ADB

AiCI
ARTIFICIAL INTELLIGENCE
CENTER INDONESIA

Preparing AI Talents for Indonesia Future

Artificial Intelligence Center Indonesia

Our commitment at the Artificial Intelligence Center Indonesia is to create an outstanding generation of Indonesia.

AiCI
ARTIFICIAL INTELLIGENCE
CENTER INDONESIA

Dr. Baiq Hana Susanti, M.Sc.

Director of Artificial Intelligence Center Indonesia

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REGULATION OF ELECTIVE SUBJECTS OF CODING AND ARTIFICIAL INTELLIGENCE

Arah Pembangunan Nasional

STRENGTHENING HUMAN RESOURCE

Strengthening human resource development (HR), science, technology, education, health, sports achievements, gender equality, and strengthening the role of women, youth, and persons with disabilities (Asta Cita Mission).

STRENGTHENING SCIENCE AND TECHNOLOGY

Strengthening education, science and technology, and digitalization (President's Priority Program).

PERATURAN MENTERI PENDIDIKAN DASAR DAN MENENGAH
REPUBLIK INDONESIA
NOMOR 13 TAHUN 2025
TENTANG
PERUBAHAN ATAS PERATURAN MENTERI PENDIDIKAN, KEBUDAYAAN, RISET, DAN TEKNOLOGI NOMOR 12 TAHUN 2024 TENTANG KURIKULUM PADA PENDIDIKAN ANAK USIA DINI, JENJANG PENDIDIKAN DASAR, DAN JENJANG PENDIDIKAN MENENGAH

DENGAN RAHMAT TUHAN YANG MAHA ESA

MENTERI PENDIDIKAN DASAR DAN MENENGAH
REPUBLIK INDONESIA,

Regulation of The Minister of Education of The Republic of Indonesia Number 13 of 2025

Article 32A

"When this Ministerial Regulation comes into effect, **the elective subjects of Coding and Artificial Intelligence will be implemented by Educational Units at the primary and secondary education levels** starting in the 2025-2026 academic year on a gradual basis."

KEPUTUSAN DIREKTUR JENDERAL GURU, TENAGA KEPENDIDIKAN, DAN PENDIDIKAN GURU
KEMENTERIAN PENDIDIKAN DASAR DAN MENENGAH

NOMOR 5/B/HK.03.01/2025

TENTANG
PETUNJUK TEKNIS PELATIHAN KODING DAN KECERDASAN ARTIFISIAL

DIREKTUR JENDERAL GURU, TENAGA KEPENDIDIKAN, DAN PENDIDIKAN GURU,

DECREE OF THE DIRECTOR GENERAL OF TEACHERS, EDUCATION PERSONNEL, AND TEACHER EDUCATIONMINISTRY OF PRIMARY AND SECONDARY EDUCATION

NUMBER 5/B/HK.03.01/2025

REGARDING

TECHNICAL GUIDELINES FOR CODING AND ARTIFICIAL INTELLIGENCE TRAINING

BIMTEK/ToT (Technical Guidance/Training of Trainers)

IN-ON-IN TRAINING located at Satdik or other agreed places

POST-TRAINING CONTINUITY IN KKG/MGMP/MKKS/MKPS ROUTINELY ON 1 (ONE) TEACHER LEARNING DAY

BIMTEK/ToT

1. General Material (Policy and Activity Orientation)
2. Core Material
3. Supporting Material (RTL & Evaluation)

Target: Prospective NS Training Instructors IN-ON-IN (WI, WP, PTP, Lecturers, Practitioners)

Approach: In-depth Learning with Andragogy Principles

IN-1 Training

1. General Material (Policy and Activity Orientation)
2. Core Material (adapted to target KS, PS, Teachers or other Tendik)
3. Supporting Material (RTL & Evaluation)

Understanding

ON Training

Implementation RTL

1. Real Practice according to target
2. Collaborative Inquiry in working groups
3. Reflection

Monitoring & Mentoring

Applying

IN-2 Training

1. Sharing ON implementation results
2. Reflection
3. RTL for sustainable Implementation

Reflecting

TEACHER WORKING GROUP, KS, PS KKG/MGMP/MKKS/K3S/MKPS

Other activities carried out are

- collective observation of model teacher learning
- strengthening material substance

Note: BIMTEK Mode Training and Training can be carried out online, offline or in combination, adjusted to conditions.

Coding-AI Learning Methods

This strategy is designed so that schools with various levels of readiness can still implement learning.

Schools with complete facilities can directly use the

internet-based approach.

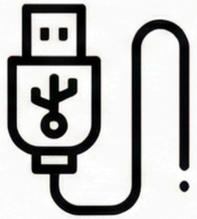
However, facilitators must also be prepared to guide schools that are only able to carry out unplugged learning.

Internet Based

Purpose:
- Provide interactive learning experiences based on digital platforms.
- Introduce students to real applications like AI tools, coding simulations, and LMS-based learning.

Advantages:
- Rich in learning resources: video tutorials, direct simulations, online programming.
- Suitable for schools with complete infrastructure (computers, stable network, and trained teachers).

Implementation Examples:
- Using platforms like Scratch, Tynker, Code.org, or Google Teachable Machine.
- Accessing the Ministry's LMS for materials and evaluation directly.
- Students create light applications or robotics projects with digital guidance.



Plugged

Purpose:
- Enable technology-based learning in limited conditions.
- Focus on basic technical skills with offline applications.

Advantages:
- Can still learn coding even without stable internet access.
- Can be used in computer laboratories with offline software offline.

Implementation Examples:
- Using software like Scratch Desktop, Python offline IDE (like Thonny), or micro:bit offline.
- Algorithm simulation through visual block programming without online.
- Practice data processing practice and programming logic directly on the device.

Unplugged

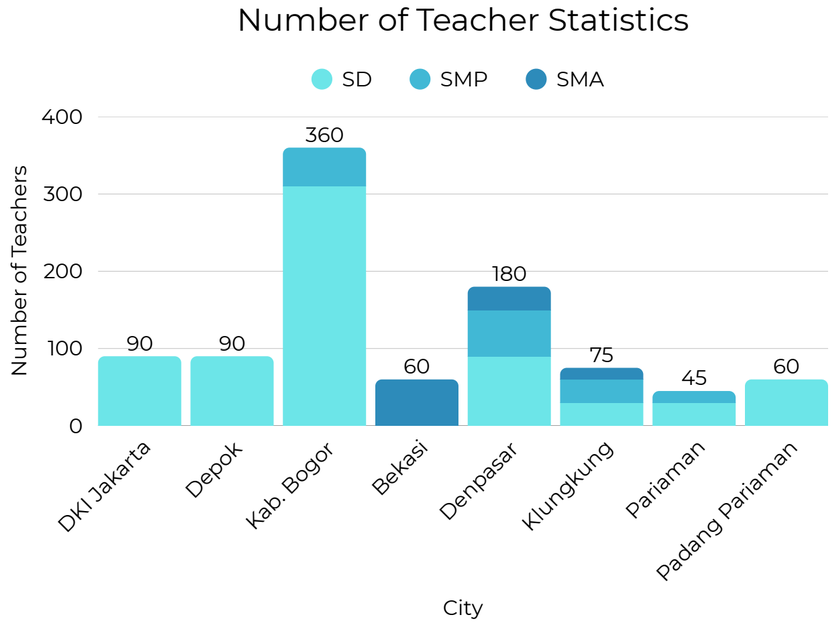
Purpose:
- Instill computational thinking logic through concrete and fun experiences.
- Solution for schools that do not yet have digital devices and infrastructure.

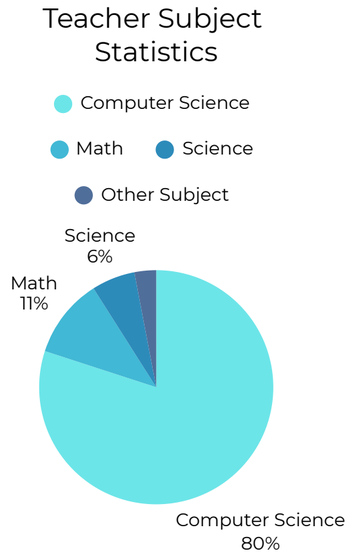
Advantages:
- Simple, cheap, and inclusive.
- Can be done in all schools, including in areas without electricity or internet.

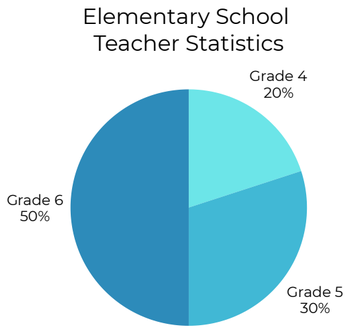
Implementation Examples:
- Sequential algorithm games (e.g., arranging sandwich-making steps).
- Activity "Mr. Robot Program" activity where students give written instructions to a partner.
- Introduction to AI through illustrated stories comparing how humans and machines think.

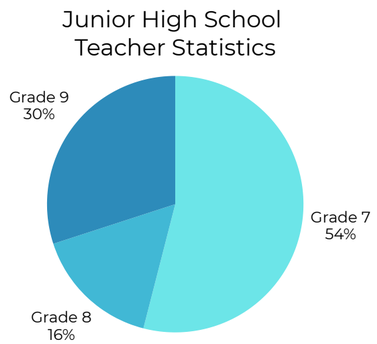
CODING AND ARTIFICIAL INTELLIGENCE TRAINING AT ARTIFICIAL INTELLIGENCE CENTER INDONESIA

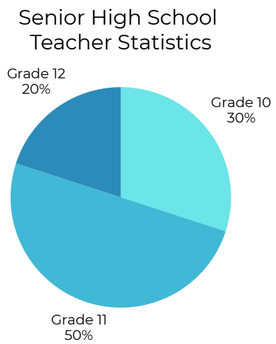
Total Teachers: 960



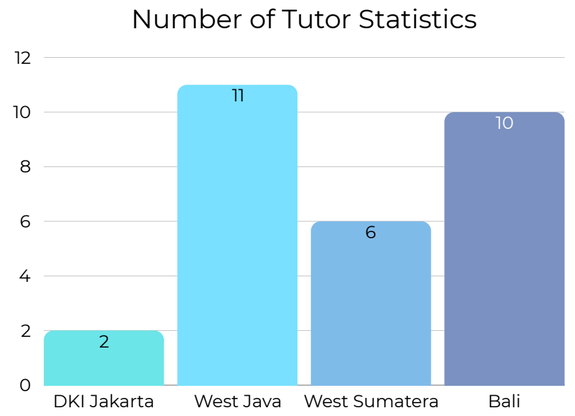


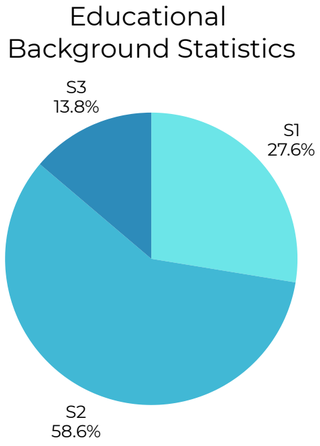


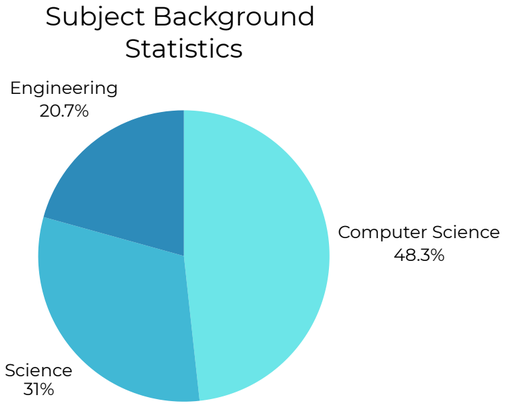




Total Tutor: 29







Perception of the Coding-AI Learning Training Process

Based on participant perceptions, the Coding and Artificial Intelligence (AI) Learning training process is **generally considered relevant and effective**. The majority of informants appreciate the relevance of the material to learning needs. However, there are consistent challenges regarding **time constraints especially for practical sessions**, competency gaps of participants with **diverse backgrounds**, and technical material complexity especially in the programming module (specifically Module 4).

Positive perceptions related to the Training by participants (teachers)

- Training is effective with appropriate and easy-to-implement learning scheme
- Training scheme is sufficient with relevant and inspiring material
- Teachers rate the Coding/AI training material as relevant to class needs

Difficulties faced by participants

- Training is relevant and structured but needs more time for Python practice
- Material is relevant but less effective due to limited duration and lack of practice
- Understanding is formed systematically but a challenge for non-informatics teachers
- Modules 1, 2, and 3 are applicative, but faced challenges in Module 4

Suggestions for training improvement from participants (teachers)

- Increased learning practice
- Emphasis on direct implementation in class
- Consideration of additional duration (especially for Module 4 Basic Programming)
- Provision of supplementary material for non-informatics participants (relevant fields)
- Need for independent learning material access before training
- Post-training support platform
- Communities of practice for experience sharing

INTERNSHIP PROGRAM FOR INDONESIAN AI TALENTS

This activity included learning activities in the form of:

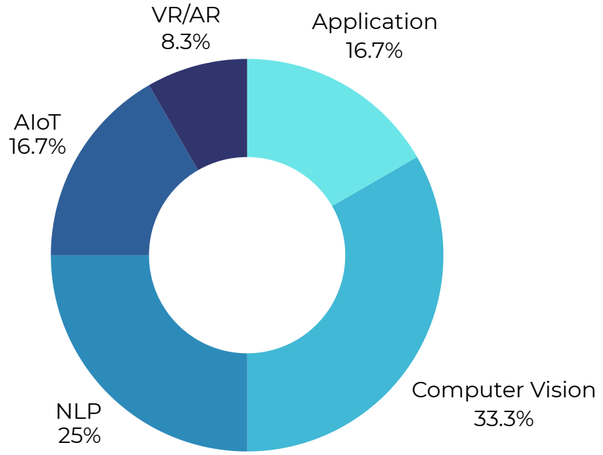
- Live Session
- Independent Assignment
- Expert Learning Activity
- Final Assignment - Project

Curriculum:

- Python
- SQL
- Machine Learning
- Exploratory Data Analysis
- NLP
- Computer Vision
- Anvil

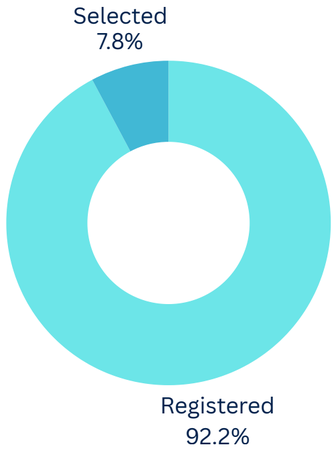
Final Project Statistics

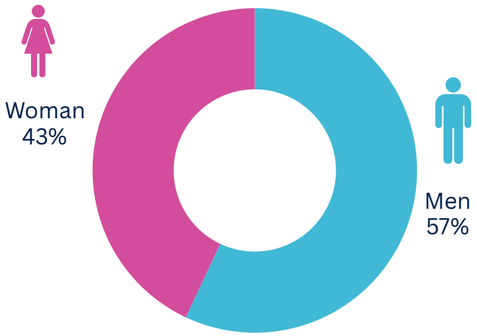
Number of Project
45



Participant Statistics

Number of Participants Registered	Number of Participants Accepted
3376	226





REGISTERED PARTICIPANT
+3300 peoples

there were more than 3300 participants who registered

UNIVERSITY
+70 Universities

Participants in the event came from more than 70 universities spread across Indonesia. The largest number of participants came from the Univ. Pend. Indonesia

MAJOR
+50 Majors

Participants came from more than 50 different majors. The major with the highest number of participants was Information Technology.

ASAL DOMISILI
+20 Provinsi

Participants in the event came from more than 20 provinces spread across Indonesia.

Internship Program Scheme for Indonesia AI Talents

1. Student study for 1 semester

2. Student make a Final Project

3. AiCI Collaborates with Science Techno Park UI in Publishing/Promoting Student Final Projects

4. Students are accepted for internships at certain companies

Contact information

How can participants get in touch with you or your organization?

THANK YOU

ANY QUESTIONS?