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(BioWireleSS 2015)

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TU1D: Wireless Remote Sensing of Biosignals

Chair: Mohamed Tofighi, Pennsylvania State University — Co-Chair: Aly Fathy, University of Tennessee

Venue: Gallery 2, 08:00 – 09:40, Tuesday 27 January 2015

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A Wearable System for Highly Selective L-Glutamate Neurotransmitter Sensing
([Cuong M. Nguyen](#), [Jeffrey Mays](#), [Hung Cao](#), [Haydn Allard](#), [Smitha Rao](#), [J.-C. Chiao](#))

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Body-Worn Fully-Passive Wireless Analog Sensors for Biopotential Measurement Through Load Modulation
([Sergi Consul-Pacareu](#), [David Arellano](#), [Bashir I. Morshed](#))

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A Low Power Wireless Apnea Detection System Based on Pyroelectric Sensor
([Ifana Mahbub](#), [Md. Sakib Hasan](#), [Salvatore A. Pullano](#), [Farhan Quaiyum](#), [Christopher P. Stephens](#), [Syed K. Islam](#), [Antonino S. Fiorillo](#), [Mark S. Gaylord](#), [Vichien Lorch](#), [Natalie Beitel](#))

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Feasibility of Patterned Vertical CNT for Dry Electrode Sensing of Physiological Parameters
([Mohammad Abu-Saude](#), [Sergi Consul-Pacareu](#), [Bashir I. Morshed](#))

TU3D : Remote Patient Monitoring and Energy Scavenging

Chair: Syed Kamrul Islam, University of Tennessee — Co-Chair: Victor Lubecke, University of Hawaii

Venue: Gallery 2, 13:30 - 14:50, Tuesday 27 January 2015

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Noncontact Heartbeat Detection Using UWB Impulse Doppler Radar

(Lingyun Ren, Yun Seo Koo, Yazhou Wang, Aly E. Fathy)

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Signal Processing Techniques for Vital Sign Monitoring Using Mobile Short Range Doppler Radar

(Ashikur Rahman, Ehsan Yavari, Xiaomeng Gao, Victor Lubecke, Olga Boric-Lubecke)

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A Low-Input-Voltage Wireless Power Transfer for Biomedical Implants

(Hao Jiang, Kangjun Bai, Weijie Zhu, Di Lan, Junmin Zhang, Jing Wang, Ming Shen, Richard Fechter, Michael Harrison, Shuvo Roy)

TU5D : Wireless BAN and Medical Imaging

Chair: Changzhi Li, Texas Tech University — Co-Chair: Arnaud Pothier, XLIM

Venue: Gallery 2, 16:00 - 17:20, Tuesday 27 January 2015

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Fiber Antenna for Wireless Body Area Networks

(Tooraj Nikoubin, Murari Garipally, Thien-An Nguyen, Zheng Wang, Saed Mohammad, Changzhi Li)

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Performance of a Radiation Pattern Steering On-Body Gateway Antenna for On-Body and Off-Body Propagation

(Sema Dumanli)

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Dual Thermal Time Constant Electrothermal Modeling of PIN Diode Protection Circuits

(Robert H. Caverly)

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Reconfigurable Analog-to-Digital Converter for Implantable Bioimpedance Monitoring

(Terence C. Randall, Ifana Mahbub, Syed K. Islam)

WE1D: Micro Biosensing

Chair: Dietmar Kissinger, IHP GmbH — Co-Chair: JC Chiao, University of Texas Arlington

Venue: Gallery 2, 08:00 – 09:20, Wednesday 28 January 2015

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Why Using High Frequency Dielectric Spectroscopy for Biological Analytics? (*Invited Paper*)

(Mary Poupot, David Dubuc, F. Artis, Katia Grenier, Jean-Jacques Fournié)

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Broadband Dielectric Characterization of CHO-K1 Cells Using Miniaturized Transmission-Line Sensor

(Nora Meyne, Grischu Fuge, Suhith Hemanth, Hoc Khiem Trieu, An-Ping Zeng, Arne F. Jacob)

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A Microwave Sensor Dedicated to Dielectric Spectroscopy of Nanoliter Volumes of Liquids Medium and Flowing Particles

(A. Landoulsi, C. Dalmay, A. Bessaudou, P. Blondy, A. Pothier)

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Sub-Microliter Microwave Dielectric Spectroscopy for Identification and Quantification of Carbohydrates in Aqueous Solution

(F. Artis, David Dubuc, Jean-Jacques Fournié, Mary Poupot, Katia Grenier)

WE2D: Microwaves Interaction with Biological Materials

Chair: JC Chiao, University of Texas Arlington — Co-Chair: Pinshan Wang, Clemson University

Venue: Gallery 2, 10:10 – 11:50, Wednesday 28 January 2015

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PAGE 51 WE2D-2	A Permittivity Sensitive PLL Based on a Silicon-Integrated Capacitive Sensor for Microwave Biosensing Applications (<i>J. Nehring, M. Bartels, Robert Weigel, D. Kissinger</i>)
PAGE 54 WE2D-3	Non-Contact Measurement of Complex Permittivity Based on Coupled Magnetic and Electric Resonances (<i>Jing Dong, Fazhong Shen, Jiangtao Huangfu, Shan Qiao, Changzhi Li, Lixin Ran</i>)
PAGE 57 WE2D-4	Design and Evaluation of Electrode for Dielectrophoretic Characterization of Blood Cells (<i>Masanori Eguchi, Futoshi Kuroki, Hiroko Imasato, Takeshi Yamakawa</i>)

WE3P: Joint RWW Interactive Poster Session: Transceivers and Front-end Technologies SOC and SiP

Chair: Yupeng Jia, National Instruments

Venue: Grand Salon CDE, 12:50 – 14:40, Wednesday 28 January 2015

PAGE 60 WE3P-11	Noninvasive Continuous Mobile Blood Pressure Monitoring Using Novel PPG Optical Sensor (<i>Vahram Mouradian, Armen Poghosyan, Levon Hovhannisyan</i>)
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