



Course Outline

Annual International Training Course

1. Course Title:

Empowering Communities with AI: Tools and Strategies for Sustainable Development

2. Duration:

3 Weeks (15 working days)

3. Background:

As digital technologies rapidly evolve, artificial intelligence (AI) is emerging as a transformative force in addressing global development challenges. From enhancing healthcare in remote areas to improving agricultural resilience and public service delivery, AI holds vast potential to accelerate the Sustainable Development Goals (SDGs) but only if communities are empowered to use it inclusively and ethically.

Thailand International Cooperation Agency (TICA), through its Annual International Training Course (AITC) Programme, aims to build capacity in partner countries through knowledge exchange and practical training. This course aligns with TICA's commitment to human-centric development, South-South cooperation, and innovation for good.

Thailand International Cooperation Agency (TICA)

TICA is a national focal point for Thailand's international development cooperation. It was established in 2004 to realize Thailand's aspiration to be a contributor to international development cooperation. Believing that global challenges are best addressed through international cooperation and global partnership, TICA continues to work closely together with its development partners to realize the global development agenda through various capacity-building and human resources development programmes. In response to the recent changes in the global landscape of development cooperation, TICA has strengthened its partnerships to harness the synergy of South-South and Triangular Cooperation to tackle global development challenges, including expediting the implementation of Sustainable Development Goals (SDGs). It also continues to realign our focuses in order to deliver Thailand's commitments as a global reliable partner.

Since 1991, TICA, in collaboration with educational institutions in Thailand, has offered short-term training courses under its Annual International Training Course (AITC) programme. The number of courses offered each year varies between 25 to 35 courses for 20-35 participants per course. AITC not only fosters good and friendly relations which Thailand has already enjoyed with recipient countries across regions, but also helps Thailand to reach out to those countries with which we desire to engage more closely. The courses offered by TICA in 2023-2025 are categorized into 5 themes: Sufficiency Economy Philosophy (SEP), food security, climate change and environmental issues, public health, BCG Model related.

Organization/Institution

College of Industrial Technology, King Mongkut's University of Technology North Bangkok

4. Objectives:

The program is designed to:

- 4.1 Build foundational understanding of AI and its role in sustainable development.
- 4.2 Explore real-world case studies of AI used in agriculture, education, healthcare, and public services.
- 4.3 Train participants to use AI tools (without coding) for local problem-solving.
- 4.4 Promote ethical, inclusive, and participatory approaches to digital transformation.
- 4.5 Enable participants to design and present actionable AI-powered development projects.

5. Course Contents:

5.1 Week 1: AI Foundations & Global Development

- Introduction to AI, SDGs, and digital transformation
- Understanding AI buzzwords: machine learning, NLP, chatbots
- Ethics, bias, and responsible AI
- Case studies: AI for malaria prediction, disaster alerts, public governance

5.2 Week 2: Tools, Applications & Local Adaptation

- Hands-on with ChatGPT, Google Teachable Machine, AutoML, open data dashboards
- Using AI for agriculture (drought alerts, yield prediction)
- Community health chatbots and education assistants
- Design thinking for participatory AI solutions

5.3 Week 3: Project Development & Presentation

- Group-based project ideation and blueprint creation
- Communication strategies for non-technical stakeholders
- Final presentations and peer evaluation

- Certification and closing ceremony

6. Participants' Criteria:

Applicants must fulfill the following requirements:

- Nominated by their government or organization
- Professionals in development, education, governance, technology, or social work
- Minimum Bachelor's degree in any field
- Proficiency in English (reading, writing, speaking)

7. Attendance and Evaluation

Participants who complete the training will receive a certificate based on:

- Real-time class attendance (not less than 80%)
- Interactive class participation
- Presentation and report a final project blueprint
- Evaluation

8. Venue: (On site)

College of Industrial Technology, King Mongkut's University of Technology North Bangkok, Thailand, Bangkok. 1518 Pracharat 1 Road, Wongsawang, Bangsue, Bangkok 10800 Thailand

9. Expected Results:

By the end of the course, participants will:

- Understand and critically assess AI's role in development
- Be equipped to use basic AI tools and frameworks for field use
- Co-create an actionable project for their local context
- Become advocates for ethical and inclusive AI in their countries

10. Organization/ Institution:

- **College of Industrial Technology, King Mongkut's University of Technology North Bangkok**
- **Asst.Prof.Phanita Phakdi, Ph.D. (+66914366291)**

11. Expenditure/Funding:

Thailand International Cooperation Agency (TICA)

Government Complex, Building B (South Zone), 8th Floor,

Chaengwattana Rd. Laksi District, Bangkok 10210 THAILAND

Website: <https://tica-thaigov.mfa.go.th/en/index>

Email: aitc@mfa.go.th

Schedule for the Training Programme:

Empowering Communities with AI: Tools and Strategies for Sustainable Development

Date/ Period /Topic	Time (Thailand time)	Content	Speaker	Note
Week 1: Foundations of AI & Sustainable Development				
Day 1 : Orientation & AI for SDGs				
	9.00-16.00	<ul style="list-style-type: none"> • Welcome and course overview • Introduction to Sustainable Development Goals (SDGs) • How AI intersects with SDGs (e.g., SDG 3: Health, SDG 13: Climate Action) • Case Study: AI for malaria prediction in Africa 	CIT + Experts in non academic institutes	
Day 2 : What is AI? Demystifying the Buzzwords				
	9.00-16.00	<ul style="list-style-type: none"> • Understanding AI, Machine Learning, Deep Learning in plain terms • Use of AI without coding – low-code/no-code platforms • Demo: Google Teachable Machine, ChatGPT 	CIT + Experts in non academic institutes	
Day 3 : Ethical AI & Responsible Innovation				
	9.00-16.00	<ul style="list-style-type: none"> • AI risks: bias, surveillance, job loss • Principles of ethical AI (fairness, transparency, accountability) • Activity: Group debate on facial recognition in public services 	CIT + Experts in non academic institutes	
Day 4 : AI in Public Services & Governance				
	9.00-16.00	<ul style="list-style-type: none"> • AI for public health: COVID-19 dashboards • AI for disaster prediction (floods, fires) • Real-world examples: India’s AI in agriculture, Rwanda’s drone medicine delivery 	CIT + Experts in non academic institutes	
Day 5 : Community Empowerment with AI				
	9.00-16.00	<ul style="list-style-type: none"> • Participatory technology design • How to co-create solutions with rural communities • Case Study: Smart Villages using AI in Thailand and India 	CIT + Experts in non academic institutes	

Date/ Period /Topic	Time (Thailand time)	Content	Speaker	Note
Week 2 : Foundations of AI & Sustainable Development				
Day 6 : Hands-on with AI Tools – Part 1				
	9.00-16.00	<ul style="list-style-type: none"> • Use of open-source tools, ChatGPT for education, Google AutoML for basic image classification, Canva AI & Notion AI for communication 	CIT + Experts in non academic institutes	
Day 7 : Hands-on with AI Tools – Part 2				
	9.00-16.00	<ul style="list-style-type: none"> • Building simple chatbots for helplines • Demo: Use Twilio or WhatsApp bots for community Q&A • Using Airtable + AI to track local issues (e.g., crop issues, water supply) 	CIT + Experts in non academic institutes	
Day 8 : AI in Agriculture & Climate				
	9.00-16.00	<ul style="list-style-type: none"> • Precision farming with AI sensors • Example: Use of satellite + AI to predict droughts • Workshop: Build a community weather alert dashboard 	CIT + Experts in non academic institutes	
Day 9 : AI in Education & Health				
	9.00-16.00	<ul style="list-style-type: none"> • Case: AI tutors for rural schools • Example: Chatbots for basic health triage • Activity: Local health communication bot 	CIT + Experts in non academic institutes	
Day 10 : Human-Centered Design for AI				
	9.00-16.00	<ul style="list-style-type: none"> • Framework: Design Thinking for AI solutions • Mapping local problems to AI tools • Activity: Group brainstorm to match SDG needs to AI strategies 	CIT + Experts in non academic institutes	

Date/ Period /Topic	Time (Thailand time)	Content	Speaker	Note
Week 3 : Capstone Design & Action Plan				
Day 11 : Ideation: Community AI Projects				
	9.00-16.00	<ul style="list-style-type: none"> • Group work: Select local challenge • Identify stakeholders and desired outcomes • Choose AI approach (chatbot, data model, alert system, etc.) 	CIT + Experts in non academic institutes	
Day 12 : Building Project Blueprint				
	9.00-16.00	<ul style="list-style-type: none"> • Template-based project planning • Risk assessment and ethical guardrails • Peer feedback on design 	CIT + Experts in non academic institutes	
Day 13 : Pitch Deck & Communication				
	9.00-16.00	<ul style="list-style-type: none"> • How to explain AI projects to non-tech stakeholders • Visual tools and storytelling • Practice: 3-minute pitch to mentor panel 	CIT + Experts in non academic institutes	
Day 14 : Final Presentations – Part 1				
	9.00-16.00	<ul style="list-style-type: none"> • Group presentations (7–8 groups) • Panel feedback (evaluated for clarity, relevance, feasibility) 	CIT + Experts in non academic institutes	
Day 15 : Final Presentations – Part 2 + Closing				
	9.00-16.00	<ul style="list-style-type: none"> • Remaining group presentations • Reflection and commitments • Certification and group photo 	CIT + Experts in non academic institutes	