

# Andri Rahmadhani

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## PROFESSIONAL SUMMARY

Technology leader with 10+ years architecting and delivering enterprise IoT solutions across hardware, firmware, and cloud platforms. Combines advanced technical expertise, Master of Science in Embedded Systems from TU Delft, with proven leadership in driving cross-functional R&D teams from concept through deployment. Specialized in designing large-scale LoRaWAN AMI systems, biometric devices, and industrial IoT solutions that bridge hardware, connectivity, and business requirements. Track record includes deploying 50,000+ IoT devices across Indonesia and Malaysia, leading product teams of 10+ engineers, and driving successful GTM strategies across enterprise and industrial sectors.

## EMPLOYMENT HISTORY

### PT. MIOTA INTERNASIONAL TEKNOLOGI – Jakarta, Indonesia

- R&D Dept. Head - Device and Connectivity* Jan 2024 – Present
- Lead cross-functional team of 10+ engineers delivering tailored IoT connectivity solutions
  - Own end-to-end product lifecycle of 6 IoT device families, ensuring alignment with timelines and budgets
  - Direct development of WiFi HaLow-based smart metering with mesh networking and LoRa PHY integration, extending coverage by 3x and reducing infrastructure cost by 50% compared to conventional WiFi mesh
  - Architect hybrid Power Line Communication (PLC) and RF solutions for smart electricity meters with full DLMS/COSEM compliance, enabling deployment in challenging RF environments
  - Lead development of AI-driven Smart Agriculture IoT system in Malaysia with 26 multi-sensor nodes, achieving successful Proof of Concept (PoC) performance in diverse environments
  - Develop Palm Secure IoT device with biometric access, network and backend interoperability
  - Implement direct-to-satellite IoT communication using Starlink for remote monitoring in rural Indonesia
  - Collaborate with cross-functional teams to align product development with market needs and strategic business objectives, conducting quarterly reviews with C-level stakeholders
  - Drive strategic initiatives and partnerships to expand the company's IoT ecosystem

### Senior IoT Engineer

Sep 2019 – Aug 2021

- Designed end-to-end architecture using LoRa, LoRaWAN, and RF Mesh and built LoRaWAN network server with its related microservices architecture supporting 50,000+ concurrent devices
- Conducted R&D for PoC and managed RF certification (SDPPI) and testing for IoT products
- Led connectivity team in deploying LoRaWAN large-scale project (50,000 electricity meters) in Indonesia
- Developed GPS/GNSS-based asset tracking system with LoRaWAN connectivity for logistics customers
- Reverse-engineered proprietary smart meter configurations to enable LoRaWAN integration in Indonesia
- Customized OpenWRT for LoRaWAN Gateway Management Systems across 300+ deployed gateways

### PT. NTT INDONESIA TECHNOLOGY – Jakarta, Indonesia

*Solutions Architect (GTM)* Oct 2021 – Jan 2024

- Provided expert technical guidance on IoT, AI/ML, networking, applications, and security solutions for enterprise clients across manufacturing, mining, and oil & gas sectors, supporting \$1M+ annual sales pipeline
- Led end-to-end solution design, pricing estimation, business development, and project transition from pre-sales to delivery teams for complex enterprise IoT deployments
- Managed client PoC initiatives, overseeing planning, resource allocation, and execution
- Designed end-to-end architectures for IoT platforms, industrial networking infrastructure, and software solutions, creating technical specifications and architecture decision records (ADRs)
- Served as product manager for regional and in-house IoT offerings, defining roadmap and go-to-market plans
- Built partnerships with IoT vendors and communities to accelerate ecosystem growth and business expansion

### PT. BUKALAPAK.COM – Jakarta, Indonesia

*Embedded Engineer* May 2018 – Sep 2019

- Led R&D efforts on LoRa-based IoT solutions using ARM MCU, developing firmware in Keil C
- Implemented embedded systems for smart retail applications, including a bill acceptor payment controller and AI-assisted smart camera, integrating hardware-level control with higher-level business logic (C++)
- Conducted field testing and validation to ensure device reliability in production environments
- Contributed to system architecture discussions involving sensor integration, MCU selection, and communication protocols

## WIRECARD ASIA PACIFIC – Jakarta, Indonesia

### Software Engineer

Jun 2014 – Jul 2015

- Developed and customized firmware for the Electronic Data Capture (EDC) / POS terminal using C/C++ on proprietary embedded platforms (e.g., Verifone OS), supporting credit/debit card payment processing
- Integrated secure payment protocols (EMV, PCI-DSS) into embedded applications, ensuring compliance with international payment standards and passing certification audits
- Focused on full-cycle development of embedded payment applications from requirements analysis through field deployment, supporting 2,000+ merchant installations across Indonesia

## EDUCATION

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### DELFT UNIVERSITY OF TECHNOLOGY – Delft, the Netherlands

Aug 2015 – Nov 2017

Master of Science, Embedded Systems

Thesis Project: *Performance Evaluation of LoRaWAN from Small-Scale to Large-Scale Networks*

### BANDUNG INSTITUTE OF TECHNOLOGY – Bandung, Indonesia

Aug 2009 – Sep 2013

Bachelor of Science, Physics

Thesis Project: *Development of Portable Wireless Electroencephalograph (EEG) Acquisition System*

## SKILLS

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- **Core Competencies:** IoT Architecture & System Design | Embedded Systems | Industrial IoT | Digital Transformation | Technical Leadership | Product Management | Solutions Architecture | Smart Metering (AMI) | Edge Computing
- **Product & Business:** Product Roadmapping | Agile/Scrum | Go-to-Market Strategy | Technical Pre-Sales | Stakeholder Management | Vendor Partnerships | Budget & P&L Management
- **Connectivity & Protocols:** LoRa/LoRaWAN | WiFi/WiFi HaLow | Bluetooth/BLE | RF Mesh | LPWAN | Cellular (2G-5G) | Satellite (Starlink, Iridium) | PLC | MQTT | Modbus | DLMS/COSEM | TCP/IP | CAN | OSDP | VPN
- **Embedded & Edge:** ARM Cortex-M | FreeRTOS | Zephyr | Linux | OpenWRT | Buildroot | Yocto | Edge AI/ML | PCB Design (KiCad, EasyEDA)
- **Programming:** C/C++/C# | Rust | Go | Python | Java | Node.js | PHP | Assembly | SQL | JavaScript
- **Cloud & DevOps:** Docker | CI/CD | Microservices | REST APIs | AWS (Solutions Architect Certified)
- **Hardware & Tools:** Oscilloscopes | Logic Analyzers | RF Test Equipment | SDR | Wireshark | MATLAB

## PUBLICATIONS

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### LoRaWAN as Secondary Telemetry Communication System for Drone Delivery

A. Rahmadhani, R. Isswandhana, A. Giovani, RA. Syah

*International Conference on IoT and Intelligence System (IOTAIS)*

2018

### When LoRaWAN Frames Collide

A. Rahmadhani, and F. Kuipers

*WiNTECH@ MOBICOM, 89-97*

2018

## CERTIFICATIONS

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### Internet of Things Device Engineering

*Badan Nasional Sertifikasi Profesi (BNSP)*

2024 – 2027

### AWS Certified Solutions Architect - Associate

*Amazon Web Services*

2023 – 2026

## ADDITIONAL

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### Languages:

English (Fluent - Business & Technical) | Dutch (Basic) | Japanese (Basic)

### Professional Activities:

Indonesian IoT Association (ASIOTI) | Indonesia Technology Alliance (ITA)