

Ivan Palamà

MOBILE WIRELESS NETWORK SECURITY EXPERT · BLOCKCHAIN ARCHITECT

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Experience

CNIT - National Inter-university Consortium for Telecommunications

Rome, Italy

ICT WIRELESS NETWORK SENIOR SECURITY RESEARCHER

Jan. 2019 - Current

- 4G and 5G security and privacy assessment (e.g. IMSI Catcher).
- Commercial 5G mobile network security assessment (ZTE).
- Wireless network attacks (jamming and spoofing) detection and classification.
- 5G experimental positioning techniques PRS-based implementation and evaluation.
- SDR 5G open source software (OpenAirInterface and srsLTE/srsRAN).
- SDR Ettus USRP (X310, B210, N210).
- Blockchain technical consultancy.
- WiFi WPA2-Enterprise IEEE 802.1X security assessment.

Teaching:

Lecturer in "5G Security" in the frame of a level 2 Master in "Digital skills for data protection, cybersecurity and privacy"

Rome, Italy

Cybersecurity lecturer 2021-2022

• Department of Management and Low of the University of Rome "Tor Vergata".

Lecturer in "5G Security" for "5G Postgraduate/Professional Academy"

Rome, Italy

Cybersecurity lecturer 2021-20

CeSMA "Center for Advanced Metrological and Technological Services" of the University of Naples Federico II.

Lecturer in "Blockchain Technology & Applications" in the frame of a level 2 Master in "Big Data in Business"

Rome, Italy

BLOCKCHAIN LECTURER 2019 - 2020

• Department of Economics and Fiance of the University of Rome "Tor Vergata".

Education

University of Rome "Tor Vergata"

Rome, Italy

Ph.D Electronic Engineering

Nov. 2020 - Current

University of Rome "Tor Vergata"

Rome, Italy

MASTER OF SCIENCE IN "ICT AND INTERNET ENGINEERING"

Final grade: 110/110 cum laude

Thesis work: "4G/5G Network security: Analysis and implementation of customer's privacy attacks"

Nov. 2018 - Oct. 2020

- · Radio Cellular Networks, LTE/5G architecture, RAN/NG-RAN and EPC/5GC Protocol Stack, Capacity and Coverage planning.
- · Computer modeling and design methodologies of several radiating systems (E.g., dipoles, loops, patches, array, apertures and reflectors).
- Advanced network architecture design, SDN, NFV, MPLS, IPv6, Source Routing, VXLAN.
- Advanced cryptography and Network security
- · Cloud Computing, Virtualization, SDN, Openstack, Data Center Networking and Virtual Networking, Microservice architecture, KVM+QEMU.

University of Rome "Tor Vergata"

Rome, Italy

BACHELOR OF SCIENCE IN "ICT AND INTERNET ENGINEERING"

Final grade: 110/110 cum laude

Thesis work: "Technologies and solutions for transaction control in "permissioned" Blockchain"

Oct. 2015 - Nov. 2018

- English language course assessed by the University of Rome "Tor Vergata" equivalent to: IELTS 6.0 TOEFL IBT 65/PBT 513/CBT 183 CEF B2.
- Penetration test and Vulnerability Assessment, Cyber security, Kali Linux Tools, OWASP.
- Programming and scripting languages, Web and Android development: C, Java, Python, PHP, Javascript, Solidity, HTML, CSS, Bash.

Other activities

- OWASP Mobile Security Testing Guide (MSTG) Hands-on course, DeepSec 2021
- · Business management course "Startup Lab Open Validation", Lazio Innova "Start Cup Lazio 2019" competition.
- Blockchain Intensive course, Blockchain Week Rome 2019

Projects _____

CONTRIBUTOR

IPSE PARSIT - POR FESR Lazio 2014-2020 "Circular Economy e Energia" - protocol A0206-2018-17571

18/12/2018 - 23/04/2020

SPARTA - H2020 - G.A. 830892

01/02/2019 - 31/06/2022

LOCUS - H2020 - G.A. 871249

01/11/2019 - 31/10/2022

SEALEGRID - Marie Curie - G.A. 777996

01/12/2019 - 30/06/2022

Journal publications

Innovative Attack Detection Solutions for Wireless Networks with Application to **Location Security**

IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS

D. Orlando, S. Bartoletti, I. Palamà, G. Bianchi, N. Blefari-Melazzi

SAMGRID: Security Authorization and Monitoring Module Based on SealedGRID Platform

MDPI SENSORS 2022

G. Suciu, A. Farao, G. Bernardinetti, I. Palamà, M. Sachian, A. Vulpe, M. Vochin, P. Muresan, M. Bampatsikos, A. Muñoz, C. Xenakis

IMSI Catchers in the wild: A real world 4G/5G assessment

COMPUTER NETWORKS 2021

I. Palamà, F. Gringoli, G. Bianchi, N. Blefari-Melazzi

Design and Experimental Assessment of Detection Schemes for Air Interface Attacks in **Adverse Scenarios**

IEEE WIRELESS COMMUNICATIONS LETTERS

2021

2022

2022

D. Orlando, I. Palamà, S. Bartoletti, G. Bianchi, N. Blefari-Melazzi

Conference publications

5G Positioning with SDR-based Open-source Platforms: Where do We Stand? (Best Paper Award)

THE 11TH IFIP/IEEE INTERNATIONAL CONFERENCE ON PERFORMANCE EVALUATION AND MODELING IN WIRED AND WIRELESS

NETWORKS (PEMWN)

I. Palamà, S. Bartoletti, G. Bianchi, N. Blefari-Melazzi

Uncertainty Quantification of 5G Positioning as a Location Data Analytics Function

JOINT EUROPEAN CONFERENCE ON NETWORKS AND COMMUNICATIONS (EUCNC) & 6G SUMMIT

S. Bartoletti, G. Bernini, I. Palamà, M. De Angelis, L.M. Monteforte, T.E. Kennouche, K. Tsagkaris, G. Bianchi, N. Blefari-Melazzi

"Careful with that Roam, Edu": experimental analysis of Eduroam credential stealing attacks

WIRELESS ON-DEMAND NETWORK SYSTEMS AND SERVICES CONFERENCE (WONS)

I. Palamà, A. Amici, F. Gringoli, G. Bianchi Location Security under Reference Signals' Spoofing Attacks: Threat Model and Bounds

S. Bartoletti, I. Palamà, D. Orlando, G. Bianchi, N. Blefari-Melazzi

The diverse and variegated reactions of different cellular devices to IMSI catching attacks

ACM Workshop on Wireless Network Testbeds, Experimental evaluation & Characterization WINTECH

I. Palamà, F. Gringoli, G. Bianchi, N. Blefari-Melazzi

2020

Skills

Cybersecurity Radio interface Jamming/Spoofing, Mobile Wireless Networks, Software-Defined-Radio SDR, Penetration Testing

Programming C, C++, Java, Javascript, PHP, Python, Bash **Blockchain** Bitcoin, Ethereum, MultiChain, Algorand

OS Linux, Windows, Android

Others Team leader, Team working, Problem solving

Languages

Italian Native
English Proficient

Honors & Awards.

2021 **Winner**, Scholarship as the best student in the master's degree program in ICT and Internet Engineering

2018 **Winner**, Scholarship "Premio merito" for academic achievements reserved to the best 5% of students

University of Rome "Tor Vergata", Italy University of Rome "Tor Vergata", Italy

In compliance with the GDPR (European regulation on the protection of personal data 2016/679) and Italian Legislative Decree no. 196 dated 30/06/2003, I hereby authorize the recipient of this document to use and process my personal details for the purpose of recruiting and selecting staff and I confirm to be informed of my rights in accordance to art. 7 of the above mentioned Decree.

Ivan Palamà