

Oana Hotescu

3rd year PhD student in Telecommunications and Networking
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EDUCATION

Master's degree in Computer Science and Telecommunications

University of Toulouse, INPT-ENSEEIHT, France

2015 – 2016

Core modules: Transmission techniques, Computer Networking

Engineer's degree in Telecommunications and Networking

University of Toulouse, INPT-ENSEEIHT, France

2013 – 2016

Core modules: Signal Processing, Computer Networking, Embedded Systems

Bachelor's degree in Computer Science

University Politehnica of Bucharest, Romania

2011 – 2015

Core modules: Programming Languages, Mobile Programming, Web programming, Operating Systems

RESEARCH EXPERIENCE

Doctoral Research

Under the supervision of Jean-Luc Scharbag, Katia Jaffrès-Runser and Christian Fraboul

University of Toulouse, IRIT Laboratory, INPT-ENSEEIHT, France

Oct 2016 – Current

Expected defense date on February 2020

Quality of Service provision for avionics and additional flows in an avionics embedded network (AFDX)

→ Scheduling, simulation, optimization

Master Thesis Research

University of Toulouse, IRIT Laboratory, INPT-ENSEEIHT, France

Mar 2016 – Sep 2016

Scalability analysis of a synchronization protocol for Wireless Sensor Networks

→ Analytical, simulation, empirical evaluation (leading to publication 2)

Undergraduate Summer Research

University of Toulouse, IRIT Laboratory, INPT-ENSEEIHT, France

Jun 2014 – Sep 2014

Design of an Android application that extracts and forecasts the behavior of mobile network users

RESEARCH INTERESTS

Real-Time Networks, Scheduling and WCET Analysis on Real-Time Systems, Wireless Sensor Networks, Optimization

TEACHING EXPERIENCE

Teaching Assistant

University of Toulouse, INPT-ENSEEIHT, France

Jan 2017 – Current

- Taught classes on Computer Architecture, Introduction to Operating Systems, Object-Oriented Programming, Mobile Application Development and Computer Networking for Engineering students
- Set up OMNeT++ Simulation class for Master students

PUBLICATIONS

Full papers:

1. O. Hotescu, K. Jaffrès-Runser, J.-L. Scharbag and C. Fraboul, *Multiplexing Avionics and additional flows on a QoS-aware AFDX network*, in Proceedings at the 24th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA2019), Zaragoza, Spain, September 2019, **Best paper candidate**.
2. O. Hotescu, K. Jaffrès-Runser, A. Van-den-Bossche and T. Val, *Synchronizing Tiny Sensors with SISP: A Convergence Study*, in Proceedings at the 20th ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWIM'17), Miami Beach, USA, November 2017.

Short papers:

3. O. Hotescu, K. Jaffrès-Runser, J.-L. Scharbag and C. Fraboul, *Impact of Source Scheduling on End-to-End Latencies in a QoS-aware Avionics Network*, in Proceedings at the 34th ACM/SIGAPP Symposium On Applied Computing (SAC2019), Limassol, Cyprus, April 2019.
4. O. Hotescu, K. Jaffrès-Runser, J.-L. Scharbag and C. Fraboul, *Towards Quality of Service Provision with Avionics Full Duplex Switching*, Work in Progress at the 29th Euromicro Conference on Real-Time Systems (ECRTS17), Dubrovnik, Croatia, June 2017.
5. O. Hotescu, K. Jaffrès-Runser, J.-L. Scharbag and C. Fraboul, *Injection de flux non-critiques dans l'Avionics Full-DupleX switched Ethernet*, Ecole d'été Temps Réel (ETR 2017), Paris, France, August 2017.

HONORS AND AWARDS

- ★ Best paper candidate (among 3 candidates) at IEEE International Conference on Emerging Technologies and Factory Automation (ETFA2019), Zaragoza, Spain for the paper *Multiplexing Avionics and additional flows on a QoS-aware AFDX network*, September 2019
- ★ N2Women Young Researcher Fellowship for organizing N2Women meeting at MSWiM 2017 conference, November 2017
- ★ French Government Scholarship for Master studies, 2015 - 2016

ACTIVITIES

- ★ Reviewer for Junior Researcher Workshop on Real-Time Computing (JRWRTC) 2019
- ★ Co-organizer of a team seminar for the RMESS research team of IRIT Laboratory, July 2017

LANGUAGES

Romanian - Native proficiency

English - Professional working proficiency

French - Full professional proficiency

Spanish - Elementary proficiency