

IV training school of the COST 1301 – WIPE

Electromagnetics and emerging technologies for pervasive applications: Internet of Things, Health and Safety



Organizers: Prof. Alessandra Costanzo, Prof. Diego Masotti

COST



Welcome to Bologna!



“Asinelli and Garisenda Towers”



“The Oldest University”



“Anatomic School-Room”



“The Little Venice”



“Excellent Food”



“Neptune Statue”

Aim of the school

New emerging technologies related to pervasive exploitation of Wireless Power transfer (WPT) and Energy Harvesting (EH).

ADVANCED SOLUTIONS FOR:

- passive and active localization;
- smart WPT;
- Wearable, stretchable and epidermal electronics;
- home-assisted living;
- implantable devices.

LINK FOR LECTURES DOWNLOAD:

<http://www.dei.unibo.it/en/research/groups/em-fields-and-antennas/school-2016>

Opening

Welcome addresses:

Prof. Enrico Sangiorgi

Vice Rector of the Alma Mater Studiorum, University of Bologna
for Teaching and Education

Prof. Gabriele Falciasecca

President of Fondazione Guglielmo Marconi



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Day	Schedule	Title	Speaker	Affiliation
Monday	10:00 – 10:45	Registration		
	10:45 – 11:00	Welcome	E. Sangiorgi -Vice Rector for Teaching and Education- & A. Costanzo -School Co-Chair-	University of Bologna (Italy)
	11:00 -12:00	Passive Wireless Sensor Networks – Combining backscatter communications with WPT	N.B. Carvalho	University of Aveiro (Portugal)
	12:00 – 13:00	Novel antenna design paradigms for the Internet of Things	H. Rogier	Ghent University (Belgium)
	13:00 – 14:00	Lunch		
	14:00 – 15:00	The driving force of IoT for the development of electronic technologies	L. Roselli	Univesity of Perugia (Italy)
	15:00 – 16:30	Chipless RFID, State of the art & current Developments	S. Tedjini	LCIS lab - Université Grenoble Alpes (France)
	16:30 – 17:30	Near-field focused antennas for wireless communications and power transfer	P. Nepa	University of Pisa (Italy)



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Day	Schedule	Title	Speaker	Affiliation
Tuesday	8:30 – 9:30	Substrate Integrated Waveguide (SIW) Components on Paper, Textile, and 3D-Printed Substrates for the Internet of Things	M. Bozzi	University of Pavia (Italy)
	9:30 – 10:30	Radiative and non-radiative Wireless Power Transfer: theory and applications	G. Monti	University of Salento (Italy)
	10:30 – 11:00	<i>Coffee Break</i>		
	11:00 – 12:00	Operating regimes for single and multiple wireless power transfer links	M. Mongiardo	University of Perugia (Italy)
	12:00 – 13:00	Implantable Wireless Medical Devices and Systems	J.C. Chiao	University of Texas at Arlington (USA)
	13:00 – 14:00	<i>Lunch</i>		
	14:00 – 15:00	Flexible, organic photonic sensor system for a large spectrum of portable applications: from health to security	B. Fraboni	University of Bologna (Italy)
	15:00 – 16:00	Inverter and Rectifier Design for Inductive Power Transfer	P.D. Mitcheson	Imperial College London (UK)
	16:00 – 17:00	Your home as doctor: Smart homes enable medical diagnosis	D. Schreurs	KU Leuven (Belgium)
	EVENING	<i>Social Event</i>		

School dinner

Tuesday April 19, 2016 Corte Isolani 5 , 40125 BO



*In Bologna,
in Piazza Santo Stefano,*
Palazzo Isolani is at the
entrance to the almost
theatrical backdrop of
buildings ranging between
the XV- and the sober but
sumptuous Bolognese
Baroque XVIII-century,



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Wednesday	8:30 – 9:30	Beyond incremental research: the science of creative thinking	G. E. Corazza	Marconi Institute for Creativity – University of Bologna (Italy)
	9:30 – 10:30	Radiative Wireless Power Transfer at Holst Centre / imec and TU/e: past, presence and future	H. Visser	Technische Universiteit Eindhoven (The Netherlands)
	10:30 – 11:00	Coffee Break		
	11:00 – 12:00	RFID Technology for IoT-based Personal Healthcare in Smart Spaces	G. Marrocco	Roma Tor Vergata University (Italy)
	12:00 – 13:00	EM Positioning for IoT	F. Viani	ELEDIA – University of Trento (Italy)
	13:00 – 14:30	Lunch		
	14:30 – 15:30	Ultra-wideband Backscatter Signaling for Zero-power Radio Identification and Positioning	D. Dardari	Univesity of Bologna (Italy)
	15:30 – 16:30	Leaky-wave antenna design for analog-signal-processing oriented devices for WPT, Energy Harvesting, Smart Cities and IoT devices	J. L. G. Tornero	Technical University of Cartagena (Spain)
	16:30 – 17:30	Intentional Wireless Power Transmission via Time-modulated Arrays	D. Masotti	University of Bologna (Italy)
	17:30 – 18:30	Marconi's Museum Visit		