



Transforming the Philippine Education Landscape through AI and Data Science

Introducing the Education Center for AI Research

Sebastian C. Ibañez, PhD

Deputy Chief AI and Data Officer
Education Center for AI Research (E-CAIR)

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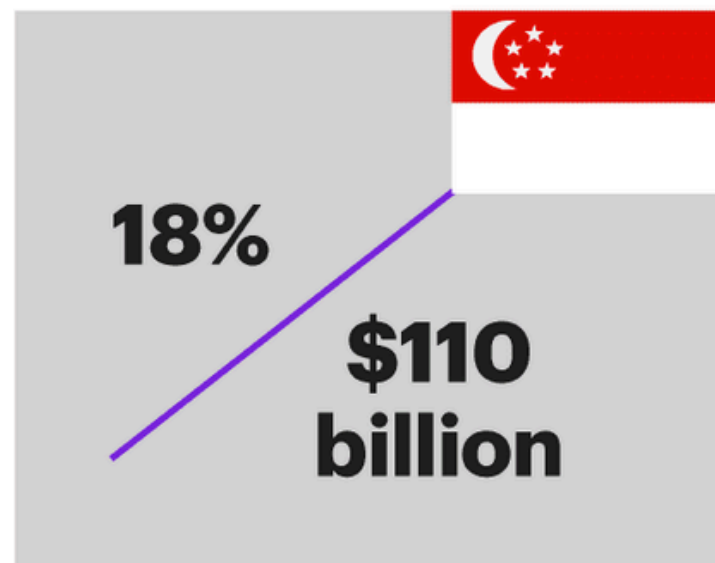
Some Background...

The Philippines needs to do more to **increase the potential economic opportunities from AI**

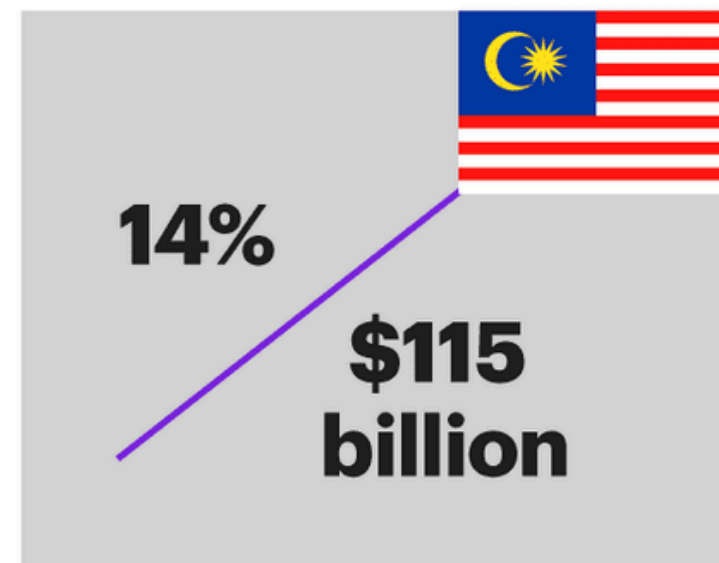
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Potential economic contribution of AI to ASEAN economies (2020 estimates, now this is at 120 billion USD at 15%)

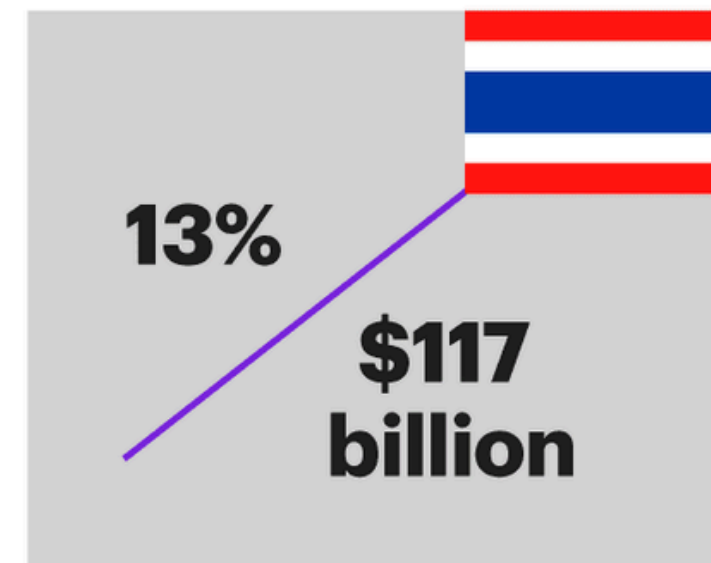
Singapore



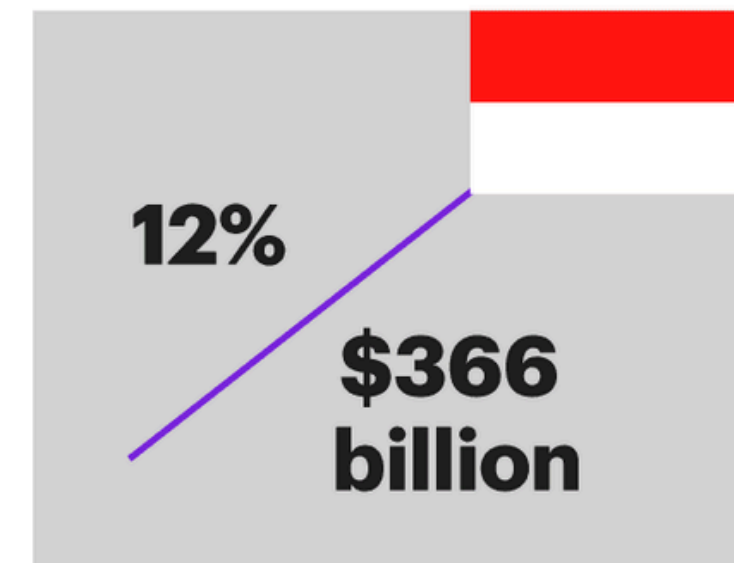
Malaysia



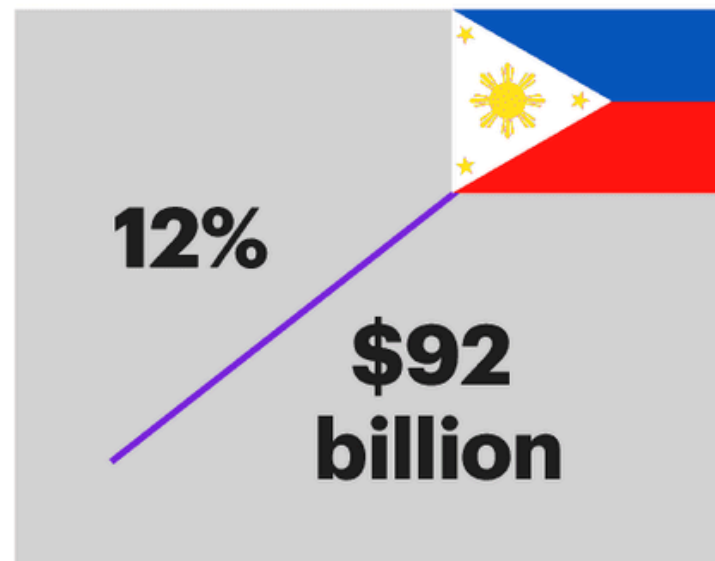
Thailand



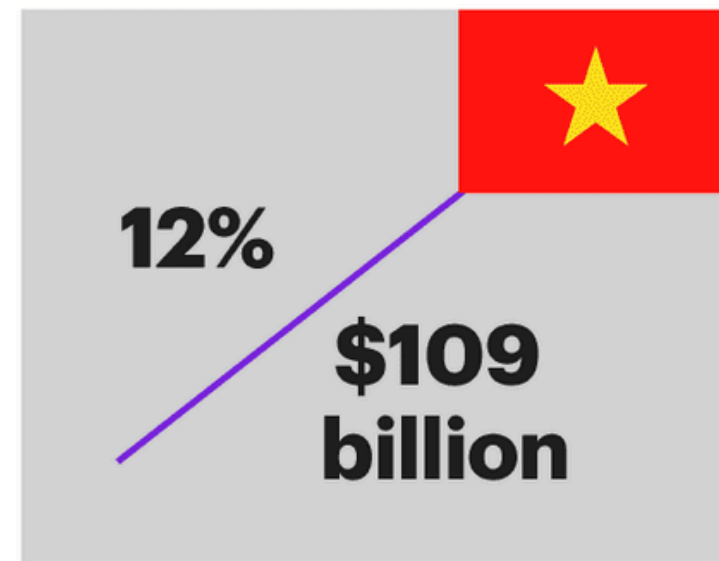
Indonesia



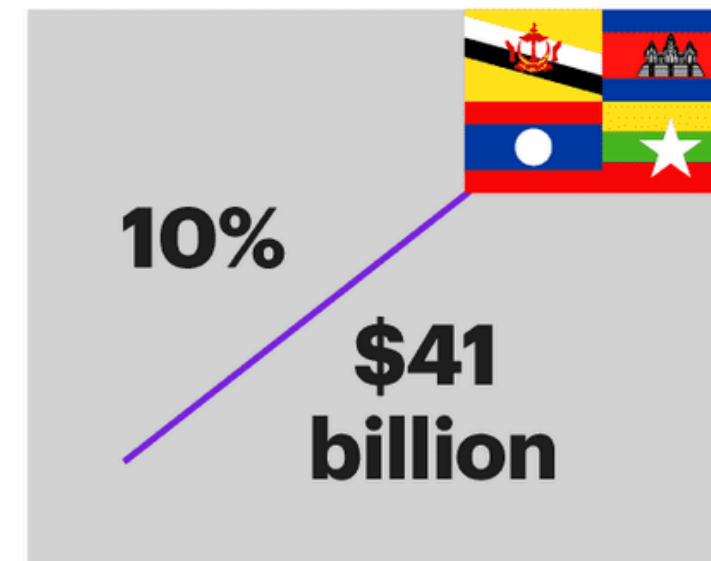
Philippines



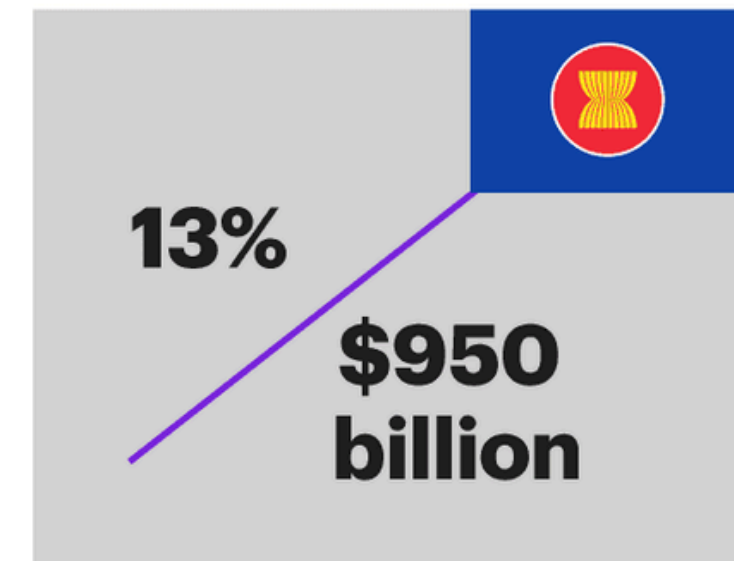
Vietnam



**Brunei, Cambodia,
Laos, Myanmar**



Southeast Asian nations



Source: Kearney and EDBI (2020)

Data Science and Artificial Intelligence — a Nation-Defining Capability.

UK Government Announces £32m for AI Projects After Scrapping Funding for Supercomputers

Published August 7, 2024 | Written by Fiona Jackson



Technology

South Korea to invest \$7 billion in AI in bid to retain edge in chips

By Reuters

April 9, 2024 1:33 PM GMT+8 · Updated 6 months ago



Artificial intelligence Tech / Big Tech

 South China Morning Post

China's AI industry could see US\$1.4 trillion investment in 6 years, executive says

TECHNOLOGY

Japan to fund KDDI, four others to build AI supercomputer

Grants worth \$470m aimed at reducing dependence on U.S. tech

NIKKEI Asia

Biden-Harris Administration to Invest up to \$100 Million to Accelerate R&D and AI Technologies for Sustainable Semiconductor Materials



Office of Public Affairs
US Department of Commerce
Released: Wednesday, October 2, 2024

NEWS RDI

EU LAUNCHES €176 MILLION DIGITAL INVESTMENT DRIVE FOR DATA. AI. AND SKILLS



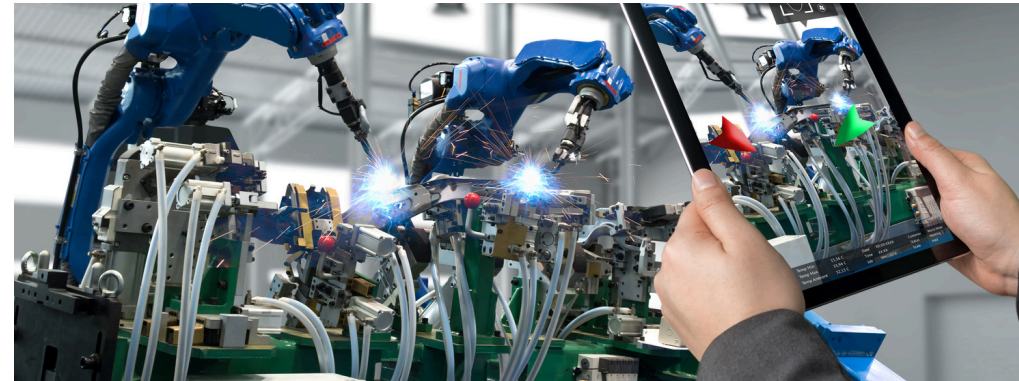
CEPIS
Council of European Professional
Informatics Societies

Top Industries that would Benefit from AI



AGRICULTURE

AI Applications in Agriculture include using computer vision and machine learning to detect soil shortages and crop diseases, as well as “precision agriculture” wherein AI forecasts trends to maximize schedule of planting.



MANUFACTURING

Manufacturers are using their own data sets to train models and identify AI-enabled methods to increase efficiency and production. GenAI can also be used in predictive maintenance of line machines.



BUSINESS PROCESS OUTSOURCING

The most common use of AI in BPO is automation of tasks, minimizing errors and freeing workers up for strategic tasks requiring creativity and human judgment.



HEALTHCARE

AI is being used for machine-led surgeries which may operate around the clock, are less intrusive and more exact, and have a lower margin of error. Likewise, AI can help with medical diagnosis, detecting dangerous medical conditions more quickly and accurately



RETAIL AND E-COMMERCE

AI can utilize consumer data to drive more targeted sales efforts. It can offer a window into the behaviors of customers and consumers by highlighting patterns, trends, needs, and preferences.



EDUCATION

AI may be utilized to assist in repetitive, data-intensive operations, make or digitize study materials and lectures, and create customized learning modules

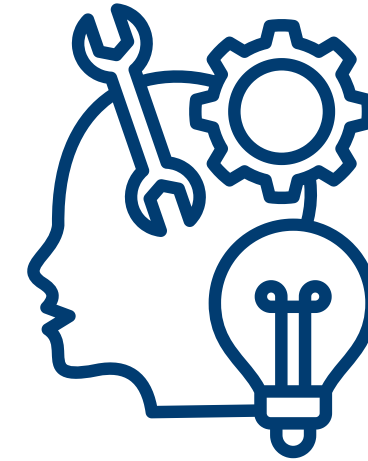
Critical barriers hinder the adoption of AI among organizations



High Costs



Lack of Awareness
& Understanding



Talent Scarcity



Infrastructure Gaps



Data Issues

National AI Strategy Roadmap 2.0

Digital Infrastructure Development

Build a robust connected and networked environment

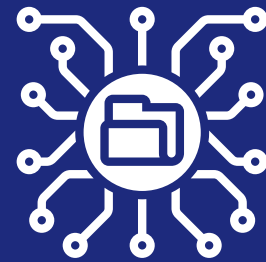
DICT



Data Accessibility & Utilization

Improve data access and value extraction

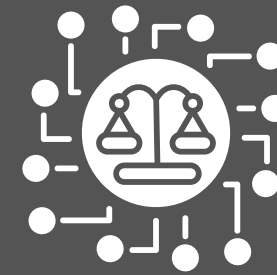
DICT, PSA, DOST, CHED, DTI



Trustworthy AI Governance

Build an AI ecosystem "Conscience"

DTI, PCC, IPOPHL, DICT, ARTA, DOST



AI-Driven Dev't & Adoption

Accelerate innovation through AI R&D, focusing on industry use cases and adoption

DTI, DOST, DICT, CHED



AI Research Leadership

Master and push the boundaries of AI

DOST, DTI, CHED, DICT, NEDA, DOF, DBM, DOLE



STRATEGIC IMPERATIVES



Workforce Development

Upskill and reskill the workforce

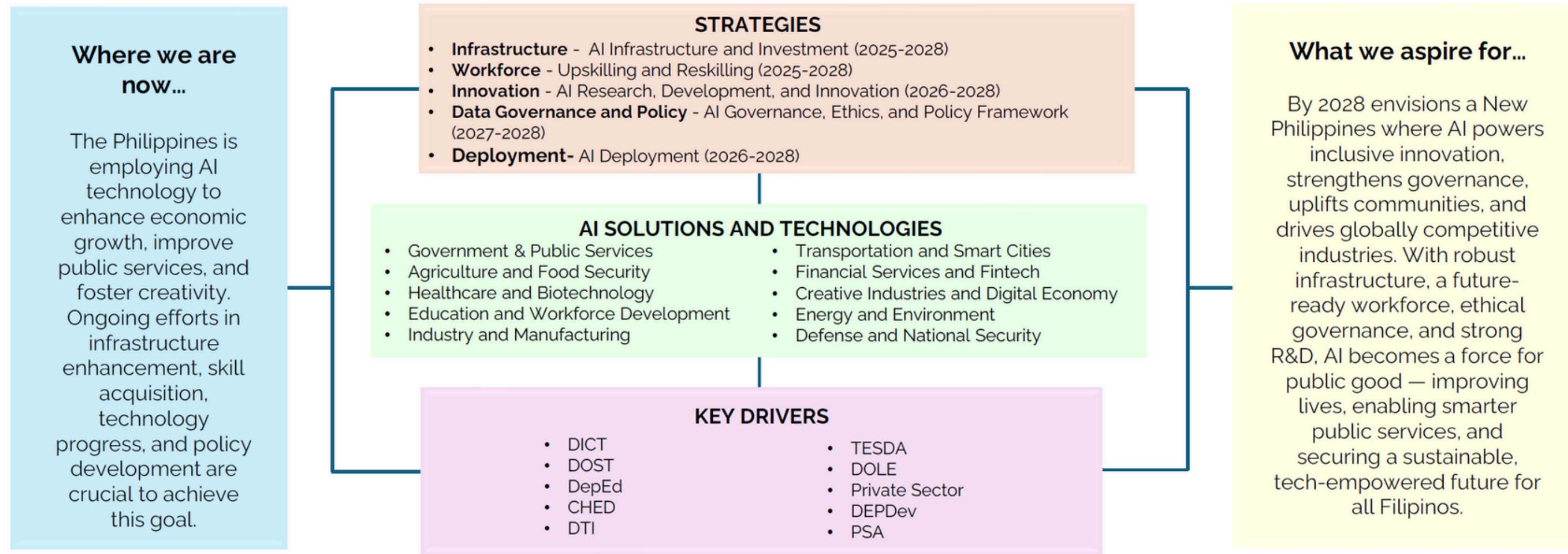
CHED, TESDA, DOST, DOLE, DTI, DICT

Talent Development

Transform education and nurture future AI talents

DepED, CHED, TESDA

Philippine AI Program Framework (Proposed)



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www.dost.gov.phosec@dost.gov.ph

DOST Philippines #OneDOST4U

The Education Center for AI Research (E-CAIR)

The center aims to put the country on the AI map of Southeast Asia



MISSION

To elevate the Philippines as a **center of excellence in AI research and innovation** in Southeast Asia, fostering a synergistic environment between government, industry, and academia to drive socio-economic growth, enhance industry competitiveness, and improve the quality of life for all Filipinos.



VISION

The Philippines as a **premier destination for AI-driven innovation**, recognized worldwide for its dynamic AI ecosystem that accelerates industrial growth, attracts top-tier multinational companies, and creates sustainable economic opportunities.

E-CAIR is a strategic initiative under DepEd that **ensures AI is applied where it matters most**—EDUCATION.

We **develop AI-driven tools and insights** to help



**IMPROVE LEARNING
OUTCOMES**



GUIDE POLICYMAKING

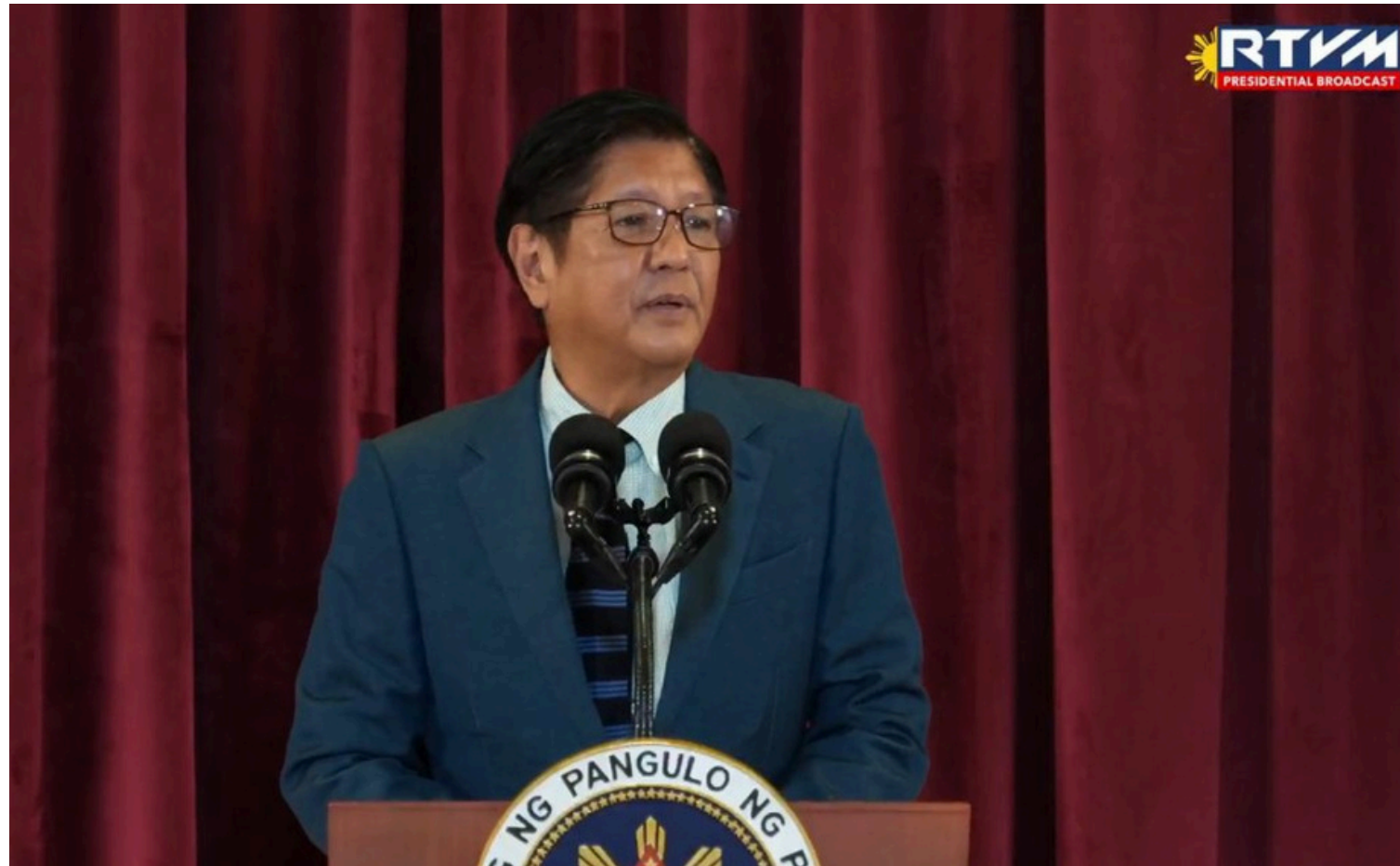


UPSKILL THE WORKFORCE

for every Filipino to remain competitive in the digital economy.

E-CAIR is grateful for the continued support from

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PBBM: PH to push for ethical, responsible AI at ASEAN Summit

President Marcos proclaimed during the departure ceremony at the Villamor Air Base in Pasay City for the 46th ASEAN Summit in Malaysia

May 25, 2025

Photo sourced from Philippine Information Agency website



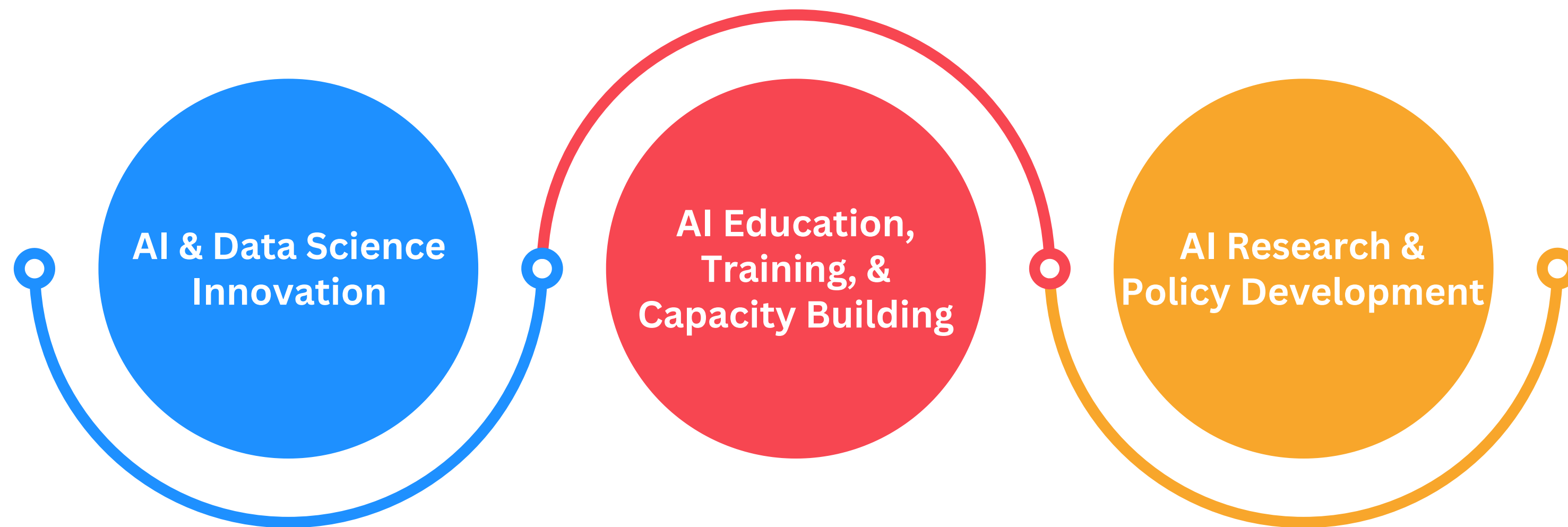
DepEd launches AI Center to advance technology-driven education reforms

“Hindi po tayo makikipagsabayan para lang masabi na ‘tech-savvy’ tayo. We are here to use AI as a tool for genuine, enduring reforms,” Sec. Angara shared in his keynote address.

February 20, 2025

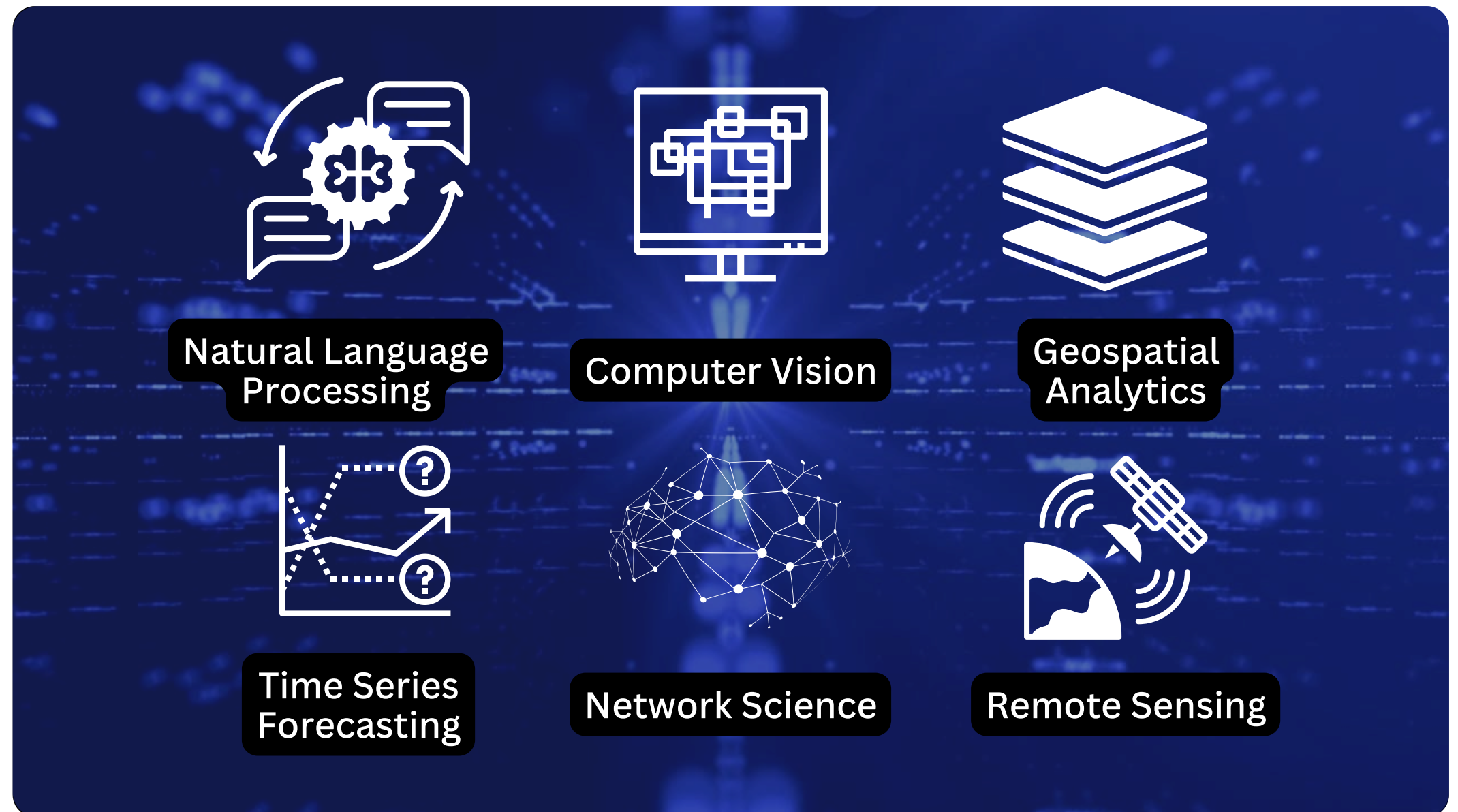
Photo sourced from Manila Bulletin website

E-CAIR drives AI innovation, builds capacity through training, and shapes policy to ensure responsible and impactful AI integration.



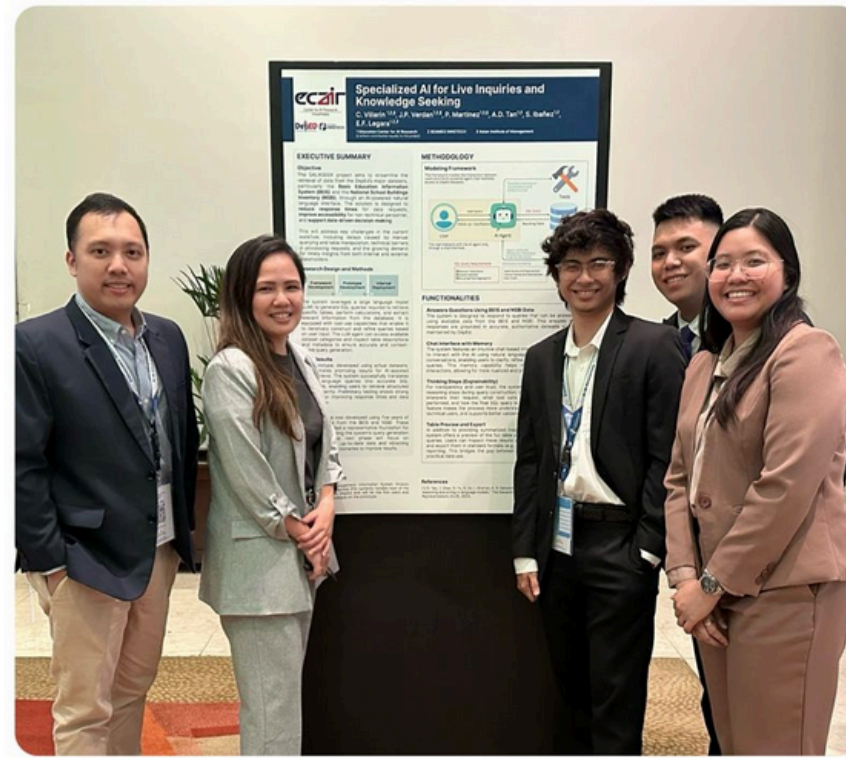
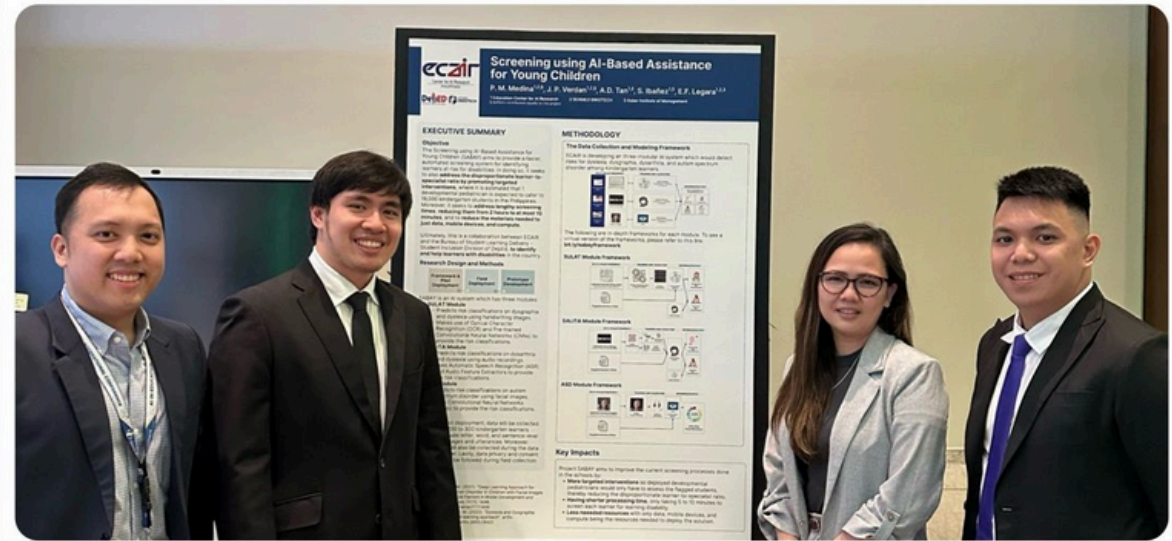
A Hub for AI Talent

E-CAIR houses **dedicated data scientists and AI engineers** prepared to design, develop, and deploy AI-driven solutions, aligned with DepEd's 5-point agenda that enhance education, support teachers, and equip students with future-ready skills.

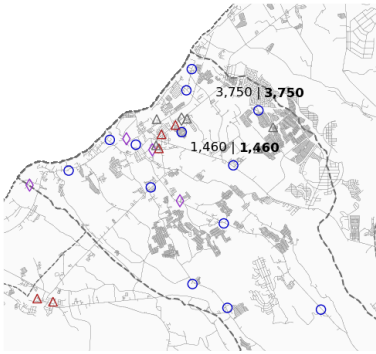



➤ AI & Data Science Innovation Projects

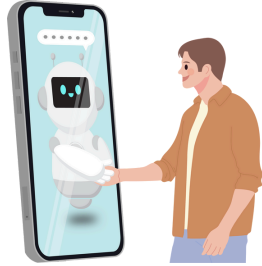
SALIKSEEK
TALINO
PAARAL
SIGLA
SABAY
LIGTAS
DUNONG





E-CAIR is driving 7 high-impact AI & DS innovation projects in education


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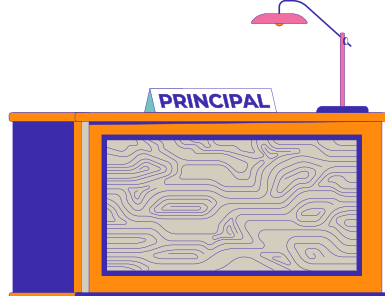
1 PAARAL
Advanced Analytics for Optimizing Government Assistance and Subsidies in Basic Ed.
- 

2 SABAY
Enhanced Screening of Learners with Disabilities
- 

3 SALIKSEEK
Quick Response Tool to FAQs with GenAI Agents
- 

4 SIGLA
AI-powered Screening of Stunted and Underweight Learners
- 

5 LIGTAS
Geospatial Analysis and Mapping of Natural Hazard Risks in Schools
- 

6 TALINO
Mapping of School Needs and Donors for the Adopt-A-School Program
- 

7 DUNONG
School Principals NQESH Data Analytics

Thank you!