MLVT				
62	SOK Sochan	M	Official of DLMI, DGTVET	MLVT				
63	TEAV Saroeung	F	Administrative Officer, Dept. of Standard and Curriculum, DGTVET	MLVT				
64	SOU Khemarin	M	Deputy Director, DQA, DGTVET	MLVT				
65	OUK Sam Sovathya	M	Chief of office, DSP, DGTVET	MLVT				
66	ROS Chantha	M	Chief of Examination office, DT, DGTVET	MLVT				
67	PHOUN Phoury	F	Chief of soft skill office, DSC, DGTVET	MLVT				
68	SORN Khon	M	Chief of office, DIM, DGTVET	MLVT				
69	MAO Khunthea	M	Chief of Finance and Planning office	RPITS Battambang				
70	CHAN Pheakdey	M	Deputy Director of DIM, DGTVET	MLVT	Administration in Human Resources Development through TVET	Nov. 12-Dec. 09, 2017	JFY2017	JICA Group Training
71	CHHIM Phan Sochetra	M	Vice head of Administraion office	PPI	Enhancement of Training Management in Vocational Training Institute (A)	Jun.17-Jul.28, 2018	JFY2018	JICA Group Training
72	KEM Pisoth	M	Deputy Director of DIM, DGTVET	MLVT	Administration in Human Resources Development through TVET	Oct.29-Nov.23, 2018	JFY2018	JICA Group Training
73	KHAT Sokha	M	Officer of Competency Assessment office, DSC, DGTVET	MLVT	Industrial Technology Education	Oct. 11-Nov.23, 2018	JFY2018	JICA Group Training
74	TEANG Soksann	M	Vice Head of Office, DSC, DGTVET	MLVT	Vocational Training Course for Young Leaders	Nov. 4-17, 2018	JFY2018	JICA Group Training
75	NOP Dim	M	Administrative Officer, DSC, DGTVET	MLVT				
76	SREU Narin	F	Officer, DIM, DGTVET	MLVT				
77	PHENG Kruy	M	Vice head of Administraion office, DT, DGTVET	MLVT				
78	NAM Mengsorn	M	Vice head of office, DLMI	MLVT				



**List of Counterpart Trainings(Abroad)**

JICA TVET Project

No.	Name	Sex	Dept. Name/Title	Organization Name	Course Title	Period	Fiscal Year	Remarks
79	NGUON Phunpisey	M	Head of office, DLMI	MLVT	Vocational Training Course for Young Leaders	Nov. 4-17, 2018	JFY2018	JICA Group Training
80	VAN Chamroeun	M	Head of Accreditation office, DQA	MLVT				
81	SRUN Chanvatey	M	Head of office, DPS	MLVT				
82	VATH Uksa	M	Head of Curriculum Development Office	NTTI				
83	CHAN Kakada	F	Vice head of administration and finance office	RPITS Battambang				
84	KEANG Rachany	F	Instructor of Civil Engineering Faculty	NPIC	Enhancement of Training Management in Vocational Training Institute (A) J19-04302	Jun. 20-Jul.27, 2019	JFY2019	JICA Group Training
85	SOM Sothyrythea	M	Instructor of Electricity Faculty	PPI	Practical HRD in Electricity and Electronics Engineering-Aiming at Elimination of Technology Gap between Education-Field Site	Aug.11-Oct.11, 2019	JFY2019	JICA Group Training
86	Mr. Y Meng Hong	M	Instructor of Electricity Faculty	NPIC	Free training of Factory Maintenance Course-Electric Relay & Programming-Basic Level	Aug.19-23, 2019	JFY2019	<b>Hosted by AOTS through JBAC (Free of charge)</b>
87	Ms. Pean Bopha	F	Instructor of Electricity Faculty	NTTI				
88	Mr. Yin Ratha	M	Instructor of Electricity Faculty	PPI				
89	HIEK Sopheak	M	Officer, DQA	DGTVET, MLVT	Industrial Technology Education	Oct.10, - Nov. 22, 2019	JFY2019	JICA Group Training
90	YOK Daravin	M	Chief of Admin Office, DSC	DGTVET, MLVT	Human Resources Development Administration	Nov. 4-30, 2019	JFY2019	JICA Group Training
91	BOU Samath	M	Director of Preah Sihanouk Cambodia-China Friendship Polytechnic Institute (PCCFPI)	PCCFPI	Enhancement of Training Management in Vocational Training Institutions	Jan. 11 - 22, Apr. 11 - May 1 (scheduled), 2021	JFY2020	JICA Group Training
92	Mr. VEUNG Naron	M	Senior technical teacher of English language	PPI	Industrial Technology Education	Feb. 15 - 26, 2021	JFY2020	JICA Group Training
93	Mr.CHREA Sesokunthearith	M	Deputy head of Division of Human Resource Development and International Relation	NTTI	Human Resources Development Administration	Feb. 8 - 19, Jun. 20 - Jun. 6 (scheduled), 2021	JFY2020	JICA Group Training

## 添付資料 3：供与・讓渡機材実績

# Technical Equipment Provision List

## Overall

	<b>Equipment</b>	<b>Amount (USD)</b>	<b>NPIC</b>	<b>PPI</b>	<b>NTTI</b>	<b>Seminar</b>	<b>RPITSB</b>	<b>Total</b>	<b>Remarks</b>
1	Air Conditioner	\$843.23	3						
2	AD/DA Conveter	\$50.04	24	24	24			72	Non-registered
3	Bolt Slider	\$230.00	3	3	3			9	Non-registered
4	DC Power Supply	\$196.00	17	17	17			51	Non-registered
5	Digital Insultion Continuity testers	\$447.77	1	1	1			3	Non-registered
6	Digital Oscilloscope	\$821.00	11	11	11			33	
7	Earth Tester	\$291.00	1	1	1			3	Non-registered
8	Function Generator	\$1,028.00	11	11	11			33	
9	Label marker	\$165.00	1	1	1			3	Non-registered
10	Power High Tester	\$1,450.00	3	3	3			9	
11	Power Quality Analyzer	\$2,870.00	2	2	2			6	
12	Torque driver SET	\$448.00	1	1	1			3	Non-registered
13	Transformer	\$850.00	1	1	1	1		4	
14	Camera for Projector	\$600.00	3	3	3			9	
15	PLC(FUJI Electric)	\$451.42	16	16	16	2	3	50	
16	PLC_40 I/O	\$997.00	24	24	24	2		74	
17	Touch panel (HMI)	\$360.00	13	13	13			39	Non-registered
18	AC Servo training board	\$2,833.42	4	4	4			12	
19	Control board assembly panel	\$898.00	11	11	11			33	
20	Conveyor equipment	\$1,042.00	24	24	24	3		75	

## Overall

	<b>Equipment</b>	<b>Amount (USD)</b>	<b>NPIC</b>	<b>PPI</b>	<b>NTTI</b>	<b>Seminar</b>	<b>RPITSB</b>	<b>Total</b>	<b>Remarks</b>
21	Induction Motor experiment board	\$12,260.00	1	1	1			3	
22	Inverter Training Board	\$682.98	16	16	16	2		50	
23	Motor Control Board	\$760.45	30	30	30	2		92	
24	Motor for Star Delta	\$392.20	16	16	16	2		50	
25	Motor Testing Board	\$850.00	16	16	16	2		50	
26	PLC control panel	\$1,283.00	24	24	24			72	
27	Pneumatic training board	\$2,500.00	7	7	7			21	
28	Sensor training board	\$1,135.00	7	7	7			21	
29	Sequence Training Board	\$515.71	29	29	29	2	11	89	
30	Star Delta Staring Training Board	\$762.45	16	16	16	2		50	
31	Temperature Control Board	\$845.48	3	3	3			9	
32	Water supply and drainage pump system	\$1,000.00	2	2	2			6	
	<b>総計</b>		<b>341</b>	<b>338</b>	<b>338</b>				

## NPIC

<b>Serial No</b>	<b>Equipment Name</b>	<b>Model</b>	<b>Amount (USD)</b>	<b>Date of Granting</b>	<b>Storage Location</b>	<b>Usable (○ or x)</b>
01-1-01-001	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-002	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-003	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-004	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-005	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-006	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-007	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-008	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-009	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-010	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-011	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-012	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-013	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-014	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-015	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-016	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-017	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-018	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-019	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-020	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-021	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-022	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-023	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-024	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-025	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-026	Sequence Training Board	custom-made	US\$515.71	21/12/17	NPIC	○
01-1-01-027	Sequence Training Board	custom-made	US\$515.71	30/08/19	NPIC	○
01-1-01-028	Sequence Training Board	custom-made	US\$515.71	30/08/19	NPIC	○
01-1-01-029	Sequence Training Board	custom-made	US\$515.71	30/08/19	NPIC	○
01-1-02-001	PLC(FUJI Electric)	NA0P24T-31C	US\$451.42	21/12/17	NPIC	○

## NPIC

<b>Serial No</b>	<b>Equipment Name</b>	<b>Model</b>	<b>Amount (USD)</b>	<b>Date of Granting</b>	<b>Storage Location</b>	<b>Usable (○ or x)</b>
01-1-02-002	PLC(FUJI Electric)	NAOP24T-31C	US\$451.42	21/12/17	NPIC	○
01-1-02-003	PLC(FUJI Electric)	NAOP24T-31C	US\$451.42	21/12/17	NPIC	○
01-1-02-004	PLC(FUJI Electric)	NAOP24T-31C	US\$451.42	21/12/17	NPIC	○
01-1-02-005	PLC(FUJI Electric)	NAOP24T-31C	US\$451.42	21/12/17	NPIC	○
01-1-02-006	PLC(FUJI Electric)	NAOP24T-31C	US\$451.42	21/12/17	NPIC	○
01-1-02-007	PLC(FUJI Electric)	NAOP24T-31C	US\$451.42	21/12/17	NPIC	○
01-1-02-008	PLC(FUJI Electric)	NAOP24T-31C	US\$451.42	21/12/17	NPIC	○
01-1-02-009	PLC(FUJI Electric)	NAOP24T-31C	US\$451.42	21/12/17	NPIC	○
01-1-02-010	PLC(FUJI Electric)	NAOP24T-31C	US\$451.42	21/12/17	NPIC	○
01-1-02-011	PLC(FUJI Electric)	NAOP24T-31C	US\$451.42	21/12/17	NPIC	○
01-1-02-012	PLC(FUJI Electric)	NAOP24T-31C	US\$451.42	21/12/17	NPIC	○
01-1-02-013	PLC(FUJI Electric)	NAOP24T-31C	US\$451.42	21/12/17	NPIC	○
01-1-02-014	PLC(FUJI Electric)	NAOP24T-31C	US\$451.42	30/08/19	NPIC	○
01-1-02-015	PLC(FUJI Electric)	NAOP24T-31C	US\$451.42	30/08/19	NPIC	○
01-1-02-016	PLC(FUJI Electric)	NAOP24T-31C	US\$451.42	30/08/19	NPIC	○
01-1-03-001	Star Delta Staring Training Board	custom-made	US\$762.45	21/12/17	NPIC	○
01-1-03-002	Star Delta Staring Training Board	custom-made	US\$762.45	21/12/17	NPIC	○
01-1-03-003	Star Delta Staring Training Board	custom-made	US\$762.45	21/12/17	NPIC	○
01-1-03-004	Star Delta Staring Training Board	custom-made	US\$762.45	21/12/17	NPIC	○
01-1-03-005	Star Delta Staring Training Board	custom-made	US\$762.45	21/12/17	NPIC	○
01-1-03-006	Star Delta Staring Training Board	custom-made	US\$762.45	21/12/17	NPIC	○
01-1-03-007	Star Delta Staring Training Board	custom-made	US\$762.45	21/12/17	NPIC	○
01-1-03-008	Star Delta Staring Training Board	custom-made	US\$762.45	21/12/17	NPIC	○
01-1-03-009	Star Delta Staring Training Board	custom-made	US\$762.45	21/12/17	NPIC	○
01-1-03-010	Star Delta Staring Training Board	custom-made	US\$762.45	21/12/17	NPIC	○
01-1-03-011	Star Delta Staring Training Board	custom-made	US\$762.45	21/12/17	NPIC	○
01-1-03-012	Star Delta Staring Training Board	custom-made	US\$762.45	21/12/17	NPIC	○
01-1-03-013	Star Delta Staring Training Board	custom-made	US\$762.45	21/12/17	NPIC	○
01-1-03-014	Star Delta Staring Training Board	custom-made	US\$762.45	30/08/19	NPIC	○
01-1-03-015	Star Delta Staring Training Board	custom-made	US\$762.45	30/08/19	NPIC	○
01-1-03-016	Star Delta Staring Training Board	custom-made	US\$762.45	30/08/19	NPIC	○
01-1-04-001	Motor Control Board	custom-made	US\$760.45	21/12/17	NPIC	○

## NPIC

<b>Serial No</b>	<b>Equipment Name</b>	<b>Model</b>	<b>Amount (USD)</b>	<b>Date of Granting</b>	<b>Storage Location</b>	<b>Usable (○ or x)</b>
01-1-04-002	Motor Control Board	custom-made	US\$760.45	21/12/17	NPIC	○
01-1-04-003	Motor Control Board	custom-made	US\$760.45	21/12/17	NPIC	○
01-1-04-004	Motor Control Board	custom-made	US\$760.45	21/12/17	NPIC	○
01-1-04-005	Motor Control Board	custom-made	US\$760.45	21/12/17	NPIC	○
01-1-04-006	Motor Control Board	custom-made	US\$760.45	21/12/17	NPIC	○
01-1-04-007	Motor Control Board	custom-made	US\$760.45	21/12/17	NPIC	○
01-1-04-008	Motor Control Board	custom-made	US\$760.45	21/12/17	NPIC	○
01-1-04-009	Motor Control Board	custom-made	US\$760.45	21/12/17	NPIC	○
01-1-04-010	Motor Control Board	custom-made	US\$760.45	21/12/17	NPIC	○
01-1-04-011	Motor Control Board	custom-made	US\$760.45	21/12/17	NPIC	○
01-1-04-012	Motor Control Board	custom-made	US\$760.45	21/12/17	NPIC	○
01-1-04-013	Motor Control Board	custom-made	US\$760.45	21/12/17	NPIC	○
01-1-04-014	Motor Control Board	custom-made	US\$760.45	30/08/19	NPIC	○
01-1-04-015	Motor Control Board	custom-made	US\$760.45	30/08/19	NPIC	○
01-1-04-016	Motor Control Board	custom-made	US\$760.45	30/08/19	NPIC	○
01-1-04-017	Motor Control Board	custom-made	US\$761.45	17/06/2020	NPIC	○
01-1-04-018	Motor Control Board	custom-made	US\$762.45	17/06/2020	NPIC	○
01-1-04-019	Motor Control Board	custom-made	US\$763.45	17/06/2020	NPIC	○
01-1-04-020	Motor Control Board	custom-made	US\$764.45	17/06/2020	NPIC	○
01-1-04-021	Motor Control Board	custom-made	US\$765.45	17/06/2020	NPIC	○
01-1-04-022	Motor Control Board	custom-made	US\$766.45	17/06/2020	NPIC	○
01-1-04-023	Motor Control Board	custom-made	US\$767.45	17/06/2020	NPIC	○
01-1-04-024	Motor Control Board	custom-made	US\$768.45	17/06/2020	NPIC	○
01-1-04-025	Motor Control Board	custom-made	US\$769.45	17/06/2020	NPIC	○
01-1-04-026	Motor Control Board	custom-made	US\$770.45	17/06/2020	NPIC	○
01-1-04-027	Motor Control Board	custom-made	US\$771.45	17/06/2020	NPIC	○
01-1-04-028	Motor Control Board	custom-made	US\$772.45	17/06/2020	NPIC	○
01-1-04-029	Motor Control Board	custom-made	US\$773.45	17/06/2020	NPIC	○
01-1-04-030	Motor Control Board	custom-made	US\$774.45	17/06/2020	NPIC	○
01-1-05-001	Inverter Training Board	custom-made	US\$682.98	21/12/17	NPIC	○
01-1-05-002	Inverter Training Board	custom-made	US\$682.98	21/12/17	NPIC	○
01-1-05-003	Inverter Training Board	custom-made	US\$682.98	21/12/17	NPIC	○



## NPIC

<b>Serial No</b>	<b>Equipment Name</b>	<b>Model</b>	<b>Amount (USD)</b>	<b>Date of Granting</b>	<b>Storage Location</b>	<b>Usable (○ or x)</b>
01-1-05-004	Inverter Training Board	custom-made	US\$682.98	21/12/17	NPIC	○
01-1-05-005	Inverter Training Board	custom-made	US\$682.98	21/12/17	NPIC	○
01-1-05-006	Inverter Training Board	custom-made	US\$682.98	21/12/17	NPIC	○
01-1-05-007	Inverter Training Board	custom-made	US\$682.98	21/12/17	NPIC	○
01-1-05-008	Inverter Training Board	custom-made	US\$682.98	21/12/17	NPIC	○
01-1-05-009	Inverter Training Board	custom-made	US\$682.98	21/12/17	NPIC	○
01-1-05-010	Inverter Training Board	custom-made	US\$682.98	21/12/17	NPIC	○
01-1-05-011	Inverter Training Board	custom-made	US\$682.98	21/12/17	NPIC	○
01-1-05-012	Inverter Training Board	custom-made	US\$682.98	21/12/17	NPIC	○
01-1-05-013	Inverter Training Board	custom-made	US\$682.98	21/12/17	NPIC	○
01-1-05-014	Inverter Training Board	custom-made	US\$682.98	30/08/19	NPIC	○
01-1-05-015	Inverter Training Board	custom-made	US\$682.98	30/08/19	NPIC	○
01-1-05-016	Inverter Training Board	custom-made	US\$682.98	30/08/19	NPIC	○
01-1-06-001	Motor for Star Delta	custom-made	US\$392.20	21/12/17	NPIC	○
01-1-06-002	Motor for Star Delta	custom-made	US\$392.20	21/12/17	NPIC	○
01-1-06-003	Motor for Star Delta	custom-made	US\$392.20	21/12/17	NPIC	○
01-1-06-004	Motor for Star Delta	custom-made	US\$392.20	21/12/17	NPIC	○
01-1-06-005	Motor for Star Delta	custom-made	US\$392.20	21/12/17	NPIC	○
01-1-06-006	Motor for Star Delta	custom-made	US\$392.20	21/12/17	NPIC	○
01-1-06-007	Motor for Star Delta	custom-made	US\$392.20	21/12/17	NPIC	○
01-1-06-008	Motor for Star Delta	custom-made	US\$392.20	21/12/17	NPIC	○
01-1-06-009	Motor for Star Delta	custom-made	US\$392.20	21/12/17	NPIC	○
01-1-06-010	Motor for Star Delta	custom-made	US\$392.20	21/12/17	NPIC	○
01-1-06-011	Motor for Star Delta	custom-made	US\$392.20	21/12/17	NPIC	○
01-1-06-012	Motor for Star Delta	custom-made	US\$392.20	21/12/17	NPIC	○
01-1-06-013	Motor for Star Delta	custom-made	US\$392.20	21/12/17	NPIC	○
01-1-06-014	Motor for Star Delta	custom-made	US\$392.20	30/08/19	NPIC	○
01-1-06-015	Motor for Star Delta	custom-made	US\$392.20	30/08/19	NPIC	○
01-1-06-016	Motor for Star Delta	custom-made	US\$392.20	30/08/19	NPIC	○
01-1-07-001	Motor Testing Board	custom-made	US\$850.00	21/12/17	NPIC	○
01-1-07-002	Motor Testing Board	custom-made	US\$850.00	21/12/17	NPIC	○
01-1-07-003	Motor Testing Board	custom-made	US\$850.00	21/12/17	NPIC	○

## NPIC

Serial No	Equipment Name	Model	Amount (USD)	Date of Granting	Storage Location	Usable (○ or x)
01-1-07-004	Motor Testing Board	custom-made	US\$850.00	21/12/17	NPIC	○
01-1-07-005	Motor Testing Board	custom-made	US\$850.00	21/12/17	NPIC	○
01-1-07-006	Motor Testing Board	custom-made	US\$850.00	21/12/17	NPIC	○
01-1-07-007	Motor Testing Board	custom-made	US\$850.00	21/12/17	NPIC	○
01-1-07-008	Motor Testing Board	custom-made	US\$850.00	21/12/17	NPIC	○
01-1-07-009	Motor Testing Board	custom-made	US\$850.00	21/12/17	NPIC	○
01-1-07-010	Motor Testing Board	custom-made	US\$850.00	21/12/17	NPIC	○
01-1-07-011	Motor Testing Board	custom-made	US\$850.00	21/12/17	NPIC	○
01-1-07-012	Motor Testing Board	custom-made	US\$850.00	21/12/17	NPIC	○
01-1-07-013	Motor Testing Board	custom-made	US\$850.00	21/12/17	NPIC	○
01-1-07-014	Motor Testing Board	custom-made	US\$850.00	30/08/19	NPIC	○
01-1-07-015	Motor Testing Board	custom-made	US\$850.00	30/08/19	NPIC	○
01-1-07-016	Motor Testing Board	custom-made	US\$850.00	30/08/19	NPIC	○
01-1-08-001	Transformer	custom-made	US\$850.00	21/12/17	NPIC	○
01-1-51-001	Air Conditioner	Mitsubishi Inverter (R410A)	US\$843.23	2016/1/30	NPIC	○
01-1-51-002	Air Conditioner	Mitsubishi Inverter (R410A)	US\$844.23	2016/1/31	NPIC	○
01-1-51-003	Air Conditioner	Mitsubishi Inverter (R410A)	US\$845.23	2016/1/31	NPIC	○
01-1-09-001	Pneumatic training board	custom-made	US\$2,500.00	06/02/19	NPIC	○
01-1-09-002	Pneumatic training board	custom-made	US\$2,500.00	06/02/19	NPIC	○
01-1-09-003	Pneumatic training board	custom-made	US\$2,500.00	06/02/19	NPIC	○
01-1-09-004	Pneumatic training board	custom-made	US\$2,500.00	06/02/19	NPIC	○
01-1-09-005	Pneumatic training board	custom-made	US\$2,500.00	06/02/19	NPIC	○
01-1-09-006	Pneumatic training board	custom-made	US\$2,500.00	06/02/19	NPIC	○
01-1-09-007	Pneumatic training board	custom-made	US\$2,500.00	06/02/19	NPIC	○
01-1-10-001	Conveyor equipment	custom-made	US\$1,042.00	27/03/19	NPIC	○
01-1-10-002	Conveyor equipment	custom-made	US\$1,042.00	27/03/19	NPIC	○
01-1-10-003	Conveyor equipment	custom-made	US\$1,042.00	27/03/19	NPIC	○
01-1-10-004	Conveyor equipment	custom-made	US\$1,042.00	27/03/19	NPIC	○
01-1-10-005	Conveyor equipment	custom-made	US\$1,042.00	27/03/19	NPIC	○
01-1-10-006	Conveyor equipment	custom-made	US\$1,042.00	27/03/19	NPIC	○
01-1-10-007	Conveyor equipment	custom-made	US\$1,042.00	27/03/19	NPIC	○
01-1-10-008	Conveyor equipment	custom-made	US\$1,042.00	27/03/19	NPIC	○

## NPIC

<b>Serial No</b>	<b>Equipment Name</b>	<b>Model</b>	<b>Amount (USD)</b>	<b>Date of Granting</b>	<b>Storage Location</b>	<b>Usable (○ or x)</b>
01-1-10-009	Conveyor equipment	custom-made	US\$1,042.00	27/03/19	NPIC	○
01-1-10-010	Conveyor equipment	custom-made	US\$1,042.00	27/03/19	NPIC	○
01-1-10-011	Conveyor equipment	custom-made	US\$1,042.00	27/03/19	NPIC	○
01-1-10-012	Conveyor equipment	custom-made	US\$1,042.00	27/03/19	NPIC	○
01-1-10-013	Conveyor equipment	custom-made	US\$1,042.00	27/03/19	NPIC	○
01-1-10-014	Conveyor equipment	custom-made	US\$1,042.00	27/03/19	NPIC	○
01-1-10-015	Conveyor equipment	custom-made	US\$1,042.00	27/03/19	NPIC	○
01-1-10-016	Conveyor equipment	custom-made	US\$1,042.00	27/03/19	NPIC	○
01-1-10-017	Conveyor equipment	custom-made	US\$1,042.00	17/06/2020	NPIC	○
01-1-10-018	Conveyor equipment	custom-made	US\$1,042.00	17/06/2020	NPIC	○
01-1-10-019	Conveyor equipment	custom-made	US\$1,042.00	17/06/2020	NPIC	○
01-1-10-020	Conveyor equipment	custom-made	US\$1,042.00	17/06/2020	NPIC	○
01-1-10-021	Conveyor equipment	custom-made	US\$1,042.00	17/06/2020	NPIC	○
01-1-10-022	Conveyor equipment	custom-made	US\$1,042.00	17/06/2020	NPIC	○
01-1-10-023	Conveyor equipment	custom-made	US\$1,042.00	17/06/2020	NPIC	○
01-1-10-024	Conveyor equipment	custom-made	US\$1,042.00	17/06/2020	NPIC	○
01-1-11-001	PLC_40 I/O	custom-made	US\$997.00	27/03/2019	NPIC	○
01-1-11-002	PLC_40 I/O	custom-made	US\$997.00	27/03/2019	NPIC	○
01-1-11-003	PLC_40 I/O	custom-made	US\$997.00	27/03/2019	NPIC	○
01-1-11-004	PLC_40 I/O	custom-made	US\$997.00	27/03/2019	NPIC	○
01-1-11-005	PLC_40 I/O	custom-made	US\$997.00	27/03/2019	NPIC	○
01-1-11-006	PLC_40 I/O	custom-made	US\$997.00	27/03/2019	NPIC	○
01-1-11-007	PLC_40 I/O	custom-made	US\$997.00	27/03/2019	NPIC	○
01-1-11-008	PLC_40 I/O	custom-made	US\$997.00	27/03/2019	NPIC	○
01-1-11-009	PLC_40 I/O	custom-made	US\$997.00	27/03/2019	NPIC	○
01-1-11-010	PLC_40 I/O	custom-made	US\$997.00	27/03/2019	NPIC	○
01-1-11-011	PLC_40 I/O	custom-made	US\$997.00	27/03/2019	NPIC	○
01-1-11-012	PLC_40 I/O	custom-made	US\$997.00	27/03/2019	NPIC	○
01-1-11-013	PLC_40 I/O	custom-made	US\$997.00	27/03/2019	NPIC	○
01-1-11-014	PLC_40 I/O	custom-made	US\$997.00	27/03/2019	NPIC	○
01-1-11-015	PLC_40 I/O	custom-made	US\$997.00	27/03/2019	NPIC	○
01-1-11-016	PLC_40 I/O	custom-made	US\$997.00	27/03/19	NPIC	○

## NPIC

<b>Serial No</b>	<b>Equipment Name</b>	<b>Model</b>	<b>Amount (USD)</b>	<b>Date of Granting</b>	<b>Storage Location</b>	<b>Usable (○ or x)</b>
01-1-11-017	PLC_40 I/O	custom-made	US\$997.00	17/06/2020	NPIC	○
01-1-11-018	PLC_40 I/O	custom-made	US\$997.00	17/06/2020	NPIC	○
01-1-11-019	PLC_40 I/O	custom-made	US\$997.00	17/06/2020	NPIC	○
01-1-11-020	PLC_40 I/O	custom-made	US\$997.00	17/06/2020	NPIC	○
01-1-11-021	PLC_40 I/O	custom-made	US\$997.00	17/06/2020	NPIC	○
01-1-11-022	PLC_40 I/O	custom-made	US\$997.00	17/06/2020	NPIC	○
01-1-11-023	PLC_40 I/O	custom-made	US\$997.00	17/06/2020	NPIC	○
01-1-11-024	PLC_40 I/O	custom-made	US\$997.00	17/06/2020	NPIC	○
01-1-12-001	Touch panel (HMI)	TS1070	US\$360.00	27/03/2019	NPIC	○
01-1-12-002	Touch panel (HMI)	TS1070	US\$360.00	27/03/2019	NPIC	○
01-1-12-003	Touch panel (HMI)	TS1070	US\$360.00	27/03/2019	NPIC	○
01-1-12-004	Touch panel (HMI)	TS1070	US\$360.00	27/03/2019	NPIC	○
01-1-12-005	Touch panel (HMI)	TS1070	US\$360.00	27/03/2019	NPIC	○
01-1-12-006	Touch panel (HMI)	TS1070	US\$360.00	27/03/2019	NPIC	○
01-1-12-007	Touch panel (HMI)	TS1070	US\$360.00	27/03/2019	NPIC	○
01-1-12-008	Touch panel (HMI)	TS1070	US\$360.00	27/03/2019	NPIC	○
01-1-12-009	Touch panel (HMI)	TS1070	US\$360.00	27/03/2019	NPIC	○
01-1-12-010	Touch panel (HMI)	TS1070	US\$360.00	27/03/2019	NPIC	○
01-1-12-011	Touch panel (HMI)	TS1070	US\$360.00	27/03/2019	NPIC	○
01-1-12-012	Touch panel (HMI)	TS1070	US\$360.00	27/03/2019	NPIC	○
01-1-12-013	Touch panel (HMI)	TS1070	US\$360.00	27/03/2019	NPIC	○
01-1-13-001	Water supply and drainage pump system	custom-made	US\$1,000.00	27/03/2019	NPIC	○
01-1-13-002	Water supply and drainage pump system	custom-made	US\$1,000.00	27/03/2019	NPIC	○
01-1-14-001	Torque driver SET	TOHNICHI	US\$448.00	27/03/2019	NPIC	○

## NPIC

Serial No	Equipment Name	Model	Amount (USD)	Date of Granting	Storage Location	Usable (○ or x)
01-1-15-001	Camera for Projector	custom-made	US\$600.00	30/08/2019	NPIC	○
01-1-15-002	Camera for Projector	custom-made	US\$600.00	2020/8/12	NPIC	○
01-1-15-003	Camera for Projector	custom-made	US\$600.00	2020/8/12	NPIC	○
01-1-16-001	Control board assembly panel	custom-made	US\$898.00	31/01/2020	NPIC	○
01-1-16-002	Control board assembly panel	custom-made	US\$898.00	31/01/2020	NPIC	○
01-1-16-003	Control board assembly panel	custom-made	US\$898.00	31/01/2020	NPIC	○
01-1-16-004	Control board assembly panel	custom-made	US\$898.00	31/01/2020	NPIC	○
01-1-16-005	Control board assembly panel	custom-made	US\$898.00	31/01/2020	NPIC	○
01-1-16-006	Control board assembly panel	custom-made	US\$898.00	31/01/2020	NPIC	○
01-1-16-007	Control board assembly panel	custom-made	US\$898.00	31/01/2020	NPIC	○
01-1-16-008	Control board assembly panel	custom-made	US\$898.00	31/01/2020	NPIC	○
01-1-16-009	Control board assembly panel	custom-made	US\$898.00	31/01/2020	NPIC	○
01-1-16-010	Control board assembly panel	custom-made	US\$898.00	31/01/2020	NPIC	○
01-1-16-011	Control board assembly panel	custom-made	US\$898.00	31/01/2020	NPIC	○
01-1-17-001	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-002	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-003	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-004	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-005	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-006	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-007	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-008	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-009	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-010	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-011	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-012	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-013	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-014	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-015	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-016	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-017	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-018	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○

## NPIC

Serial No	Equipment Name	Model	Amount (USD)	Date of Granting	Storage Location	Usable (○ or x)
01-1-17-019	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-020	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-021	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-022	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-023	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-17-024	PLC control panel	custom-made	US\$1,283.00	29/06/2020	NPIC	○
01-1-18-001	Sensor training board	custom-made	US\$1,135.00	25.02.2020	NPIC	○
01-1-18-002	Sensor training board	custom-made	US\$1,135.00	25.02.2020	NPIC	○
01-1-18-003	Sensor training board	custom-made	US\$1,135.00	25.02.2020	NPIC	○
01-1-18-004	Sensor training board	custom-made	US\$1,135.00	25.02.2020	NPIC	○
01-1-18-005	Sensor training board	custom-made	US\$1,135.00	25.02.2020	NPIC	○
01-1-18-006	Sensor training board	custom-made	US\$1,135.00	25.02.2020	NPIC	○
01-1-18-007	Sensor training board	custom-made	US\$1,135.00	25.02.2020	NPIC	○
01-1-19-001	Digital Oscilloscope	TBS1072B-EDU	US\$821.00	31/01/2020	NPIC	○
01-1-19-002	Digital Oscilloscope	TBS1072B-EDU	US\$821.00	31/01/2020	NPIC	○
01-1-19-003	Digital Oscilloscope	TBS1072B-EDU	US\$821.00	31/01/2020	NPIC	○
01-1-19-004	Digital Oscilloscope	TBS1072B-EDU	US\$821.00	31/01/2020	NPIC	○
01-1-19-005	Digital Oscilloscope	TBS1072B-EDU	US\$821.00	31/01/2020	NPIC	○
01-1-19-006	Digital Oscilloscope	TBS1072B-EDU	US\$821.00	31/01/2020	NPIC	○
01-1-19-007	Digital Oscilloscope	TBS1072B-EDU	US\$821.00	31/01/2020	NPIC	○
01-1-19-008	Digital Oscilloscope	TBS1072B-EDU	US\$821.00	31/01/2020	NPIC	○
01-1-19-009	Digital Oscilloscope	TBS1072B-EDU	US\$821.00	31/01/2020	NPIC	○
01-1-19-010	Digital Oscilloscope	TBS1072B-EDU	US\$821.00	31/01/2020	NPIC	○
01-1-19-011	Digital Oscilloscope	TBS1072B-EDU	US\$821.00	31/01/2020	NPIC	○
01-1-20-001	Function Generator	AFG1022	US\$1,028.00	31/01/2020	NPIC	○
01-1-20-002	Function Generator	AFG1022	US\$1,028.00	31/01/2020	NPIC	○
01-1-20-003	Function Generator	AFG1022	US\$1,028.00	31/01/2020	NPIC	○
01-1-20-004	Function Generator	AFG1022	US\$1,028.00	31/01/2020	NPIC	○
01-1-20-005	Function Generator	AFG1022	US\$1,028.00	31/01/2020	NPIC	○
01-1-20-006	Function Generator	AFG1022	US\$1,028.00	31/01/2020	NPIC	○
01-1-20-007	Function Generator	AFG1022	US\$1,028.00	31/01/2020	NPIC	○
01-1-20-008	Function Generator	AFG1022	US\$1,028.00	31/01/2020	NPIC	○

## NPIC

Serial No	Equipment Name	Model	Amount (USD)	Date of Granting	Storage Location	Usable (○ or x)
01-1-20-009	Function Generator	AFG1022	US\$1,028.00	31/01/2020	NPIC	○
01-1-20-010	Function Generator	AFG1022	US\$1,028.00	31/01/2020	NPIC	○
01-1-20-011	Function Generator	AFG1022	US\$1,028.00	31/01/2020	NPIC	○
01-1-21-001	DC Power Supply	GPS-3030D	US\$196.00	31/01/2020	NPIC	○
01-1-21-002	DC Power Supply	GPS-3030D	US\$196.00	31/01/2020	NPIC	○
01-1-21-003	DC Power Supply	GPS-3030D	US\$196.00	31/01/2020	NPIC	○
01-1-21-004	DC Power Supply	GPS-3030D	US\$196.00	31/01/2020	NPIC	○
01-1-21-005	DC Power Supply	GPS-3030D	US\$196.00	31/01/2020	NPIC	○
01-1-21-006	DC Power Supply	GPS-3030D	US\$196.00	31/01/2020	NPIC	○
01-1-21-007	DC Power Supply	GPS-3030D	US\$196.00	31/01/2020	NPIC	○
01-1-21-008	DC Power Supply	GPS-3030D	US\$196.00	31/01/2020	NPIC	○
01-1-21-009	DC Power Supply	GPS-3030D	US\$196.00	31/01/2020	NPIC	○
01-1-21-010	DC Power Supply	GPS-3030D	US\$196.00	31/01/2020	NPIC	○
01-1-21-011	DC Power Supply	GPS-3030D	US\$196.00	31/01/2020	NPIC	○
01-1-21-012	DC Power Supply	GPS-3030D	US\$196.00	31/01/2020	NPIC	○
01-1-21-013	DC Power Supply	GPS-3030D	US\$196.00	31/01/2020	NPIC	○
01-1-21-014	DC Power Supply	GPS-3030D	US\$196.00	31/01/2020	NPIC	○
01-1-21-015	DC Power Supply	GPS-3030D	US\$196.00	31/01/2020	NPIC	○
01-1-21-016	DC Power Supply	GPS-3030D	US\$196.00	31/01/2020	NPIC	○
01-1-21-017	DC Power Supply	GPS-3030D	US\$196.00	31/01/2020	NPIC	○
01-1-22-001	Label marker	KL-G2	US\$165.00	07/09/2020	NPIC	○
01-1-23-001	Induction Motor experiment board	custom-made	US\$12,260.00	07/09/2021	NPIC	○
01-1-24-001	Digital Insultion Continuity testers	3005A	US\$447.77	07/09/2022	NPIC	○
01-1-25-001	Earth Tester	4105A	US\$291.00	07/09/2023	NPIC	○
01-1-26-001	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-002	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-003	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-004	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-005	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-006	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-007	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-008	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○

## NPIC

Serial No	Equipment Name	Model	Amount (USD)	Date of Granting	Storage Location	Usable (○ or x)
01-1-26-009	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-010	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-011	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-012	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-013	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-014	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-015	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-016	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-017	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-018	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-019	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-020	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-021	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-022	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-023	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-26-024	AD/DA Conveter	NA3AW03	US\$50.04	25/12/2020	NPIC	○
01-1-27-001	Bolt Slider	S-260-5	US\$230.00	25/12/2020	NPIC	○
01-1-27-002	Bolt Slider	S-260-5	US\$230.00	25/12/2020	NPIC	○
01-1-27-003	Bolt Slider	S-260-5	US\$230.00	25/12/2020	NPIC	○
01-1-28-001	Power High Tester	3333 (HIOKI)	US\$1,450.00	25/12/2020	NPIC	○
01-1-28-002	Power High Tester	3333 (HIOKI)	US\$1,450.00	25/12/2020	NPIC	○
01-1-28-003	Power High Tester	3333 (HIOKI)	US\$1,450.00	25/12/2020	NPIC	○
01-1-29-001	Power Quality Analyzer	6315-01 (KYORITSU)	US\$2,870.00	25/12/2020	NPIC	○
01-1-29-002	Power Quality Analyzer	6315-01 (KYORITSU)	US\$2,870.00	25/12/2020	NPIC	○
01-1-30-001	Temperature Control Board	custom-made	US\$845.48	25/12/2020	NPIC	○
01-1-30-002	Temperature Control Board	custom-made	US\$845.48	25/12/2020	NPIC	○
01-1-30-003	Temperature Control Board	custom-made	US\$845.48	25/12/2020	NPIC	○
01-1-31-001	AC Servo training board	custom-made	US\$2,833.42	25/12/2020	NPIC	○
01-1-31-002	AC Servo training board	custom-made	US\$2,833.42	25/12/2020	NPIC	○
01-1-31-003	AC Servo training board	custom-made	US\$2,833.42	25/12/2020	NPIC	○
01-1-31-004	AC Servo training board	custom-made	US\$2,833.42	25/12/2020	NPIC	○



**PPI asset management sheet**

Serial No	Equipment Name	Model	Amount (USD)	Date of Granting	Storage Location	Usable (○ or ×)
02-1-01-001	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-002	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-003	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-004	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-005	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-006	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-007	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-008	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-009	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-010	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-011	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-012	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-013	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-014	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-015	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-016	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-017	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-018	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-019	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-020	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-021	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-022	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-023	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-024	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-025	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-026	Sequence Training Board	custom-made	\$515.71	22/12/2017	PPI	○
02-1-01-027	Sequence Training Board	custom-made	\$515.71	23/08/2019	PPI	○
02-1-01-028	Sequence Training Board	custom-made	\$515.71	23/08/2019	PPI	○
02-1-01-029	Sequence Training Board	custom-made	\$515.71	23/08/2019	PPI	○
02-1-02-001	PLC(FUJI Electric)	NAOP24T-31C	\$451.42	22/12/2017	PPI	○
02-1-02-002	PLC(FUJI Electric)	NAOP24T-31C	\$451.42	22/12/2017	PPI	○
02-1-02-003	PLC(FUJI Electric)	NAOP24T-31C	\$451.42	22/12/2017	PPI	○
02-1-02-004	PLC(FUJI Electric)	NAOP24T-31C	\$451.42	22/12/2017	PPI	○
02-1-02-005	PLC(FUJI Electric)	NAOP24T-31C	\$451.42	22/12/2017	PPI	○
02-1-02-006	PLC(FUJI Electric)	NAOP24T-31C	\$451.42	22/12/2017	PPI	○
02-1-02-007	PLC(FUJI Electric)	NAOP24T-31C	\$451.42	22/12/2017	PPI	○
02-1-02-008	PLC(FUJI Electric)	NAOP24T-31C	\$451.42	22/12/2017	PPI	○
02-1-02-009	PLC(FUJI Electric)	NAOP24T-31C	\$451.42	22/12/2017	PPI	○
02-1-02-010	PLC(FUJI Electric)	NAOP24T-31C	\$451.42	22/12/2017	PPI	○
02-1-02-011	PLC(FUJI Electric)	NAOP24T-31C	\$451.42	22/12/2017	PPI	○
02-1-02-012	PLC(FUJI Electric)	NAOP24T-31C	\$451.42	22/12/2017	PPI	○
02-1-02-013	PLC(FUJI Electric)	NAOP24T-31C	\$451.42	22/12/2017	PPI	○

Serial No	Equipment Name	Model	Amount (USD)	Date of Granting	Storage Location	Usable (○ or x)
02-1-02-014	PLC(FUJI Electric)	NAOP24T-31C	\$451.42	23/08/2019	PPI	○
02-1-02-015	PLC(FUJI Electric)	NAOP24T-31C	\$451.42	23/08/2019	PPI	○
02-1-02-016	PLC(FUJI Electric)	NAOP24T-31C	\$451.42	23/08/2019	PPI	○
02-1-03-001	Star Delta Staring Training Board	custom-made	\$762.45	22/12/2017	PPI	○
02-1-03-002	Star Delta Staring Training Board	custom-made	\$762.45	22/12/2017	PPI	○
02-1-03-003	Star Delta Staring Training Board	custom-made	\$762.45	22/12/2017	PPI	○
02-1-03-004	Star Delta Staring Training Board	custom-made	\$762.45	22/12/2017	PPI	○
02-1-03-005	Star Delta Staring Training Board	custom-made	\$762.45	22/12/2017	PPI	○
02-1-03-006	Star Delta Staring Training Board	custom-made	\$762.45	22/12/2017	PPI	○
02-1-03-007	Star Delta Staring Training Board	custom-made	\$762.45	22/12/2017	PPI	○
02-1-03-008	Star Delta Staring Training Board	custom-made	\$762.45	22/12/2017	PPI	○
02-1-03-009	Star Delta Staring Training Board	custom-made	\$762.45	22/12/2017	PPI	○
02-1-03-010	Star Delta Staring Training Board	custom-made	\$762.45	22/12/2017	PPI	○
02-1-03-011	Star Delta Staring Training Board	custom-made	\$762.45	22/12/2017	PPI	○
02-1-03-012	Star Delta Staring Training Board	custom-made	\$762.45	22/12/2017	PPI	○
02-1-03-013	Star Delta Staring Training Board	custom-made	\$762.45	22/12/2017	PPI	○
02-1-03-014	Star Delta Staring Training Board	custom-made	\$762.45	23/08/2019	PPI	○
02-1-03-015	Star Delta Staring Training Board	custom-made	\$762.45	23/08/2019	PPI	○
02-1-03-016	Star Delta Staring Training Board	custom-made	\$762.45	23/08/2019	PPI	○
02-1-04-001	Motor Control Board	custom-made	\$760.45	22/12/2017	PPI	○
02-1-04-002	Motor Control Board	custom-made	\$760.45	22/12/2017	PPI	○
02-1-04-003	Motor Control Board	custom-made	\$760.45	22/12/2017	PPI	○
02-1-04-004	Motor Control Board	custom-made	\$760.45	22/12/2017	PPI	○
02-1-04-005	Motor Control Board	custom-made	\$760.45	22/12/2017	PPI	○
02-1-04-006	Motor Control Board	custom-made	\$760.45	22/12/2017	PPI	○
02-1-04-007	Motor Control Board	custom-made	\$760.45	22/12/2017	PPI	○
02-1-04-008	Motor Control Board	custom-made	\$760.45	22/12/2017	PPI	○
02-1-04-009	Motor Control Board	custom-made	\$760.45	22/12/2017	PPI	○
02-1-04-010	Motor Control Board	custom-made	\$760.45	22/12/2017	PPI	○
02-1-04-011	Motor Control Board	custom-made	\$760.45	22/12/2017	PPI	○
02-1-04-012	Motor Control Board	custom-made	\$760.45	22/12/2017	PPI	○
02-1-04-013	Motor Control Board	custom-made	\$760.45	22/12/2017	PPI	○
02-1-04-014	Motor Control Board	custom-made	\$760.45	23/08/2019	PPI	○
02-1-04-015	Motor Control Board	custom-made	\$760.45	23/08/2019	PPI	○
02-1-04-016	Motor Control Board	custom-made	\$760.45	23/08/2019	PPI	○
02-1-04-017	Motor Control Board	custom-made	\$760.45	06/12/2020	PPI	○
02-1-04-018	Motor Control Board	custom-made	\$760.45	06/12/2020	PPI	○
02-1-04-019	Motor Control Board	custom-made	\$760.45	06/12/2020	PPI	○
02-1-04-020	Motor Control Board	custom-made	\$760.45	06/12/2020	PPI	○
02-1-04-021	Motor Control Board	custom-made	\$760.45	06/12/2020	PPI	○
02-1-04-022	Motor Control Board	custom-made	\$760.45	06/12/2020	PPI	○
02-1-04-023	Motor Control Board	custom-made	\$760.45	06/12/2020	PPI	○
02-1-04-024	Motor Control Board	custom-made	\$760.45	06/12/2020	PPI	○
02-1-04-025	Motor Control Board	custom-made	\$760.45	06/12/2020	PPI	○

Serial No	Equipment Name	Model	Amount (USD)	Date of Granting	Storage Location	Usable (○ or x)
02-1-04-026	Motor Control Board	custom-made	\$760.45	06/12/2020	PPI	○
02-1-04-027	Motor Control Board	custom-made	\$760.45	06/12/2020	PPI	○
02-1-04-028	Motor Control Board	custom-made	\$760.45	06/12/2020	PPI	○
02-1-04-029	Motor Control Board	custom-made	\$760.45	06/12/2020	PPI	○
02-1-04-030	Motor Control Board	custom-made	\$760.45	06/12/2020	PPI	○
02-1-05-001	Inverter Training Board	custom-made	\$682.98	22/12/2017	PPI	○
02-1-05-002	Inverter Training Board	custom-made	\$682.98	22/12/2017	PPI	○
02-1-05-003	Inverter Training Board	custom-made	\$682.98	22/12/2017	PPI	○
02-1-05-004	Inverter Training Board	custom-made	\$682.98	22/12/2017	PPI	○
02-1-05-005	Inverter Training Board	custom-made	\$682.98	22/12/2017	PPI	○
02-1-05-006	Inverter Training Board	custom-made	\$682.98	22/12/2017	PPI	○
02-1-05-007	Inverter Training Board	custom-made	\$682.98	22/12/2017	PPI	○
02-1-05-008	Inverter Training Board	custom-made	\$682.98	22/12/2017	PPI	○
02-1-05-009	Inverter Training Board	custom-made	\$682.98	22/12/2017	PPI	○
02-1-05-010	Inverter Training Board	custom-made	\$682.98	22/12/2017	PPI	○
02-1-05-011	Inverter Training Board	custom-made	\$682.98	22/12/2017	PPI	○
02-1-05-012	Inverter Training Board	custom-made	\$682.98	22/12/2017	PPI	○
02-1-05-013	Inverter Training Board	custom-made	\$682.98	22/12/2017	PPI	○
02-1-05-014	Inverter Training Board	custom-made	\$682.98	23/08/2019	PPI	○
02-1-05-015	Inverter Training Board	custom-made	\$682.98	23/08/2019	PPI	○
02-1-05-016	Inverter Training Board	custom-made	\$682.98	23/08/2019	PPI	○
02-1-06-001	Motor for Star Delta	custom-made	\$392.20	22/12/2017	PPI	○
02-1-06-002	Motor for Star Delta	custom-made	\$392.20	22/12/2017	PPI	○
02-1-06-003	Motor for Star Delta	custom-made	\$392.20	22/12/2017	PPI	○
02-1-06-004	Motor for Star Delta	custom-made	\$392.20	22/12/2017	PPI	○
02-1-06-005	Motor for Star Delta	custom-made	\$392.20	22/12/2017	PPI	○
02-1-06-006	Motor for Star Delta	custom-made	\$392.20	22/12/2017	PPI	○
02-1-06-007	Motor for Star Delta	custom-made	\$392.20	22/12/2017	PPI	○
02-1-06-008	Motor for Star Delta	custom-made	\$392.20	22/12/2017	PPI	○
02-1-06-009	Motor for Star Delta	custom-made	\$392.20	22/12/2017	PPI	○
02-1-06-010	Motor for Star Delta	custom-made	\$392.20	22/12/2017	PPI	○
02-1-06-011	Motor for Star Delta	custom-made	\$392.20	22/12/2017	PPI	○
02-1-06-012	Motor for Star Delta	custom-made	\$392.20	22/12/2017	PPI	○
02-1-06-013	Motor for Star Delta	custom-made	\$392.20	22/12/2017	PPI	○
02-1-06-014	Motor for Star Delta	custom-made	\$392.20	23/08/2019	PPI	○
02-1-06-015	Motor for Star Delta	custom-made	\$392.20	23/08/2019	PPI	○
02-1-06-016	Motor for Star Delta	custom-made	\$392.20	23/08/2019	PPI	○
02-1-07-001	Motor Testing Board	custom-made	\$850.00	22/12/2017	PPI	○
02-1-07-002	Motor Testing Board	custom-made	\$850.00	22/12/2017	PPI	○
02-1-07-003	Motor Testing Board	custom-made	\$850.00	22/12/2017	PPI	○
02-1-07-004	Motor Testing Board	custom-made	\$850.00	22/12/2017	PPI	○
02-1-07-005	Motor Testing Board	custom-made	\$850.00	22/12/2017	PPI	○
02-1-07-006	Motor Testing Board	custom-made	\$850.00	22/12/2017	PPI	○
02-1-07-007	Motor Testing Board	custom-made	\$850.00	22/12/2017	PPI	○

<b>Serial No</b>	<b>Equipment Name</b>	<b>Model</b>	<b>Amount (USD)</b>	<b>Date of Granting</b>	<b>Storage Location</b>	<b>Usable (○ or x)</b>
02-1-07-008	Motor Testing Board	custom-made	\$850.00	22/12/2017	PPI	○
02-1-07-009	Motor Testing Board	custom-made	\$850.00	22/12/2017	PPI	○
02-1-07-010	Motor Testing Board	custom-made	\$850.00	22/12/2017	PPI	○
02-1-07-011	Motor Testing Board	custom-made	\$850.00	22/12/2017	PPI	○
02-1-07-012	Motor Testing Board	custom-made	\$850.00	22/12/2017	PPI	○
02-1-07-013	Motor Testing Board	custom-made	\$850.00	22/12/2017	PPI	○

Serial No	Equipment Name	Model	Amount (USD)	Date of Granting	Storage Location	Usable (○ or x)
02-1-07-014	Motor Testing Board	custom-made	\$850.00	23/08/2019	PPI	○
02-1-07-015	Motor Testing Board	custom-made	\$850.00	23/08/2019	PPI	○
02-1-07-016	Motor Testing Board	custom-made	\$850.00	23/08/2019	PPI	○
02-1-08-001	Transformer	custom-made	\$850.00	22/12/2017	PPI	○
02-1-09-001	Pneumatic training board	custom-made	\$2,500.00	06/02/19	PPI	○
02-1-09-002	Pneumatic training board	custom-made	\$2,500.00	06/02/19	PPI	○
02-1-09-003	Pneumatic training board	custom-made	\$2,500.00	06/02/19	PPI	○
02-1-09-004	Pneumatic training board	custom-made	\$2,500.00	06/02/19	PPI	○
02-1-09-005	Pneumatic training board	custom-made	\$2,500.00	06/02/19	PPI	○
02-1-09-006	Pneumatic training board	custom-made	\$2,500.00	06/02/19	PPI	○
02-1-09-007	Pneumatic training board	custom-made	\$2,500.00	06/02/19	PPI	○
02-1-10-001	Conveyor equipment	custom-made	\$1,042.00	22/03/19	PPI	○
02-1-10-002	Conveyor equipment	custom-made	\$1,042.00	22/03/19	PPI	○
02-1-10-003	Conveyor equipment	custom-made	\$1,042.00	22/03/19	PPI	○
02-1-10-004	Conveyor equipment	custom-made	\$1,042.00	22/03/19	PPI	○
02-1-10-005	Conveyor equipment	custom-made	\$1,042.00	22/03/19	PPI	○
02-1-10-006	Conveyor equipment	custom-made	\$1,042.00	22/03/19	PPI	○
02-1-10-007	Conveyor equipment	custom-made	\$1,042.00	22/03/19	PPI	○
02-1-10-008	Conveyor equipment	custom-made	\$1,042.00	22/03/19	PPI	○
02-1-10-009	Conveyor equipment	custom-made	\$1,042.00	22/03/19	PPI	○
02-1-10-010	Conveyor equipment	custom-made	\$1,042.00	22/03/19	PPI	○
02-1-10-011	Conveyor equipment	custom-made	\$1,042.00	22/03/19	PPI	○
02-1-10-012	Conveyor equipment	custom-made	\$1,042.00	22/03/19	PPI	○
02-1-10-013	Conveyor equipment	custom-made	\$1,042.00	22/03/19	PPI	○
02-1-10-014	Conveyor equipment	custom-made	\$1,042.00	22/03/19	PPI	○
02-1-10-015	Conveyor equipment	custom-made	\$1,042.00	22/03/19	PPI	○
02-1-10-016	Conveyor equipment	custom-made	\$1,042.00	22/03/19	PPI	○
02-1-10-017	Conveyor equipment	custom-made	\$1,042.00	06/12/2020	PPI	○
02-1-10-018	Conveyor equipment	custom-made	\$1,042.00	06/12/2020	PPI	○
02-1-10-019	Conveyor equipment	custom-made	\$1,042.00	06/12/2020	PPI	○
02-1-10-020	Conveyor equipment	custom-made	\$1,042.00	06/12/2020	PPI	○
02-1-10-021	Conveyor equipment	custom-made	\$1,042.00	06/12/2020	PPI	○
02-1-10-022	Conveyor equipment	custom-made	\$1,042.00	06/12/2020	PPI	○
02-1-10-023	Conveyor equipment	custom-made	\$1,042.00	06/12/2020	PPI	○
02-1-10-024	Conveyor equipment	custom-made	\$1,042.00	06/12/2020	PPI	○
02-1-11-001	PLC_40 I/O	custom-made	\$997.00	22/03/2019	PPI	○
02-1-11-002	PLC_40 I/O	custom-made	\$997.00	22/03/2019	PPI	○
02-1-11-003	PLC_40 I/O	custom-made	\$997.00	22/03/2019	PPI	○
02-1-11-004	PLC_40 I/O	custom-made	\$997.00	22/03/2019	PPI	○
02-1-11-005	PLC_40 I/O	custom-made	\$997.00	22/03/2019	PPI	○
02-1-11-006	PLC_40 I/O	custom-made	\$997.00	22/03/2019	PPI	○
02-1-11-007	PLC_40 I/O	custom-made	\$997.00	22/03/2019	PPI	○
02-1-11-008	PLC_40 I/O	custom-made	\$997.00	22/03/2019	PPI	○
02-1-11-009	PLC_40 I/O	custom-made	\$997.00	22/03/2019	PPI	○

Serial No	Equipment Name	Model	Amount (USD)	Date of Granting	Storage Location	Usable (○ or ×)
02-1-11-010	PLC_40 I/O	custom-made	\$997.00	22/03/2019	PPI	○
02-1-11-011	PLC_40 I/O	custom-made	\$997.00	22/03/2019	PPI	○
02-1-11-012	PLC_40 I/O	custom-made	\$997.00	22/03/2019	PPI	○
02-1-11-013	PLC_40 I/O	custom-made	\$997.00	22/03/2019	PPI	○
02-1-11-014	PLC_40 I/O	custom-made	\$997.00	22/03/2019	PPI	○
02-1-11-015	PLC_40 I/O	custom-made	\$997.00	22/03/2019	PPI	○
02-1-11-016	PLC_40 I/O	custom-made	\$997.00	22/03/2019	PPI	○
02-1-11-017	PLC_40 I/O	custom-made	\$997.00	06/12/2020	PPI	○
02-1-11-018	PLC_40 I/O	custom-made	\$997.00	06/12/2020	PPI	○
02-1-11-019	PLC_40 I/O	custom-made	\$997.00	06/12/2020	PPI	○
02-1-11-020	PLC_40 I/O	custom-made	\$997.00	06/12/2020	PPI	○
02-1-11-021	PLC_40 I/O	custom-made	\$997.00	06/12/2020	PPI	○
02-1-11-022	PLC_40 I/O	custom-made	\$997.00	06/12/2020	PPI	○
02-1-11-023	PLC_40 I/O	custom-made	\$997.00	06/12/2020	PPI	○
02-1-11-024	PLC_40 I/O	custom-made	\$997.00	06/12/2020	PPI	○
02-1-12-001	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	PPI	○
02-1-12-002	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	PPI	○
02-1-12-003	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	PPI	○
02-1-12-004	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	PPI	○
02-1-12-005	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	PPI	○
02-1-12-006	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	PPI	○
02-1-12-007	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	PPI	○
02-1-12-008	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	PPI	○
02-1-12-009	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	PPI	○
02-1-12-010	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	PPI	○
02-1-12-011	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	PPI	○
02-1-12-012	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	PPI	○
02-1-12-013	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	PPI	○
02-1-13-001	Water supply and drainage pump system	custom-made	\$900.00	27/03/2019	PPI	○
02-1-13-002	Water supply and drainage pump system	custom-made	\$900.00	27/03/2019	PPI	○
02-1-14-001	Torque driver SET	TOHNICHI	\$448.00	27/03/2019	PPI	○
02-1-15-001	Camera for Projector	custom-made	\$600.00	30/08/2019	PPI	○
02-1-15-002	Camera for Projector	custom-made	\$600.00	12/08/2020	PPI	○
02-1-15-003	Camera for Projector	custom-made	\$600.00	12/08/2020	PPI	○

Serial No	Equipment Name	Model	Amount (USD)	Date of Granting	Storage Location	Usable (○ or x)
02-1-16-001	Control board assembly panel	custom-made	\$898.00	31/01/2020	PPI	○
02-1-16-002	Control board assembly panel	custom-made	\$898.00	31/01/2020	PPI	○
02-1-16-003	Control board assembly panel	custom-made	\$898.00	31/01/2020	PPI	○
02-1-16-004	Control board assembly panel	custom-made	\$898.00	31/01/2020	PPI	○
02-1-16-005	Control board assembly panel	custom-made	\$898.00	31/01/2020	PPI	○
02-1-16-006	Control board assembly panel	custom-made	\$898.00	31/01/2020	PPI	○
02-1-16-007	Control board assembly panel	custom-made	\$898.00	31/01/2020	PPI	○
02-1-16-008	Control board assembly panel	custom-made	\$898.00	31/01/2020	PPI	○
02-1-16-009	Control board assembly panel	custom-made	\$898.00	31/01/2020	PPI	○
02-1-16-010	Control board assembly panel	custom-made	\$898.00	31/01/2020	PPI	○
02-1-16-011	Control board assembly panel	custom-made	\$898.00	31/01/2020	PPI	○
02-1-17-001	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-002	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-003	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-004	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-005	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-006	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-007	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-008	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-009	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-010	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-011	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-012	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-013	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-014	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-015	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-016	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-017	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-018	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-019	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-020	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-021	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-022	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-023	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-17-024	PLC control panel	custom-made	\$1,283.00	29/06/2020	PPI	○
02-1-18-001	Sensor training board	custom-made	\$1,135.00	25/02/2020	PPI	○
02-1-18-002	Sensor training board	custom-made	\$1,135.00	25/02/2020	PPI	○
02-1-18-003	Sensor training board	custom-made	\$1,135.00	25/02/2020	PPI	○
02-1-18-004	Sensor training board	custom-made	\$1,135.00	25/02/2020	PPI	○
02-1-18-005	Sensor training board	custom-made	\$1,135.00	25/02/2020	PPI	○
02-1-18-006	Sensor training board	custom-made	\$1,135.00	25/02/2020	PPI	○
02-1-18-007	Sensor training board	custom-made	\$1,135.00	25/02/2020	PPI	○
02-1-19-001	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	PPI	○
02-1-19-002	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	PPI	○

Serial No	Equipment Name	Model	Amount (USD)	Date of Granting	Storage Location	Usable (○ or x)
02-1-19-003	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	PPI	○
02-1-19-004	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	PPI	○
02-1-19-005	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	PPI	○
02-1-19-006	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	PPI	○
02-1-19-007	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	PPI	○
02-1-19-008	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	PPI	○
02-1-19-009	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	PPI	○
02-1-19-010	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	PPI	○
02-1-19-011	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	PPI	○
02-1-20-001	Function Generator	AFG1022	\$1,028.00	31/01/2020	PPI	○
02-1-20-002	Function Generator	AFG1022	\$1,028.00	31/01/2020	PPI	○
02-1-20-003	Function Generator	AFG1022	\$1,028.00	31/01/2020	PPI	○
02-1-20-004	Function Generator	AFG1022	\$1,028.00	31/01/2020	PPI	○
02-1-20-005	Function Generator	AFG1022	\$1,028.00	31/01/2020	PPI	○
02-1-20-006	Function Generator	AFG1022	\$1,028.00	31/01/2020	PPI	○
02-1-20-007	Function Generator	AFG1022	\$1,028.00	31/01/2020	PPI	○
02-1-20-008	Function Generator	AFG1022	\$1,028.00	31/01/2020	PPI	○
02-1-20-009	Function Generator	AFG1022	\$1,028.00	31/01/2020	PPI	○
02-1-20-010	Function Generator	AFG1022	\$1,028.00	31/01/2020	PPI	○
02-1-20-011	Function Generator	AFG1022	\$1,028.00	31/01/2020	PPI	○
02-1-21-001	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	PPI	○
02-1-21-002	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	PPI	○
02-1-21-003	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	PPI	○
02-1-21-004	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	PPI	○
02-1-21-005	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	PPI	○
02-1-21-006	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	PPI	○
02-1-21-007	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	PPI	○
02-1-21-008	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	PPI	○
02-1-21-009	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	PPI	○
02-1-21-010	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	PPI	○
02-1-21-011	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	PPI	○
02-1-21-012	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	PPI	○
02-1-21-013	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	PPI	○
02-1-21-014	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	PPI	○
02-1-21-015	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	PPI	○
02-1-21-016	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	PPI	○
02-1-21-017	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	PPI	○
02-1-22-001	Label marker	KL-G2	\$165.00	09/07/2020	PPI	○
02-1-23-001	Induction Motor experiment board	custom-made	\$12,260.00	09/07/2020	PPI	○



**NTTI asset management sheet**

<b>Serial No</b>	<b>Equipment Name</b>	<b>Model</b>	<b>Amount (USD)</b>	<b>Acquisition Date</b>	<b>Storage Location</b>	<b>Manager</b>	<b>Usable (○ or ×)</b>
03-1-01-001	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-002	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-003	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-004	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-005	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-006	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-007	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-008	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-009	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-010	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-011	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-012	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-013	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-014	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-015	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-016	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-017	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-018	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-019	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-020	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-021	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-022	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-023	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-024	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-025	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-026	Sequence Training Board	custom-made	\$515.71	25/12/2017	NTTI		○
03-1-01-027	Sequence Training Board	custom-made	\$515.71	23/08/19	NTTI		○

## NTTI

Serial No	Equipment Name	Model	Amount (USD)	Acquisition Date	Storage Location	Manager	Usable (○ or ×)
03-1-01-028	Sequence Training Board	custom-made	\$515.71	23/08/19	NTTI		○
03-1-01-029	Sequence Training Board	custom-made	\$515.71	23/08/19	NTTI		○
03-1-02-001	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	25/12/2017	NTTI		○
03-1-02-002	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	25/12/2017	NTTI		○
03-1-02-003	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	25/12/2017	NTTI		○
03-1-02-004	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	25/12/2017	NTTI		○
03-1-02-005	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	25/12/2017	NTTI		○
03-1-02-006	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	25/12/2017	NTTI		○
03-1-02-007	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	25/12/2017	NTTI		○
03-1-02-008	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	25/12/2017	NTTI		○
03-1-02-009	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	25/12/2017	NTTI		○
03-1-02-010	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	25/12/2017	NTTI		○
03-1-02-011	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	25/12/2017	NTTI		○
03-1-02-012	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	25/12/2017	NTTI		○
03-1-02-013	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	25/12/2017	NTTI		○
03-1-02-014	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	23/08/19	NTTI		○
03-1-02-015	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	23/08/19	NTTI		○
03-1-02-016	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	23/08/19	NTTI		○
03-1-03-001	Star Delta Staring Training Board	custom-made	\$762.45	25/12/2017	NTTI		○
03-1-03-002	Star Delta Staring Training Board	custom-made	\$762.45	25/12/2017	NTTI		○
03-1-03-003	Star Delta Staring Training Board	custom-made	\$762.45	25/12/2017	NTTI		○
03-1-03-004	Star Delta Staring Training Board	custom-made	\$762.45	25/12/2017	NTTI		○
03-1-03-005	Star Delta Staring Training Board	custom-made	\$762.45	25/12/2017	NTTI		○
03-1-03-006	Star Delta Staring Training Board	custom-made	\$762.45	25/12/2017	NTTI		○
03-1-03-007	Star Delta Staring Training Board	custom-made	\$762.45	25/12/2017	NTTI		○
03-1-03-008	Star Delta Staring Training Board	custom-made	\$762.45	25/12/2017	NTTI		○
03-1-03-009	Star Delta Staring Training Board	custom-made	\$762.45	25/12/2017	NTTI		○
03-1-03-010	Star Delta Staring Training Board	custom-made	\$762.45	25/12/2017	NTTI		○

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<b>Serial No</b>	<b>Equipment Name</b>	<b>Model</b>	<b>Amount (USD)</b>	<b>Acquisition Date</b>	<b>Storage Location</b>	<b>Manager</b>	<b>Usable (○ or ×)</b>
03-1-03-011	Star Delta Staring Training Board	custom-made	\$762.45	25/12/2017	NTTI		○
03-1-03-012	Star Delta Staring Training Board	custom-made	\$762.45	25/12/2017	NTTI		○
03-1-03-013	Star Delta Staring Training Board	custom-made	\$762.45	25/12/2017	NTTI		○
03-1-03-014	Star Delta Staring Training Board	custom-made	\$762.45	23/08/19	NTTI		○
03-1-03-015	Star Delta Staring Training Board	custom-made	\$762.45	23/08/19	NTTI		○
03-1-03-016	Star Delta Staring Training Board	custom-made	\$762.45	23/08/19	NTTI		○
03-1-04-001	Motor Control Board	custom-made	\$760.45	25/12/2017	NTTI		○
03-1-04-002	Motor Control Board	custom-made	\$760.45	25/12/2017	NTTI		○
03-1-04-003	Motor Control Board	custom-made	\$760.45	25/12/2017	NTTI		○
03-1-04-004	Motor Control Board	custom-made	\$760.45	25/12/2017	NTTI		○
03-1-04-005	Motor Control Board	custom-made	\$760.45	25/12/2017	NTTI		○
03-1-04-006	Motor Control Board	custom-made	\$760.45	25/12/2017	NTTI		○
03-1-04-007	Motor Control Board	custom-made	\$760.45	25/12/2017	NTTI		○
03-1-04-008	Motor Control Board	custom-made	\$760.45	25/12/2017	NTTI		○
03-1-04-009	Motor Control Board	custom-made	\$760.45	25/12/2017	NTTI		○
03-1-04-010	Motor Control Board	custom-made	\$760.45	25/12/2017	NTTI		○
03-1-04-011	Motor Control Board	custom-made	\$760.45	25/12/2017	NTTI		○
03-1-04-012	Motor Control Board	custom-made	\$760.45	25/12/2017	NTTI		○
03-1-04-013	Motor Control Board	custom-made	\$760.45	25/12/2017	NTTI		○
03-1-04-014	Motor Control Board	custom-made	\$760.45	23/08/19	NTTI		○
03-1-04-015	Motor Control Board	custom-made	\$760.45	23/08/19	NTTI		○
03-1-04-016	Motor Control Board	custom-made	\$760.45	23/08/19	NTTI		○
03-1-04-017	Motor Control Board	custom-made	\$760.45	06/12/2020	NTTI		○
03-1-04-018	Motor Control Board	custom-made	\$760.45	06/12/2020	NTTI		○
03-1-04-019	Motor Control Board	custom-made	\$760.45	06/12/2020	NTTI		○
03-1-04-020	Motor Control Board	custom-made	\$760.45	06/12/2020	NTTI		○
03-1-04-021	Motor Control Board	custom-made	\$760.45	06/12/2020	NTTI		○
03-1-04-022	Motor Control Board	custom-made	\$760.45	06/12/2020	NTTI		○

## NTTI

<b>Serial No</b>	<b>Equipment Name</b>	<b>Model</b>	<b>Amount (USD)</b>	<b>Acquisition Date</b>	<b>Storage Location</b>	<b>Manager</b>	<b>Usable (○ or ×)</b>
03-1-04-023	Motor Control Board	custom-made	\$760.45	06/12/2020	NTTI		○
03-1-04-024	Motor Control Board	custom-made	\$760.45	06/12/2020	NTTI		○
03-1-04-025	Motor Control Board	custom-made	\$760.45	06/12/2020	NTTI		○
03-1-04-026	Motor Control Board	custom-made	\$760.45	06/12/2020	NTTI		○
03-1-04-027	Motor Control Board	custom-made	\$760.45	07/12/2020	NTTI		○
03-1-04-028	Motor Control Board	custom-made	\$760.45	06/12/2020	NTTI		○
03-1-04-029	Motor Control Board	custom-made	\$760.45	06/12/2020	NTTI		○
03-1-04-030	Motor Control Board	custom-made	\$760.45	06/12/2020	NTTI		○
03-1-05-001	Inverter Training Board	custom-made	\$682.98	25/12/2017	NTTI		○
03-1-05-002	Inverter Training Board	custom-made	\$682.98	25/12/2017	NTTI		○
03-1-05-003	Inverter Training Board	custom-made	\$682.98	25/12/2017	NTTI		○
03-1-05-004	Inverter Training Board	custom-made	\$682.98	25/12/2017	NTTI		○
03-1-05-005	Inverter Training Board	custom-made	\$682.98	25/12/2017	NTTI		○
03-1-05-006	Inverter Training Board	custom-made	\$682.98	25/12/2017	NTTI		○
03-1-05-007	Inverter Training Board	custom-made	\$682.98	25/12/2017	NTTI		○
03-1-05-008	Inverter Training Board	custom-made	\$682.98	25/12/2017	NTTI		○
03-1-05-009	Inverter Training Board	custom-made	\$682.98	25/12/2017	NTTI		○
03-1-05-010	Inverter Training Board	custom-made	\$682.98	25/12/2017	NTTI		○
03-1-05-011	Inverter Training Board	custom-made	\$682.98	25/12/2017	NTTI		○
03-1-05-012	Inverter Training Board	custom-made	\$682.98	25/12/2017	NTTI		○
03-1-05-013	Inverter Training Board	custom-made	\$682.98	25/12/2017	NTTI		○
03-1-05-014	Inverter Training Board	custom-made	\$682.98	23/08/19	NTTI		○
03-1-05-015	Inverter Training Board	custom-made	\$682.98	23/08/19	NTTI		○
03-1-05-016	Inverter Training Board	custom-made	\$682.98	23/08/19	NTTI		○
03-1-06-001	Motor for Star Delta	custom-made	\$392.20	25/12/2017	NTTI		○
03-1-06-002	Motor for Star Delta	custom-made	\$392.20	25/12/2017	NTTI		○
03-1-06-003	Motor for Star Delta	custom-made	\$392.20	25/12/2017	NTTI		○
03-1-06-004	Motor for Star Delta	custom-made	\$392.20	25/12/2017	NTTI		○

## NTTI

<b>Serial No</b>	<b>Equipment Name</b>	<b>Model</b>	<b>Amount (USD)</b>	<b>Acquisition Date</b>	<b>Storage Location</b>	<b>Manager</b>	<b>Usable (○ or ×)</b>
03-1-06-005	Motor for Star Delta	custom-made	\$392.20	25/12/2017	NTTI		○
03-1-06-006	Motor for Star Delta	custom-made	\$392.20	25/12/2017	NTTI		○
03-1-06-007	Motor for Star Delta	custom-made	\$392.20	25/12/2017	NTTI		○
03-1-06-008	Motor for Star Delta	custom-made	\$392.20	25/12/2017	NTTI		○
03-1-06-009	Motor for Star Delta	custom-made	\$392.20	25/12/2017	NTTI		○
03-1-06-010	Motor for Star Delta	custom-made	\$392.20	25/12/2017	NTTI		○
03-1-06-011	Motor for Star Delta	custom-made	\$392.20	25/12/2017	NTTI		○
03-1-06-012	Motor for Star Delta	custom-made	\$392.20	25/12/2017	NTTI		○
03-1-06-013	Motor for Star Delta	custom-made	\$392.20	25/12/2017	NTTI		○
03-1-06-014	Motor for Star Delta	custom-made	\$392.20	23/08/19	NTTI		○
03-1-06-015	Motor for Star Delta	custom-made	\$392.20	23/08/19	NTTI		○
03-1-06-016	Motor for Star Delta	custom-made	\$392.20	23/08/19	NTTI		○
03-1-07-001	Motor Testing Board	custom-made	\$850.00	25/12/2017	NTTI		○
03-1-07-002	Motor Testing Board	custom-made	\$850.00	25/12/2017	NTTI		○
03-1-07-003	Motor Testing Board	custom-made	\$850.00	25/12/2017	NTTI		○
03-1-07-004	Motor Testing Board	custom-made	\$850.00	25/12/2017	NTTI		○
03-1-07-005	Motor Testing Board	custom-made	\$850.00	25/12/2017	NTTI		○
03-1-07-006	Motor Testing Board	custom-made	\$850.00	25/12/2017	NTTI		○
03-1-07-007	Motor Testing Board	custom-made	\$850.00	25/12/2017	NTTI		○
03-1-07-008	Motor Testing Board	custom-made	\$850.00	25/12/2017	NTTI		○
03-1-07-009	Motor Testing Board	custom-made	\$850.00	25/12/2017	NTTI		○
03-1-07-010	Motor Testing Board	custom-made	\$850.00	25/12/2017	NTTI		○
03-1-07-011	Motor Testing Board	custom-made	\$850.00	25/12/2017	NTTI		○
03-1-07-012	Motor Testing Board	custom-made	\$850.00	25/12/2017	NTTI		○
03-1-07-013	Motor Testing Board	custom-made	\$850.00	25/12/2017	NTTI		○
03-1-07-014	Motor Testing Board	custom-made	\$850.00	23/08/19	NTTI		○
03-1-07-015	Motor Testing Board	custom-made	\$850.00	23/08/19	NTTI		○
03-1-07-016	Motor Testing Board	custom-made	\$850.00	23/08/19	NTTI		○

## NTTI

Serial No	Equipment Name	Model	Amount (USD)	Acquisition Date	Storage Location	Manager	Usable (○ or ×)
03-1-08-001	Transformer	custom-made	\$850.00	25/12/2017	NTTI		○
03-1-09-001	Pneumatic training board	custom-made	\$2,500.00	06/02/2019	NTTI		○
03-1-09-002	Pneumatic training board	custom-made	\$2,500.00	06/02/2019	NTTI		○
03-1-09-003	Pneumatic training board	custom-made	\$2,500.00	06/02/2019	NTTI		○
03-1-09-004	Pneumatic training board	custom-made	\$2,500.00	06/02/2019	NTTI		○
03-1-09-005	Pneumatic training board	custom-made	\$2,500.00	06/02/2019	NTTI		○
03-1-09-006	Pneumatic training board	custom-made	\$2,500.00	06/02/2019	NTTI		○
03-1-09-007	Pneumatic training board	custom-made	\$2,500.00	06/02/2019	NTTI		○
03-1-10-001	Conveyor equipment	custom-made	\$1,042.00	22/03/2019	NTTI		○
03-1-10-002	Conveyor equipment	custom-made	\$1,042.00	22/03/2019	NTTI		○
03-1-10-003	Conveyor equipment	custom-made	\$1,042.00	22/03/2019	NTTI		○
03-1-10-004	Conveyor equipment	custom-made	\$1,042.00	22/03/2019	NTTI		○
03-1-10-005	Conveyor equipment	custom-made	\$1,042.00	22/03/2019	NTTI		○
03-1-10-006	Conveyor equipment	custom-made	\$1,042.00	22/03/2019	NTTI		○
03-1-10-007	Conveyor equipment	custom-made	\$1,042.00	22/03/2019	NTTI		○
03-1-10-008	Conveyor equipment	custom-made	\$1,042.00	22/03/2019	NTTI		○
03-1-10-009	Conveyor equipment	custom-made	\$1,042.00	22/03/2019	NTTI		○
03-1-10-010	Conveyor equipment	custom-made	\$1,042.00	22/03/2019	NTTI		○
03-1-10-011	Conveyor equipment	custom-made	\$1,042.00	22/03/2019	NTTI		○
03-1-10-012	Conveyor equipment	custom-made	\$1,042.00	22/03/2019	NTTI		○
03-1-10-013	Conveyor equipment	custom-made	\$1,042.00	22/03/2019	NTTI		○
03-1-10-014	Conveyor equipment	custom-made	\$1,042.00	22/03/2019	NTTI		○
03-1-10-015	Conveyor equipment	custom-made	\$1,042.00	22/03/2019	NTTI		○
03-1-10-016	Conveyor equipment	custom-made	\$1,042.00	22/03/2019	NTTI		○
03-1-10-017	Conveyor equipment	custom-made	\$1,042.00	2020/12/6	NTTI		○
03-1-10-018	Conveyor equipment	custom-made	\$1,042.00	2020/12/6	NTTI		○
03-1-10-019	Conveyor equipment	custom-made	\$1,042.00	2020/12/6	NTTI		○
03-1-10-020	Conveyor equipment	custom-made	\$1,042.00	2020/12/6	NTTI		○

## NTTI

<b>Serial No</b>	<b>Equipment Name</b>	<b>Model</b>	<b>Amount (USD)</b>	<b>Acquisition Date</b>	<b>Storage Location</b>	<b>Manager</b>	<b>Usable (○ or ×)</b>
03-1-10-021	Conveyor equipment	custom-made	\$1,042.00	2020/12/6	NTTI		○
03-1-10-022	Conveyor equipment	custom-made	\$1,042.00	2020/12/6	NTTI		○
03-1-10-023	Conveyor equipment	custom-made	\$1,042.00	2020/12/6	NTTI		○
03-1-10-024	Conveyor equipment	custom-made	\$1,042.00	2020/12/6	NTTI		○
03-1-11-001	PLC_40 I/O	custom-made	\$997.00	22/03/2019	NTTI		○
03-1-11-002	PLC_40 I/O	custom-made	\$997.00	22/03/2019	NTTI		○
03-1-11-003	PLC_40 I/O	custom-made	\$997.00	22/03/2019	NTTI		○
03-1-11-004	PLC_40 I/O	custom-made	\$997.00	22/03/2019	NTTI		○
03-1-11-005	PLC_40 I/O	custom-made	\$997.00	22/03/2019	NTTI		○
03-1-11-006	PLC_40 I/O	custom-made	\$997.00	22/03/2019	NTTI		○
03-1-11-007	PLC_40 I/O	custom-made	\$997.00	22/03/2019	NTTI		○
03-1-11-008	PLC_40 I/O	custom-made	\$997.00	22/03/2019	NTTI		○
03-1-11-009	PLC_40 I/O	custom-made	\$997.00	22/03/2019	NTTI		○
03-1-11-010	PLC_40 I/O	custom-made	\$997.00	22/03/2019	NTTI		○
03-1-11-011	PLC_40 I/O	custom-made	\$997.00	22/03/2019	NTTI		○
03-1-11-012	PLC_40 I/O	custom-made	\$997.00	22/03/2019	NTTI		○
03-1-11-013	PLC_40 I/O	custom-made	\$997.00	22/03/2019	NTTI		○
03-1-11-014	PLC_40 I/O	custom-made	\$997.00	22/03/2019	NTTI		○
03-1-11-015	PLC_40 I/O	custom-made	\$997.00	22/03/2019	NTTI		○
03-1-11-016	PLC_40 I/O	custom-made	\$997.00	22/03/2019	NTTI		○
03-1-11-017	PLC_40 I/O	custom-made	\$997.00	2020/12/6	NTTI		○
03-1-11-018	PLC_40 I/O	custom-made	\$997.00	2020/12/6	NTTI		○
03-1-11-019	PLC_40 I/O	custom-made	\$997.00	2020/12/6	NTTI		○
03-1-11-020	PLC_40 I/O	custom-made	\$997.00	2020/12/6	NTTI		○
03-1-11-021	PLC_40 I/O	custom-made	\$997.00	2020/12/6	NTTI		○
03-1-11-022	PLC_40 I/O	custom-made	\$997.00	2020/12/6	NTTI		○
03-1-11-023	PLC_40 I/O	custom-made	\$997.00	2020/12/6	NTTI		○
03-1-11-024	PLC_40 I/O	custom-made	\$997.00	2020/12/6	NTTI		○

## NTTI

Serial No	Equipment Name	Model	Amount (USD)	Acquisition Date	Storage Location	Manager	Usable (○ or ×)
03-1-12-001	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	NTTI		○
03-1-12-002	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	NTTI		○
03-1-12-003	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	NTTI		○
03-1-12-004	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	NTTI		○
03-1-12-005	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	NTTI		○
03-1-12-006	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	NTTI		○
03-1-12-007	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	NTTI		○
03-1-12-008	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	NTTI		○
03-1-12-009	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	NTTI		○
03-1-12-010	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	NTTI		○
03-1-12-011	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	NTTI		○
03-1-12-012	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	NTTI		○
03-1-12-013	Touch panel (HMI)	TS1070	\$360.00	27/03/2019	NTTI		○
03-1-13-001	Water supply and drainage pump system	custom-made	\$900.00	27/03/2019	NTTI		○
03-1-13-002	Water supply and drainage pump system	custom-made	\$900.00	27/03/2019	NTTI		○
03-1-14-001	Torque driver SET	TOHNICHI	\$448.00	27/03/2019	NTTI		○
03-1-15-001	Camera for Projector	custom-made	\$600.00	30/08/2019	NTTI		○
03-1-15-002	Camera for Projector	custom-made	\$600.00	2020/8/12	NTTI		○
03-1-15-003	Camera for Projector	custom-made	\$600.00	2020/8/12	NTTI		○
03-1-16-001	Control board assembly panel	custom-made	\$898.00	31/01/2020	NTTI		○
03-1-16-002	Control board assembly panel	custom-made	\$898.00	31/01/2020	NTTI		○
03-1-16-003	Control board assembly panel	custom-made	\$898.00	31/01/2020	NTTI		○
03-1-16-004	Control board assembly panel	custom-made	\$898.00	31/01/2020	NTTI		○
03-1-16-005	Control board assembly panel	custom-made	\$898.00	31/01/2020	NTTI		○
03-1-16-006	Control board assembly panel	custom-made	\$898.00	31/01/2020	NTTI		○
03-1-16-007	Control board assembly panel	custom-made	\$898.00	31/01/2020	NTTI		○
03-1-16-008	Control board assembly panel	custom-made	\$898.00	31/01/2020	NTTI		○
03-1-16-009	Control board assembly panel	custom-made	\$898.00	31/01/2020	NTTI		○



## NTTI

<b>Serial No</b>	<b>Equipment Name</b>	<b>Model</b>	<b>Amount (USD)</b>	<b>Acquisition Date</b>	<b>Storage Location</b>	<b>Manager</b>	<b>Usable (○ or ×)</b>
03-1-16-010	Control board assembly panel	custom-made	\$898.00	31/01/2020	NTTI		○
03-1-16-011	Control board assembly panel	custom-made	\$898.00	31/01/2020	NTTI		○
03-1-17-001	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-002	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-003	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-004	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-005	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-006	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-007	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-008	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-009	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-010	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-011	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-012	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-013	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-014	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-015	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-016	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-017	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-018	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-019	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-020	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-021	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-022	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-023	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-17-024	PLC control panel	custom-made	\$1,283.00	29/06/20	NTTI		○
03-1-18-001	Sensor training board	custom-made	\$1,135.00	25.02.2020	NTTI		○
03-1-18-002	Sensor training board	custom-made	\$1,135.00	25.02.2020	NTTI		○

## NTTI

<b>Serial No</b>	<b>Equipment Name</b>	<b>Model</b>	<b>Amount (USD)</b>	<b>Acquisition Date</b>	<b>Storage Location</b>	<b>Manager</b>	<b>Usable (○ or ×)</b>
03-1-18-003	Sensor training board	custom-made	\$1,135.00	25.02.2020	NTTI		○
03-1-18-004	Sensor training board	custom-made	\$1,135.00	25.02.2020	NTTI		○
03-1-18-005	Sensor training board	custom-made	\$1,135.00	25.02.2020	NTTI		○
03-1-18-006	Sensor training board	custom-made	\$1,135.00	25.02.2020	NTTI		○
03-1-18-007	Sensor training board	custom-made	\$1,135.00	25.02.2020	NTTI		○
03-1-19-001	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	NTTI		○
03-1-19-002	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	NTTI		○
03-1-19-003	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	NTTI		○
03-1-19-004	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	NTTI		○
03-1-19-005	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	NTTI		○
03-1-19-006	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	NTTI		○
03-1-19-007	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	NTTI		○
03-1-19-008	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	NTTI		○
03-1-19-009	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	NTTI		○
03-1-19-010	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	NTTI		○
03-1-19-011	Digital Oscilloscope	TBS1072B-EDU	\$821.00	31/01/2020	NTTI		○
03-1-20-001	Function Generator	AFG1022	\$1,028.00	31/01/2020	NTTI		○
03-1-20-002	Function Generator	AFG1022	\$1,028.00	31/01/2020	NTTI		○
03-1-20-003	Function Generator	AFG1022	\$1,028.00	31/01/2020	NTTI		○
03-1-20-004	Function Generator	AFG1022	\$1,028.00	31/01/2020	NTTI		○
03-1-20-005	Function Generator	AFG1022	\$1,028.00	31/01/2020	NTTI		○
03-1-20-006	Function Generator	AFG1022	\$1,028.00	31/01/2020	NTTI		○
03-1-20-007	Function Generator	AFG1022	\$1,028.00	31/01/2020	NTTI		○
03-1-20-008	Function Generator	AFG1022	\$1,028.00	31/01/2020	NTTI		○
03-1-20-009	Function Generator	AFG1022	\$1,028.00	31/01/2020	NTTI		○
03-1-20-010	Function Generator	AFG1022	\$1,028.00	31/01/2020	NTTI		○
03-1-20-011	Function Generator	AFG1022	\$1,028.00	31/01/2020	NTTI		○
03-1-21-001	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	NTTI		○

## NTTI

<b>Serial No</b>	<b>Equipment Name</b>	<b>Model</b>	<b>Amount (USD)</b>	<b>Acquisition Date</b>	<b>Storage Location</b>	<b>Manager</b>	<b>Usable (○ or ×)</b>
03-1-21-002	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	NTTI		○
03-1-21-003	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	NTTI		○
03-1-21-004	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	NTTI		○
03-1-21-005	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	NTTI		○
03-1-21-006	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	NTTI		○
03-1-21-007	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	NTTI		○
03-1-21-008	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	NTTI		○
03-1-21-009	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	NTTI		○
03-1-21-010	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	NTTI		○
03-1-21-011	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	NTTI		○
03-1-21-012	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	NTTI		○
03-1-21-013	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	NTTI		○
03-1-21-014	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	NTTI		○
03-1-21-015	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	NTTI		○
03-1-21-016	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	NTTI		○
03-1-21-017	DC Power Supply	GPS-3030D	\$196.00	31/01/2020	NTTI		○
03-1-22-001	Label marker	KL-G2	\$165.00	2020/7/9	NTTI		○
03-1-23-001	Induction Motor experiment board	custom-made	\$12,260.00	2020/7/9	NTTI		○

**<For technical seminar/event demo use>**

Serial No	Equipment Name	Model	Amount (USD)	Date of granting	Storage Location	Usable (○ or ×)
00-1-01-003	Sequence Training Board	custom-made	\$515.71	12/03/2021	NPIC	○
00-1-01-010	Sequence Training Board	custom-made	\$515.71	12/03/2021	NPIC	○
00-1-02-003	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	12/03/2021	NPIC	○
00-1-02-010	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	12/03/2021	NPIC	○
00-1-03-001	Star Delta Staring Training Board	custom-made	\$762.45	12/03/2021	NPIC	○
00-1-03-002	Star Delta Staring Training Board	custom-made	\$762.45	12/03/2021	NPIC	○
00-1-04-001	Motor Control Board	custom-made	\$760.45	12/03/2021	NPIC	○
00-1-04-002	Motor Control Board	custom-made	\$760.45	12/03/2021	NPIC	○
00-1-05-001	Inverter Training Board	custom-made	\$682.98	12/03/2021	NPIC	○
00-1-05-002	Inverter Training Board	custom-made	\$682.98	12/03/2021	NPIC	○
00-1-06-001	Motor for Star Delta	custom-made	\$762.45	12/03/2021	NPIC	○
00-1-06-002	Motor for Star Delta	custom-made	\$762.45	12/03/2021	NPIC	○
00-1-07-001	Motor Testing Board	custom-made	\$850.00	12/03/2021	NPIC	○
00-1-07-002	Motor Testing Board	custom-made	\$850.00	12/03/2021	NPIC	○
00-1-08-001	Transformer	custom-made	\$850.00	12/03/2021	NPIC	○
00-1-09-001	Conveyor equipment	custom-made	\$1,042.00	12/03/2021	NPIC	○
00-1-09-002	Conveyor equipment	custom-made	\$1,042.00	12/03/2021	NPIC	○
00-1-09-003	Conveyor equipment	custom-made	\$1,042.00	12/03/2021	NPIC	○
00-1-10-001	PLC_40 I/O	custom-made	\$997.00	12/03/2021	NPIC	○
00-1-10-002	PLC_40 I/O	custom-made	\$997.00	12/03/2021	NPIC	○

## RPITSB the asset management sheet

Serial No	Equipment Name	Model	Amount (USD)	Date of Granting	Storage Location	Usable (○ or ×)
04-1-01-001	Electrical Maintenance Training Board	custom-made	\$515.71	25/12/2017	RPITSB	○
04-1-01-002	Electrical Maintenance Training Board	custom-made	\$515.71	25/12/2017	RPITSB	○
04-1-01-003	Electrical Maintenance Training Board	custom-made	\$515.71	25/12/2017	RPITSB	○
04-1-01-004	Electrical Maintenance Training Board	custom-made	\$515.71	25/12/2017	RPITSB	○
04-1-01-005	Electrical Maintenance Training Board	custom-made	\$515.71	25/12/2017	RPITSB	○
04-1-01-006	Electrical Maintenance Training Board	custom-made	\$515.71	25/12/2017	RPITSB	○
04-1-01-007	Electrical Maintenance Training Board	custom-made	\$515.71	25/12/2017	RPITSB	○
04-1-01-008	Electrical Maintenance Training Board	custom-made	\$515.71	25/12/2017	RPITSB	○
04-1-01-009	Electrical Maintenance Training Board	custom-made	\$515.71	25/12/2017	RPITSB	○
04-1-01-010	Electrical Maintenance Training Board	custom-made	\$515.71	25/12/2017	RPITSB	○
04-1-01-011	Electrical Maintenance Training Board	custom-made	\$515.71	25/12/2017	RPITSB	○
04-1-02-001	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	25/12/2017	RPITSB	○
04-1-02-002	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	25/12/2017	RPITSB	○
04-1-02-003	PLC(FUJI Electric)	NA0P24T-31C	\$451.42	25/12/2017	RPITSB	○

# Non-technical Equipment Provision List

## MLVT

No.	Equipment No.	Arrival Site/ Purchase Day	Equipment Name	Model	Manufacturer/ supplier co.,	Total Amount (USD)	Date of Granting	Grant Qty	Place of using, keeping	Responsible C/P
1	15-3-000643	2015/12/30	Laptop PC	Dell Latitude E6440, Windows, MS Office		1750	2021/3/18	1	PJ activities	MLVT
2	19-3-001404	2020/1/14	Air purifier	Hitachi EP-A9000		711.55	2021/3/18	1	NTTI PJ office	MLVT
3	19-3-001405	2020/1/14	Air purifier	Hitachi EP-A9000		711.55	2021/3/18	1	NTTI PJ office	MLVT
4	16-3-000075	2016/6/17	4WD vehicle (OI-7550)	Mitsubishi Pajero		31850	2021/3/18	1	PJ activities	MLVT
5	15-3-002100	2016/5/19	Air Conditioner	Mitsubishi Inverter (R410A)		743.6	2021/3/18	1	PJ activities	MLVT
6	15-3-000640	2016/1/11	Desktop PC	Dell OptiPlex 3020		553	2021/3/18	1	PJ activities	MLVT
7	16-3-002111	2017/2/27	Desktop PC	Dell 3040MT (18-inch monitor)		485	2021/3/18	1	PJ activities	MLVT
8	15-3-001366	2016/3/11	Photocopier	Ricoh MP2501L		2395	2021/3/18	1	PJ activities	MLVT
9	16-3-003971	2016/9/19	Safety box	Hanami		160	2021/3/18	1	MLTV Office	MLVT
10	15-3-001369	2016/2/16	Laptop PC	Dell Latitude 3450		820	2021/3/18	1	PJ activities	MLVT

## MLVT

No.	Equipment No.			Arrival Site/ Purchase Day	Equipment Name	Model	Manufacturer/ supplier co.,	Total Amount (USD)	Date of Granting	Grant Qty	Place of using, keeping	Responsible C/P
11	A	15	016	2016/02/01	Digital camera	Nikon Coolpix S6900	Nikon	\$283.80	2021/3/18	1	PJ Office	MLVT
12	A	16	002	2016/06/07	External Hard Disk	Transcend StoreJet 2TB C915030941	Taiwan/Anana	\$264.00	2021/3/18	2	PJ Office	MLVT
13	A	15	042	2016/03/16	Sliding glass door Cabinet	SG72 Standard (W900*H400*H1800)	LEECO Shop	\$332.00	2021/3/18	1	PJ Office	MLVT
14	A	15	002	2015/10/20	Swivel Chair	PCH7118 (black)	President furniture shop	\$391.60	2021/3/18	2	PJ Office	MLVT
15	A	15	006	2015/10/27	Office Desk with 3 drawers	EAGLE (ED42+g)	President furniture shop	\$478.50	2021/3/18	2	PJ Office	MLVT
16	A	15	026	2016/2/23	Refrigerator Inverter	HITACHI R-H200PA, Two doors/Inverter	Sunsimixco	\$285.00	2021/3/18	1	PJ Office	MLVT
17	A	15	001	2015/10/20	Laser printer (B/W)	HP LaserJet ProMFP M225dn,	HP/Anana	\$280.00	2021/3/18	1	MLVT Office	MLVT
18	A	15	007	02/11/2015	Vaccum cleaner	Panasonic MC- CG300,S/N:20150403-	NOJIMA, AEON mall	\$72.00	2021/3/18	1	MLVT Office	MLVT
19	A	16	008	02/11/2016	Portable speaker and 2 microphones set			\$265.00	2021/3/18	1	MLVT office	MLVT
20	A	15	030	11/03/2016	Office Desk	OD3(W1200*D700*H7 50)	Malaysia/ LEECO	\$132.00	2021/3/18	1	MLVT Office	MLVT
21	A	15	032	11/03/2016	Meeting table	SO1224(W2400*D120 0*H750)	Malaysia/ LEECO	\$185.00	2021/3/18	1	MLVT Office	MLVT
22	A	15	033	11/03/2016	Swivel Chair	F451B (black)	Malaysia/ LEECO	\$75.00	2021/3/18	1	MLVT Office	MLVT
23	A	15	034	11/03/2016	Fixed Chair	FX114-black	Malaysia/ LEECO	\$144.00	2021/3/18	8	MLVT Office	MLVT
24	A	15	041	16/03/2016	Office Desk	OD3(W1200*D700*H7 50)	LEECO Shop	\$264.00	2021/3/18	1	1MLVT,1NTTI	MLVT
25	A	15	042	16/03/2016	Sliding glass door Cabinet	SG72 Standard (W900*H400*H1800)	LEECO Shop	\$332.00	2021/3/18	1	MLVT Office	MLVT
26	A	15	002	20/10/2015	Swivel Chair	PCH7118 (black)	President furniture shop	\$391.60	2021/3/18	2	MLVT Office	MLVT
27	A	16	006	26/08/2016	Whiteboard plus stand	W150*H90cm	Internal Book Center (IBC)	\$125.00	2021/3/18	1	MLVT office	MLVT
28	A	15	006	27/10/2015	Office Desk with 3 drawers	EAGLE (ED42+g)	President furniture shop	\$478.50	2021/3/18	1	MLVT Office	MLVT
29	A	20	001	05/03/2021	External Hard Disk for STP docu	Transcend StoreJet H3	Transcend	\$53.00	2021/3/18	1	MLVT Office	MLVT
30	A	20	002	05/03/2021	External Hard Disk for STP docu	Transcend StoreJet H3	Transcend	\$53.00	2021/3/18	1	MLVT	MLVT



## NPIC

No.	Equipment No.	Arrival Site/ Purchase Day	Equipment Name	Model	Manufacturer/ supplier co.,	Total Amount (USD)	Date of Granting	Grant Qty	Place of using, keeping
1	15-3-002109	2016/5/19	Air Conditioner	Mitsubishi Inverter (R410A)		\$827.23	2021/3/18	1	NPIC (Work shop)
2	15-3-002110	2016/5/19	Air Conditioner	Mitsubishi Inverter (R410A)		\$827.23	2021/3/18	1	NPIC (Work shop)
3	15-3-002111	2016/5/19	Air Conditioner	Mitsubishi Inverter (R410A)		\$827.23	2021/3/18	1	NPIC Office
4	15-3-002112	2016/5/19	Air Conditioner	Mitsubishi Inverter (R410A)		\$827.23	2021/3/18	1	NPIC Office
5	15-3-001367	2016/3/11	LCD Projector	Casio		\$792.00	2021/3/18	1	NPIC Office
6	15-3-001374	2016/3/11	Photocopier	Ricoh MP2501L		\$2,395.00	2021/3/18	1	NPIC (Admin Office)
7	18-3-004694	2019/8/22	Practice desks for NPIC new practice room	Leeco		\$102.03	2021/3/18	1	NPIC Workshop
8	14-3-000349	2014/8/14	Safe box	HANMI SAFE HS-38D		\$170.00	2021/3/18	1	NPIC Office
9	15-3-002107	2016/5/19	Server	Dell PowerEdge T110II		\$1,505.00	2021/3/18	1	NPIC (Server room)
10	15-3-001370	2016/3/11	Laptop PC	Dell Latitude 3450		\$820.00	2021/3/18	1	NPIC Office
11	15-3-001371	2016/3/11	Laptop PC	Dell Latitude 3450		\$820.00	2021/3/18	1	NPIC Office
12	15-3-000642	2016/1/11	Desktop PC	Dell OptiPlex 9020, Windows, MS Office		\$1,305.00	2021/3/18	1	NPIC Office
13	16-3-003970	2018/2/15	LCD monitor and PC set	Dell		\$1,548.25	2021/3/18	1	NPIC Office
14	17-3-001559	2018/2/12	Sliding glass cabinet for NPIC PJ Office	Leeco		\$308.00	2021/3/18	1	NPIC Office
15	18-3-004688	2018/12/25	Steel shelf for NPIC PJ Office	Fuli		\$285.00	2021/3/18	1	NPIC Office
16	15-3-002108	2016/3/16	Desktop PC	Dell OptiPlex 3020 MT		\$475.00	2021/3/18	1	NPIC Office
17	16-3-002109	2016/12/29	A3 Monochrome laserjet printer	Fuji Xerox DP3105		\$1,115.00	2021/3/18	1	NPIC Office
18	17-3-000819	2017/5/31	Photocopier	Fiji Xerox DocuCentre-V4070 CPS		\$7,040.00	2021/3/18	1	NPIC Office
19	17-3-001561	2017/7/24	Steel cabinet for equipment (NPIC Office)	Leeco		\$276.80	2021/3/18	1	NPIC Office
20	15-3-001587	2016/3/18	Laptop PC	Dell Inspiron 5000, Windows8.1, MSOffice		\$1,015.00	2021/3/18	1	NPIC Office
21	15-3-001588	2016/3/18	Laptop PC	Dell Inspiron 5000, Windows8.1, MSOffice		\$1,015.00	2021/3/18	1	NPIC Office
22	15-3-001589	2016/3/18	Laptop PC	Dell Inspiron 5000, Windows8.1, MSOffice		\$1,015.00	2021/3/18	1	NPIC Office
23	15-3-001590	2016/3/18	Laptop PC	Dell Inspiron 5000, Windows8.1, MSOffice		\$1,015.00	2021/3/18	1	NPIC Office
24	15-3-001591	2016/3/18	Laptop PC	Dell Inspiron 5000, Windows8.1, MSOffice		\$1,015.00	2021/3/18	1	NPIC Office
25	15-3-001592	2016/3/18	Laptop PC	Dell Inspiron 5000, Windows8.1, MSOffice		\$1,015.00	2021/3/18	1	NPIC Office
26	15-3-001593	2016/3/18	Laptop PC	Dell Inspiron 5000, Windows8.1, MSOffice		\$1,015.00	2021/3/18	1	NPIC Office
27	15-3-001594	2016/3/18	Laptop PC	Dell Inspiron 5000, Windows8.1, MSOffice		\$1,015.00	2021/3/18	1	NPIC Office
28	15-3-001595	2016/3/18	Laptop PC	Dell Inspiron 5000, Windows8.1, MSOffice		\$1,015.00	2021/3/18	1	NPIC Office
29	15-3-001596	2016/3/18	Laptop PC	Dell Inspiron 5000, Windows8.1, MSOffice		\$1,015.00	2021/3/18	1	NPIC Office
30	15-3-001597	2016/3/18	Laptop PC	Dell Inspiron 5000, Windows8.1, MSOffice		\$1,015.00	2021/3/18	1	NPIC Office
31	15-3-001598	2016/3/18	Laptop PC	Dell Inspiron 5000, Windows8.1, MSOffice		\$1,015.00	2021/3/18	1	NPIC Office
32	17-3-000504	2017/7/21	Tube Marking Machine	MAX LM-390A		\$772.73	2021/3/18	1	NPIC Office
33	16-3-002003	2016/12/26	Electric Training Board	custom-made		\$515.71	2021/3/18	1	NPIC Office
34	16-3-002010	2016/12/26	Electric Training Board	custom-made		\$515.71	2021/3/18	1	NPIC Office
35	17-3-000544	2017/9/29	Inverter Panel	custom made, incl.10 kinds of parts		\$682.98	2021/3/18	1	NPIC (Work shop)
36	17-3-000547	2017/9/29	Inverter Panel	custom made, incl.10 kinds of parts		\$682.98	2021/3/18	1	NPIC (Work shop)
37	17-3-000598	2017/9/29	Motor Control Device	custom made, incl.8 kinds of parts		\$850.00	2021/3/18	1	NPIC (Work shop)
38	17-3-000600	2017/9/29	Motor Control Device	custom made, incl.8 kinds of parts		\$850.00	2021/3/18	1	NPIC (Work shop)
39	16-3-003555	2017/3/22	Motor Control Panel	custom made, incl.21 kinds of parts		\$760.45	2021/3/18	1	NPIC (Store Room)
40	16-3-003560	2017/3/22	Motor Control Panel	custom made, incl.21 kinds of parts		\$760.45	2021/3/18	1	NPIC (Store Room)
41	16-3-003603	2017/3/22	PLC	custom made, incl.3 kinds of parts		\$451.42	2021/3/18	1	NPIC Office
42	16-3-003610	2017/3/22	PLC	custom made, incl.3 kinds of parts		\$451.42	2021/3/18	1	NPIC Office
43	18-3-000935	2018/12/7	PLC Box	custom made, incl.6 kinds of parts		\$997.00	2021/3/18	1	NPIC Office
44	18-3-000936	2018/12/7	PLC Box	custom made, incl.6 kinds of parts		\$997.00	2021/3/18	1	NPIC Office
45	15-3-002105	2016/3/14	PLC software	Fuji Electrics NP 4H-SWN/SEDBV3		\$2,750.00	2021/3/18	1	NPIC Office
46	16-3-003501	2017/3/22	Star Delta Control Panel	custom made, incl.23 kinds of parts		\$762.45	2021/3/18	1	NPIC Office

## NPIC

<b>No.</b>	<b>Equipment No.</b>	<b>Arrival Site/ Purchase Day</b>	<b>Equipment Name</b>	<b>Model</b>	<b>Manufacturer/ supplier co.,</b>	<b>Total Amount (USD)</b>	<b>Date of Granting</b>	<b>Grant Qty</b>	<b>Place of using, keeping</b>
47	16-3-003502	2017/3/22	Star Delta Control Panel		custom made, incl.23 kinds of parts	\$762.45	2021/3/18	1	NPIC Office
48	18-3-000933	2018/12/7	Sequence Control Panel		custom made, incl.28 kinds of parts	\$1,042.00	2021/3/18	1	NPIC Office
49	18-3-000934	2018/12/7	Sequence Control Panel		custom made, incl.28 kinds of parts	\$1,042.00	2021/3/18	1	NPIC Office

## NPIC

No.	Equipment No.	Arrival Site/ Purchase Day	Equipment Name	Model	Manufacturer/ supplier co.,	Total Amount (USD)	Date of Granting	Grant Qty	Place of using, keeping
1	A 16 012	13/02/2017	Holesaw drill for technical training	Makita(D-21652, D-33657)	Makita cooperation, Chin	\$244.20	2021/3/18	6	NPIC PJ Office
2	A 17 004	06/11/2017	Cordless driver for electrical practice	Makita(DF332DWAE)	Makita cooperation, Chin	\$1,167.87	2021/3/18	6	NPIC PJ Office
3	A 17 005	08/11/2017	(HMI) touch panel for technical seminar	Fuji		\$4,680.00	2021/3/18	13	NPIC
4	A 17 006	08/12/2017	Transformer for practice			\$960.32	2021/3/18	1	NPIC PJ Office
5	A 17 007	12/03/2018	Multi testers (digital 9, Analog 11) Electrical tools for technical seminar			\$1,480.00	2021/3/18	20	NPIC PJ Office
6	A 16 015	14/03/2017	(10Wire strier+10Crimp tool for control panel)	HOZAN		\$1,050.00	2021/3/18	20	
7	A 16 014	2017/03/07	Printer accessories (Duplex unit+Tray)			\$670.00	2021/3/18	1	NPIC PJ Office
8	A 15 018	2016/2/15	Label printing (TEPRA)	Teptra Pro SR 920	King Jing Co., Ltd.	\$320.00	2021/3/18	1	NPIC PJ Office
9	A 15 011	2016/1/26	Refregirator Inverter system	HITACHI R-H200PA, Two doors Refregirator	Sunsimixco	\$285.00	2021/3/18	1	NPIC PJ Office
10	A 15 012	2016/1/27	Office Desk with 3 drawers	EAGLE (ED1400)	President furniture shop	\$585.00	2021/3/18	2	NPIC PJ Office
11	A 15 013	2016/1/27	Sliding glass door Cabinet	ECG6 (WDH: 900*450*1850mm)	President furniture shop	\$150.00	2021/3/18	1	NPIC PJ Office
12	A 17 003	2017/08/28	Sliding glass door Cabinet			\$308.00	2021/3/18	1	NPIC PJ Office
13	A 18 004	02/07/2018	Practice desks for NPIC new bldg workshop			\$1,815.00	2021/3/18	15	NPIC New building
14	A 15 028	07/03/2016	heavy duty shelves for equipment storage		FULI	\$1,238.60	2021/3/18	3	NPIC
15	A 15 029	07/03/2016	Cart for equipment storage		FULI	\$266.80	2021/3/18	1	NPIC
16	A 16 003	07/06/2016	Sliding class door Cabinet	SG72B Standard (w1200*D465*H2100)	LEECO Shop	\$279.00	2021/3/18	1	NPIC Workshop
17	A 18 003	07/06/2018	NPIC Job Fair Booth			\$475.00	2021/3/18	5	NPIC
18	A 16 004	08/06/2016	Whiteboard-fixed type	(W240*H120)	Internal Book Center (IBC)	\$270.00	2021/3/18	1	NPIC
19	A 15 031	11/03/2016	Desk for workshop	HU18(W1800*D700*H750)	Malaysia/ LEECO	\$102.00	2021/3/18	1	NPIC Workshop
20	A 16 013	15/02/2017	Event Booth			\$2,850.00	2021/3/18	10	
21	A 15 019	16/02/2016	Desk for workshop	HU18(W1800*D700*H750)	LEECO Shop	\$1,122.00	2021/3/18	11	NPIC Workshop
22	A 15 022	16/02/2016	Sliding class door Cabinet	Standard SG(W1200*D465*H1800)	LEECO Shop	\$266.00	2021/3/18	1	NPIC
23	A 15 023	16/02/2016	Swivel Chair	F451B (black)	LEECO Shop	\$150.00	2021/3/18	2	NPIC
24	A 15 036	16/03/2016	Inverter for training	Frenic-MINI Inverter-FRN0006C2S-7A (0.75KW)	Hao phuong Cambodia Co.,Ltd	\$10,927.68	2021/3/18	16	NPIC Workshop
25	A 15 037	16/03/2016	Vaccum cleaner	Panasonic MC-CG300	NOJIMA, AEON mall	\$144.00	2021/3/18	2	NPIC PJ Office
26	A 15 038	16/03/2016	Electric fan	Panasonic Stand fan		\$195.00	2021/3/18	1	NPIC PJ Office
27	A 15 008	20/01/2016	Whitebaord plus stand	Size (W:150 x H:90)	Internal Book Center (IBC)	\$280.50	2021/3/18	2	NPIC
28	A 16 009	20/12/2016	Booth for Job fair			\$1,500.00	2021/3/18	10	NPIC
29	A 17 002	22/06/2017	Steel shelves for NPIC's Electrical Wiring Room(600kg=4, 400Kg=3)	Fuli		\$1,595.80	2021/3/18	7	NPIC PJ Office
30	A 15 010	25/01/2016	Whitebaord fixed type	Whiteboard-fixed (W150*H100)	Internal Book Center (IBC)	\$105.13	2021/3/18	1	NPIC PJ Office
31	A 15 012	27/01/2016	Office Desk with 3 drawers	EAGLE (ED1400)	President furniture shop	\$585.00	2021/3/18	1	NPIC PJ Office
32	A 15 014	27/01/2016	Meeting table	Melaine (W3100) PM 116-578	President furniture shop	\$400.00	2021/3/18	1	NPIC PJ Office
33	A 15 015	27/01/2016	Swivel Chair	PCH 1100	President furniture shop	\$540.00	2021/3/18	10	NPIC PJ Office
34	A 20 003	05/03/2021	External Hard Disk for STP document bac	Transcend StoreJet H3 1TB	Transcend	\$53.00	2021/3/18	1	NPIC

## NTTI

No.	Equipment No.	Arrival Site/ Purchase Day	Equipment Name	Model	Total Amount (USD)	Date of Granting	Grant Qty	Place of using, keeping
1	18-3-004709	2019/9/10	A/C for NTTI workshop new store room	Mitsubishi SRK-10YN-S7 1.0 HP	\$582.89	2021/3/18	1	NTTI Workshop
2	15-3-001372	2016/3/11	Photocopier	Ricoh MP2501L	\$2,395.00	2021/3/18	1	NTTI Office
3	15-3-002106	2016/5/19	Air Conditioner	Mitsubishi Inverter (R410A)	\$958.65	2021/3/18	1	NTTI Office
4	16-3-002110	2017/2/27	Air Conditioner for PJ Office	Panasonic	\$503.80	2021/3/18	1	MLVT Office
5	17-3-002056	2018/4/2	Air Conditioner for NTTI new workshop	Mitsubishi	\$616.18	2021/3/18	1	NTTI Workshop 2
6	17-3-002057	2018/4/2	Air Conditioner for NTTI new workshop	Mitsubishi	\$616.18	2021/3/18	1	NTTI Workshop 2
7	17-3-002066	2018/4/2	Air Conditioner for NTTI new workshop	Mitsubishi	\$616.18	2021/3/18	1	NTTI Workshop 2
8	15-3-000641	2016/1/11	LCD Projector	Casio	\$792.00	2021/3/18	1	MLTV Office
9	19-3-001605	2020/3/3	Steel Cabinet for NTTI PJ Office	3DVFC-(PH)	\$99.00	2021/3/18	1	NTTI PJ office
10	19-3-001606	2020/3/3	Steel Cabinet for NTTI PJ Office	3DVFC-(PH)	\$99.00	2021/3/18	1	NTTI PJ office

NTTI

No.	Equipment No.			Arrival Site/ Purchase Day	Equipment Name	Model	Total Amount (USD)	Date of Granting	Grant Qty	Place of using, keeping
1	A	16	001	07/06/2016	Desk for workshop	SOA 180(W1800*D700*H750)	\$918.00	2021/3/18	9	NTTI workshop
2	A	16	004	08/06/2016	Whiteboard-fixed type	(W240*H120)	\$270.00	2021/3/18	2	2NTTI
3	A	15	035	11/03/2016	Chair (foldable)	G04AM-blue	\$144.00	2021/3/18	6	NTTI office
4	A	16	013	15/02/2017	Event Booth		\$2,850.00	2021/3/18	10	
5	A	15	020	16/02/2016	Office Desk	SCE167(W1600*D700*H750)	\$263.00	2021/3/18	1	NTTI PJ office
6	A	15	023	16/02/2016	Swivel Chair	F451B (black)	\$150.00	2021/3/18	2	NTTI
7	A	15	024	16/02/2016	Meeting table	PV60	\$145.00	2021/3/18	1	NTTI PJ office
8	A	15	025	16/02/2016	Fixed Chair	PM20-1 Red color	\$172.00	2021/3/18	4	NTTI PJ office
9	A	15	039	16/03/2016	Heavy duty shelves for equipment storage		\$318.30	2021/3/18	1	NTTI workshop
10	A	15	040	16/03/2016	Cart for equipment storage		\$133.40	2021/3/18	1	NTTI workshop
11	A	15	041	16/03/2016	Office Desk	OD3(W1200*D700*H750)	\$264.00	2021/3/18	1	1MLVT,1NTTI
12	A	15	043	16/03/2016	Sliding glass door Cabinet	SG72B Standard (w1200*D465*H2100)	\$279.00	2021/3/18	1	NTTI workshop
13	A	15	008	20/01/2016	Whitebaord plus stand	Size (W:150 x H:90)	\$140.25	2021/3/18	1	1NTTI
14	A	16	012	13/02/2017	Holesaw drill for technical training	Makita(D-21652, D-33657)	\$81.40	2021/3/18	2	NTTI
15	A	17	004	06/11/2017	Cordless driver for electrical practice	Makita(DF332DWAE)	\$389.29	2021/3/18	2	NTTI
16	A	18	002	30/05/2018	Soundssystem speaker set for NTTI	BMB	\$759.00	2021/3/18	1	NTTI
17	A	20	004	05/03/2021	External Hard Disk for STP document backup	Transcend StoreJet H3 1TB	\$53.00	2021/3/18	1	NTTI
18	A	20	006	05/03/2021	Steel cabinet with sliding glass		\$185.00	2021/3/18	1	NTTI
19	A	20	007	05/03/2021	Steel cabinet with sliding glass		\$185.00	2021/3/18	1	NTTI
20	A	20	008	05/03/2021	Steel cabinet with sliding glass		\$185.00	2021/3/18	1	NTTI
21	A	20	009	05/03/2021	Shelf with two joint parts	Fuli	\$294.00	2021/3/18	1	NTTI
22	A	20	010	05/03/2021	Shelf without joint parts	Fuli	\$280.40	2021/3/18	1	NTTI
23	A	20	011	05/03/2021	Shelf without joint parts	Fuli	\$280.40	2021/3/18	1	NTTI

## PPI

No.	Equipment No.	Arrival Site/ Purchase Day	Equipment Name	Model	Manufacturer/ supplier co.,	Total Amount (USD)	Grant Qty	Date of Granting	Place of using, keeping
1	18-3-004690	2019/8/22	Air Conditioner for PPI new workshop	Mitsubishi R410		\$702.57	1	2021/3/18	PPI
2	18-3-004691	2019/8/22	Air Conditioner for PPI new workshop	Mitsubishi R410		\$702.57	1	2021/3/18	PPI
3	18-3-004692	2019/8/22	Air Conditioner for PPI new workshop	Mitsubishi R410		\$702.57	1	2021/3/18	PPI
4	18-3-004693	2019/8/22	Air Conditioner for PPI new workshop	Mitsubishi R410		\$702.57	1	2021/3/18	PPI
5	16-3-002115	2017/2/27	Aluminium Stage for school events	n/a		\$1,624.18	1	2021/3/18	PPI
6	15-3-002101	2016/5/19	Air Conditioner	Mitsubishi Inverter (R410A)		\$958.93	1	2021/3/18	PPI workshop
7	15-3-002102	2016/5/19	Air Conditioner	Mitsubishi Inverter (R410A)		\$958.93	1	2021/3/18	PPI workshop
8	15-3-002103	2016/5/19	Air Conditioner	Mitsubishi Inverter (R410A)		\$958.93	1	2021/3/18	PPI workshop
9	15-3-002104	2016/5/19	Air Conditioner	Mitsubishi Inverter (R410A)		\$958.93	1	2021/3/18	PPI workshop
10	15-3-001368	2016/3/11	LCD Projector	Casio		\$792.00	1	2021/3/18	PPI Office
11	15-3-001375	2016/3/11	Photocopier	Ricoh MP2501L		\$2,395.00	1	2021/3/18	PPI Admin Office

## PPI

No.	Equipment No.			Arrival Site/ Purchase Day	Equipment Name	Model	Manufacturer/ supplier co.,	Total Amount (USD)	Grant Qty	Date of Granting	Place of using, keeping
1	A	16	027	03/03/2016	Whiteboard-fixed	(W120*H100)	Internal Book Center (IBC)	\$129.00	2	2021/3/18	PPI
2	A	15	028	07/03/2016	Heavy duty shelves for equipment storage		FULI	\$1,238.60	1	2021/3/18	PPI
3	A	15	029	07/03/2016	Cart for equipment storage		FULI	\$266.80	1	2021/3/18	PPI
4	A	17	001	07/06/2017	Sound System set for PPI	Yamaha		\$705.00	1	2021/3/18	PPI
5	A	16	013	15/02/2017	Event Booth			\$2,850.00	10	2021/3/18	PPI
6	A	15	021	16/02/2016	Desk for workshop	HU18(W1800*D700*H750)	LEECO Shop	\$1,428.00	14	2021/3/18	PPI
7	A	15	022	16/02/2016	Sliding class door Cabinet	Standard SG(W1200*D465*H2100)	LEECO Shop	\$266.00	1	2021/3/18	PPI
8	A	15	023	16/02/2016	Swivel Chair	F451B (black)	LEECO Shop	\$616.00	8	2021/3/18	PPI
9	A	15	008	20/01/2016	Whiteboard plus stand	Size (W:150 x H:90)	Internal Book Center (IBC)	\$140.25	1	2021/3/18	PPI
10	A	16	012	13/02/2017	Holesaw drill for technical training	Makita(D-21652, D-33657)	Makita cooperation, China	\$81.40	2	2021/3/18	PPI
11	A	17	004	06/11/2017	Cordless driver for electrical practice	Makita(DF332DWAE)	Makita cooperation, China	\$389.29	2	2021/3/18	PPI
12	A	18	001	22/05/2018	Practice desks for PPI new workshop	BMB		\$1,601.60	1	2021/3/18	PPI
13	A	20	005	05/03/2021	External Hard Disk for STP document backup	Transcend StoreJet H3 1TB	Transcend	\$53.00	1	2021/3/18	PPI
14	A	20	012	05/03/2021	Shelf with two joint parts	Fuli		\$294.00	1	2021/3/18	PPI
15	A	20	013	05/03/2021	Shelf without joint parts	Fuli		\$280.40	1	2021/3/18	PPI
16	A	20	014	05/03/2021	Shelf without joint parts	Fuli		\$280.40	1	2021/3/18	PPI
17	A	20	015	05/03/2021	Shelf board	Fuli		\$77.00	1	2021/3/18	PPI
18	A	20	016	05/03/2021	Shelf board	Fuli		\$77.00	1	2021/3/18	PPI

No.	Equipment No.			Arrival Site/ Purchase Day	Equipment Name	Model	Manufacturer/ supplier co.,	Total Amount (USD)	Grant Qty	Date of Granting	Place of using, keeping
19	A	20	017	05/03/2021	Shelf board	Fuli		\$77.00	1	2021/3/18	PPI



## Handover&amp;Discard

No.	Equipment No.			Arrival Site/ Purchase Day	Equipment Name	Model	Manufacturer/ supplier co.,	Total Amount (USD)	Date of Granting	Grant Qty	Place of using, keeping	Responsible C/P
57	A	16	005	05/08/2016	Translation equipment set (2transmitters & 10receivers)	TOA	TOA/Traing Sroy shop	\$2,796.00	2021/3/12	2+10	Handed over other newly started JICA PJ	Other JICA PJ
9	A	15	009	22/01/2016	Portable inkjet printer	Cannon		\$124.00		1	NPIC PJ Office	Broken and discarded
17	A	15	017	13/02/2016	Color inkjet printer	Epson ME 82WD		\$444.00		2	MLVT Office/NTTI Office	Broken and discarded

## 添付資料 4: 現地業務費実績

**Japanese Local Activity Cost Input (JFY2015-JFY2020)\***

**Currency Unit : US Dollar (US\$)**

EXPENDITURE ITEM		JFY2015	JFY2016	JFY2017	JFY2018	JFY2019	JFY2020	TOTAL
	General Expense	58,259.49	70,284.30	67,750.13	76,522.41	44,058.14	36,463.00	<b>353,337.47</b>
	Travel Expense (Air Fare)	1,080.00	1,873.00	1,940.00	187.00	1,330.00	0.00	<b>4,893.00</b>
	Travel Expense (Accommodation, Allowance, Transportation)	1,799.08	4,875.39	12,328.00	1,039.00	3,774.00	0.00	<b>19,002.47</b>
	Remuneration (Staff salary, Lecturer's fee, etc.)	4,136.93	14,015.63	17,923.34	19,569.59	19,727.54	36,463.00	<b>36,075.90</b>
	Local Consultant Contract Expense	0.00	9,906.00	33,364.00		20,094.00	0.00	<b>43,270.00</b>
<b>TOTAL (US\$)</b>		<b>65,275.50</b>	<b>100,954.32</b>	<b>133,305.47</b>	<b>97,318.00</b>	<b>88,983.68</b>	<b>72,926.00</b>	<b>558,762.97</b>

*\*; Cost exclude dispatch of Long/Short-term expert, overseas training, and equipment provision, only cost for project activities*

## 添付資料 5: 主な実施事業概要

**List of Project Activities <JFY 2015-2021>  
- Domestic Trainings -**

JICA TVET Project

No.	Name	Sex	Dept. Name/Title	Organization Name	Course Title	Period	Fiscal Year	Remarks
1	Chamroeun Touch	M	Lecturer, Electrical and Electronic Engineering Dept.	NTTI	Electrical Conservation Technology	Jan.12-Feb.2, 2017	JFY2016	by Mr. Suzuki/JEED
2	CHY Vanny	M	Instructor, Faculty of Electricity	PPI				
3	Tang Heng	M	Lecturer, Faculty of Electricity	NPIC				
4	YOEURN Sarem	M	Lecturer, Electrical and Electronic Engineering Dept.	NTTI	Installation of electrical wiring and testing	Feb.1-23, 2017	JFY2016	by Mr. Lotfi/CIAS
5	ROS Raksa	M	Instructor, Faculty of Electricity	PPI				
6	YAY Socheat	M	Lecturer, Faculty of Electricity	NPIC				
7	Ou Prumsotheara	F	Pedagogy dept. Instructor	NTTI	OSH KYT Training@NTTI	Apr. 3-4, 2017	JFY2017	by Mr. Suzuki/JISHA
8	Seng Sotheara	M	Pedagogy dept. Instructor	NTTI				
9	Dav Phearak	M	Construction Dept. Instructor	NTTI				
10	Kronn Total	M	Construction Dept. Instructor	NTTI				
11	Sous Socheat	M	Electricity Dept. Instructor	NTTI				
12	Chamroeun Touch	M	Electricity Dept. Instructor	NTTI				
13	Vann Phay	M	Electricity Dept. Instructor	NTTI				
14	Ros Raksa	M	Electricity Dept. Instructor	PPI				
15	Chy Vanny	M	Electricity Dept. Instructor	PPI				
16	Ly Bel	M	Electricity Dept. Instructor	PPI				
17	Prak Touch	M	Electricity Dept. Instructor	PPI				
18	Seng Sitha	M	Electricity Dept. Instructor	PPI				

**List of Project Activities <JFY 2015-2021>  
- Domestic Trainings -**

JICA TVET Project

No.	Name	Sex	Dept. Name/Title	Organization Name	Course Title	Period	Fiscal Year	Remarks
19	Yi Sinoeun	M	Official	DSC/MLVT	OSH KYT Training@NPIC	Apr. 5-6, 2017	JFY2017	by Mr. Suzuki/JISHA
20	Prak Chandararith	M	Official	DSC/MLVT				
21	Svay Rasy	M	Official	DSC/MLVT				
22	Keo Siekly	M	Official	DQA/MLVT				
23	Youth Sokpheara	M	Official	DOSH/MLVT				
24	Chhom Thida	F	Faculty of Civil Engineering	NPIC				
25	Ly Sokhemra	M	Faculty of Mechanic	NPIC				
26	San Monirath	M	Faculty of Mechanic	NPIC				
27	Huy Vichet	M	Faculty of Electricity	NPIC				
28	Nam Sophea	M	Facutly of Electricity	NPIC				
29	Bou Ratany	M	Faculty of Electronic	NPIC				
30	Ou Prumsotheara	F	Instructor, NTTI	NTTI	OSH KYT Training@NTTI 11 ptps	Apr. 2-4, 2018 (2.5 days)	JFY2018	by Mr. Suzuki/JISHA
31	Sum Chanveasna	M	Instructor, NTTI	NTTI				
32	Dav Phearak	M	Instructor, NTTI	NTTI				
33	Seng Sotheara	M	Instructor, NTTI	NTTI				
34	Keo Soneda	M	Instructor, NTTI	NTTI				
35	Yoeurn Sarem	M	Instructor, NTTI	NTTI				
36	Teng Channa	M	Instructor, NTTI	NTTI				
37	Vann Phay	M	Instructor, NTTI	NTTI				
38	Chamroeun Touch	M	Instructor, NTTI	NTTI				
39	Kron Total	M	Instructor, NTTI	NTTI				
40	Sous Socheat	M	Instructor, NTTI	NTTI				

**List of Project Activities <JFY 2015-2021>  
- Domestic Trainings -**

JICA TVET Project

No.	Name	Sex	Dept. Name/Title	Organization Name	Course Title	Period	Fiscal Year	Remarks
41	Chhom Thida	F	Instructor	NPIC	OSH KYT Training@NPIC 16 ptps incl. 5 company staff	Apr. 4-6, 2018 (2.5 days)	JFY2018	by Mr. Suzuki/JISHA
42	Nam Sophea	M	Instructor	NPIC				
43	San Monirath	M	Instructor	NPIC				
44	Bou Ratany	M	Instructor	NPIC				
45	Huy Vichet	M	Instructor	NPIC				
46	Ly Sokhemra	M	Instructor	NPIC				
47	Som Sothyrythea	M	Instructor	PPI				
48	Seng Sovannara	M	Instructor	PPI				
49	Yin Ratha	M	Instructor	PPI				
50	KAK Sotheara	M	Official	DQA/MLVT				
51	HIEK Sopheak	M	Official	DQA/MLVT				
52	San Vicheth	M	FujiFurukawaE&C(Cambodia).Co.Ltd					
53	Nouv Bunnan	M	FujiFurukawaE&C(Cambodia).Co.Ltd					
54	Som Vitou	M	SATO KOGYO (CAMBODIA) CO.,LTD					
55	Hory Sambath	M	SATO KOGYO (CAMBODIA) CO.,LTD					
56	Bo Sothea	M	ROHTO-MENTHOLATUM (CAMBODIA) CO., LTD.					

**List of Project Activities <JFY 2015-2021>  
- Domestic Trainings -**

JICA TVET Project

No.	Name	Sex	Dept. Name/Title	Organization Name	Course Title	Period	Fiscal Year	Remarks
57	Som Sothyrythea	M	Instructor, Faculty of Electricity	PPI	Industrial AC Motor Control Technoogy	Oct.15-28, 2018	JFY2018	by Mr. Suzaini Bin Supingat/CIAST
58	Sovan Kakada	M	Instructor, Faculty of Electricity	NPIC				
59	Chamroeun Touch	M	Lecturer, Electrical and Electronic Engineering Dept.	NTTI				
60	Orn Pich Narun	M	Lecturer, Faculty of Electricity	NPIC				
61	TEP Sokryth	M	Lecturer of Dept. of Electricity and Electronic Engineering	NTTI	Electronic curcuit design and assembly	Oct. 2, 2019 - Nov. 1, 2019	JFY2019	by Mr. Shiota/JEED @ NPIC
62	Khun Chany	M	Lecturer of Dept. of Electricity and Electronic Engineering	NTTI				
63	BUN Sovisith	M	Faculty of Electronic	PPI				
64	CHRIN Chiva	M	Faculty of Electronic	PPI				
65	Soth Panha	M	Faculty of Electricity	NPIC				
66	Y Menghong	M	Faculty of Electricity	NPIC				
67	Mr. Y Meng Hong	M	Faculty of Electricity	NPIC	Free Seminar on Introduction to Practical Pneumatics	Oct 16-19, 2018	JFY2018	Hosted by SMC Pneumatics (S.E.A) Pte. Ltd
68	Mr. Hong Por	M	Faculty of Electricity	NTTI				
69	Mr. Sophorn Voha	M	Faculty of Electricity	PPI				
70	Mr. Y Meng Hong	M	Faculty of Electricity	NPIC	Free Seminar on Introduction to Practical Electro-Pneumatics	Nov 13-16, 2018	JFY2018	Hosted by SMC Pneumatics (S.E.A) Pte. Ltd
71	Mr. Hong Por	M	Faculty of Electricity	NTTI				
72	Mr. Sophorn Voha	M	Faculty of Electricity	PPI				
73	Mr. Y Meng Hong	M	Faculty of Electricity	NPIC	Free Seminar on Professional Employee Development Program (QC & 5S & Kaizen)	Jan. 21-25, 2019	JFY2018	Hosted by AOTS through JBAC
74	Ms. Pean Bopha	F	Faculty of Electricity	NTTI				
75	Mr. Yin Ratha	M	Faculty of Electricity	PPI				



## List of Project Activities JFY2015-2021 <Technical TOT>

JICA TVET Project

No.	TOT Field	Venue	No. of institutions	No. of ptps	Duration	Term	Institution Participated	No. of Staff
1	Training Program Development	NPIC	8 Institutes + DGTVET	13	5days	Oct. 2-6, 2017	DSC, DGTVET	2
							NPIC	2
							NTTI	2
							PPI	2
							RPI Battambang	1
							RPI Siem Reap	1
							RPI Takeo	1
							RPI Kampot	1
RPI Svay Rieng	1							
2	PLC	NPIC	8 Institutes + DGTVET	12	5days	Oct. 9-13, 2017	DSC, DGTVET	1
							NPIC	2
							NTTI	2
							PPI	2
							RPI Battambang	1
							RPI Siem Reap	1
							RPI Takeo	1
							RPI Kampot	1
RPI Svay Rieng	1							
3	Electrical Wiring training by Japanese National Champion (by SESPP)	NPIC	8 Institutes	8	5days	Nov. 13-17, 2017	NPIC	1
							NTTI	1
							PPI	1
							RPI Battambang	1
							RPI Siem Reap	1
							RPI Takeo	1
							RPI Kampot	1
RPI Svay Rieng	1							

## List of Project Activities JFY2015-2021 <Technical TOT>

No.	TOT Field	Venue	No. of institutions	No. of ptps	Duration	Term	Institution Participated	No. of Staff
4	Sequence Control and Maintenance	PPI	9 Institutes	10	5days	Sept. 25-29, 2018	NPIC	0
							NTTI	1
							PPI	2
							RPI Battambang	1
							RPI Siem Reap	1
							RPI Takeo	1
							RPI Kampot	1
							RPI Svay Rieng	1
							ITI	1
CTSDI	1							
5	PLC System	NPIC	10 institutes	10	5days	Oct. 1-5, 2018	NPIC	1
							NTTI	1
							PPI	1
							RPI Battambang	1
							RPI Siem Reap	1
							RPI Takeo	1
							RPI Kampot	1
							RPI Svay Rieng	1
							ITI	1
CTSDI	1							
6	Motor Control System	NPIC	9 institutes	10	5days	Nov. 5-9, 2018	NPIC	2
							NTTI	1
							PPI	1
							RPI Battambang	1
							RPI Siem Reap	1
							RPI Takeo	1
							RPI Kampot	1
							RPI Svay Rieng	1
							ITI	0
CTSDI	1							

## List of Project Activities JFY2015-2021 <Technical TOT>

JICA TVET Project

No.	TOT Field	Venue	No. of institutions	No. of ptps	Duration	Term	Institution Participated	No. of Staff
7	Inverter and Touch Panel	NTTI	10 institutes	10	5days	Nov. 12-16, 2018	NPIC	1
							NTTI	1
							PPI	1
							RPI Battambang	1
							RPI Siem Reap	1
							RPI Takeo	1
							RPI Kampot	1
							RPI Svay Rieng	1
							ITI	1
							CTSDI	1
8	Sequence Control	PPI	9 Institutes	9	10days	Oct 28 - Nov 6, 2019	PPI	1
							NPIC	1
							NPIA	1
							RPI Battambang	1
							RPI Siem Reap	1
							RPI Takeo	1
							RPI Kampot	1
							RPI Svay Rieng	2
							NTTI	0
9	Electrical wiring and Quality Control	NPIC	9 Institutes	10	10days	Nov.14-23, 2019	NPIC	1
							PPI	1
							NTTI	1
							RPI Takeo	1
							RPI Svay Rieng	1
							NPIA	1
							RPI Battambang	1
							RPI Kampot	1
							RPI Siem Reap	2

## List of Project Activities JFY2015-2021 <Technical Seminar>

JICA TVET Project

No.	Technical Seminar Field	Venue	No. of companies	No. of ptps	Duration	Term	Company Name	No. of Staff
1	PLC (introduction)	NPIC	9	17	1.5 day	Feb.9-10, 2017	Cambodian Construction Association	1
							Soma Energy-CPTL	2
							Institute of Technology of Cambodia	3
							Minebea	2
							ATS Co., Ltd.	1
							Mauso	3
							Omron	1
							MAC	1
							365 Moving	1
NPIC	2							
2	Sequence Control	NPIC	1	3	3 days	Mar.22-24, 2017	Dynamic Scientific Co.,LTD	3
3	Electrical Motor Control	NPIC	4	9	0.5 days	Jul.13, 2017	Omura Group	3
							Hao Phuong Co., LTD	1
							TSJ Air Conditioning (Soken)	2
							DHINIMEX	1
							NTTI	1
							NPIC	1
4	Sequence Control	RPI TSB	8	10	3 days	24-26 Oct-2017	RPI TSB	2
							Ministry of Industry and Handicraft, Kompot Water Work	1
							Ministry of Industry and Handicraft, SiemReap Water Work	1
							Ministry of Industry and Handicraft, Kompong Thom Water Work	1
							Ministry of Industry and Handicraft, Pursat Water Work	1
							Ministry of Industry and Handicraft, Preah Sihak Nuk Water Work	1
							Ministry of Industry and Handicraft, Battambang Water Work	1
							Ministry of Industry and Handicraft, Kompong Cham Water Work	1
							Ministry of Industry and Handicraft, Svay Reang Water Work	1

## List of Project Activities JFY2015-2021 <Technical Seminar>

JICA TVET Project

No.	Technical Seminar Field	Venue	No. of companies	No. of ptps	Duration	Term	Company Name	No. of Staff
5	Touch Panel	NPIC	3	16	1 day	Nov. 14, 2017	Soken(Cambodia) CO., Ltd.	2
							Fuji Electric Co., Ltd.	3
							FujiFurukawaE&C(Cambodia).Co.Ltd	4
							PPI	2
							NTTI	2
							NPIC	3
6	Sequence Control	Toyota Techno Park@Poi Pet SEZ	3	13	3 days	Feb. 28-Mar. 2, 2018	Toyota Technopark Poi Pet Co., Ltd.	3
							Sumitronics(Cambodia) Co., Ltd.	3
							SC Wado(Cambodia).Co.Ltd	3
							PPI	1
							NTTI	1
							NPIC	1
							RPI BTB	1
7	Electric Safety	PPI	1	14	0.5 days x 2 days	Mar.28-29, 2018	Soken	11
							PPI	1
							NTTI	1
							NPIC	1
8	Auto CAD	NPIC	1	18	3 days	JUN. 21-23, 2018	Minebea(Cambodia) Co., Ltd.	18
9	Sequence Control	NPIC	2	16	2 days	Jul.19-20, 2018	Minebea(Cambodia) Co., Ltd.	15
							MARUNIX(Cambodia) Co., Ltd.	1
10	PLC Program	NPIC	2	18	3 days	Aug. 23-25, 2018	Minebea(Cambodia) Co., Ltd.	17
							MARUNIX(Cambodia) Co., Ltd.	1
11	Sequence Control	PPI	5	8	3 days	May 27,29,30, 2019	FujiFurukawaE&C(Cambodia) Co.Ltd.	3
							Sumi (Cambodia) Wiring System Co., Ltd.	2
							SANKYO RADIATOR (CAMBODIA) CO.,LTD.	1
							Soken Engineering (Cambodia) Co., Ltd.	1
							Leopalace21(Cambodia)Co.,Ltd.	1

## List of Project Activities JFY2015-2021 <Technical Seminar>

JICA TVET Project

No.	Technical Seminar Field	Venue	No. of companies	No. of ptps	Duration	Term	Company Name	No. of Staff
12	Motor Control	NTTI	5	7	3 days	JUN. 15,17,19, 2019	Soken Engineering (Cambodia) Co., Ltd.	2
							Leopalace21(Cambodia)Co.,Ltd.	1
							ROHTO(Cambodia) Co., Ltd.	1
							Fuji Electric Co., Ltd.	2
							FujiFurukawaE&C(Cambodia).Co.Ltd	1
13	Electrical Installation	NPIC	4	8	3 days	Dec. 17-19, 2019	TAIKI (Cambodia) Co., Ltd	1
							LYLY KAMEDA Co., Ltd.	2
							OMURA INDUSTRIES CO., LTD	2
							Fuji Furukawa E&C (Cambodai) Co. Ltd	3
14	PLC Programming	NPIC	3	8	3 days	JAN. 28-30, 2020	Soken Engineering (Cambodia) Co., Ltd.	6
							Sumi (Cambodia) Wiring Systems Co.,ltd.	1
							Soon-West(cambodia)co.,ltd	1
15	Sensor	NPIC	5	17	3 days	Nov. 4-6th, 2020	G.S.E ELECTECH (Cambodia) INC	3
							Soon-West(Cambodia)Co.,Ltd	1
							SNK (ASIA PACIFIC) PTE. LTD.	1
							Sumi (Cambodia) Wiring Systems Co., Ltd.	4
							Minebea (Cambodia) Co., Ltd.	8
16	PLC	NTTI	3	13	4 days	Jan. 12-15th, 2021	Branch of Kobelco Eco-Solutions CO., LTD.	1
							Sumi (Cambodia) Wiring Systems Co., Ltd.	4
							Minebea (Cambodia) Co., Ltd.	8

## List of Project Activities <JFY 2015-2021> -Workshop/Seminar/Events-

JICA TVET Project

	Seminar/Workshop Name	Main participants organization	Venue	No. of participants	Duration	Term	Remarks
1	1st TVET Employment Promotion Workshop (Joint Carrier guidance WS)	3 TVET instructors&industry liaison officers, DLMI	NEA	42	1 day	May 31, 2016	
2	National TVET Day	39 Public TVET institutes	Diamond Island Convention Center		1 day	Jul. 8, 2016	Organized by DLMI/MLVT as an annual event
3	2nd TVET Employment Promotion Workshop	Industry liaison officers in MLVT/TVET, IAG companies. NEA	CJCC	40	1 day	Oct. 14, 2016	Invite Schneider, Soma Energy, Cambodia Construction Association, Comin Khmer
4	National Career Fair	Private companies, job seekers, some TVET institutes	Diamond Island Convention Center		2days	Nov. 5-6, 2016	Organized by NEA as an annual event
5	Alumni party of higher diploma electricity(NTTI)	Instructors, alumni	NTTI		0.5 day	Dec. 17, 2016	
6	Alumni party of higher diploma electricity(NPIC)	Instructors, alumni	NPIC		0.5 day	Dec. 18, 2016	
7	Alumni party of higher diploma electricity(NPIC)	Instructors, alumni	PPI		0.5 day	Dec. 24, 2016	
8	TVET Job Fair (NPIC)	students, industries	NPIC	2,500	0.5 day	Dec. 21, 2016	14 companies joined
9	TVET Observation Tour	staff from industries	NPIC	54	0.5 day	Feb.9, 2017	32 companies and organizations joined
10	TVET Job Fair (PPI)	students, industries	PPI	1,435	0.5 day	Feb. 17, 2017	13 companies joined
11	TVET Job Fair (NTTI)	students, industries	NTTI	724	0.5 day	Mar. 2. 2017	14 companies joined
12	3rd TVET Employment Promotion Workshop	Industry liaison officers in MLVT/TVET, IAG companies. NEA	CJCC	39	1 day	Mar. 6, 2017	3 companies joined (Minebea, Comin Khmer, Soma Energy)
13	Pre-employment training (Soft Skill)	Students	PPI	114	2 days	June 9-10, 2017	

## List of Project Activities <JFY 2015-2021> -Workshop/Seminar/Events-

JICA TVET Project

	Seminar/Workshop Name	Main participants organization	Venue	No. of participants	Duration	Term	Remarks
14	Pre-employment training (Job search)	Students	PPI	114	2 days	June 16-17, 2017	
15	Pre-employment training (CV and cover letter writing)	Students	PPI	114	2 days	June 23-24, 2017	
16	Pre-employment training (Interview)	Students	PPI	108	2 days	July 14-15, 2017	
17	Pre-employment training (Guest lecture workshop)	Students	PPI	121	1 day	Aug.4, 2017	NEA
18	Pre-employment training (Guest lecture workshop)	Students	NPIC	120	1 day	Aug.7, 2017	Cambodia Power Transmission Line Ltd.
19	Pre-employment training (Soft Skill)	Students	NTTI	58	1 day	Aug.12, 2017	
20	Pre-employment training (Guest lecture workshop)	Students	NPIC	120	1 day	Aug.14, 2017	Comin Khmer Co., Ltd.
21	Pre-employment training (Soft Skill)	Students	NTTI	77	1 day	Aug.19, 2017	
22	Pre-employment training (Soft Skill)	Students	NTTI	68	1 day	Aug.26, 2017	
23	National TVET Day	39 Public TVET institutes, and some technical private company/industry	Diamond Island Convention Center	6,678	1 day	Jul. 3, 2017	Organized by DLMI/MLVT as an annual event
24	National Career Fair	Private companies, job seekers, some TVET institutes	Diamond Island Convention Center	27,378	2days	Oct. 27-28, 2017	Organized by NEA as an annual event. There are 126 companies around show up their productivity and services at booth.
25	TVET Observation Tour	staff from industries	NPIC	20	0.5 day	Jan.23, 2018	8 companies joined
26	2nd TVET Job Fair (NTTI)	students, industries	NTTI	767	1 day	Jun.8, 2018	There is total 8 private companies joined the event.



## List of Project Activities <JFY 2015-2021> -Workshop/Seminar/Events-

JICA TVET Project

	Seminar/Workshop Name	Main participants organization	Venue	No. of participants	Duration	Term	Remarks
27	National TVET Day 2018	39 Public TVET institutes, and some technical private company/industry	Diamond Island Convention Center	27,453	2 days	Jun.15-16, 2018	73 booths(26 TVET institutions under MLVT, 15 relevant training and education institutions, 11 partner organization, and 21 private companies  7,100 high school students from 17 high schools visited  The Project supports PPI NSC winners to conduct demo of Two trades.
28	2nd TVET Job Fair (NPIC)	students, industries	NPIC	(2500-grade 4th student)	1 day	Jul. 4, 2018	Total 24 private companies joined the event.
29	National Career and Productivity Fair 2018	Private companies, job seekers, some TVET institutes	Diamond Island Convention Center	28,756	2days	Oct. 27-28, 2018	Organized by NEA  Total booth: 300 17 Education institution, The Project received 240 visitors
30	National TVET Day 2019	39 Public TVET institutes, and some technical private company/industry	Diamond Island Convention Center	32,000	2 days	Jun.15-16, 2019	72 booths  The PJ received about 450 visitors. 56 persons were attended free technical seminar provided by the project.

## List of Project Activities <JFY 2015-2021> -Workshop/Seminar/Events-

JICA TVET Project

	Seminar/Workshop Name	Main participants organization	Venue	No. of participants	Duration	Term	Remarks
31	2nd TVET Job Fair (PPI)	students, industries	PPI	1,815	1 day	Jun. 6th, 2019	Total 15 booths including NEA's both. 14 booth belongs to 14 private companies andn 1 booth for NEA
32	TVET Observation Tour at National Skill Competition	staff from industries	TVET Park	10	0.5 day	Oct, 2019	2 companies and organizations joined
33	National Career and Productivity Fair 2019	Private companies, job seekers, some TVET institutes	Diamond Island Convention Center	28,850	2days	Nov. 2-3, 2019	Organized by NEA  Total booth: 253 12 Education institution, 55 Ministries, NGOs, and 192 for private company. Project Booth received 400 visitors
34	National TVET Day 2020	Public TVET institutes, and some technical private company/industry	Online	N/A	1 day	Jun.15, 2020	

## List of Project Activities <JFY 2015-2021> -Technical Workshop(Short term)-

JICA TVET Project

	Seminar/workshop Name	Main participants organization	Venue	No. of participants	Duration	Term	Remarks
1	1st TWG Technical Workshop	3 TVET's TWG members, 2 companies	NPIC	43	0.5 day	May 5, 2016	2 companies ( <b>Fuji Electronics, Taiseng Co., Ltd</b> ) joined for demo
2	Standardized curriculum development workshop for PPI/NTTI	instructors of NTTI/PPI	NTTI	40	0.5 day	Oct. 4, 2016	
3	Standardized curriculum development workshop for NPIC	instructors of NPIC	NPIC	37	0.5 day	Oct. 6, 2016	
4	1st Teaching Material Development Workshop	instructors of 3 TVET institutes	NPIC	40	1 day	Dec. 8, 2016	invite 2 companies for equipment demonstration (Fuji Electrics Co., Ltd., Hao Phuong Co., Ltd.)
5	Omron technical seminar	instructors of 3 TVET institutes	PPI	12	1 day	Jan.13,2019	Omron Sensor training
6	Setsuyo technical seminar	instructors of 3 TVET institutes, other 3 institutes	NTTI	12	1 day	Jun.12-13,2019	Donated Mitsubishi PLC training

## 添付資料 6: PDM 指標の プロジェクト終了時の状況

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Status	Achievement Level	Remarks
<b>Overall Goal</b>					
Quality of training for the higher diploma in electricity in the TVET institutions under MLVT (nation-wide) is strengthened.	1. Percentage of graduates of the higher diploma in electricity of the pilot TVET institutions who are employed/self-employed increases from 84% in 2015 to 95% by 2023.	Employment data of graduates	FY2020: 75.2%	Fair	Effect of the COVID-19 on employment situation of graduates/working students needs to be taken into consideration.
	2. Satisfaction rates of employers with the graduates of the higher diploma in electricity of the pilot TVET institutions increases from 3.27 in 2016 to 3.60 (Out of 5) or higher in technical skills by 2023.	Employer satisfaction survey	FY2020: 3.69	High	Amid COVID-19, sample data from employers in February 2021.
	3. Number of TVET institutions introducing the national standard curriculum reaches 8 or more by 2023.	MLVT records	Depends on MLVT after Project completion	Fair	
<b>Project Purpose</b>					
Quality of training for the higher diploma in electricity in TVET institutions under MLVT (pilot institutions) is strengthened.	1. 80% or more participated students successfully pass the final practice examination.	Results of final practice examination	FY2019: 74.6%	Fair	Utilize figures of FY2019 due to COVID-19.
	2. Percentage of students who were employed or offered a job at companies through the internship is increased from 39% to 50%.	Records of evaluation on internship by host industries/pilot TVET institutes	FY2019: 72.3%	High	
	3. Satisfaction rates of graduates/students with training for the higher diploma in pilot TVET institutions increases from 3.66 to 4.00 (Out of 5) or higher in practical skills.	Satisfaction survey of graduates (at the time of graduation) and students	FY2019: 4.25	High	
<b>Outputs</b>					
<b>Output 1</b> Standard Training Package for the higher diploma in electricity is developed.	1-1 Draft Standard Training Package to meet the needs of industries is developed.	Records of developing Standard Training Package	TWG and IAG meeting records and contract with National Consultant	High	
	1-2 Draft Standard Training Package is approved by MLVT.	Approved draft Standard Training Package	Approved by National Training Board (NTB) Commission on August 12th, 2020	High	NTB Commission is chaired by DGTVET and taken as MLVT's official approval.
	1-3 Training for the higher diploma is piloted in the pilot TVET institutions.	M&E (Monitoring and Evaluation) reports on piloting	Linked with activities, including FY2017-2020's final practice examination	High	
	1-4 Standard Training Package finalized based on the piloting results is approved by MLVT.	Approved Standard Training Package	Approved by National Training Board (NTB) on September 22nd, 2020	High	NTB's approval as National STP was originally expected to be done after the Project's term. It was successfully approved by MLVT's prompt, intensive effort.

Progress summary of PDM indicators

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Status	Achievement Level	Remarks
<b>Output 2</b> Instructors of the pilot TVET institutions are able to provide training for the higher diploma in electricity based on Standard Training Package.	2-1 Teaching method evaluation by students reaches 4.0 or more (Out of 5).	Questionnaire results of Final Evaluation by students	FY2019: 4.24	High	Utilize figures of FY2019 due to COVID-19.
	2-2 Evaluation by experts on instructors' capacity reaches 3.0 or more (Out of 4).	Results of lesson observation by instructors	FY2020: 3.19	High	At the skill test for the instructors of pilot institutes in February 2021.
	2-3 Self-evaluation by instructors reaches 3.0 or more (Out of 4).	Results of self-evaluation by instructor	FY2020: 3.46	High	
<b>Output 3</b> Integrated System to disseminate Standard Training Package for the higher diploma in electricity to non-pilot TVET institutions is introduced.	3-1 Technical contents based on Standard Training Package are integrated in the pre-service teacher training (TOT) curriculum at NTTI.	New curriculum of pre-service teacher training (TOT) at NTTI	OSH* training suggested from the Project has already included in the officially approved curricula.	High	*OSH ;Occupational Safety and Health
	3-2 5 of non-pilot TVET institutions providing training for the higher diploma participate in the dissemination seminar on Standard Training Package.	Records of dissemination seminar of Standard Training Package	List of TOT activities	High	Including 5 RPIs (Regional Polytechnic Institutes)
<b>Output 4</b> System to maintain and manage training facilities and equipment at the pilot TVET institutions is strengthened.	4-1 Maintenance and management plan (personnel and budgets included) is developed.	Maintenance and management plan	Maintenance and management manual (already developed)	High	
	4-2 Responsible personnel and procedures for requesting updates/repair of facilities and equipment are clearly defined.	Documents to define personnel and procedures		High	
	4-3 Maintenance and management of facilities and equipment is implemented.	Records of maintained and management	Records of maintenance	High	Keep record of every 6 months
<b>Output 5</b> Partnership between the pilot TVET institutions and industries is strengthened.	5-1 A handbook of employment/self-employment support activities is developed and utilized for implementation.	Handbook of support activities and records of utilization	Employment Promotion handbook for pilot institutes	High	
	5-2 Number of collaborative activities with industries and its number of participating companies are increased (compared to the baseline 2 times with total 8 companies).	Records of collaborative activities with industries	List of Technical Seminar/Job Fair, etc.	High	Baseline: 2 times, 8 companies JFY2019: 15 times, 38 companies
	5-3 Number of promotion activities is increased (compared to the baseline as 5 times).	Records of promotion activities	List of promotion activities	High	Baseline: 5 times JFY2019: 5 times