

# IEEE Research and Technologies for Society and Industry – IEEE RTSI 2018

## Program schedule

MON Sep 10

Time	Foyer	Aula Magna	Room C330- Track 1	Room C340 - Track2	Room C320- Track 2&3	Aula Capito	
9:00 10:30	EXHIBITION & YP EVENT	Welcome Session and Keynote Speech:  <b>Gerard-Andre Capolino</b> (IEEE Fellow Chair Professor of Electrical Engineering) - <i>Energy efficiency improvement for electrical machines: a challenge</i>					
10:30 12:30		<b>Tutorial Track 1: Towards connected vehicles enabled smart transportation</b> <b>S. Djahel</b> (Manchester Metropolitan University, UK)	10:30 - 12:45 <b>1.1 Smart electric energy systems</b> Invited: <b>Roberto Candela</b> (Prysmian Electronics, Italy) . <i>From an idea to a true company</i>	10:30 - 12:45 <b>2.8 Biomechanical models in tissue engineering</b> Invited: <b>Nicola Lopomo</b> (University of Brescia, Italy) - <i>Sensing Scaffolds for Cell Monitoring in Tissue Engineering</i>	<b>2.5 Photonic technologies for industry 4.0</b> Invited: <b>Cosimo Gerardi</b> (ENEL Green Power 3SUN – Catania, Italy) - <i>High efficiency Si - HJT solar cells: innovative PV technology for reducing energy generation costs</i> Invited: <b>Fabrizio Buccheri</b> (Prysmian Electronics) - <i>Distributed Fiber Sensing Techniques for the Power Cable Industry</i>		
12:30 13:00		EXHIBITION & YP DEMO COMPETITION TIME					
13:00 14:00		Lunch					
14:00 16:00		<b>Panel 1 - Chair - Carlo Alberto Nucci</b> - "Smart energy systems for smart city districts"					
16:00 16:30		Coffee Break					
16:30 18:30			<b>1.11 Power Electronics and Drives for Sustainable Transportation</b> Invited: <b>Paolo Mattavelli</b> (University of Padova, Italy) - <i>Bidirectional Converter Topologies For Low-Voltage Battery Interface: A Comparison</i>	<b>2.2 Robotics and autonomous systems</b> Invited: <b>Emanuele Garone</b> (Université Libre de Bruxelles, Belgium) - <i>It's not MPC ! An Explicit Reference Governor for the supervision of constrained nonlinear systems</i>	<b>3.2 Sensor networks</b> Invited: <b>Luca Zaccarian</b> (Univ. Trento, Italy) - <i>Distributed estimation based on multi-hop subspace decomposition</i>	<b>MEETING WITH INDUSTRY</b>	
19:30 21:30		Welcome Reception: the Botanical Garden of the University of Palermo					

**TUE Sep 11**

Time	Foyer	Aula Magna	Room C330- Track 1	Room C340 - Track2	Room C320- Track 2&3	Aula Capitò	
09:00 10:30	EXHIBITION & YP EVENT		<p>1.2 Electricity from renewable energy A</p> <p>Invited: <b>Diego Arnone</b> (Engineering SpA) - <i>Smart solutions for balancing power grid with high penetration of renewable</i></p>	<p>2.9 A Advanced numerical modelling A &amp; 3.9 Power-awareness and resource management in mobile and IoT computing systems</p> <p>Invited: <b>Michele Piana</b> (University of Genova, Italy) - <i>An I4.0 technology for space weather using satellite data</i></p>	<p>3.1 Experimental research and prototyping towards 5G and beyond</p> <p>Invited: <b>Ivan Seskar</b> (Rutgers University, USA) - <i>Towards the Next Generation of Wireless Networking Testbeds</i></p>	STUDENT BRANCH MEETING	
10:30 11:00		Coffee Break					
11:00 13:00		<p>Panel 2 - Chairs: <b>Leopoldo Angrisani</b> and <b>Mauro Mosca</b> – “Smart Technologies &amp; Best Practices for Industry 4.0 and Digital Transformation”</p>					
13:00 14:00		Lunch					
14:00 14:30		EXHIBITION & YP DEMO COMPETITION TIME					
14:30 16:30	EXHIBITION	<p>Tutorial Track 2: <i>Additive manufacturing and 3D printing for medicine: experiences and opportunities</i></p> <p><b>F. Auricchio</b> (University of Pavia, Italy)</p>	<p>14:30-16:45</p> <p>1.2 Electricity from renewable energy B</p> <p>1.4 Smart net zero energy buildings</p>	<p>2.9 Advanced numerical modelling B</p> <p>Invited: <b>Sara Carcangiu</b> (University of Cagliari, Italy) - <i>A Locally Recurrent Neural Network Based Approach for the Early Fault Detection</i></p>	<p>3.5 Blockchain technologies: challenges and opportunities</p> <p>Invited: <b>Ivan Visconti</b> (University of Salerno, Italy) - <i>Blockchain Technology Beyond Cryptocurrencies</i></p>	STUDENT BRANCH & STUDENT EVENTS	
16:30 17:00		Coffee Break					
17:00 19:00		<p>Tutorial: <i>The role of Competence Center in the Industry 4.0 Plan</i></p> <p><b>Fabrizio Dughiero</b> (University of Padova, Italy - SMACT Competence Center of Triveneto)</p> <p><b>Leopoldo Angrisani</b> (University of Napoli - Federico II, Italy Competence Center Napoli-Bari)</p>	<p>17:00-19:15</p> <p>1.3 Advanced materials for photovoltaic applications</p> <p>Invited: <b>Sara Pescetelli</b> – (Univ. Roma Tor Vergata, Italy) <i>Graphene and related 2D materials: a winning strategy for enhanced efficiency and stability in perovskite photovoltaics</i></p> <p>Invited: <b>Rosaria Puglisi</b> (CNR-IMM – Catania, Italy) <i>Silicon nanowires obtained by plasma based CVD for application in solar cells</i></p>	<p>2.1 Computer vision</p> <p>Invited: <b>Alessandro Capra</b> (STMicroelectronics) - <i>Computer Vision in Embedded Devices</i></p>	<p>3.7 Contact Management in connected Society &amp; Enterprises</p> <p>Invited: <b>Sylvie Despres</b> (Université Paris Nord, France) - <i>Modular Ontology Overview and Usecases. What advantages for the industry?</i></p>	STUDENT BRANCH & STUDENT EVENTS	

**WEN Sep 12**

Time	Foyer	Aula Magna	Room C330- Track 1	Room C340 - Track2	Room C320- Track 2&3	Aula Capito	
09:00 11:00	EXHIBITION	<p><i>Tutorial: Ethical considerations in system design</i>  <b>A.G. Hessami</b> (Vega Systems, UK)</p>	<p><b>1.9 Remote sensing models and methods to support sustainable development and disaster management A</b></p> <p>Invited: <b>Daniele Riccio</b> (Univ. Napoli Federico II, Italy) - <i>Spaceborne Synthetic Aperture Radars for the Next Decade</i></p>	<p><b>2.6 Nanotechnologies for industry 4.0 A</b></p> <p>Invited: <b>Alberto Pasquarelli</b> (Ulm University, Germany) - <i>Nanowire technology for sensing applications</i></p>	<p><b>3.6 5G, from technology to its enabled applications</b></p> <p>Invited: <b>Samuela Persia</b>, (Fondazione Ugo Bordoni, Italy) - <i>EMF Exposure evaluations for Future Networks Based on TDD and Massive MIMO: New International Regulations</i></p>	<p><b>WIE EVENT</b></p>	
11:00 11:30		Coffee Break					
11:30 13:00		<p><b>1.9 Remote sensing models and methods to support sustainable development and disaster management B</b></p> <p><b>1.5 Smart communities for resilient and innovative cities</b></p> <p>Invited: <b>Roberto Lippi</b> – (Coordinador para los Países Andinos, Bogotá -Programa de Naciones Unidas para los Asentamientos Humanos, ONU-HABITAT) - <i>Open Cities: Towards a New Governance of Cities and Territory</i></p>	<p><b>2.6 Nanotechnologies for industry 4.0 B</b></p> <p>Invited: <b>Yogendra Kumar Mishra</b> (Kiel University Germany) - <i>Flame based ZnO tetrapod nanomaterials for multifunctional applications</i></p>	<p><b>11:30-13:15</b>  <b>3.10 High Integrity and High Accuracy for Intelligent Transportation Systems</b></p> <p>Invited: <b>Roberto Capua</b> (SOGEI, Italy) - <i>GNSS High Precision for Anyone: Dream or Reality?</i></p>	<p><b>WIE EVENT</b></p>		
13:00 14:00	Lunch						
14:00 14:30	EXHIBITION TIME						
14:30 16:15	EXHIBITION	<p><b>SPECIAL MEETING ON INNOVATIVE START UP &amp; ENTREPRENEURS</b></p>					
16:15 16:45		Coffee Break					
16:45 19:00		<p><b>SPECIAL MEETING ON INNOVATIVE STARTUP &amp; ENTREPRENEURS</b></p>					
20:00 23:00	Social Dinner & Award Ceremony: "Palazzo Fatta", Piazza Marina, Palermo						

**THU Sep 13**

Time	Aula Magna	Room C330- Track 1	Room C340 - Track2	Room C320- Track 2&3	Aula Capito	
09:00 10:30	EXHIBITION	<p><b>Tutorial Track 3: Machine-Type Communications (MTC) in 5G: challenges, algorithmic design and performance analysis</b></p> <p>Invited: <b>M. Assaad</b> (Centrale Supélec, France)</p>	<p><b>1.7 Sustainable marine transportation</b></p> <p>Invited: <b>Bruno Tevené</b> (Chief Technology Office - Underwater Systems, Leonardo Defence Systems, Italy) - <i>Modern marine transportation systems: safety, security and environmental aspects</i></p>	<p><b>2.7 Compliant non-destructive testing</b></p> <p>Invited: <b>Luca De Rai</b> (Prysmian Group) - <i>Use of non-disruptive electrical tests for selection and characterization of materials for EHV cables</i></p>	<p><b>2.4 Safety, Security and Privacy for Cyber-Physical Systems</b></p> <p>Invited: <b>Franco Davoli</b> (University of Genova, Italy) - <i>Building trusted and reliable services over Cyber-Physical Systems</i></p>	
10:30 11:00		Coffee Break				
11:00 13:00		<p><b>Panel 3 - Chairs: Dajana Cassioli and Fabrizio Granelli - "ICT at the service of the citizen: best practices and business cases"</b></p>				
13:00 14:00		Lunch				
14:00 16:15		<p><b>1.8 Environmental monitoring and prediction</b></p> <p>Invited: <b>Anne Johannet</b> (IMT Mines Alès, France) - <i>Extracting information from a neural network: from statistics to physical processes. Application in hydro(géo)logy</i></p>	<p><b>14:00 - 16:15</b></p> <p><b>2.10 Smart technologies and modelling for avionics</b></p> <p>Invited: <b>Alberto Reatti</b> (University of Firenze, Italy) - <i>Resonant circuits for Wireless Power Transfer and possible application to avionics</i></p>	<p><b>3.3 Telemedicine and e-Health: medical image data and datasets into healthcare interoperability with IoT</b></p> <p><b>3.4 Distributed ICT for health and wellness</b></p> <p>Invited: <b>Pietro Siciliano</b> (IMM-CNR, Lecce, Italy) - <i>Smart Devices for Health and AAL in the new concept of Smart Living</i></p>		
16:15 16:45	CLOSING SESSION					
16:45 18:45	<p>Room C310 ITALY SECTION EXCO (with Coffee Break)</p>					