

Program Overview

Enhancing Computational Skills for Students in Mekong Countries and the Republic of Korea through Coding, IoTs and AI Learning

Organized by

*Educational Technology Research Team
National Electronic and Computer Technology Center (NECTEC)
Under Mekong-Republic of Korea Cooperation Fund (MKCF)*

Program Duration: June 2026 – Dec 2027

1. Program Overview & Objectives

Welcome to our comprehensive computational skills enhancement program designed to empower participants with advanced knowledge and practical skills in Coding, IoTs and AI. This program combines theoretical learning with hands-on experience to ensure participants gain both competency and confidence.

Program Objectives

- Develop essential technical and professional skills in Coding, IoTs and AI
- Build practical competencies through hands-on workshop activities
- Foster collaborative learning and peer-to-peer knowledge exchange
- Enable participants to apply skills learned through real project development

2. Program Introduction & Motivation

Why This Program Matters

In the 21st century, digital transformation has become central to daily life and is changing rapidly. Today's young people grow up in a digital environment from an early age, yet behind these technologies lie complex scientific and mathematical concepts. To thrive and adapt in the digital age, students need a fundamental understanding of technology and the ability to apply it in real-world situations.

Computational Thinking (CT) is the most essential skill that children of this century must develop. It is a logical thinking skill that enables effective problem-solving in everyday life. Technologies such as Coding, Internet of Things (IoT), and Artificial Intelligence (AI) are key drivers of innovation, efficiency, and transformation across industries. Learning these technologies through project-based learning aligned with STEM (Science, Technology, Engineering, Mathematics) principles is a proven effective approach to developing computational thinking skills in students.

Proven Track Record

Since 2017, our research team has been developing and distributing innovative technology learning solutions. Through the 'Coding at Schools' program, we delivered over 200,000 educational boards to more than 2,000 schools across Thailand. In 2019, we expanded to artificial intelligence education with the 'AI at Schools' program, training thousands of educators and students. These initiatives have created measurable impact across four critical dimensions:

Four Dimensions of Program Impact

- **People:** Developed youth potential and critical thinking processes; trained thousands of educators in new technology expertise
- **Education:** Elevated national education standards to compete with leading countries; integrated technology skills into school curricula
- **Society & Community:** Stimulated innovation communities; created learning networks; engaged hundreds of thousands of participants
- **Industry:** Strengthened the electronics and technology sectors; created skilled workforce pipelines

Regional Expansion Vision

Building on this success, the MKCF program extends this transformative approach across the Mekong region (Cambodia, Laos, Myanmar, Vietnam, Thailand) in partnership with the Republic of Korea. This regional collaboration will elevate digital skills education in the Mekong basin, enabling secondary students (middle and high schools) to develop computational thinking and digital problem-solving abilities. Through innovative projects and community engagement, participants will be equipped to drive innovation and improvement in their communities and contribute to the region's technological advancement.

3. Program Structure & Timeline

The program spans approximately 12 months and is structured in five progressive phases to ensure comprehensive skill development and practical application.

Phase 1: Online Training (4 Days)

Duration: 4 days from 9:00 AM - 4:00 PM (UTC+7:00)

Format: Virtual sessions via online platform

Capacity: Limited to 70-100 participants per round (first-come, first-served basis)

Important: *Two training rounds are available. Participants may choose to attend either Round 1 or Round 2 based on their availability. Both rounds cover identical content.*

Training Rounds Available:

Day	Topic	Round 1	Round 2
Day 1	Coding	July 15, 2026	August 4, 2026
Day 2	IoTs	July 16, 2026	August 5, 2026
Day 3	AI	July 17, 2026	August 6, 2026
Day 4	Python	July 20, 2026	August 7, 2026

Course Details:

This foundational phase introduces core concepts and theoretical frameworks through interactive online sessions. Each day focuses on a specific technical domain:

- **Day 1 - Coding Fundamentals:** Introduction to block-based programming concepts, and best practices
- **Day 2 - Internet of Things (IoT):** Understanding IoT architecture, sensors, connectivity, and applications
- **Day 3 - Artificial Intelligence (AI):** AI concepts, basic machine learning - classification, and practical applications
- **Day 4 - Python Programming:** Python fundamentals, libraries, and hands-on coding exercises

What to Expect:

- Interactive lectures and live demonstrations
- Hands-on coding exercises and problem-solving activities
- Group discussions and peer collaboration opportunities
- Access to digital learning materials and resources

Phase 2: Onsite Workshops (3 Days per Country)

Duration: 3 consecutive days per workshop

Format: In-person intensive workshop

Important: *Participants will attend the workshop scheduled in their home country. Five workshops will be conducted across Cambodia, Laos, Myanmar, Vietnam, and Thailand.*

Workshop Schedule by Country:

Country	Workshop Dates	Venue
Cambodia	October 7 – 9, 2026	CADT , Phnom Penh
Laos	October 15 – 17, 2026	Vientiane
Myanmar	October 28 - 30, 2026	Yangon
Vietnam	October 20 - 22, 2026	Hanoi
Thailand	August 28 – 30, 2026	Khon Khen

Note: *Specific venues in each country will be confirmed and communicated to participants upon selection. Participants will only need to attend the workshop in their home country.*

Workshop Overview:

Building on the online training, these hands-on workshops provide practical application opportunities where participants will apply the concepts learned during the online phase. This immersive three-day experience allows for direct interaction with instructors, collaborative problem-solving, and intensive skill-building in a supportive environment. All participating school will receive an AI-Edge educational device (KidBright μ AI board) to support hands-on learning and project development.

Workshop Activities:

- Hands-on AI learning through an AI-edge tool and practical application
- Collaborative team projects integrating Coding, IoT, AI, and Python
- Networking opportunities with participants and researchers
- Project planning session for the upcoming development phase

Phase 3: Implementation and Project Development (TBC)

Duration: Approximately 3-6 months (November 2026 – Mar 2027)*

*Plan is subject to change. More details will be announced on the program website.

Format: School-based implementation with student project competition and development

During this crucial application phase, participants will design and implement the learning units they acquired during the online training and onsite workshop within their schools. Building on this implementation, educators will guide their students to develop innovative solutions that apply the knowledge gained from this program. Student project proposals will be submitted to a competitive selection process, with selected teams receiving dedicated support to develop and implement their projects.

Project Phase Activities:

Stage 1: Learning Unit Implementation (1-3 months)

Educators will integrate the learned content into their school curriculum and classroom instruction:

- Adapt and customize the learning materials for your school context
- Teach students core concepts in Coding, IoT, AI, and Python
- Provide hands-on coding exercises and practical activities
- Monitor student progress and engagement in technology learning

Stage 2: Student Project Competition

Following the implementation phase, educators will guide their students in developing innovative projects:

- Students form teams to identify real-world problems in their communities
- Teams submit project proposals detailing their idea, solution approach, technology integration, and expected impact
- Program committee reviews and selects the most promising projects
- Educators receive recognition for their classroom implementation and student team contributions

Stage 3: Project Development and Implementation

Selected student teams will receive comprehensive support to develop and implement their projects:

- Provision of development budget to support project implementation and material costs
- Regular check-in meetings to monitor progress and address technical challenges
- Access to technical resources, tools, and libraries needed for project development
- Coaching on project management, teamwork, and presentation skills
- Opportunities to showcase projects and present results to an international seminar and contest in Republic of Korea

Phase 4: International Seminar and Project Contest

Duration: 3 days (April - May 2027)

Location: Republic of Korea

Format: International seminar, project showcase, competition, and KAIST campus visit

Overview:

Selected student teams and educators from Phase 3 will travel to the Republic of Korea to showcase their innovative technology solutions. This international event brings together participants from the CLMVT region to present their projects, engage in cross-cultural knowledge exchange, and visit leading technology institutions. This is a prestigious opportunity to celebrate achievements and build international networks.

Tentative Schedule:

- Day 1: Welcome, Setup & Knowledge Exchange
- Day 2: Project Showcase & Pitching Competition
- Day 3: KAIST Campus Visit & Future Pathways

Phase 5: Future Opportunities & Continued Development

Timeline: Following completion of project phase (June 2027 onwards)

Format: Advanced programs, alumni networks, and leadership opportunities

Successful participants will be eligible for continued engagement and advanced opportunities. This phase represents sustained pathways for leadership, innovation, and impact within the growing international community of technology education practitioners and innovators across the CLMVT region.

Future Opportunities Include:

- Regional networking opportunities with alumni and industry professionals across CLMVT
- Access to exclusive resources and continued learning platforms
- Potential collaboration on regional projects and innovation initiatives

4. Target Participants

This program is designed for participants from Cambodia, Laos, Myanmar, Vietnam, and Thailand who:

- Demonstrate strong motivation to develop skills in technology and programming
- Are passionate about bringing technology education to their students
- Are committed to implementing a technology learning unit in their school
- Are committed to completing all program phases and activities
- Have interest in coding, IoT, AI, and/or Python programming
- Can dedicate time for online training, workshop attendance, school implementation, and mentoring student projects
- Are eager to collaborate with peers and contribute to regional educational innovation

Prerequisites

- Current position as an educator or teacher in a recognized school
- Based in one of the CLMVT countries (Cambodia, Laos, Myanmar, Vietnam, or Thailand)
- Access to computer/laptop and stable internet connection for online training
- Availability to attend the 4-day onsite workshop in your home country
- Basic computer literacy (ability to use computer, browse the internet, and use online communication platforms)
- School support/approval to implement technology learning unit and facilitate student projects

English Language Proficiency

- **Language of Instruction:** The program is conducted in English.
- **English Requirement:** Adequate English proficiency is preferred to fully participate in lectures, discussions, and networking activities. No English proficiency test score (such as TOEFL or IELTS) is required—self-assessment is sufficient.
- **Support Available:** For the onsite activities, translated materials and local support will be provided through our representative partners in each country. Participants attending online training are responsible for their own language support arrangements.

5. Benefits & Expected Outcomes

This program delivers comprehensive value across multiple dimensions. Participants will gain practical professional skills, international recognition, and the opportunity to create meaningful impact in their schools and communities. By joining this program, you become part of a regional movement to advance technology education across the Mekong region.

Skills & Competencies

Educators will gain access to a new technology learning curriculum and teaching methodology specifically designed for Coding, IoT, and AI education. Even if participants already have experience with technology, this program introduces innovative learning tools and approaches that can be readily implemented in their classrooms to enhance student learning and engagement. Participants will develop practical skills in problem-solving, project-based learning facilitation, teamwork capabilities, and guiding students through technology tools, projects and competencies.

Professional Development

Participants receive a *certificate of completion* recognizing their participation and training. Educators whose student teams are selected in Phase 3 will receive *provision budget support* to help develop and implement their innovative projects. This provides tangible resources to translate learning into real classroom impact.

Networking & Community

Participants gain access to a regional network of technology enthusiasts and professionals across CLMVT and ROK countries, creating opportunities for cross-cultural networking and knowledge exchange that extend far beyond the program duration.

6. Registration Information

How to Apply

1. Complete the online registration form at <https://forms.gle/FX7tKDaivd27PpJ98>
2. Indicate your preferred online training round (Round 1 or Round 2)
3. Await confirmation email with further instructions

Note: Online training rounds are limited to 70-100 participants per round to ensure quality instruction and effective interaction. Registration will be on a first-come, first-served basis.

Important Dates

- **Application Deadline: July 8, 2026**
- Confirmation Notification: July 10, 2026
- Online Training Round 1: July 15-17 and 20, 2026
- Online Training Round 2: August 4-7, 2026
- Onsite Workshops: August and October 2026 (see country-specific dates in Section 3)
- Other activities will be announced later.

Program Fees

The program is offered *free of charge*. There are no registration or training fees, and all learning materials, curriculum resources, and training instruction are provided at no cost. The program will cover main costs for the onsite workshop (such as meals and refreshments) and the international seminar and contest in the Republic of Korea (including transportation, accommodation, and meals). However, participants may need to cover personal expenses such as local travel to the workshop venue, internet connectivity, accommodation if needed, project development costs beyond the allocated budget, or miscellaneous personal expenses. Specific details about cost coverage will be communicated closer to each program phase.

7. Contact Information

For questions, clarifications, or additional information about the program, please contact:

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We look forward to your participation in this transformative regional learning journey!