

Martina Panfili

WORK EXPERIENCE

January 2015 – Present

Project Manager

Consortium for the Research in Automation and Telecommunications CRAT – Via Giovanni Nicotera, 29 - 00195 Rome - <http://www.crat.eu/>

Within the Crat Consortium (founded and owned by Thales Alenia Space, University of Rome "La Sapienza" Politecnico di Bari and TopNetwork), responsible of the project management, R&D activities in the field of control theory applied to network resource management and support to coordination of EC, ESA or National funded projects for the following EU funded projects: H2020 BONVOYAGE, H2020 ATENA, H2020 5G-ALL STAR, H2020 SESAME, CLIPS (PON-MISE), H2020 5G-SOLUTION, ARIES (ESA).

Attività o settore R&D

July 2010 – Present

Project Engineer

Department of Computer, Control, and Management Engineering Antonio Ruberti at Sapienza University of Rome - Via Ariosto, 25 - 00185 Rome - <http://www.diag.uniroma1.it/>

- R&D activities in the field of control theory applied to network resource management, Future Internet and Security.
- Support, as project and task manager, to coordination of EC funded projects

For the following project:

FP7 FI-WARE, FP7 FI-CORE, FP7-Artemis nSHIELD and PON PLATINO

Business or sector R&D

July 2010 – October 2015

Project Engineer

Consortium for the Research in Automation and Telecommunications CRAT – Via Giovanni Nicotera, 29 - 00195 Rome - <http://www.crat.eu/>

Within the Crat Consortium (founded and owned by Thales Alenia Space, University of Rome "La Sapienza" Politecnico di Bari and TopNetwork), responsible of:

- Systems engineering activities
- R&D activities in the field of control theory applied to network resource management.
- Support, as project and task manager, to coordination of EC funded projects
- Support to proposal preparation and project negotiation

For the following projects: H2020 BONVOYAGE, FP7 SWIPE, FP7 T-NOVA, FP7 MONET, , PON PLATINO, FP7 DLC + VIT4IP

Business or sector R&D

September 2007 – February 2009

Lean Engineer in Organisation and industrial methods

Sanofi S.p.A. Via Valcanello 4, 03012 Anagni (FR) Italy

In the Industrial Method Organization Department responsible of:

- Management of strategic projects in terms of priority, timing, resources and investments.
- Performances improvement; capacity management; KPI's monitoring and management (OEE, productivity, RFT, PCT ..).

Involved in Dry Fog Project (an innovative aerosol-based disinfection system for cleanrooms and

critical areas represents an effective alternative to disinfection procedures that use formaldehyde), responsible of Dry Fog Sensor Network:

- User Requirements Specification
- System Description
- Instruction Qualification
- Operation Qualification

Business or sector Manufacturing (Life Sciences Company)

EDUCATION AND TRAINING

- November 2010 – April 2014** **Doctor of Philosophy Ph.D. in System Engineering**
University of Rome "La Sapienza"
The main objective of the research activity was to develop innovative solutions in the fields of Resource Management, Future Internet, Network Planning and Security through the use of advanced control and optimization techniques
- October 2006 – July 2010** **Master's degree in Control Engineering**
(Final grade 110/110 - D.M. 509/99 italian degree class n.29/S)
Faculty of Engineering- University of Rome "La Sapienza"
Thesis: "A Connection Admission Control Strategy with Blocking Chances on Markov Decision-Making Processes"
Developing an innovative approach to call admission control with constraints on blocking probabilities based on approximate Markov decision making and on Reinforcement Learning. The project was developed under the framework of the Seventh Framework Program (MONET) Mechanisms for Optimization of hybrid ad-hoc and satellite NETWORKS.
- February 2009 – March 2010** **First Level Master, Specialist Course "Design and Manufacturing of Advanced Materials" (1500 hours) within RESEARCH PROJECT FADTAD LABNET (Creating a network of laboratories for the design and assessment on Failure Analysis and Damage Tolerance - Approved by the Decree of 11/12/2006 MIUR prot. n. 2861/Ric.)**
Faculty of Engineering- University of Cassino
- technologies for the innovative use of materials and the design and production of innovative materials in aerospace and aeronautics;
- problems of business management with particular reference to research and technology transfer of the Durability, the Damage Tolerance and the Operational Readiness
- November 2002 – September 2006** **Bachelor's degree in Automatic Control Engineering**
(Final grade 106/110 - D.M. 509/99 italian degree class n.9)
Faculty of Engineering- University of Rome "La Sapienza"
Thesis: "Markov decision processes to formulate a Admission Control problem in UMTS networks", developed in EUQoS Project under FP6 Program.

PERSONAL SKILLS

Mother tongue Italian

Other language

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	C1	B1	B1	B2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills Very good communication skills gained through my experience as Project Engineer and Project Manager

Organisational / managerial skills

Excellent organizational and managerial skills gained through my experience as Task and project Manager in European research projects (responsible for various teams of 4-5 people)

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Independent user	Proficient user	Proficient user

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

Excellent command of Microsoft Office suite (Word, Explorer, excel, access, powerpoint, outlook, ...).
 Excellent command of Matlab, Simulink e Stateflow, Prodotti da Mathwork.
 Excellent command of Windows e Mac OS.

Other skills

- Photography
- Embroidery and knitting

Driving licence

B

ADDITIONAL INFORMATION

Publications

Articoli su rivista:

1. Pietrabissa, A., Priscoli, F. D., Di Giorgio, A., Giuseppe, A., Panfili, M., & Suraci, V. (2017). An approximate dynamic programming approach to resource management in multi-cloud scenarios. *International Journal of Control*, 90(3), 492-503.
2. Panfili, M., Pietrabissa, A., Oddi, G., & Suraci, V. (2016). A lexicographic approach to constrained MDP admission control. *International Journal of Control*, 89(2), 235-247.
3. Fiaschetti, A., Morgagni, A., Panfili, M., Lanna, A., & Mignanti, S. Attack-Surface metrics, OSSTMM and Common Criteria based approach to "Composable Security" in Complex Systems. *in press in WSEAS Transactions on Systems*.
4. Battilotti, S., Priscoli, F. D., Giorgi, C. G., Panfili, M., Pietrabissa, A., Monaco, S., & Suraci, V. (2015). Approaches for Future Internet Architecture Design and Quality of Experience (QoE) Control. *WSEAS Transactions on Communication*, 14(2015), 62-73.
5. Canale, S., Di Giorgio, A., Lanna, A., Mercurio, A., Panfili, M., & Pietrabissa, A. (2013). Optimal planning and routing in medium voltage powerline communications networks. *IEEE Transactions on Smart Grid*, 4(2), 711-719.

Capitoli di Libro:

1. Suraci, V., Morgagni, A., Fiaschetti, A., Di Giorgio, A., Panfili, M., Liberati, F., ... & Uribeetxeberria, R. (2017). The SHIELD Approach. In *Measurable and Composable Security, Privacy, and Dependability for Cyberphysical Systems* (pp. 127-180). CRC Press.

Proceeding di conferenza:

1. Panfili, M., Giuseppe, A., Fiaschetti, A., Al-Jibreen, H. B., Pietrabissa, A., & Priscoli, F. D. (2018, June). A Game-Theoretical Approach to Cyber-Security of Critical Infrastructures Based on Multi-Agent Reinforcement Learning. In *2018 26th Mediterranean Conference on Control and Automation (MED)*(pp. 460-465). IEEE.
2. Canale, S., Di Giorgio, A., Lisi, F., Panfili, M., Celsi, L. R., Suraci, V., & Priscoli, F. D. (2016, June). A

- future internet oriented user centric extended intelligent transportation system. In *Control and Automation (MED), 2016 24th Mediterranean Conference on* (pp. 1133-1139). IEEE.
3. Stefano, B., Francesco, D. P., Claudio, G. G., Salvatore, M., Martina, P., Antonio, P., ... & Vincenzo, S. (2015, July). A multi-agent reinforcement learning based approach to Quality of Experience control in Future Internet networks. In *Control Conference (CCC), 2015 34th Chinese* (pp. 6495-6500). IEEE.
 4. Antonio, P., Stefano, B., Francisco, F., Alessandro, G., Guido, O., Martina, P., & Vincenzo, S. (2015, July). Resource management in multi-cloud scenarios via reinforcement learning. In *Control Conference (CCC), 2015 34th Chinese* (pp. 9084-9089). IEEE.
 5. Celsi, L. R., Battilotti, S., Cimorelli, F., Giorgi, C. G., Monaco, S., Panfili, M., ... & Priscoli, F. D. (2015, June). A Q-learning based approach to quality of experience control in cognitive Future Internet networks. In *Control and Automation (MED), 2015 23th Mediterranean Conference on* (pp. 1045-1052). IEEE.
 6. Panfili, M., & Pietrabissa, A. A lexicographic approach to constrained MDP Admission Control. In *21st Mediterranean Conference on Control and Automation, (MED) 2013*, pp. 1428–1433.
 7. Oddi, G., Panfili, M., Pietrabissa, A., Zuccaro, L., & Suraci, V. (2013, December). A resource allocation algorithm of multi-cloud resources based on Markov Decision Process. In *Cloud Computing Technology and Science (CloudCom), 2013 IEEE 5th International Conference on* (Vol. 1, pp. 130-135). IEEE.
 8. F. Cimorelli, M. Panfili, S. Battilotti, F. Delli Priscoli, C. Gori Giorgi, and S. Monaco, “An Approach Based on Reinforcement Learning for Quality of Experience (QoE) Control,” in *Proceedings of the 18th International Conference on Computers* (part of CSCC '14), Santorini Island, Greece, July 17-21, 2014, ISBN: 978-1-61804-237-8.
 9. A. Fiaschetti, A. Lanna, A. Morgagni, M. Panfili, S. Mignanti, R. Cusani, G. Scarano, A. Pietrabissa, F. Delli Priscoli, “Control Architecture to Provide E2E security in Interconnected Systems: the (new) SHIELD Approach”, in *Proceedings of the 18th International Conference on Computers* (part of CSCC '14), Santorini Island, Greece, July 17-21, 2014, ISBN: 978-1-61804-237-8.
 10. Canale, S., Priscoli, F. D., Di Giorgio, A., Lanna, A., Mercurio, A., Panfili, M., & Pietrabissa, A. (2012, July). Resilient planning of powerline communications networks over medium voltage distribution grids. In *Control & Automation (MED), 2012 20th Mediterranean Conference on* (pp. 710-715). IEEE.

Dati personali

La sottoscritta autorizza al trattamento dei miei dati personali, secondo quanto previsto dal D.Lgs. 196/2003 modificato con D.Lgs. n. 101/2018.

Roma 09/02/2022