

Muhamad Rausyan Fikri

ORCID: 0000-0003-4452-5610

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 Department of Engineering Science Tampere University, Finland	Nov 2022 - present
---------------------------	------------------------------------------------------------------------------------------------	--------------------

PREVIOUS WORK EXPERIENCE	Global lecturer at University of Arizona Systems and Industrial Engineering, Electrical Engineering The University of Arizona, United States	Jan 2020 - Dec 2022
	Information Systems Lecturer Faculty of Engineering and Technology Sampoerna University, Indonesia Serving as Head Program Study Interim Jul 2021 - Oct 2022	Aug 2019 - Dec 2022
	IoT Lab Consultant Faculty of Engineering and Technology Sampoerna University, Indonesia	Apr 2019 - Aug 2019
	Drone Engineer IoT, Robot, and Drone Division Bukalapak.com, Indonesia	Nov 2018 - Apr 2019

RESEARCH FUNDING AND GRANTS	Industrial Research Grant Type: External Grant from Toyota Indonesia Company Project: Development of an autonomous towing vehicle Amount: 6924 Euro	Aug 2022 - Jan 2023
------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------

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.

**RESEARCH
SUPERVISION**

Tampere University (2025 - 2026) 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*

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

“eHealth and mHealth: Innovation for sustainable health (sHealth).” on Indonesia Health Informatics Forum

Oct 2015

1st Prize Gold Medal PIMNAS 27

Best presentation on the technology section in Universitas Diponegoro Semarang 2014.

Aug 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 Nasional 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).
-