

Muhamad Rausyan Fikri

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Date: Feb 14th, 2026

DEGREES

Doctoral

Department of Engineering and Natural Science
Tampere University, Finland

Nov 2022 - present

Master of Engineering

Department of Systems and Control Engineering
Tokyo Institute of Technology, Japan

Sep 2016 - Sep 2018

Bachelor of Science

Department of Computer Science and Electronics
Universitas Gadjah Mada, Indonesia

Aug 2011 - Nov 2015

LANGUAGE SKILLS

Indonesia (Native), English (Fluent), Japanese (Intermediate), Finnish (A1)

CURRENT EMPLOYMENT

Doctoral Researcher

Nov 2022 - present

Department of Engineering Science
Tampere University, Finland

PREVIOUS WORK EXPERIENCE

Global lecturer at University of Arizona

Jan 2020 - Dec 2022

Systems and Industrial Engineering, Electrical Engineering
The University of Arizona, United States

Information Systems Lecturer

Aug 2019 - Dec 2022

Faculty of Engineering and Technology
Sampoerna University, Indonesia
Serving as Head Program Study Interim Jul 2021 - Oct 2022

IoT Lab Consultant

Apr 2019 - Aug 2019

Faculty of Engineering and Technology
Sampoerna University, Indonesia

Drone Engineer

Nov 2018 - Apr 2019

IoT, Robot, and Drone Division
Bukalapak.com, Indonesia

RESEARCH FUNDING AND GRANTS

Industrial Research Grant

Aug 2022 - Jan 2023

Type: External Grant from Toyota Indonesia Company
Project: Development of an autonomous towing vehicle
Amount: 6924 Euro

Ministry of Research and Technology/National Research and Innovation Agency

Feb 2021 - Dec 2022

Type: External Grant

Project: Autonomous robotic system for agriculture and hazardous area applications

Amount: 2336 Euro

Center of Research and Community Service

Dec 2019 - Aug 2022

Type: Internal Grant

Project: Autonomous robotic systems for agriculture, hazardous area inspection, and persistent monitoring

Amount: 5060 Euro

IoT Lab Establishment Funding

Apr 2019 - Aug 2019

Type: Internal Grant

Amount: 17250 Euro

RESEARCH OUTPUT

Journals Peer-Reviewed

3. M.W.S. Atman, **M.R. Fikri**, K. Priandana, A. Gusrialdi, 2024, A Two-Layer Control Framework for Persistent Monitoring of a Large Area with a Robotic Sensor Network, *IEEE Access*, 12, 4153-4165.
2. S. Shigaki, **M. R. Fikri**, C. Hernandez Reyes, T. Sakurai, N. Ando, D. Kurabayashi, R. Kanzaki & H. Sezutsu, 2018, Animal-in-the-loop system to investigate adaptive behavior, *Advanced Robotics*,
1. S. Shigaki, **M. R. Fikri**, D. Kurabayashi, 2018 Design and Experimental Evaluation of an Odor Sensing Method for a Pocket-Sized Quadcopter. *Sensors* 2018, 18, 3720.

International Conferences Peer-Reviewed

3. **M. R. Fikri**, E. Silvennoinen, M.W.S. Atman, Y. Nikulin, A. Gusrialdi, 2025, Persistent Monitoring of Large Dispersed Areas using Drone Swarms: Algorithms and Experimental Validation,” in Proceedings on FinDrones 2024 (Drones for Resilient Nature), 2026.
 2. P. Kosonen, Y. Fadaeian, R.M. Eura, J. Sulameri, **M. R. Fikri**, A. Gusrialdi, 2025, Human-Drone Swarm Interaction System for Persistent Monitoring of Large Disperse Area. In 2025 IEEE 21st International Conference on Automation Science and Engineering (CASE) (pp. 179-184). IEEE.
 1. **M. R. Fikri**, M.S.W. Atman, Y. Nikulin, A. Gusrialdi, 2024, Efficient Multi-Robot Task Allocation with Nonsmooth Objective Functions for Persistent Monitoring in Large Dispersed Areas. In 2024 IEEE 20th International Conference on Automation Science and Engineering (CASE) (pp. 573-578). IEEE.
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RESEARCH SUPERVISION

Tampere University (2025 - 206) Supervised 2 graduate degree students and 1 undergraduate student in the field of persistent monitoring and experiments

Sampoerna University, Indonesia – Undergraduate Thesis (2019 - 2023)

Supervised 19 undergraduate-level students with research topics in Robotics and Machine learning with applications to agriculture, warehouse applications, and hazardous area inspection.

TEACHING MERITS

Tampere University, Finland (Master's degree level)

- **Automation Technology and Mechanical Engineering:** (2023 - 2026)
Teaching Assistant: AUT 710 *Fundamentals of Mobile Robots*, (2023 - 2024)
KONE.533-2023-2024-1 *Robotics Project Work*

Sampoerna University, Indonesia (Bachelor's degree level)

- **Information Systems:** (2021–2022)
Lecturer: INFS2301 *Principle of Information Systems*
- **Computer Science:** (2019–2023)
Lecturer: COMP2303 *Digital Systems*, COMP2424 *Data Structure Analysis*,
COMP4318 *Capstone Project 1*, COMP4319 *Capstone Project 2*, COMP3524
Basic Circuits
- **Mechanical Engineering:** (2019 - 2022)
Lecturer: MECH1101 *MATLAB I*, MECH2107 *MATLAB II*, MECH2308 *Electrical Circuit and Lab*
- **Faculty of Engineering and Technology (cross-program):** (2020 - 2023)
Lecturer: IENG4421 *Computer Embedded Systems*, ENGR1301 *Computer Programming for Engineering Applications*, GSCI1405 *General Physics and Calculus 1*, GSCI1105L *General Physics and Calculus 1 – Lab*, GSCI2406 *General Physics and Calculus 2*, GSCI2106L *General Physics and Calculus 2 – Lab*

The University of Arizona, United States

- **Systems and Industrial Engineering:** (2020-2023)
Co-lecturer: SIE 370 *Computer Embedded Systems*
 - **Electrical and Computer Engineering:** (2022-2023)
Co-lecturer: ECE 220 *Basic Circuits*
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AWARDS AND HONOURS

**2021 Outstanding Reviewer IEEE Transaction
on Instrumentation and Measurement**

IEEE Jan 2022

Master Degree Scholarship
Indonesia Endowment for Education Fund (LPDP)
from Indonesia Minister of Finance Sep 2016

2nd Winner of mHealth Student Competition Oct 2015
“eHealth and mHealth: Innovation for sustainable health (sHealth).” on Indonesia Health Informatics Forum

1st Prize Gold Medal PIMNAS 27 Aug 2014
Best presentation on the technology section in Universitas Diponegoro Semarang 2014.

**OTHER
ACADEMIC
MERITS**

Peer-review service

Journal reviewer (selected): IEEE Trans. on Instrumentation and Measurement (2019–), Kybernetes (2021–), Journal of Engineering and Applied Science (2021–), Springer *Multiscale and Multidisciplinary Modeling, Experiments and Design* (2023–), IEEE Access (2023–), *Bioinspiration & Biomimetics* (2024–), ALife SI on Embodied Intelligence (2021–2022), TELKOMNIKA (2020), EPI Int. J. of Engineering (2022).

Conference reviewer: IEEE CASE (2024, 2025), IEEE/SICE SII (2024), IFAC World Congress (2023), ICDSOS (2021), SICE Annual Conf. (2020), Seminar National Official Statistics (2022).

Editorial and professional service

Session Chair – IEEE CASE 2025, USA, Session chair on Drones and UAVs session (Aug 2025).

Editorial Board – *Jurnal Aplikasi Statistika & Komputasi Statistik*, Politeknik Statistika STIS, Indonesia (Apr 2023–).

Managing Editor – *Indonesian Journal of Computing, Engineering, and Design (IJoCED)*, Sampoerna University, Indonesia (Jan 2020–Dec 2023).

IEEE Indonesia Section – Webmaster & Communication Activities (Jan 2021–Dec 2022).

Professional memberships

IEEE RAS & CSS (2016–), IFAC (2020–), Finnish Society of Automation (2022–), AIAA (2020–2023), International Association of Indonesian Scientists (2021–2022), APTIKOM (2020–2022), AAAS (2017–2019).

Guest Lecturer and Invited Speaker

- Invited speaker, University of Turku (2023, 2026) — *Persistent Monitoring of Swarm Robotic Systems*.
 - Guest Lecturer, Universitas Gadjah Mada (2021, 2025) — *Robotics*.
 - Invited Speaker, VITA School Surabaya COMPASS Workshop (Jun 2, 2022) — *The Internet of Things*.
 - Moderator, Webinar at SMPN 174 Jakarta (Feb 25, 2022).
 - Webinar talks/trainings on IoT & robotics (2020): High School Pelita Bangsa Cirebon (Nov 18, 2020), Sampoerna University (May 29, 2020), Wardaya College (Feb 2, 2020), DisruptED Sampoerna University (Jan 11–12, 2020).
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