Form 1

Application Form for Financial Support

of Training for Employees (ToE) and Training for Trainers (ToT) Programs

Date of Application   28 March 2025

1. Training Program for Training for Employees

1.1 Course Title

(1) English: *Training to discover and improve waste in their production process and energy supply process using IoT sensors*

(2) Native: *โครงการฝึกอบรมการค้นหาและแก้ไขปัญหาของเสียในกระบวนการผลิตและพัฒนากระบวนการจัดสรรพลังงานด้วยอุปกรณ์ตรวจจับที่เชื่อมกับระบบออนไลน์*

1.2 Training Format: Physical

1.3 Applied Training Program's Type: OJT

(*Please fill in the information in the Attachment 1.)

1.4 Training for Trainers of this Training Program: ☑ Applied herewith ☐ Not Applied

(*Please fill in the information in the Attachment 5.)

2. Applicant Information

(*Please fill in the information as appeared in your organization's business registration certificate. **Please submit the business registration certificate and the applicants' brochure respectively.)

2.1 Educational Institution / Corporate Name

(1) English: *ABC Co., Ltd.*

(2) Native: *บริษัท เอ บี ซี จำกัด*

2.2 Address: *123 Pathumwan, Bangkok, 10110*

2.3 Legal Personality: *Company Limited*

2.4 Registered Country: *Thailand*

2.5 Registration Fund: *10,000,000 THB*

Foreign Fund: ☑ Yes ☐ No   Investor's Group: Japanese

Capital: *5,000,000 THB*   Account for: *50%*

2.6 Representative

First Name *Mr. ABC*   Last Name *DEFG*
(with Title)

Position: *Chief Executive Officer*

Email: _ABC@abctech.org_   Tel No: _08x-xxx-xxxx_

2.7   Project Coordinator / Administrative Coordinator

First Name _Ms. XYZ_   Last Name _LMNO_
(with Title)

Position: _Senior General Manager_

Email: _XYZ@abctech.org_   Tel No: _09x-xxx-xxxx_

3. Partner Organizations

(*A partner organization is a company/university/public institute/legal entity that is cooperating in the implementation of this application of training program e.g., providing part of the program, supervising the program, or serving as an instructor in part of the program. The Applicant and the partner organization will be the Subsidy Recipients.)

☑   **Yes**, our organization collaborates with _2_ partner organization(s) to establish this training program. _(Please fill in the details in the Attachment 3.)_

☐   **No**, our organization oversees and administers this training program independently.

4. Training for Employees: Course Conduct Detail

4.1   Expected Number of Trainee per Batch: _30_ persons (maximum)
(*Please explain the rationale for the number in the Attachment 1 Item 6.3)

Expected Number of Batch a Year: _5_ batches (maximum)

4.2   Expected Number of Instructors: _5_ persons   Lecture Language: _Thai_

4.3   Training Site:

No.	Training Site	Address
1	_ABC Technology Institute_	_123 Pathumwan, Bangkok, Thailand_
2	_HIJK University_	_321 Thonglor, Bangkok, Thailand_
3	_XYZ company_	_456 Bangkhae, Bangkok, Thailand_

4.4   Total Training Duration: _10_ days (only actual training days /per batch)

Total Training Hours: _60_ hours (only actual training hours /per batch)

(*Please do not include the time for non-training period such as introduction, opening and closing ceremonies, breaks, etc.)

5. Training for Trainers: Course Conduct Detail

5.1 Expected Number of Trainees: _2_ persons

5.2 Expected Number of Batch a Year: _4_ batches (maximum)

5.3 Expected Number of Instructors: _2_ persons   Lecture Language: _Thai_

5.4 Training Site:

No.	Training Site	Address
1	ABC Technology Institute	123 Pathumwan, Bangkok, Thailand
2	HIJK University	321 Thonglor, Bangkok, Thailand
3	XYZ company	456 Bangkhae, Bangkok, Thailand

5.5 Total Training Duration: _30_ days (actual training days only/per batch)

Total Training Hours: _180_ hours (actual training hours only/ per batch)

(*Please do not include the time for non-training period such as introduction, opening and closing ceremonies, breaks, etc.)

6. Training for Employees: Quantitative and Qualitative Training's Benefits
(*This part should be aligned with Item 4 in the Attachment 1. The KPIs listed below should at least cover one of two major areas including Decarbonization Effects and Productivity Improvement Effects through introducing digital technologies.)

No	Key Performance Index	Description
1	Decarbonization Effects: *Energy Consumption Reduction by 10% or more (Quantitative)*	*- Measure the percentage reduction in energy consumption achieved through waste reduction strategies implemented with IoT sensors* *- Calculate the percentage reduction in carbon emissions using the formula:* *Energy Consumption Reduction (%)* *= (Initial Energy Consumption −Final Energy Consumption) ×100 / Initial Energy Consumption*
2	Productivity Improvement Effects: *Operational Efficiency by 10% or more (Quantitative)*	*-Use IoT sensors to find bottlenecks and improve cycle time by 10%* *-Calculate the Operational Efficiency Index based on the number of operation time per day and the number of production output per day, by using the formula.* *Operational Efficiency index (%)* *= (Initial Cycle time - final Cycle time) ×100 / Initial Cycle time))* **Cycle time* *= production output/number of operation time*

3	*Understand the Usage of High Energy Efficient Gadget (Qualitative)*	*-Understand the benefit of each equipment such as heat pump and inverter to increase energy efficiency in a cost-effective way*
4	*xx*	*xx*
5	*xx*	*xx*

7. Expected Trainees of Training for Employees (if any)

No.	Organization / Company	Size	Expected Number of Trainees (persons)	Type	Industry Field
1	*A*	*SME*	*10*	*Japanese-Affiliated Companies*	*Automotive*
2	*B*	*Large Enterprise*	*5*	*Business Relationship with Japanese-affiliated companies*	*Medical Service*
3	*C*	*Large Enterprise*	*3*	*Japanese-Affiliated Companies*	*Railway*
4	*D*	*SME*	*2*	*Business Relationship with Japanese-affiliated companies*	*Maritime Commerce*
5	*E*	*SME*	*5*	*Others*	*Electronics*

(*The provided organizations above might be contacted by the Secretariat for further inquiry of the specified information as filled out.)

8. Expected Trainees of Training for Trainers
(*Please attach the CVs of following potential trainees.)

No.	Trainees	Position	Organization
1	*Mr. A*	*…*	*…*
2	*Mr. B*	*…*	*…*
3	*Ms. C*	*…*	*…*
4	*Prof. D*	*…*	*…*

9. Budgetary / Financial Information

Enter amounts exclusive of taxes, as taxes are not subsidized.

9.1 Training for Employees: Estimated Financial Support

(1) Estimated Number of Trainees: _30_   persons / batch (maximum)

(2) Participation Fee: _30,000 THB_   /person

(3) Total Cost of Conducting the Program: _633,000 THB_   /batch

(4) Subsidy Amount per Trainee:

(Local Currency)	*15,000 THB/ person*
(JPY Currency)	*68,776 JPY/ person*

Lecture Training: 1/2 of the participation fee (2) but not more than 25,000 JPY/ trainee
 OJT Training: 1/2 of the participation fee (2) but not more 250,000 JPY/ trainee
**Please make calculations based on the exchange rates indicated in the Guideline.
(If the amount after exchange rate calculation has fractional values, they are rounded down.)

(5) Expected Total Batches: _5 batches_   per year (maximum)

(6) Estimated Total Subsidy Amount per Year:
   *(1) x (4) JPY currency x (5)

JPY Currency
30 persons x 68,776JPY x 5 batches
= 10,316,400 JPY

(7)   Estimated Course Conduct Expense by Category per Batch (in Local Currency)

No.	Expense Category	Calculation Details	Total
1	Personel expense	3 staffs	90,000
2	External Instructor expense	4 instructors	150,000
3	Travel expense		115,000
	1) International transportation fee	2 instructors	100,000
	2) Domestic transportation fee	-	–
	3) Other travel fee	Overseas insurance premium and Visa for instructos	15,000
4	Accommodation expense	instructors	18,000
5	Daily Allowance	instructors	19,000
6	Interpreter expense	-	–
7	Teaching material expense		191,000
	1) Core training implementation materials	Subscription fee for GHG emissions visualization and calculation software, Rental fee for IoT kit	150,000
	2) Manuscript and editing fee	Manuscript	15,000
	3) Translation fee	Translation from Japanese to Thai	6,000
	4) Text printing and binding	Text printing , Binding	19,000
	5) Textbook purchase	-	
	6) Consumable	Pen, Notebook	1,000
8	Equipment expense	Purchase of PC	25,000
9	Software expense	Zoom subscription	2,000
10	Facilities and equipment expense	Facility rental fee	20,000
11	Site visit expense	Gratuity to ○○company	3,000
12	Subcontact expense	-	
		Total	633,000

9.2   **Training for Trainers:** Estimated Financial Support

(1)   Estimated Number of Trainees: _2_   persons (maximum)

(2)   Total Eligible Expenses for the Training: _1,193,160 THB_

(3)   Subsidy Amount per Trainee:

(Local Currency)	198,860 THB/person
(JPY Currency)	911,796 JPY/person

*1/3 of the Eligible Expenses per Trainee ((2)÷ (1)) but not more than 1,000,000 JPY/ trainee
**Please make calculations based on the exchange rates indicated in the Guideline.
(If the amount after exchange rate calculation has fractional values, they are rounded down.)

(4) Estimated Total Subsidy Amount:
(3) JPY currency x (1)

JPY Currency
911,796JPY x 2 persons
= 1,823,592 JPY

(5) Estimated Course Conduct Expense by Category (in Local Currency)

No.	Expense Category	Calculation Details	Total
1	Personel expense	1. @600THB x 100hours x 1 manager = 60,000THB 2. @300THB x 100hours x 1 staff (Administrative) = 30,000THB 3. @400THB x 20hours x 1 staff (Accountant) = 8,000THB	98,000
2	External Instructor expense	1. @3,000THB x 84hours x 2 instructor = 504,000THB 2. @2,000THB x 12hours(online) x 1 instructor = 24,000THB	528,000
3	Travel expense		246,000
	1) International transportation fee	1. @50,000THB x 2 instractor (Tokyo−Bangkok) x 2 times = 200,000THB	200,000
	2) Domestic transportation fee	1. Transportation fee for instructor : 500THB x 7 days x 2 instructor x 2 times = 14,000THB 2. Transportation fee for interpreter : 200THB x 10days x 1 person = 2,000THB	16,000
	3) Other travel fee	1. Overseas insurance premium :5,000THB x 2 instructor x 2 times= 20,000THB 2. Visa :2,500THB (Thainland) x 2 instructor x 2 times = 10,000THB	30,000
4	Accommodation expense	1. 3,000THB x 6 nights x 2 instructor x 2 times = 72,000THB	72,000
5	Daily Allowance	1. 1,000THB x 7 days x 2 instructor x 2 times= 28,000THB	28,000
6	Interpreter expense	1. 5,000THB x 10days = 50,000THB	50,000
7	Teaching material expense		84,160
	1) Core training implementation materials	1. 3D simulation Subscription fee for automation: 30,000THB x 2 ID = 60,000THB 2. IoT kit rental fee : 2,000THB x 2 set = 4,000THB 3. Calibration rental fee : 3,000THB x 2 set = 6,000THB	50,000
	2) Manuscript and editing fee	1. Manuscript fee : 1,000THB x 2 set = 2,000THB	2,000
	3) Translation fee	1. Translation fee (Japanese to Thai): 200THB x 100page = 20,000THB	20,000
	4) Text printing and binding	1. Text printing fee : 1,000THB x 2 set = 2,000THB 2. Binding fee : 50THB x 2 set = 100THB	2,100
	5) Textbook purchase	1. DX Promotion Instructional Manual: 5,000THB x 2 books = 10,000THB	10,000
	6) Consumable	1. Pen : 10THB x 2 participants : 20THB 2. Notebook : 20THB x 2 participants : 40THB	60
8	Equipment expense	1. PC rental fee for staff: 4,000THB x 3 month = 12,000THB 2. Purchase of Wearable camera : 500THB x 1 set = 500THB	12,500
9	Software expense	1. Zoom subscription fee : 2,000THB	2,000
10	Facilities and equipment expense	1. Facility rental fee : 1,000THB x 30days = 20,000THB	20,000
11	Site visit expense	1. Gratuity to ○○company : 2,500THB x 1 time = 2,500THB 2. Van for site visit : 10,000 THB x 1 time = 10,000THB	2,500
12	Subcontact expense	1. Subcontract fee for implementation of the guidance for GHG emissions visualization and calculation (○○company) : 2 days package 50,000THB x 1 set = 50,000THB	50,000
		Total	1,193,160

*Items not included in the estimate shall not be regarded as eligible expenses.
*If multiple batches are to be conducted, enter the total expenses of all batches, not the expenses per batch.

10. Organizational Structure and Training Experiences as an Institution

10.1   Organization Chart for the Applied Program: *(*Please submit a document separately.)*

10.2   Number of Instructors: _5_   persons

10.3   Experience of Conducting Training Programs: _5_   years

10.4   Implementation of Training Programs: _50_   courses / year

10.5   Experiences in Conducting Training Program(s) with Learning Modules & Methodology Translatable to your Current GX/DX Training Program(s)

☑   **Yes**, our organization has conducted similar training program(s) or those with training concept(s), objective(s) and/or format(s) that are applicable to our applied GX/DX training program(s). *(Please fill in the details in the Attachment 4.)*

☐   **No**, our organization has never conducted any training program(s) with training concept(s), objective(s) or format(s) either similar or applicable to our applied GX/DX training program(s).

11. Signature of the Authorized Person / Director of the Educational Institution

11.1 I hereby certify that the information in this document, including the referenced supporting documents, is accurate and true in every respect.

11.2 I hereby pledge to abide by the provisions of the Subsidy Grant Regulations and the Application Guideline of the ASEAN Support Program for GX/DX Human Resource Development dated March 3rd,   2025, and apply for the subsidy in accordance with the provisions of Article 4, Paragraph 2 of the said regulations.

First Name – Last Name	Authorized Signature
 Position: Date: *3/28/2025*	 Date: *3/28/2025*

12. Checklist of Documents Required for the Application

(*Regulations: Subsidy Grant Regulations of the ASEAN Support Program for GX/DX Human Resource Development. **Project summary for both Training for Employees and Training for Trainers may be prepared in Japanese; however, the other documents shall be prepared in English.)

12.1 For all applicants, please submit all the following documents.

☐ Project Summary for Training for Employees

☐ Application Form with Attachment 1-4

☐ Business Registration Certificate (*refer to Application Form Item 2. Applicant Information*)

☐ Organization chart for this program *(refer to Application Form Item 10. Organizational Structure)*

☐ Applicants' Company Brochure (*refer to Application Form Item 2. Applicant Information, including brochure(s) of partner organization(s)*)

☐ Referential & illustrative information such as evidentiary data, charts and diagrams if any

☐ CVs of Instructors (*refer to Application Form Attachment 1, Item 5. Instructor Information.*)

☐ Pledge of Personal Information Protection *(refer to Form 3 of the Regulations)*

☐ Financial Statement of the Applicant *(Past three years)*

☐ Pledge of Anti-social Forces Dissociation and Counterterrorism *(refer to Form 2 of the Regulations)*

12.2 For applicants of Training for Trainers, please submit all the following documents.

☐ Project Summary for Training for Trainers

☐ Attachment 5, Training for Trainers Program Curriculum

☐ CVs of Trainees of Training for Trainers *(refer to Application Form Item 8. Expected Trainees of Training for Trainers)*

☐ Class Schedule (Curriculum) *(refer to Application Form Attachment 5, Item 5-3. Class Schedule)*

☐ CVs of Instructors *(refer to Application Form Attachment 5, Item 3. Instructor Information.)*

13. Application Process *(*for the Secretariat)*

☐ All documents required are in order. ☐ The budget complies with the Regulations. ☐ Approved of the Application ☐ Disapproved of the Application Reason:	**Signature** Date: Click or tap to enter a date.
Decision of the Authorized Person ☐ Approved ☐ Not Approved	**Signature** Date: Click or tap to enter a date.

Attachment 1: Training for Employees (ToE) Program Curriculum

1. Course Title

English: *Training to discover and improve waste in their production process and energy supply process using IoT sensors*

Native: *โครงการฝึกอบรมการค้นหาและแก้ไขปัญหาของเสียในกระบวนการผลิตและพัฒนากระบวนการจัดสรรพลังงานด้วยอุปกรณ์ตรวจจับที่เชื่อมกับระบบออนไลน์*

Training Program Type: *Lecture*

2. Course Description

2-1. Challenge / Background

In Thailand's manufacturing industry, low productivity, especially among small and medium-sized enterprises (SMEs), is causing a lack of revenue growth. One of the causes of low productivity is that there is a lot of unnecessary human movement, production processes and energy supply process are not properly designed.

· Wasteful movements of operators are frequent.

· Even if work is improved, cycle time cannot be shortened due to bottlenecks in equipment operation time.

· Work cannot be performed in a fixed cycle, resulting in manual waiting.

· There are a lot of waste in the energy supply system such as air leakages.

2-2. Purpose

Improve productivity by enabling trainees to understand the ideal production process and use IoT sensors to discover and improve waste in their own production processes. To contribute to the prevention of global warming by realizing decarbonizations through reduced energy consumption with taking measures to reduce waste in energy supply system

2-3. Training Techniques and Content that lead to Decarbonization Effects/ Productivity Improvement Effects
   (*Please explain how the program integrates the required technology(s) and expertise(s) industrial customers have to acquire.)

1. to save time by improving setup efficiency (how to prepare and move ▲▲▲ and ■■ for quick placement)
2. improve productivity and energy efficiency by improving the production line (install IoT sensors, analyze the line, and discover and solve bottlenecks with introducing high energy efficient gadgets)

> *3. to improve the work efficiency of on-site workers (learn how to analyze movements to eliminate wasteful movements)*
> *Trainees will deepen their understanding of how the production process and energy supply system should be through lectures, and verify how much productivity and energy efficiency can be achieved in a factory by using actual equipment and IoT sensors.*
>
> *Since many small and medium-sized businesses do not have the financial means to make large investments, they often want to improve productivity and reduce energy consumption at a small cost or at least with clear understanding of investment return if they introduce new equipment. On the other hand, they lack sufficient human resources and know-how, and are therefore unable to take initiatives beyond 5S kaizen. Therefore, as an effective activity that can be started for as little as a few thousand baht, we offer a program to install IoT sensors to visualize waste and make improvements and to do cost-benefit analysis for the investment.*

2-4. International Rules related to GX/DX
   (*Please explain how the training program accommodate any international standards related to GX/DX)

> *1. The training uses carbon emission quantification method and Product Life Cycle emission reporting standard according to GHG protocol.*
> *2. The training follows ISA/IEC 62443 (Industrial Automation and Control Systems Security) standard to ensure cybersecurity while using IoT system.*

3. **Main equipment, Instruments for Training and Technologies for Decarbonization Effects / Productivity Improvement Effects**

   3-1. Name of Main Equipment / Instruments / Technologies

   > IoT sensors manufactured by XX company

   3-2. Description of Main Equipment / Instruments / Technologies

   > *Describe performance, usage, advanced features, and relevance to energy conservation and productivity improvement*

4. **Expected Training Outcomes:**

   4-1. Trainees

   > *・To be able to recognize wasteful work and work without hesitation, to create a process that does not depend on work proficiency, to reduce cycle time, and to reduce the defect rate.*
   > *・Understand the significance of using IoT kits, where to use them, and how to use them.*
   > *・To be able to identify processes that are waiting for manual labor and energy waste such as air leakage using the IoT kit and to create an improvement flow.*

   4-2. Benefits to Participating Companies
      (*Please explain qualitative and quantitative data showing outcomes related to the program. Please provide study, evidentiary data and results of survey, if any.)

5. Instructor Information

*(*Please attach the CVs of following instructors responsible for course items in this program.)*

No.	Instructor	Position	Organization	Responsible Course Item in the Program
1	Mr. S	...	...	...
2	Mr. T	...	...	...
3	Ms. U	...	...	...
4	Prof. V	...	...	...
5	Ms. W	...	...	...

6. Trainees

6.1 Target Group of this Training Program

1. Employees engaged in the manufacturing industry
2. On-site workers on production lines
3. Employees in production control or kaizen teams
4. Middle management in the manufacturing industry

6.2 Qualifications of Trainees

1. educational background:
While not required, a bachelor's degree in a related field such as engineering/science, information technology, would be an advantage.
2. work experience:
On-site experience in production management, IT management, production processes, or work experience in a related field is an advantage.

6.3 Please specify the reason(s) for the program's batch capacity setting and how it leads to the efficiency of the program with the current maximum number at Click or tap here to enter text. persons/batch.

1. To maintain the instructor and trainee ratio at 1:6 according to the standard XXX regulation, the maximum number at 30 persons per batch is commensurate with the expected total number of 5 instructors in this OJT Training program.

2. With reference to the attached class schedule's Module 3, trainees will be organized into 3 groups, each undergoing training via a rotational learning station system. These groups correspond to 3 distinct IoT sensor technologies. The training provider possesses approximately 10-12 units of equipment for each sensor type. This allocation guarantees that every trainee can engage in hands-on practice with the actual equipment.

3. With reference to the attached class schedule's Module 4, trainees are scheduled to attend on-the-job-training at XXX company. The training facility offers 3 machines for practical training purposes. To optimize time efficiency and ensure effective hands-on practice of each individual, each machine should accommodate no more than 10 persons at maximum.

7. Program Schedule

7.1 Total Course Period : ___*10*___ days

7.2 Total Training Hours: ___*60*___ hours

Hour(s) per Class Period: ___*6*___ hours ___*00*___ minutes

(*Please do not include the time for non-training period such as introduction, opening and closing ceremony, break, etc.)

7.3 Class Schedule:
(*Please enclose the completed Attachment 2 in the spreadsheet.)

8. Course Material and Facilities

8.1 Teaching and Learning Material

Our original textbooks for this program, XXX machines in our facility, and Materials listed in Item 3.

8.2 Training Sites and Facilities

Lectures will be held at our training facility XXX, and on-the-job training will be conducted at the actual factories of the participating companies after inviting applications from them.

9. Evaluation Criteria

9.1 Pre-Training Phase (if any):

No.	Item	Evaluation Criteria
1	*Pre-training lesson via online introduction videos*	*100% completion of online self-study pre-lessons*

2	*Pre-lesson Survey and Pre-tests*	• *Completion of pre-lesson survey* *Completion of 2 pre-tests*

9.2 During and Post-Training Phase:

(1) Minimum attendance rate: _____ *80* ___ % of the total lecture time

(2) Methods of ascertaining educational effectiveness (Completion evaluation)

No.	Item	Evaluation Criteria
1	*Methods of understanding and measuring the level of achievement of skills and knowledge*	*・Attendance rate* *・Attendance at on-the-job training, which is the core of the training program* *・Review by multiple judges(Instructors) at the presentation of results*
2	*Criteria for determining the completion of the course (Please state the attendance rate, examination pass rate, and whether or not make-up lectures or supplementary examinations were given etc.)*	*The final presentation materials, presentation content, and response to questions and answers are comprehensively reviewed to determine whether the criteria for certification of completion have been met. During the examination, the following four items will be scored.* *(1) Whether the presentation covers the prescribed items, (2) whether the student is able to use IoT sensors to identify waste through correct processes and procedures, (3) whether the student is able to correctly calculate energy consumption, and (4) whether the student is able to develop correct interpretation and logical discussion of the analysis results and improvement measures.* **Attendance in on-the-job training (Day XX) is a prerequisite for completion at least*
3	*Measures to be taken for trainees who do not meet the standards for certification of completion*	*・If the attendance rate is not satisfactory: make-up lectures or submission of additional reports* *・If the presentation content of the exercises is not satisfactory: re-submission of presentation materials, reorganization of the content of questions, etc.* *・If a trainee is not deemed to have completed the course, he/she will not be certified as having completed the course.*

9.3 Follow-up Phase (if any):

No.	Item	Evaluation Criteria
1	*Knowledge Retention Tests*	• *Conducting assessments, e.g. multiple choice quizzes, writing tests or oral tests, to measure trainees' retention of key information and concepts from the training program 6 months and 1 year after their completion.*

No.	Item	Evaluation Criteria
		Training completed trainees should pass the assessments with 70% accuracy.
2	*Interview: Qualitative assessments to collect data of the training program efficiency and practicality*	• *Assessing the application of learned skills and knowledge in trainees' job roles or relevant contexts.* *Determining the overall impact of the training program on trainees, organizational goals, and performance outcomes.*

Approval Process (*for the Secretariat)

☐   Not Approved   ☐   Approved

Signature: _____   Date: Click or tap to enter a date.

( )

Attachment 3: Partner Organization Detail

(Addendum to Application Form Item 3. Partner Organization)

(1) Institution: (English) _HIJK university_

(Native) _มหาวิทยาลัยเอช ไอ เจ เค_

Representative: _Prof. STU VWXY, Ph.D._

Position: _Director of Faculty of Engineering_

Email: _STU@hijk.or.th_   Tel No: _09x-xxx-xxxx_

● Reason for Collaboration

This institution is well-known for their skilled and proficient instructors who specialize in IoT tool utilization.

● Concrete Role on the Training Program

1. Provision of trainers and instructors: xx persons in Day 2 (*refer to the attached class schedule)
2. Provision of IoT kit for a training session in Day 2-3 (*refer to the attached class schedule)

(2) Institution: (English) _Thailand Research and Development Center for Engineering Human Resource_

(Native) _ศูนย์วิจัยและพัฒนาทรัพยากรบุคคลทางวิศวกรรมแห่งประเทศไทย_

Representative: _Mrs. EFGH IJKL_

Position: _Secretary General_

Email: _IJKL@TRDC.or.th_   Tel No: _09x-xxx-xxxx_

● Reason for Collaboration

xxxxxxx

● Concrete Role on the Training Program

xxxxxxx

(3) Institution: (English) _____

(Native) _____

Representative: _____

Position: _____

Email: _____ Tel No: _____

- Reason for Collaboration

| |
| |
| |

- Concrete Role on the Training Program

| |
| |
| |

(4) Institution: (Native) _____

(English) _____

Representative: _____

Position: _____

Email: _____ Tel No: _____

- Reason for Collaboration

| |

- Concrete Role on the Training Program

| |

*(*Please add more institutions, using the format above, if there is.)*

Attachment 4: Experiences in Conducting Similar or Applicable Training Program

(Addendum to the Application Form Item 10. Organizational Structure and Training Experiences as an Institution)

(1) **Program Title** (English) *Effective Waste Management in Food Industry*

(Native) *การจัดการขยะในอุตสาหกรรมอาหารอย่างมีประสิทธิภาพ*

Course Description
This comprehensive waste management training course is tailored specifically for professionals working in the food industry, providing them with specialized knowledge and skills to address the unique waste challenges within this sector. Trainees will explore cutting-edge technologies, innovative strategies, and regulatory frameworks relevant to managing food waste sustainably and efficiently such as IoT sensor monitoring, Anaerobic Digestion and Biogas Production, Composting and Upcycling, etc.

Objectives
1. Learn to implement inventory management techniques, portion control, and menu optimization to reduce food waste.
2. Understand the principles and applications of IoT sensors and AI for real-time waste monitoring and predictive waste management.
3. Explore anaerobic digestion and biogas production technologies for converting organic waste into renewable energy sources.
4. Learn composting methods and upcycling techniques to divert organic waste from landfills and create value-added products.
5. xxx
6. xxx

Partner Organization(s)
1. company A
2. company B

Training Format *Physical and Online* **Year of Implementation** *2019-2022*
(from year to year)

Total Completed Batches *45* **Total Number of Trainees** *900*

Participation Fee *5,000 THB*

No.	Major Companies of Trainees	Total Number of Trainees	Type
1	*Company C*	*60*	*Japanese-Affiliated Companies*
2	*Company D*	*45*	*Business Relationship with Japanese-affiliated companies*
3	*…*	*xx*	*Others*

(2) **Program Title** (English) *xxxxx*

(Native) *xxxxx*

Course Description *xxxxx*

Objectives
1. xx
2. xx

Partner Organization(s)
1. xx
2. xx

Training Format *Physical* **Year of Implementation** *2020-present*
(from year to year)

Total Completed Batches *40* **Total Number of Trainees** *1,350*

Participation Fee *5,000 THB*

No.	Major Companies of Trainees	Total Number of Trainees	Type
1	Company E	150	Japanese-Affiliated Companies
2	Company F	110	Business Relationship with Japanese-affiliated companies
3	...	xxx	Others

(3) **Program Title** (English)

(Native)

Course Description

Objectives

Partner Organization(s)

Training Format Choose an item. **Year of Implementation**
(from year to year)

Total Completed Batches **Total Number of Trainees**

Participation Fee *5,000 THB*

No.	Major Companies of Trainees	Total Number of Trainees	Type
1			Choose an item.
2			Choose an item.
3			Choose an item.

*(*Please add more related training programs, using the format above, if there is.)*

Attachment 5: Training for Trainers (ToT) Program Curriculum

1. Course Title

English: *Training for Trainers Program: Training to discover and improve waste in their production process and energy supply process using IoT sensors*

Native: *โครงการพัฒนาครูฝึกเพื่อโครงการฝึกอบรมการค้นหาและแก้ไขปัญหาของเสียในกระบวนการผลิตและพัฒนากระบวนการจัดสรรพลังงานด้วยอุปกรณ์ตรวจจับที่เชื่อมกับระบบออนไลน์*

2. Course Description

2.1 Challenge / Background

> In light of this situation mentioned in the attachment1(Item2.1) , there have been numerous inquiries from SME companies regarding training opportunities. Consequently, we would like to initiate an educational program titled 'Training to Discover and Improve Waste in Their Production Process and Energy Supply Process Using IoT Sensors' for SME companies on a monthly basis. However, at present, there is an insufficient number of instructors available for training.

2.2 Purpose

> Currently, we have five instructors and can conduct the course up to five times a year, but since they are also engaged in other courses, it is not possible to conduct the course more than five times in practice.
>
> Based on current demand, in order to be able to conduct the training at a pace of once a month from the next fiscal year onward, we will train two new instructors who can lecture at this training course.

2.3 Training Techniques and Content to train the Trainers for the related ToE Program
    (*Please explain how the program integrates the required technology(s) and expertise(s) trainers have to possess.)

> This training consists of the following five instructional essentials to have trainees become trainers for the ToE.
> 1. ToE Attendance: Have trainees attend a ToE and educate them on what they need to understand in the ToE.
> 2. Dedicated training: Comprehensive training in the following four skills and knowledge essential to ToE implementation.
> (1) Setup Efficiency Improvement:
> - Techniques for optimizing setup procedures to minimize downtime and increase productivity.
> - Strategies for organizing workspaces and arranging equipment for quick and efficient placement.
> - Utilization of tools such as standardized work instructions and visual aids to streamline setup processes.
> (2) Production Line Enhancement:
> - Introduction to IoT sensors and their role in monitoring and optimizing production processes.
> - Methods for analyzing production lines to identify bottlenecks and inefficiencies.
> - Selection and implementation of high-energy-efficient technologies to enhance productivity and reduce energy consumption.

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(3) Work Efficiency of On-site Workers:
- Principles of motion analysis and ergonomic design to identify and eliminate wasteful movements.
- Training on how to conduct time-motion studies to optimize workflow and minimize physical strain on workers.
- Implementation of continuous improvement practices, such as 5S (Sort, Set in order, Shine, Standardize, Sustain) Kaizen, to foster a culture of efficiency and teamwork.
(4) Pedagogy Enhancement:
- how to lead group discussions: to facilitate deeper understanding and practical application of the concepts.
-how to contextualize: to understand the unique challenges and constraints faced by small and medium-sized businesses (SMEs) in terms of financial resources, human capital, and technological expertise, and provide guidance on tailoring the content to address these specific needs.

3. Implementation of lectures at ToE: Teaching at ToE under the guidance of lecturers to allow trainees to gain practical experience.
4. One-on-one instruction by lecturers: Trainees make up for skills and techniques they lack as lecturers through monthly evaluations and feedback from the lecturers
5. Test: At the end of the training, the trainees are tested on what they should understand in the ToT and meet the in-house standards.

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3. Instructor Information

*(*Please attach the CVs of following instructors responsible for course items in this program.)*

No.	Instructor	Position	Organization	Responsible Course Item in the Program
1	*Prof. S*	...	...	...
2	*Dr. T*	...	...	...
3	*Mr. U*	...	...	...
4	*Prof. V*	...	...	...

4. Number of Trainees and Efficiency

Please specify the reason(s) for the program' capacity setting and how it leads to the efficiency of the program with the current maximum number at Click or tap here to enter text. persons.

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1. Since the maximum number of instructors who can train instructors with comprehensive knowledge and skills is two, it is desirable to train a maximum of two trainees to achieve one-on-one instruction by instructors, which ensures high quality instructor training.

2. xxx

3. xxx

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5. Program Schedule

5.1   Total Course Period :   *30*   days

5.2   Total Training Hours: *180*   hours

Hour(s) per Class Period: *6* hours *00* minutes

(*Please do not include the time for non-training period such as introduction, opening and closing ceremony, break, etc.)

5.3 Total Training Batches: *4* batches

5.4 Class Schedule:
(*Please enclose the class schedule prepared by the applicant (no designated form).)

6. Course Material and Facilities

6.1 Teaching and Learning Material (if any)

> *Our original textbooks for this program, XXX machines in our facility, and Materials listed in Item 3 of Attachment 1.*

6.2 Training Sites and Facilities (if any)

> *Lectures will be held at our training facility XXX, and on-the-job training will be conducted at the actual factories of the participating companies that will be used in ToE.*

7. Evaluation Criteria

7.1 Pre-Training Phase (if any):

No.	Item	Evaluation Criteria
1	*Pre-training lesson via online introduction videos & Teaching Demonstration*	*• 100% completion of online self-study pre-lessons Choose 1 of the given topics from pre-lesson videos and conduct a teaching demonstration for 10 minutes*
2	*Pre-lesson Survey and Pre-tests*	*• Completion of pre-lesson survey Completion of 2 pre-tests*

7.2 During and Post-Training Phase:

(1) Minimum attendance rate: *80* % of the total lecture time

(2) Methods of ascertaining educational effectiveness (Completion evaluation)
(*If there are any in-house criteria for becoming instructors, please specify them quantitatively as much as possible.)

No.	Item	Evaluation Criteria
1	*Methods of understanding and measuring the level of achievement of skills and knowledge*	*· Attendance rate · Deepen understanding of knowledge, skills, and training content through participation in ToE · Cultivate teaching methods through actual teaching at ToE*

No.	Item	Evaluation Criteria
		· Review by multiple judges(Instructors) though ToT
2	Criteria for determining the completion of the course. (Please state the attendance rate, examination pass rate, and whether or not make-up lectures or supplementary examinations were given etc.)	The final instructional presentation materials, presentation content, result of the examination, lecture content, and response to questions and answers are comprehensively reviewed to determine whether the criteria for certification of completion have been met. During the examination, the following five items will be scored. (1) Whether the instructional presentation covers the prescribed items and is there an accurate understanding, (2) whether the student is able to use IoT sensors to identify waste through correct processes and procedures, (3) whether the student is able to correctly calculate energy consumption, (4) whether the student is able to develop correct interpretation and logical discussion of the analysis results and improvement measures, and (5) Appropriateness of lecture content and methods actually lectured in "Training to discover and improve waste in their production process and energy supply process using IoT sensors" training *Teaching at two times as a sub-instructor in "Training to discover and improve waste in their production process and energy supply process using IoT sensors" is a prerequisite for completion at least *Attendance in on-the-job training (Day XX) is a prerequisite for completion at least
3	Measures to be taken for trainees who do not meet the standards for certification of completion	· If the attendance rate is not satisfactory: make-up lectures or submission of additional reports · If the instructional presentation content of the exercises is not satisfactory: re-submission of presentation materials, Implementation of lectures at ToE (supplementary lectures), etc. · If a trainee is not deemed to have completed the course, he/she will not be certified as having completed the course.

7.3 Follow-up Phase:

(*Please include the utilization plan of the trainee(s) who have completed this ToT program for a certain subsequent period of time.)

No.	Item	Evaluation Criteria
1	*Retention of Trainers*	• *Trainers who have completed the training with the training center will conduct training for trainees of the "Training to discover and improve waste in their production process and energy supply process using IoT sensors" program for more than XXX hours over X years after their completion* • *According to our human resource plan, the 2 new instructors will be contracted to secure the smooth conduct of the related ToE for five times a year.*
2	*Knowledge Retention Tests*	• *Conducting assessments, e.g. multiple choice quizzes, writing tests or oral tests, to measure trainees' retention of key information and concepts from the training program 6 months and 1 year after their completion.* • *Training completed trainees should pass the assessments with 90% accuracy.*

7.4 Post-Training Retention Measures

☑ I hereby commit that the Applicant shall implement appropriate retention measures for trainees who have completed this Training-for-Trainers (ToT) program, and shall cooperate with the Secretariat to provide information through questionnaire(s), survey(s) and/or others as requested.

Approval Process (*for the Secretariat)

☐ Not Approved　　☐ Approved

Signature: _____　　Date:　Click or tap to enter a date.

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