



Jose Manuel RUBIO HERNAN

PhD, telecommunication engineer

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Professional Experience

IP PARIS, TÉLÉCOM SUDPARIS (EPH), Associate professor

Sep 2018 - At present

Teaching in analog and digital electronics.

Research on physical aspects of communication, guidance and navigation systems.

INSTITUT MINES-TÉLÉCOM (RST/CNI), postdoctoral

Aug 2017 - Aug 2018

Studying and analysis of the control and telecommunications systems focus on cyber-physics systems to improve their resilience.

INSTITUT MINES-TÉLÉCOM (RST), R&D engineer

Jan 2014 - Jul 2017

Development of security improvements in the communication of distributed industrial systems. Ensuring the integrity and availability of communication between the different components.

AGH CONSULTING, FTTx telecommunication engineer at SFR

Oct 2012 - Dec 2013

Designing and deployment of optical fiber network in France.

TÉLÉCOM SUDPARIS (CITI), scholarship researcher

Sep 2011 - May 2012

Setting up the *Lancer de Faisceaux Gaussiens* method (propagation of Gaussian beams) in complex media (semi-urban) using the Gabor structures.

Education

PHD. CANDIDATE

Jan 2014 - Jul 2017

Université Pierre et Marie Curie (Paris VI)

Working focused on the security of cyber-physical systems. These systems encompass fields such as telecommunications, information technology and control systems engineering

TELECOMMUNICATION ENGINEER

Sep 2004 - Jun 2011

Universidad Politécnica de Madrid

Electronic specialty: analog and digital electronics, antennas, wave propagation, optical fiber.

Research experience & Skills

Research:

- Co-supervision of 2 theses.
- Reviewer for Elsevier journal: Computers & Electrical Engineering.
- Publications (13 in international peer-review journals and conferences):
<http://dblp.uni-trier.de/pers/hd/r/Rubio=Hernan:Jose>
- h-index: 6



Native Speaker

Advanced level

Professional Proficiency

Mayor publications list:

- M. Segovia-Ferreira, J. Rubio-Hernan, R. Cavalli and J. Garcia-Alfaro, *Switched-Based Resilient Control of Cyber-Physical Systems*, in IEEE Access, vol. 8, pp. 212194-212208, 2020.
- J. Rubio-Hernan, R. Sahay, L. De Cicco and J. Garcia-Alfaro, *Cyber-Physical Architecture Assisted by Programmable Networking*, Internet Technology Letters, March 2018, p. 6.
- J. Rubio-Hernan, L. De Cicco and J. Garcia-Alfaro, *Adaptive Control-Theoretic Detection of Integrity Attacks against Cyber-Physical Industrial Systems*, Transactions on Emerging Telecommunications Technologies, 2018, vol. 29, no 7, p. e3209.
- J. Rubio-Hernan, L. De Cicco and J. Garcia-Alfaro, *On the use of Watermark-based Schemes to Detect Cyber-Physical Attacks*, EURASIP Journal on Information Security, June 2017, p. 8.
- J. Rubio-Hernan, L. De Cicco and J. Garcia-Alfaro, *Event-Triggered Watermarking Control to Handle Cyber-Physical Integrity Attacks*, 21st Nordic Conference in Secure IT Systems (NordSec 2016), Oulu (Finland), November 2-4, 2016, pp. 3-19.

Collaborative projects:

2014-2017 : European project, *PANOPTESec* (<https://www.panoptesec.eu/>), of FP7 program.

2019-2020 : DIGUE project (THALES) on spoofing detection of drone navigation systems.