

#### Personal information

# Michele Rossi



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Gender Male | Date of birth 30 October 1974

#### **POSITION**

# **Assistant Professor**

Department of Information Engineering, University of Padova, IT

#### **SHORT BIO**

Dr. Rossi is Assistant Professor with the Department of Information Engineering (DEI), UniPD, IT. His research interests develops along three main axes: 1) protocol design for wireless sensor networks / IoT and energy harvesting mobile networks, 2) optimization of market, control and telecommunication aspects of smart energy grids and 3) signal processing for wireless wearable devices. He is the author of more than 100 scientific papers published in international journals (34), book chapters (4) and conferences (71), two patents (with DOCOMO) and has been the recipient of four best paper awards from the IEEE. In 2005–2009, he has collaborated with the Ubiquitous Networking Research group @ DOCOMO Euro-Labs (Munich, Germany) in the design of distributed processing and data dissemination for ad hoc networks. Since 2010, he has been working with Worldsensing (http://www.worldsensing.com) on optimized WSN solutions for Smart Cities, also partnering in EU projects (EU FP7 SWAP, H2020 SCAV-ENGE). Since 2001, he has been involved in five industrial collaborations and eight European projects. He has been the technical coordinator of the protocol design activity within the EU FP7 IOT-A project (Internet of Things Architectures, 2010-2013), the PI of several projects including a SAMSUNG GRO Award (2014-2015), the EU H2020 International Training Network (ITN) SCAVENGE (2016-2019), the UNIPD projects MOSAIC (2010-2012) and IoT-SURF (2016-2018). Over the years, he has developed a strong network of contacts across EU and in the US, directly supervising the technical work within twenty projects, attending physical meetings, phone conferences and events. His current research is supported by the European Commission through the H2020 MSCA-ITN project SCAVENGE on Energy Harvesting Cellular Networks and by the University of Padova through IoT-SURF. Since 2011, Dr. Rossi has been Associate Editor of the IEEE Transactions on Wireless Communications, has been on the TPC of 90+ international conferences and serves as reviewer for prestigious scientific Journals of IEEE, ACM, Springer and Elsevier. Dr. Rossi is a Senior Member of the IEEE.

**Bibliometrics** 

Google Scholar: **h-index**: 29, **tot. citations**: 2781, i10-index: 61, most cited paper: 587. Scopus: **h-index**: 17, **tot-citations**: 1090, i10-index: 24, most cited paper: 334.

#### **WORK EXPERIENCE**

# 2005 - Present

# Assistant Professor @ DEI, University of Padova, IT

Teaching (Wireless Systems / Sensor Networks) – PhD supervision Project management (EU, industrial collaborations: DOCOMO, WorldSensing, SAMSUNG, INTEL)

### 2004 - 2005

# Postdoc at the University of Ferrara, IT

Research on Wireless Sensor Networks Project management (EU, local projects)

### 2000 - 2004

# PhD student at the University of Ferrara, IT

Research on TCP congestion control, UMTS, ARQ, HARQ processes Industrial collaborations: ERICSSON, European Space Agency (ESA)

#### 2000 - 2001

#### Professor of Computer Programming

Technical State Institute (ITIS) "Niccolò Copernico", Ferrara, IT.

#### RESPONSIBILITIES

#### Management

PI / Co-PI of several projects (EU, industrial), see below. Industrial collaborations: INTEL (2016-2018), SAMSUNG (2014-2015), DOCOMO (2005-2009), ERICSSON (2002-2004), ESA (2001-2003).

# Supervision

Currently supervising: **3** PhD students, **2** postdocs, **3** MS thesis students. **3** further PhD students will be hired in Sept. 2016 (H2020 ITN SCAVENGE). 30 master theses supervised @UNIPD since 2005.

#### Institutional

"Consiglio direttivo della scuola di dottorato" in information engineering @DEI (member, since Jan. 2016). PhD School of Information Engineering (member, since Jan. 2008). ERASMUS international exchange and TIME programs for the Master students of Telecommunication Engineering @DEI (reference person, since 2010).

#### Teaching

**Thirteen** full courses since 2003 (**90 ECTS**): "Wireless Systems and Networks" (in English, 9 ECTS), "Sistemi e Reti Wireless" (6 ECTS), "Teoria dei Fenomeni Aleatori" (6 ECTS), Wireless Systems II (in English, 6 ECTS), "Comunicazioni Multimediali II" (6 ECTS), "Elaborazione Numerica dei Segnali" (Teaching Assistant, TA), "Comunicazioni elettriche I" (TA), "Comunicazioni elettriche" (TA).

#### Service

Associate Editor (since 2011): IEEE Transactions on Wireless Communications. Track co-chair: IEEE ICCCN 2016. Co-organizer: INW 2016, ACM BuildSys 2009, 2010, 2011. TPC co-chair: ICST WNS2 2008, General co-chair: IEEE IoTech 2011, 2012. TPC member: of 82 among conferences & workshops since 2007, including IEEE INFOCOM (since 2013), GLOBECOM (since 2009), IEEE ICC (since 2008), IEEE SECON, IEEE LCN, IEEE WoWMoM, IEEE WCNC, IEEE IWCMC, etc.

#### MAIN COLLABORATIONS

ECE Dept. Univ. of Rochester, US. ECE Dept. Northeastern Univ. Boston, US. IMDEA Networks, Madrid, ES. CTTC, Barcelona, ES. Worldsensing, Barcelona, ES. Wattics, Dublin, IE. Athonet, IT. CEA, FR. Fraunhofer-ISE, DE. Imperial College London, UK. KTH, Stockholm, SE. CERIST, Algiers, DZ.

#### **PROJECTS**

- 2016-2019 PI: EU H2020 MSCA-ITN "SCAVENGE" on energy harvesting mobile networks (516.122 kEUR).
- 2016-2017 PI: "IoT-SURF", University of Padova (43 kEUR).
- 2016-2018 **Co-PI**: INTEL "Ec-Centric". Industrial collaboration (571.759 kUSD).
- 2014-2015 PI: Samsung GRO Award on smart wearable devices. Industrial collaboration (84 kUSD).
- 2015-2016 PI: "ENGINE" Junior Research Grant. University of Padova (20 kEUR).
- 2015-2016 **PI**: Algeria-Italy collaboration (MAE, 2015-2016, 15 kEUR).
- 2010-2014 Marie Curie Senior Researcher. EU FP7 "SWAP" on energy harvesting sensor networks.
- 2010-2013 PI: "MOSAIC", University of Padova (45.5 kEUR).

# Other projects

**Deputy WP leader**, **Task Leader**: EU FP7 IP IoT-A (2010-2013). **Task Leader**: EU SENSEI (2008-2010), EU Ambient Networks (pahses I and II, 2002-2007). **Senior researcher**: WISE-WAI (Cariparo, 2007-2011), DOCOMO (2005-2009). **PhD researcher**: EU e-SENSE (2006-2007), EU EYES (2002-2005), VICOM (MIUR, 2002-2005), ERICSSON (2002-2004), ESA (2001-2003), RAMON (2000-2002).

# **AWARDS**

- Oct 2014 Recipient of a Samsung GRO award on biometric signal processing for IoT devices.
- May 2013 Awarded as a young talent of the Venice region ("Premio Città Impresa," Vicenza, IT).
- Sept 2012 Selected as one of the top 10 young Italian researchers, among all disciplines, to present a highly innovative research project on telecommunications and control systems for microgrids @ ItaliaX10 (live streaming from the "Teatro Verdi" in Trieste, IT).
- 2009-2014 Six MS students supervised by Dr. Rossi have received the **InTesi Award**, offered by the "Parco Scientifico e Tecnologico Galileo" to the best Master theses (innovation and cooperation with the industry) within the Padova area.
  - 2008 **Best tutorial paper award**, "In-network aggregation techniques for wireless sensor networks: a survey," IEEE Wireless Communication Magazine.
  - 2007 **Best paper award**, "Mobility aided routing in multi-hop heterogeneous networks with group mobility," IEEE GLOBECOM, Washington DC, US.
  - 2006 **Best paper award**, "On the exploitation of user aggregation strategies in heterogeneous wireless networks," IEEE CAMAD, Trento, IT.
  - 2005 **Best paper award**, "On the effectiveness of logical device aggregation in multi-radio multi-hop networks," IEEE MobiWac, Maui, Hawaii, US.
  - 2003 IEEE Travel Grant, to attend IEEE WCNC 2003, New Orleans, US (two papers presented).