University of Florence

PhD in Smart Computing
XXXII cycle

Progress Report

first year

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Research topics: Model-based quantitative analysis for on-line diagnosis, prediction, scheduling and compliance evaluation in partially observable systems
Advisor: Prof. Enrico Vicario
Supervisory committee: Dr. Mieke Massink, Prof. Mirco Tribastone

Research and results

Courses attended

The following section reports a list of exams passed, seminars, tutorials, or summer schools attended. The Smart Computing PhD programme requires at least 9 credits by the end of the first year and at least 18 credits at the end of the second year.

Exams

- **GPU Programming Basics** (Marco Bertini, UniFi): 3 credits
- **Fuzzy Logic & Fuzzy Systems** (Beatrice Lazzerini, UniPi): 3 credits

Seminars

- **ProPPA: Probabilistic Programming Process Algebra** (Anastatis Georgoulas, IMT Lucca): ??? credits
- **Modelling, analysis and design of cyber-physical systems** (Ezio Bartocci, UniFi): 0.5 credits

Summer schools

- **Summer School on Optimization, Big Data and Applications (OBA)** (Veroli, Italy): 5 credits

Current total credits

The number of current total credits achieved by the end of the first year of PhD is 11.5.

Publications

The followings are all the published papers:

- **Title:** Performance Evaluation of Fischer's Protocol through Steady-State Analysis of Markov Regenerative Processes
  Authors: Stefano Martina, Marco Paolieri, Tommaso Papini, Enrico Vicario
  Conference: Modeling, Analysis and Simulation of Computer and Telecommunication Systems, MASCOTS 2016

- **Title:** Exploiting Non-deterministic Analysis in the Integration of Transient Solution Techniques for Markov Regenerative Processes
  Authors: Marco Biagi, Laura Carnevali, Marco Paolieri, Tommaso Papini, Enrico Vicario
  Conference: International Conference on Quantitative Evaluation of Systems, QEST 2017

- **Title:** An Inspection-Based Compositional Approach to the Quantitative Evaluation of Assembly Lines
  Authors: Marco Biagi, Laura Carnevali, Tommaso Papini, Kumiko Tadano, Enrico Vicario
  Conference: European Workshop on Performance Engineering, EPEW 2017

Conferences and workshops

The followings are all the conferences and workshops attended:

- **International Conference on Quantitative Evaluation of Systems** (QEST 2017), Berlin (Germany), September 5-7 2017
- **European Workshop on Performance Engineering** (EPEW 2017), Berlin (Germany), September 7-8 2017
- **International Workshop on Practical Applications of Stochastic Modelling** (PASM 2017), Berlin (Germany), September 9 2017

Research visits to external institutions

Research plan for the next year