



## Dr. Misbahuddin, S.T., M.T

Internet of Thing (IOT)

Bachelor's degree (Electrical Engineering)	Moeslim University of Indonesia, Makassar	1993
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Master's degree (Informatics Engineering)	Sepuluh Nopember Institute of Technology, Surabaya	2000
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Doctor's degree (Electrical Engineering)	University of Indonesia, Depok	2017
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### Employment

Lecturer Undergraduate's program in Electrical Engineering, Engineering Faculty	University of Mataram, Indonesia	March, 1997
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### Research and development projects over the last 5 years

1. Outdoor Localization System Using Radio Signal Strength On Cellular Communication Network. Funded by The National Competitive Fundamental Research, Ministry of Education, Culture, Research, and Technology, 2022
2. 915 MHz LoRa Wireless Communication Development for supporting the GSM network infrastructure on Blank Spor Area, Funded by Research for Capacity Building, University of Mataram
3. 915 Mhz LoRa Linear Multi-Hop Exploration to increase the Transmition Converage with low energy consumption in Low Power Wide Area Networks, Funded by Research for Capacity Building, University of Mataram, 2021
4. Real Propagation Analysis of 915 MHz LoRa Communication Device to Support the Internet of Things Infrastructure, Funded by Research for Capacity Building, Uiversity of Mataram, 2020
5. Multi-hop Routing Development in Low Power Wide Area Network to Support the Robust Wireless Network Infrastructure. in Internet of Things, Excellent Fundamental Research of Hingher Education, Ministry of Research, Technology, and Higher Education, 2019
6. Tracking the Position of Outdoor Objects Based on Signal Strength of LoRa Using Fingerprint Algorithm, Funded by Research for Capacity Building, Uiversity of Mataram, 2018
7. Development of Multi-hop Wireless Network Infrastructure for Outdoor Object Tracking Using LoRa Technology, Funded by Research for Capacity Building, Uiversity of Mataram, 2018.
8. Future Impact of Web Media on Academic Citation Ecosystem, Excellent Fundamental Research of Hingher Education, Ministry of Research, Technology, and Higher Education, 2018.

### Industry collaborations / Community Services over the last 5 years

1. Internet of Things (IoT) Workshop For Students in SMKN 1 Praya Tengah, Kecamatan Praya Tengah Lombok Tengah, Funded By University of Mataram, 2021

2. Program Pengabdian Pada Masyarakat Pengembangan Dan Hilirisasi Produk, "Sistem Penilaian Mandiri Akreditasi Program Studi Standar 9-Kriteria (APS.4.0) dengan Metode Partisipatif", PNBPN Unram 2020.
3. Pelatihan Internet Market Place Bagi Pengrajin Anyaman Ketak Di Desa Beleka Kecamatan Praya Timur Lombok Tengah, PNBPN Unram 2020
4. Pelatihan Internet Market Place Bagi Pengrajin Tenun Songket Desa Sukarara Kecamatan Jonggat Lombok Tengah, PNBPN Unram 2019
5. Workshop Pemanfaatan Permainan Edukasi Digital Bagi Guru Pra-Sekolah di Kota Mataram, PNBPN Unram 2018
6. Alat Penimbang Hewan Ternak Elektronis Bagi Komunitas Ternak Di Kecamatan Ampenan, BOPTN Unram 2018.

Patents and  
proprietary rights

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Important publications  
over the last 5 years

1. Dynamic Multi-hop Routing Protocol Based on Fuzzy-Firefly Algorithm for Data Similarity Aware Node Clustering in WSNs, *International Journal of Computers Communication & Control (IJCCC)*. Vol. 13, Issue 1, February 2018.
2. LoRa SV611-Based Communication System To Monitor Behaviour of Rocket Using Inertial Measurement Unit Sensor, *International Journal of Electrical, Energy and Power System Engineering (IJEPPSE)*, Vol. 5, No. 2, pp. 30-36, June 2022
3. Multi-hop ESP-Mesh Network and MQTT Protocol for Smart Light Systems in High-Rise Buildings, *Jurnal Ilmiah Teknik Elektro Komputer dan Informatika (JITEKI)*, Vol. 8, No. 1, March 2022
4. EAM-LoRaNet: Energy Aware Multi-hop LoRa Network for Internet of Things, *Kinetik: Game Technology, Information System, Computer Network, Computing, Electronics, and Control*, Vol. 7, No. 1, February 2022
5. Kinerja Jaringan Saraf Berbasis Backpropagation dan LVQ Sebagai Algoritma Fingerprint RSS LoRa Untuk Penentuan Posisi Pada Ruang Terbuka, *Jurnal Teknologi dan Sistem Komputer (JTSISKOM)*, Vol. 8, Issue 2, April 2020 (SINTA 2)
6. Compromise of 915 MHz LoRa Transmission Parameters in A Single-hop Uplink, 2021 International Conference on Computer System, Information Technology, and Electrical Engineering (COSITE), Banda Aceh, October 20-21, 2021.
7. Sistem IoT Berbasis Lora Untuk Pemantauan Parameter pH Dan Kelembaban Tanah Pada Tanaman Stroberi, *Prosiding Seminar Nasional FORTEI Regional7-4*, Desember 2021
8. Received Signal Strength of WIFI Devices for Indoor Positioning Using Neural Network LVQ Method, *The 4th International Conference on Science and Technology, Proceeding Vol. 1, Issue 1, 2020.*
9. Improving The Accuracy of Face Recognition Using Residual Network (Resnet), *Proceeding Vol. 1, Issue 1, 2020.*
10. Multi-hop Uplink for Low Power Wide Area Networks Using LoRa Technology, *The 2019 6th International Conference on Information Technology, Computer and Electrical Engineering (ICITACEE)*. Semarang 26-27 September 2019.

Activities in specialist bodies over the last 5 years	Organisation	Role	Period
	- IEEE Indonesia Section	Member	2017 – 2022
	- IEEE Indonesia Section	Eastern Indonesia Region	2019
	- The Institute of Engineers Indonesia	Member	2021 - 2022