Ibnu Cipta Ramadhan

Department of Electrical Engineering, Politeknik Elektronika Negeri Surabaya (PENS)
Surabaya, 60111, Indonesia
• E-mail: ibnu.ramadhan@pens.ac.id • Homepage: https://ibnu.ramadhan.lecturer.pens.ac.id

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RESEARCH AREA

- **Efficient AI Systems**
  Exploring efficient machine learning for edge devices, with an emphasis on hardware-aware optimization and FPGA-based acceleration.
- **Computer Vision**
  Developing computer vision algorithms for visual perception, focusing on 2D and 3D object detection from images and depth sensors.
- **Intelligent Sensing**
  Integrating sensors, signal processing, and data analytics to extract meaningful information from physical environments.

PROFESSIONAL APPOINTMENTS

2024.01 – present **University Lecturer**
Politeknik Elektronika Negeri Surabaya, Surabaya, Indonesia

2024.02 – 2024.07 **Senior Hardware & Internet of Things (IoT) Engineer**
McEasy - PT. Otto Menara Globalindo, Surabaya & Jakarta, Indonesia

2023.05 – 2024.01 **Hardware & Internet of Things (IoT) Engineer**
McEasy - PT. Otto Menara Globalindo, Surabaya & Jakarta, Indonesia

2023.05 – 2024.01 **Hardware & Internet of Things (IoT) Engineer**
McEasy - PT. Otto Menara Globalindo, Surabaya & Jakarta, Indonesia

2023.02 – 2023.06 **Research Assistant - Collision Avoidance System Developmnet For Mining**
School of Electrical and Informatics Engineering - Institut Teknologi Bandung, Bandung, Indonesia

2023.02 – 2023.06 **Research Assistant - Collision Avoidance System Developmnet For Mining**
School of Electrical and Informatics Engineering - Institut Teknologi Bandung, Bandung, Indonesia

2018.03 – 2020.08 **Internet of Things (IoT) Engineer**
McEasy - PT. Otto Menara Globalindo, Surabaya, Indonesia

2017.04 – 2018.02 **Internet of Things (IoT) Engineer (Part-time)**
McEasy - PT. Otto Menara Globalindo, Surabaya, Indonesia

2015.08 **Internship**
PT. Pertamina Hulu Energi West Madura Offshore, Gresik, Indonesia

EDUCATION

M.Sc.	Control and Intelligent Systems	*Institut Teknologi Bandung, Indonesia*	2020 – 2023
B.ASc.	Electronics Engineering	*Politeknik Elektronika Negeri Surabaya, Indonesia*	2017 – 2018
A.Md.	Electronics Engineering	*Politeknik Elektronika Negeri Surabaya, Indonesia*	2013 – 2016

RESEARCH FUNDING

2025 – Present.
Robot AGV (Automated Guided Vehicle)
Role: Co-PI, **PI:** Prof. Dr. Ir. Dedid Cahya Happyanto, M.T.

2025 – Present.
Pengembangan Mobil Listrik Otonom Berbasis Internet of Things dengan Sistem Pengendalian Cerdas dan Monitoring Keselamatan Terintegrasi
Role: Co-PI, **PI:** Prof. Dr. Ir. Dedid Cahya Happyanto, M.T.

2025.
Implementasi Early Warning System berbasis MQTT untuk Deteksi Dini Kualitas Air Udang Vaname
Role: Co-PI, **PI:** Nirwana Haidar Hari, S.Pd., M.kom.

2025.
YOLOv11-Based Detection of Indonesian Traffic Signs: Transfer Learning vs. From-Scratch Training
Role: PI

2024 – 2025.
SMART-UHT: Otomatisasi Produksi Susu UHT menunjang Kemandirian Ekonomi Lokal di Pudak Ponorogo
Role: Co-PI, **PI:** Dr. Ir. Bambang Sumantri, S.T., M.Sc.

2023.
Collision Avoidance System Development For Mining
Role: Researcher, **PI:** Prof. Dr. Ir. Bambang Riyanto Trilaksono

2021 – 2023.
Autonomous Tram Development Using Artificial Intelligence
Role: Researcher, **PI:** Prof. Dr. Ir. Bambang Riyanto Trilaksono

PUBLICATIONS

Journals

[J1] N. Tamami, **I. C. Ramadhan**, K. Alfathdyanto, Madyono, H. Hermawan, H. M. Rosalinda, A. W. R. Gusti, and W. Trisniani, "Implementasi Media Informasi Berbasis Running Text untuk Meningkatkan Efisiensi dan Efektivitas Penyampaian Informasi di Kelurahan Keputih," *j-dinamika*, vol. 10, no. 2, pp. 254–260, Aug. 2025.

[J2] **I. C. Ramadhan**, A. Hendriawan, and H. Oktavianto, "YOLOv11-Based Detection of Indonesian Traffic Signs: Transfer Learning vs. From-Scratch Training," *Journal of Applied Informatics and Computing (JAIC)*, vol. 9, no. 4, pp. 1363–1373, Aug. 2025.

Conferences

[C1] **I. C. Ramadhan**, B. R. Trilaksono, and E. M. I. Hidayat, "Towards Real-Time Graph Neural Network-Based 3D Object Detection for Autonomous Vehicles," in *Proc. 19th IEEE Int. Colloq. Signal Processing & Its Applications (CSPA)*, Kedah, Malaysia, 2023, pp. 105–110.