

PERSONAL INFORMATION


Paolo Detti

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Date of birth 21/06/1968 | Nationality Italian

POSITION

Full professor in Operations Research at the Department of Information Engineering and Mathematics of the University of Siena.

WORK EXPERIENCE AND TRAINING

From 2015 to 2024	Assistant professor in Operations Research at the University of Siena (Italy).
From 2002 to 2015	Assistant professor in Operations Research at the University of Siena (Italy).
From 1996 to 2000	He was with the Department of "Informatica e Automazione" of the University of "RomaTre" of Rome.
From February to July 1998	Visiting researcher at the "Universidad Complutense de Madrid" working with Prof. L. F. Escudero.
From 1996 to 2000	Phd student in Operations Research at the University of Rome "La Sapienza" (Italy).

Research Activity

The research activities of Paolo Detti are mainly focused on solving theoretical and complex real-world problems, mainly in the area of combinatorial optimization and scheduling. He recently worked on developing models, algorithms and decision support systems for real-life planning, scheduling and transportation problems in healthcare. In this context, problems concerning both personnel and operating rooms scheduling, and transportation of patients and of biological samples have been addressed. Other, research topics are radio resources assignment problems in wireless telecommunications systems, scheduling electric loads for the optimization of the electricity consumptions, Machine learning approaches based on Electroencephalography data analysis for detecting transitions of neurological states, algorithms for machine scheduling also with uncertainty.

Paolo Detti is author of more than 60 publications including International Journals papers, Book Chapters and Proceedings of International Conferences.

Participation to research projects

EU projects:

2003-2007, DITTY "Development of an Information Technology Tool for the Management of European - Southern Lagoons under the influence of river-basin runoff" Development of an Information Technology Tool for the Management of European Southern Lagoons (DITTY); 2008-2012, ADDRESS "ACTIVE DEMAND FOR THE SMART GRIDS OF THE FUTURE", 7th Framework Programme, <http://www.addressfp7.org/>, http://cordis.europa.eu/fp7/home_en.html.

Recent National projects:

- 2005-2007, Prin Project, "Modelli e algoritmi per il coordinamento e la negoziazione nei sistemi logistici", PI Prof. Riccardo Minciardi.
- 2007-2009, Prin Project, "Strategie e meccanismi di coordinamento nei sistemi logistici distribuiti", PI Prof. Riccardo Minciardi.
- 2011-2013, PAR FAS REGIONE TOSCANA Project, Line 1.1.a.3, "Gestione delle Risorse Critiche in ambito Ospedaliero" ("Ge.Ri.C.O"), Principal Investigator Prof. Alessandro Agnetis.
- 2016-2018, Research Unit Coordinator for Department of Information Engineering and Mathematical Sciences of the University of Siena of the project "Prevision and analysis of brain activity in transitions: epilepsy and sleep" ("Previsioni e Analisi dell'Attività Cerebrale nelle transizioni: Epilessia e sonno" (PANACEE)), PAR FAS REGIONE TOSCANA 2007-2013, Project Line 1.1.2, PI Prof. Alessandro Rossi.

Scientific coordination, PhD supervisor

2019-2021, supervisor of the second-year PhD student Mario Benini, cycle XXXV, PhD school in "Information Engineering and Science", Siena University. Title of the Thesis discussed in 2022: "Improving Decision Making in Real-World Applications by Solving Combinatorial Optimization Problems".

2015-2017, supervisor of the PhD student Garazi Zabalo Manrique de Lara, XXX PhD cycle, PhD school in "Information Engineering and Science", Siena University. Title of the Thesis discussed in May 2018: "Metaheuristic Algorithms for Transportation Problems in Healthcare". 2020, scientific coordinator of the project "Broker dell'innovazione: dal territorio all'Europa" (BrokelInno), related to the project of the Tuscan Region "AFRUT2020" ("Alta Formazione e Ricerca nelle Università Toscane 2020"), supervisor of three research grants of one year, started at October 2020, for multidisciplinary research.

2011-2013. Scientific coordinator of the research line "Patients' Transportation problems" of the project GERICO (PAR FAS REGIONE TOSCANA 2011-2013). Scientific coordinator of WP1 of the same project.

Scientific supervisor of the following projects assigned to research assistant positions:

- 1) 2016-2018. Title of the project: "Development of mathematical/computational models to study cerebral transitions during epileptic seizures and awake/sleep states", duration: 2 years, assigned to Dott. Francesco Samari, PANACEE project, July 2016 - July 2018.
- 2) 2017-2018. Title of the project: "Development of classification algorithms to predict epileptic seizures and awake/sleep states", duration: 1 year, assigned to Dott. Garazi Zabalo Manrique de Lara, PANACEE project, November 2017 - October 2018.
- 3) 2017-2018. Title of the project: "Design of a prototypal and portable device for detecting in advance cerebral transitions during epileptic seizures and awake/sleep states", duration: 1 year, assigned to Ing. David Landi, PANACEE project, October 2017 - October 2018.
- 4) 2012-2013. Title of the project: "Modelli e metodi per la gestione delle risorse critiche in ambito sanitario", duration: 1 year, assigned to Dott. Jessica Raffaelli, GERICO project, October 2012 - September 2013.

Workshop and Conference organizing activity

- Member of the organizing committee of the "seconda Scuola CIRO", Siena, June 17-21, 2002.
- Member of the organizing committee of the international conference "Models and Algorithms for Planning and Scheduling Problems" (MAPSP05), Siena, June 6-10, 2005.
- Member of the organizing committee of the PhD school "Advanced Course on Discrete Optimization", by Prof. Egon Balas, Siena, June, 3-6, 2008.
- Chair of the organizing committee of the conference "Airo 2009", Siena, September 8-11, 2009.

Awards

- Airo Best Social 2015 Award as best Operations Research work with social applications: "A multi-depot dial-a-ride problem with heterogeneous vehicles and compatibility constraints in healthcare" by Paolo Detti, Francesco Papalini, Garazi Zabalo Manrique de Lara has been awarded as best Operations Research work with social applications
- Best poster award: A. Agnetis, R. Colombai, A. Coppi, M. Corsini, G. Dellino, P. Detti, L. Di Stefano, C. Meloni, G. Murgia, E. Porfido, M. Pranzo, A. Veneziani, Un modello matematico per ottimizzare la pianificazione dell'attività operatoria, 7th ANMDO National Congress, Rome, October 20-22, 2010.

Publications (Orcid)

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