



# Punpiti Piamsa-nga

พันธุปิติ เปี่ยมสง่า

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## Position

**Associate Professor**, Department of Computer Engineering, Kasetsart University  
Member, Kasetsart University Council  
Head, Department of Computer Engineering, 2022–May 2026

## Academic Profile

Associate Professor in Computer Engineering whose work connects artificial intelligence, machine learning, pattern recognition, image processing, and data fusion with practical problems in education, public policy, agriculture, and urban systems. Research profile includes 88 publications and 59 research projects.

## Education

D.Sc. in Computer Engineering, George Washington University, USA	1999
M.Eng. in Electrical Engineering, Kasetsart University, Thailand	1993
B.Eng. in Electrical Engineering, Kasetsart University, Thailand	1989

## Areas of Expertise

- Artificial Intelligence and Machine Learning
- Pattern Recognition and Image Processing
- Data Fusion and Multimedia Systems
- Sustainable and Ethical AI Applications

## Selected Research Projects

- **High-resolution analysis of convective rainfall pattern in Bangkok Metropolis** (2024) — Kasetsart University Research Grant
- **Temporal analysis framework for precise real-time rainfall nowcasting** (2024) — Project leader
- **Intelligent data fusion platform for public-policy development** (2024) — Project leader / co-researcher
- **Data fusion platform for analyzing trust and satisfaction on public services** (2024) — Project leader

## Selected Publications

- **Environmental and Sustainability Indicators** (2025, Q1) — “A machine learning approach to sustainable land use: Integrating Markov chains and XGBoost for black galingale cultivation in Thailand”
- **Cureus** (2025) — “Impact of Economic Factor, Percent Vaccination, Healthcare Quality, and Population Density on COVID-19 Mortality Rates”
- **20th JCSSE** (2023) — “A Weakly-Supervised Glass Bottle Defect Detection System Based on Multi-View Analysis”
- **ICSEC 2022** (2022) — “Leaf identification using learning machines for seedling distribution in Thailand”

## Recent Invited Talks and Special Lectures

- AI for Water Resources Engineering, Department of Water Resources Engineering, Kasetsart University, 2026
- AI for Government Transparency, National Anti-Corruption Commission, 2025
- Empowering the Next Generation Through AI for Global Citizenship, 26th Four-Institution Joint Conference, 2025
- AI Development and Digital-Green Transformation, 13th Thai-Chinese Strategic Research Seminar, 2024
- Enhancing Reliability and Sustainability in Smart Cities, IEEE International Smart Cities Conference, 2024
- AI-Empowered Digital Life – AI for All, General Education Course, Kasetsart University, 2023–Present

## Professional Activities

- Chair, Committees of Thailand Team to the International Olympiad in Informatics (IOI), The Institute for the Promotion of Teaching Science and Technology (IPST)
- Chair, Computer Division, POSN (The Promotion of Academic Olympiad and Development of Science Education Foundation under the patronage of Her Royal Highness Princess Galyani Vadhana Krom Luang Naradhiwas Rajanagarindra)