

Preliminary Program

BodyNets/MobilWare, Dec. 15-16, 2016, Torino, Italy

Note: Non-registered papers will be cancelled from the Final Program

Thursday, Dec. 15, 2016									
8:30-9:00	Registration								
9:00-9:15	Welcome message from the Organizing Committee (Room: 1)								
9:20 - 10:00	Keynote 1 Bodynets: (Room: 1) THE BIOLOGICAL INTERNET Athanasios V. Vasilakos, Lulea University of Technology, Sweden								
10:00 -10:40	Keynote 2 Bodynets: (Room: 1) SUSTAINABLE SMART WEARABLES: TOWARD SENSOR ANALYTICS WITH HARVESTED ENERGY Luca Benini, University of Bologna, Italy								
10:40-11:00	Morning Tea								
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%; text-align: center;">Session Th. A. 1.1 (Room: 1)</th> <th style="width: 50%; text-align: center;">Session Th. A. 1.2 (Room: 2)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Special Track: (ST1) Antenna/Propagation and WiBEC Project (APWiBEC)</td> <td style="text-align: center;">Special Track: (ST3) Cloud-assisted Body Area Networks (CBAN)</td> </tr> <tr> <td>Organized by: Dirk Plettemeier (Technische Universität Dresden, Germany) Qiong Wang (Technische Universität Dresden, Germany)</td> <td>Organized by: Raffaele Gravina (University of Calabria, Italy) Giancarlo Fortino (University of Calabria, Italy) Mohammad Mehedi Hassan (King Saud University, Saudi Arabia)</td> </tr> <tr> <td>Chairs: Wang Qiong (Dresden University of Technology, Germany) TBD</td> <td>Chairs: Raffaele Gravina (University of Calabria, Italy) Giancarlo Fortino (University of Calabria, Italy)</td> </tr> </tbody> </table>	Session Th. A. 1.1 (Room: 1)	Session Th. A. 1.2 (Room: 2)	Special Track: (ST1) Antenna/Propagation and WiBEC Project (APWiBEC)	Special Track: (ST3) Cloud-assisted Body Area Networks (CBAN)	Organized by: Dirk Plettemeier (Technische Universität Dresden, Germany) Qiong Wang (Technische Universität Dresden, Germany)	Organized by: Raffaele Gravina (University of Calabria, Italy) Giancarlo Fortino (University of Calabria, Italy) Mohammad Mehedi Hassan (King Saud University, Saudi Arabia)	Chairs: Wang Qiong (Dresden University of Technology, Germany) TBD	Chairs: Raffaele Gravina (University of Calabria, Italy) Giancarlo Fortino (University of Calabria, Italy)
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11:40-12:00	<p>Grating Lobes Suppression of Sparse Linear Phased Arrays Using Generic Algorithms, Chen Chen, Miao Jungang, Yin Fenglin (Beihang University, China)</p>	<p>Towards Interoperability of IoT-based Health Care platforms: the INTER-Health use case, Pace Pasquale, Alois Gianluca, Gravina, Raffaele, Fortino Giancarlo (University of Calabria, Italy), Larini Giovanna (TIM - Telecom Italia), Gulino Margherita (Azienda Sanitaria Locale TO5, Italy)</p>
12:00-12:20	<p>Antenna Radiation Efficiency Considerations in Body Area Networks, Sarrazin, Julien, Valerio Guido, Razafimahatratra Solofo, Casaletti Massimiliano (UPMC University (L2E), France), Sarrazin François (UPEMLV University (ESYCOM), France), Petrillo Luca, De Doncker Philippe (ULB University (OPERA), France), Benlarbi-Delai Aziz (UPMC University (L2E), France)</p>	<p>A Hybrid Localization Algorithm for Wearable Safety Devices, Sottile Francesco, Tovar Ordoñez Orlando, Kallias Emil, Pastrone Claudio (ISMB, Torino, Italy)</p>
12:30-14:00	Lunch Break	
	<p style="text-align: center;">Session Th. P. 1.1 (Room: 1)</p> <p style="text-align: center;">Special Track: (ST7) Sensors and Algorithms for Human Motion Analysis and Classification (SAHM)</p> <p>Organized by: Angelo Maria Sabatini (Scuola Superiore Sant'Anna, Italy) Rezaul Begg (Victoria University, Melbourne, Australia)</p> <p>Chairs: Angelo Maria Sabatini (Scuola Superiore Sant'Anna, Italy) Rezaul Begg (Victoria University, Melbourne, Australia)</p>	<p style="text-align: center;">Session Th. P. 1.2 (Room: 2)</p> <p style="text-align: center;">Special Track: (ST2) Body Area NanoNetworks: Electromagnetic, Materials and Communications (BANN-EMC)</p> <p>Organized by: Valeria Loscri (INRIA Lille-Nord Europe, France) Anna Maria Vegni (University of Roma Tre, Italy) Ildiko Peter (Politecnico di Torino, Italy) Ladislau Matekovits (Politecnico di Torino, Italy)</p> <p>Chairs: Luca Felicetti (University of Perugia, CNIT RU, Italy) TBD</p>
14:00-14:20	<p>Designing a Wearable Multi-sensor System for Smart Eating Detection, Cohen Eli, Stogin William (Northwestern University), Kalantarian Haik (UCLA), Alshurafa Nabil (Northwestern University)</p>	<p>Congestion Control for Biological Nanoscale Cyber-Physical Systems, (Invited), Luca Felicetti, Mauro Femminella, Gianluca Reali, (University of Perugia, CNIT RU, Italy)</p>
14:20-14:40	<p>Networked Human Motion Capture System Based on Quaternion Navigation, Jie Li, Zhe-long Wang, Hongyu Zhao, (Dalian University of Technology, China), Raffaele Gravina, Giancarlo Fortino, (University of Calabria, Rende, Italy)</p>	<p>Recent Advances in Body Area NanoNetworks: Electromagnetic, Materials and Communications, Loscri Valeria (Inria Lille - Nord Europe, FUN Team), Ladislau Matekovits, Ildiko Peter (Politecnico di Torino, Italy), Anna Maria Vegni (Roma Tre University, Italy)</p>
14:40-15:00	<p>The identification of multiple U-turns in gait: comparison of four trunk IMU-based methods, Bertoli Matilde (Università di Sassari, Italy), Cereatti Andrea (Politecnico di Torino, Italy), Trojaniello Diana (San Raffaele</p>	<p>Precise Detection and Treatment of Human Diseases Based on Nano Networking, Stelzner Marc, Lau Florian-Lennert (University of Lübeck, Germany), Freundt Katja (Research Center Borstel, Germany),</p>

	Scientific Institute, Italy), Ravaschio Andrea (Università di Genova, Italy), Della Croce Ugo (Università di Sassari, Italy)	Büther Florian, Nguyen Mai Linh (University of Lübeck, Germany), Stamme Cordula (Research Center Borstel, University of Lübeck, Germany), Ebers Sebastian (University of Lübeck, Germany)
15:00-15:20	Step counting for slow and intermittent ambulation based on a smartwatch accelerometer, Genovese, Vincenzo, Mannini, Andrea, Sabatini, Angelo Maria (The BioRobotics Institute, Scuola Superiore Sant'Anna)	Study of oxide coated Mg-based bio-substrate for therapeutic purpose, Éva Fazakas (Bay Zoltan Research Institute, Budapest, Hungary), Ildikó Péter, (Politecnico di Torino, Italy)
15:20-15:40	Impact of Random Body Movements on 60-GHz Doppler Radar for Real-Time Monitoring of Vital Signs, Valerio Guido, Zhang Ting, Sarrazin Julien (Sorbonne Universités, UPMC Univ Paris 06, France), Istrate, Dan (Université de Technologie de Compiègne, France)	Reduction of the mutual coupling between implanted microstrip antennas on a cylindrical biocompatible metallic ground plane, Jie Huang, Ildiko Peter, Ladislau Matekovits (Politecnico di Torino, Italy)
15:40-16:00	Afternoon Tea	
	Session Th. P. 2.1 (Room: 1) Motion recognition Chairs: TBD TBD	Session Th. P. 2.2 (Room: 2) Modelling Chairs: TBD TBD
16:00-16:20	A baseline walking dataset exploiting accelerometer and gyroscope for fall prediction and prevention systems, Hemmatpour Masoud, Ferrero Renato, Montrucchio Bartolomeo, Rebaudengo Maurizio (Politecnico di Torino, Italy)	Analytical Modelling of Near-Field Coupling Communication between Persons Equipped with Wearable Terminals through Handshaking, Takeuchi Ryo, Hasegawa Shin, Kado Yuichi (Kyoto Institute of Technology, Japan), Ayuzawa, Shinagawa Mitsuru (Hosei University, Japan), Ohashi Kyoji, Saito Daisuke (Nippon Signal Company, Japan)
16:20-16:40	Eigenwalk: a Novel Feature for Walk Classification and Fall Prediction, Hemmatpour Masoud, Ferrero Renato, Montrucchio Bartolomeo, Rebaudengo Maurizio (Politecnico di Torino, Italy)	Fitness Trackers and Wearable Devices: how to Prevent Inference Risks? Torre Ilaria, Koceva Frosina, Sanchez Odnan Ref, Adorni Giovanni (University of Genova, Italy)
16:40-17:00	Food Watch: Detecting and Characterizing Eating Episodes through Feeding Gestures, Zhang Shibo, Alharbi Rawan, Pourhomayoun Mohmmad (UCLA, USA), Alshurafa Nabil (Northwestern University, USA)	Design and Calibration of a 60-GHz Personal Exposimeter for Exposure Assessment in Specular and Diffuse Environments, Aminzadeh Rezak, Thielens Arno(Ghent University/iMinds, Belgium), Khadir Fall Abdou (Institute of Electronics and Telecommunications of Rennes (IETR), INSA, France), Li Haolin (Ghent University/iMinds, Belgium), Leduc Carole, Zhadobov Maxim (Institute of Electronics and Telecommunications of Rennes (IETR),

		France), Torfs Guy, Bauwelinck Johan, Martens Luc, Joseph Wout (Ghent University/iMinds, Belgium)
17:00-17:20	From Activity Recognition to Motion Assessment: Delimitate against the Other Class within a WBAN, Seiffert Martin (Freie Universität Berlin, Germany), Holstein Flavio (Technical University of Berlin, Germany), Schiller Jochen (Freie Universität Berlin, Germany)	On the Optimum Data Carrier for Intra-body Communication Applications, Khorshid Ahmed E., Eltawil Ahmed M., Kurdahi Fadi (UCI, USA)
17:20-17:40	Activity Level Assessment of Wheelchair Users Using Smart Cushion, Ma Congcong (Wuhan University of Technology, China), Gravina Raffaele (University of Calabria, Italy), Li Wenfeng, Zhang Yu (Wuhan University of Technology, China), Li Qimeng, Fortino Giancarlo (University of Calabria, Italy)	ST 8: Optimum Receiver Location for Ultra Wideband In-Body Communication Based on Channel Capacity Calculation, Brumm Jan-Christoph, Bauch Gerhard (Hamburg University of Technology, Germany)
17:40-18:00	Secure Monitoring of the Patients with Wandering Behaviour, Tupakula Udaya, Varadharajan Vijay, Karmakar Kallol (Macquarie University, Sydney, Australia)	Evaluating Human Activity-Based Ambient Lighting Displays for Effective Peripheral Communication, Davis Kadian, Owusu Evans (Independent Researcher), Marcenaro Lucio (University of Genova, Italy), Hu Jun (Eindhoven University of Technology, The Netherlands), Regazzoni Carlo (University of Genova, Italy), Feijs Loe (Eindhoven University of Technology, The Netherlands)

19:30	Gala Dinner
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Friday, Dec. 16, 2016

8:30-9:00	Registration	
9:00-9:15	Welcome message from the Organizing Committee (MobilWare) (Room: 1)	
9:15 - 10:15	Opening Keynote - MobilWare: (Room: 1) Monitoring Big, Distributed, Streaming Data Assaf Schuster	
10:15-10:40	Morning Tea	
	Session Fr. A. 1.1 (Room: 1) Energy harvesting // Heart failure Chairs: TBD TBD	Session I (MobilWare) (Room: 2) Intelligent Mobile Services Chairs: TBD TBD
10:40-11:00	Optimum Thermoelectric Energy Harvesting for Wearable System Applications, Alshehhi Rashid Abdulla, Arefin Md Shamsul, Wu Taiyang, Yuce, Mehmet Rasit (Monash University, Australia)	SWAN-Lake: Opportunistic Distributed Sensing for Android Smartphones, Nicolae Vladimir Bozdog, Roshan Bharath Das, Aart van Halteren, Henri Bal (Vrije Universiteit Amsterdam, The Netherlands)
11:00-11:20	Performance Analysis of IEEE 802.15.6 MAC Protocol in WBAN with Energy Harvesting Nodes, Yun Fan, Liu Bin, Zou Lei (University of Science and Technology of China), Chen Chang Wen (State University of New York, University at Buffalo, USA)	Smart Cane System: Direction Guidance System for the Blind using GS1 and EPCIS System, Soonil Lim, (Samsung Electronics / KAIST, Korea), Hongkeun Yu, Sanha Kang (LG Electronics / KAIST, Korea), Daeyoung Kim (KAIST, Korea)
11:20-11:40	A Solar Energy Harvester with an Improved MPPT Circuit for Wearable IoT Applications, Wu Taiyang, Arefin MD Shamsul, Redoute Jean-Michel, Yuce Mehmet Rasit (Monash University, Australia)	FaceDate: A Mobile Cloud Computing App for People Matching, Pradyumna Neog, Hillol Debnath, Jianchen Shan, Nafize Paiker, Narain Gehani, Reza Curtmola, Xiaoning Ding, Cristian Borcea (New Jersey Institute of Technology, USA)
11:40-12:00	Automatic Tinetti test for stroke rehabilitation, Pagana Guido, Bazzani Marco (Istituto Superiore Mario Boella, Torino, Italy), Demarchi Danilo (Politecnico di Torino, Italy), Sanginario Alessandro (Istituto Italiano Tecnologia, Torino, Italy)	Direct and Indirect Access in Machine Type Communications: An Analytical Approach, Panagiotis Sarigiannidis (Aristotle University of Thessaloniki, Greece)
12:00-12:20	Why Do We Need a Remote Health Monitoring System? A Case Study for Congestive Heart Failure Patients, Pourhomayoun Mohammad (UCLA, USA), Dabiri Foad, Ardestani Ehsan, Samiee Ahsan (WANDA Inc., USA), Ghasemzadeh Hassan (Washington State University, USA), Sarrafzadeh Majid (UCLA, USA)	

12:20-12:30	Closing remarks – BodyNets	
12:30-14:00	Lunch Break	
14:00-15:00	Keynote 2 - MobilWare: (Room: 1) Mobility Coordination in Urban-scale Socio-Technical Systems Franco Zambonelli	
15:00-15:20	Afternoon Tea	
		Session II (MobilWare) (Room: 2) Wireless and Mobile Networking Chairs: TBD TBD
15:20-15:40		Mobility Management and Delay Cost Analysis in SDNized WLAN, Manzoor Ahmed Khan, Patrick Ahmed Engelhard (DAI Labor Technische Universität Berlin, Germany), Tobias Dörsch (GT-ARC gemeinnützige GmbH, Germany)
15:40-16:00		Multi-frame Transfer for Data Dissemination in LTE Device-to-Device Proximity Discovery, Paolo Bellavista, Jacopo De Benedetto (University of Bologna, Italy)
16:00-16:20		Scalability of Kura-extended Gateways via MQTT-CoAP Integration and Hierarchical Optimizations, Paolo Bellavista, Alessandro Zanni, (University of Bologna, Italy)
16:20-16:30		Closing remarks – MobilWare