

Initiative Excellence in Africa 100 PhDs for Africa





University Mohammed VI Polytechnic, Morocco

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Research field
Security of IoT Networks

PhD title

Machine Learning for Secured IoT Networks

Summary



Keywords

- Internet of Things
- Machine learning
- Intrusion detection
- Unmanned aerial vehicles

The proliferation of Internet of Things (IoT) networks, alongside the advent of 6G technology, has revolutionized modern life. IoT networks comprise interconnected devices that gather, exchange, and analyze data to enable intelligent decision-making and automation. While enhancing efficiency and convenience, their diverse and distributed architecture introduces significant security vulnerabilities to various cyber threats. Traditional security measures often struggle to effectively address these vulnerabilities. Therefore, this project aims to enhance loT network security using machine learning (ML) techniques. We seek to develop robust intrusion detection systems capable of effectively identifying cyber threats. This research is crucial for ensuring the safety and reliability of loT deployments across diverse sectors including smart homes, healthcare, industrial automation processes, and unmanned aerial vehicle (UAV) networks.



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