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{1}Sapporo City University, Japan; {2}University of Moratuwa , Sri Lanka

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{1}Italian National Agency for New Technologies, Energy and Sustainable Economic Development, Italy; {2}Technische Universiteit Delft, Netherlands

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Gijs Krijnen, University of Twente

1:00 PM - 3:00 PM
B3P-Q: Focused Session Posters: Wearable Sensors for Monitoring Human Body Physiological Parameters
LOCATION: Poster Area
SESSION CHAIR:
Rong Zhu, Tsinghua University

1:00 PM - 3:00 PM
B3P-R: Biomedical Interfaces
LOCATION: Poster Area
SESSION CHAIR:
Darrin Young, University of Utah

1:00 PM - 3:00 PM
B3P-T: Focused Session Posters: Low-Power Sensors & Power Conditioning
LOCATION: Poster Area
SESSION CHAIR:
Francesco Orfei, University of Perugia

3:30 PM - 5:00 PM
B4L-A: Physical Sensors II: Crystalline & CMOS Sensors
LOCATION: Curacao 1-2
SESSION CHAIRS:
Hua Wang, Georgia Institute of Technology
Vikrant Gokhale, University of Michigan

3:30 PM - 5:00 PM
B4L-B: Ultrasound Sensors
LOCATION: Curacao 3-4
SESSION CHAIRS:
Matteo Rinaldi, Northeastern University
Songbin Gong, UIUC

3:30 PM - 5:00 PM
B4L-C: Optical Physical Sensors I
LOCATION: Curacao 5-6
SESSION CHAIRS:
Reza Ghodssi, University of Maryland
Long Que, Iowa State University

3:30 PM - 5:00 PM
B4L-D: Medical Sensing Applications
LOCATION: Curacao 7-8
SESSION CHAIRS:
Robert Roberts, University of Hong Kong
Gerald Gerlach, Institut fuer Festkoerperelektronik, Technische Universitaet Dresden

3:00 PM - 5:00 PM
B4L-E: Focused Session: Resonators
LOCATION: Bonaire 1-2
SESSION CHAIRS:
Peter Hesketh, Georgia Institute of Technology
Oliver Brand, Georgia Institute of Technology

3:30
INVITED: SUBSTRATE-DECOUPLED 3D MICRO-SHELL RESONATORS ***1120***
Vahid Tavassoli, Benoit Hamelin, Farrokh Ayazi
Georgia Institute of Technology, United States

4:00
PROBING ANCHOR LOSSES IN ALN-ON-SI CONTOUR MODE MEMS RESONATORS THROUGH LASER DOPPLER VIBROMETRY ***1123***
Cheng Tu{1}, Joshua En-Yuan Lee{1}, Astrid Frank{2}, Christoph Schäffel{2}, Uwe Stehr{3}, Matthias Hein{3}
{1}City University of Hong Kong, Hong Kong; {2}Institut für Mikroelektronik- und Mechatronik-Systeme gemeinnützige GmbH, Germany; {3}Technische Universität Ilmenau, Germany

4:15
AN ALN-ON-SI RESONANT IR SENSOR ARRAY WITH A LARGE TEMPERATURE COEFFICIENT OF FREQUENCY ***1126***
Milad Moosavifar, Azadeh Ansari, Mina Rais-Zadeh
University of Michigan, United States

4:30
MICROWAVE RESONATOR SENSOR INTEGRATED WITH NANOSTRUCTURED SEMICONDUCTOR MEMBRANES FOR PHOTODETECTION AND CARRIER LIFETIME MEASUREMENT ***1129***
Najia Mahdi, Ryan Kisslinger, Himani Sharma, Mohammad Hossein Zarifi, Mojgan Daneshmand, Karthik Shankar
University of Alberta, Canada

4:45
ANALYSIS OF THICKNESS AND QUALITY FACTOR OF A DOUBLE PADDLE OSCILLATOR AT ROOM TEMPERATURE ***1132***
Hamza Shakeel{1}, Thomas Metcalf{2}, Josh Pomeroy{1}
{1}National Institute of Standards and Technology, United States; {2}Naval Research Laboratory, United States

3:30 PM - 5:00 PM
B4L-F: Chemical & Gas Sensing from Fabrication to Application
LOCATION: Bonaire 3-4
SESSION CHAIRS:
Kourosh Kalantarzadeh, RMIT University
Omer Oralkan, North Carolina State University

3:30
AMPLIFIED CHEMOMECHANICAL COMB GAS SENSOR ***1135***
Rugved Likhite, Shashank S Pandey, Aishwaryadev Banerjee, Hanseup Kim, Carlos H Mastrangelo
University of Utah, United States

3:45
DEVELOPMENT OF A PRINTED IMPEDANCE BASED ELECTROCHEMICAL SENSOR ON PAPER SUBSTRATE ***1138***
Dinesh Maddipatla, Binu Narakathu, Bradley Bazuin, Massood Zandi Atashbar
Western Michigan University, United States

4:00
ROOM TEMPERATURE SENSING OF VOCS BY ATOMIC LAYER DEPOSITION OF METAL OXIDE ***1141***
Akhilesh Tanneeru, Steven Mills, Michael Lim, Marzana Mantasha Mahmud, James Dieffenderfer, Alper Bozkurt, Troy Nagle, Bongmook Lee, Veena Misra
North Carolina State University, United States

4:15
ROOM TEMPERATURE IONIC LIQUID ELECTROCHEMICAL GAS SENSOR FOR RAPID OXYGEN DETECTION WITH TRANSIENT DOUBLE POTENTIAL AMPEROMETRY ***1144***
Hao Wan, Heyu Yin, Andrew Mason
Michigan State University, United States

4:30
CARBON DIOXIDE SENSOR FOR MOBILE DEVICES: A NOVEL APPROACH FOR LOW-POWER CONSUMING, HIGHLY SENSITIVE NDIR SENSORS ***1147***
Louisa Scholz, Alvaro Ortiz Perez, Benedikt Bierer, Ponkanok Eaksen, Jürgen Wöllenstein, Stefan Palzer
Albert-Ludwigs-Universität Freiburg, Germany

4:45
TOWARDS A NOVEL OPTICAL TRACE OXYGEN SENSOR FOR COMMERICAL USE ***1150***
Gary McDowell{1}, Francesca Farrow{1}, Mahesh Uttamlal{1}, Sheila Holmes-Smith{1}, Craig Mitchell{2}, Patrick Shannon{2}
{1}Glasgow Caledonian University, United Kingdom; {2}SST Sensing Ltd, United Kingdom

11:00 AM - 12:30 PM
C2L-A: Physical Sensors III: Magnetometers & Inertial Sensors
LOCATION: Curacao 1-2
SESSION CHAIRS:
Qing-An Huang, Southeast University
Philip Feng, Case Western Reserve University

11:00 AM - 12:30 PM
C2L-B: Biomedical Sensors
LOCATION: Curacao 3-4
SESSION CHAIRS:
Ryuji Yokokawa, Kyoto University
Giuseppe Barillaro, Università di Pisa

11:00
INVITED: CAVITAS SENSORS AND SNIFF-CAM FOR BIOMONITORING: SOFT CONTACT LENS & MOUTHGUARD SENSORS, OPTICAL BIO-SNIFFING OF HUMAN VOCS ***1171***
Kohji Mitsubayashi
Tokyo Medical and Dental University, Japan

11:30
ELECTROCHEMICAL DETECTION OF A NOVEL THERAPEUTIC COMPOUND FOR SCHIZOPHRENIA ... ***1174***
Tugba Kilic{1}, Sandro Carrara{1}, Valerie Brunner{2}, Laurent Audoly{2}
{1}École Polytechnique Fédérale de Lausanne, Switzerland; {2}Laboratoires Pierre Fabre, France

11:45
SELF-POWERED GLUCOSE BIOSENSOR OPERATING UNDER PHYSIOLOGICAL CONDITIONS ***1177***
Tanmay Kulkarni, Gymama Slaughter
University of Maryland, Baltimore County, United States

12:00
DETECTION OF ROTAVIRUS IN CLINICAL SPECIMENS USING AN IMMUNOSENSOR BASED ON THE PRINCIPLE OF FLUORESCENCE FLUCTUATION SPECTROSCOPY ***1180***
Makoto Hasegawa{1}, Yuka Inoue{1}, Nanami Kimura{1}, Ernest Wandera{2}, Yoshio Ichinose{2}
{1}Nagahama Institute of Bioscience and Technology, Japan; {2}Nagasaki University, Japan

12:15
STUDIES OF CELL BEHAVIORS IN 3D MICROTISSUES IN A MICROFLUIDIC DEVICE: GROWTH AND MIGRATION ***1183***
Xiangchen Che, Shenmin Gong, Long Que, Jacob Nuhn, Ian Schneider
Iowa State University, United States

11:00 AM - 12:30 PM
C2L-C: Machine Olfaction for Environmental Monitoring
LOCATION: Curacao 5-6
SESSION CHAIRS:
Troy Nagle, North Carolina State University
Susan Schiffman, North Carolina State University

11:00
INVITED: SMART SENSORS FOR AIR QUALITY MONITORING: CONCEPTS AND NEW DEVELOPMENTS ***1186***
Jan Mitrovics
JLM Innovation GmbH, Germany

11:30
A NOVEL MICROPUMP DRIVER USED IN ENVIRONMENTAL SENSOR APPLICATIONS ***1188***
Bernadette Kinzel{1}, Detlef Bonfert{1}, Florian Lippert{1}, Frank Vanselow{1}, Erkan Isa{1}, Doris Schmitt-Landsiedel{2}, Linus Maurer{3}
{1}Fraunhofer-Einrichtung für Mikrosysteme und Festkörper , Germany; {2}Fraunhofer-Einrichtung für Mikrosysteme und Festkörper / Technische Universität München, Germany; {3}Fraunhofer-Einrichtung für Mikrosysteme und Festkörper / Universität der Bundesw

11:45
A BATTERY-OPERATED WIRELESS MULTICHANNEL GAS SENSOR SYSTEM BASED ON A CAPACITIVE MICROMACHINED ULTRASONIC TRANSDUCER (CMUT) ARRAY ***1191***
Chunkyun Seok, Marzana Mantasha Mahmud, Oluwafemi Adelegan, Xiao Zhang, Omer Oralkan
North Carolina State University, United States

12:00
DUAL CHANNEL MICROCANTILEVER HEATERS FOR SELECTIVE DETECTION AND QUANTIFICATION OF A GENERIC MIXTURE OF VOLATILE ORGANIC COMPOUNDS ***1194***
Ifat Jahangir{2}, Goutam Koley{1}
{1}Clemson University, United Kingdom; {2}University of South Carolina, United States

12:15
UV EXCITED SNO2 NANOWIRE BASED PRINTED E-NOSE: POTENTIAL APPLICATION AS BURNING SMELL DETECTOR AND EXPLOSIVE DETECTOR ***1197***
Mustahsin Adib, Martin Sommer
Karlsruher Institut für Technologie, Germany

11:00 AM - 12:30 PM
C2L-D: Electromagnetic Based Sensing Applications
LOCATION: Curacao 7-8
SESSION CHAIRS:
Gijs Krijnen, University of Twente
Cameron Riviere, The Robotics Insitute, Carnegie Mellon University

11:00 AM - 12:30 PM
C2L-E: Sensor Network, Method & Evaluation
LOCATION: Bonaire 1-2
SESSION CHAIRS:
Huseyin Ugur Yildiz, TED University
Jian Lu, AIST

11:00
PRECISE SYNCHRONIZATION TIME STAMP GENERATION FOR BLUETOOTH LOW ENERGY ***1218***
Carl Christian Rheinländer, Norbert Wehn
Technische Universität Kaiserslautern, Germany

11:15
SIMULTANEOUS SENSOR LOCALIZATION VIA SYNTHETIC APERTURE RADAR (SAR) IMAGING ***1221***
Xiaojie Fu, Andreas Pedross-Engel, Daniel Arnitz, Matthew Reynolds
University of Washington, United States

11:30
SOFTWARE-DEFINED QOS PROVISIONING FOR FOG COMPUTING ADVANCED WIRELESS SENSOR NETWORKS ***1224***
Lina Huang{1}, Gaolei Li{1}, Jun Wu{1}, Lan Li{1}, Jianhua Li{1}, Rosario Morello{2}
{1}Shanghai Jiao Tong University, China; {2}Università degli Studi Mediterranea di Reggio Calabria, Italy

11:45
DISTRIBUTED DETECTION OF CRITICAL NODES IN WIRELESS SENSOR NETWORKS USING CONNECTED DOMINATING SET ***1227***
Orhan Dagdeviren{2}, Vahid Khalilpour Akram{2}, Bulent Tavli{4}, Huseyin Ugur Yildiz{3}, Can Atilgan{1}
{1}Dokuz Eylul University, Turkey; {2}Ege University, Turkey; {3}TED University, Turkey; {4}TOBB University of Economics and Technology, Turkey

12:00
POWER-AWARE CHANNEL-HOPPING MAC MECHANISMS FOR BATTERY-OPERATED MULTI-HOP NETWORKS ..... **N/A**
Arvind Kandhalu, Ariton Xhafa, Ramanuja Vedantham, Xiaolin Lu
Texas Instruments Incorporated, United States

12:15
MINIATURIZATION AND PACKAGING OF IMPLANTABLE WIRELESS SENSOR NODES FOR ANIMALS MONITORING ***1233***
Jian Lu{2}, Lan Zhang{2}, Sohei Matsumoto{2}, Hiroshi Hiroshima{2}, Kouichi Serizawa{4}, Masanori Hayase{3}, Takafumi Gotoh{1}
{1}Kyushu University, Japan; {2}National Institute of Advanced Industrial Science and Technology, Japan; {3}Tokyo University of Science, Japan; {4}Tokyo University of Science / National Institute of Advanced Industrial Science and Technology, Japan

11:00 AM - 12:30 PM
C2L-F: Focused Session: Energy Harvesting & Low-Power Sensors I
LOCATION: Bonaire 3-4
SESSION CHAIRS:
Zeynep Celik-Butler, University of Texas at Arlington
Yuji Suzuki, The University of Tokyo

11:00
INVITED: DESIGN OF METGLAS/POLYVINYLIDENE FLUORIDE MAGNETOELETRIC LAMINATES FOR ENERGY HARVESTING FROM POWER CORDS ***1236***
Myung-Eun Song{3}, Yongke Yan{3}, Sreenivasulu Gollapudi{3}, Mirza Bichurin{1}, Vladimir Petrov{1}, Mohan Sanghadasa{2}, Shashank Priya{3}
{1}Novgorod State University, Russia; {2}U.S. Army Research, Development and Engineering Command, United States; {3}Virginia Polytechnic Institute and State University, United States

11:30
MEMS COMB-DRIVE ELECTRET ENERGY HARVESTER CHARGED AFTER PACKAGING ***1239***
Seonwoo Kim, Yuji Suzuki
University of Tokyo, Japan

11:45
SELF-POWERED CMOS ACTIVE RECTIFIER SUITABLE FOR LOW-VOLTAGE MECHANICAL ENERGY HARVESTERS ***1242***
Abdalrahman Sayed Herbawi, Fabio Velarde, Oliver Paul, Tzeno Galchev
Albert-Ludwigs-Universität Freiburg, Germany

12:00
DESIGN AND OPTIMIZATION OF AN ELECTROSTATIC ENERGY SCAVENGER FOR LOW POWER ELECTRONICS ***1245***
Shaikh Md Rubayiat Tousif, Donald Butler, Zeynep Çelik-Butler
University of Texas at Arlington, United States

12:15
EMBEDDED ELASTIC WAVE MIRRORS FOR ENHANCED ENERGY HARVESTING ..... ***N/A***
Serife Tol, Fahad Vora, Levent Degertekin, Alper Erturk
Georgia Institute of Technology, United States

1:30 PM - 3:30 PM
C3P-G: Sensor Phenomenon, Modeling, & Evaluation III: Sensors & Applications
LOCATION: Poster Area
SESSION CHAIR:
Stefan Rupitsch, Friedrich-Alexander-Universität

1:30 PM - 3:30 PM
C3P-H: New Materials Platforms & Nanostructures for Sensing
LOCATION: Poster Area
SESSION CHAIR:
Mohammad Zarifi, University of Manitoba

1:30 PM - 3:30 PM
C3P-J: Chemical Sensing
LOCATION: Poster Area
SESSION CHAIR: Susan Schiffman, NC State University

1:30 PM - 3:30 PM
C3P-K: Biosensors
LOCATION: Poster Area
SESSION CHAIR:
Chung-Yu Chang

1:30 PM - 3:30 PM
C3P-L: Acoustic & Ultrasound Sensors
LOCATION: Poster Area
SESSION CHAIR:
Vikrant Gokhale, NIST

1:30 PM - 3:30 PM
C3P-M: Physical Sensors VII: Mechanical, Force, Pressure
LOCATION: Poster Area
SESSION CHAIR:
Vikrant Gokhale, NIST

1:30 PM - 3:30 PM
C3P-N: Sensor Network, Applications
LOCATION: Poster Area
SESSION CHAIR:
Ryutaro Maeda, AIST

1:30 PM - 3:30 PM
C3P-O: Sensor Applications II
LOCATION: Poster Area
SESSION CHAIR:
Robert Roberts, University of Hong Kong

1:30 PM - 3:30 PM
C3P-P: Medical Sensing Applications II
LOCATION: Poster Area
SESSION CHAIR:
Christian Zorman, Case Western Reserve University

1:30 PM - 3:30 PM
C3P-Q: Focused Session Posters: Wearable Tactile/Pressure Sensors & Skin Monitoring
LOCATION: Poster Area
SESSION CHAIRS:
Mustafa Ilker Beyaz, Antalya International University
Hung Cao, University of Washington

1:30 PM - 3:30 PM
C3P-R: Wired & Wireless Sensor Systems
LOCATION: Poster Area
SESSION CHAIR:
Shad Roundy, University of Utah

1:30 PM - 3:30 PM
C3P-S: Focused Session Posters: Resonators
LOCATION: Poster Area
SESSION CHAIR:
Vikrant Gokhale, University of Michigan

1:30 PM - 3:30 PM
C3P-T: Focused Session Posters: MEMS Energy Harvesting & Devices
LOCATION: Poster Area
SESSION CHAIR:
Qian Zhang, Analog Devices, Inc.

4:00 PM - 5:30 PM
C4L-A: Physical Sensors IV: Mechanical & Thermal Sensors
LOCATION: Curacao 1-2
SESSION CHAIRS:
Roman Beigelbeck, Krems University
Bernard Jakoby, Johannes Kepler University Linz, Austria

4:00
DEVELOPING A PASSIVE DC CURRENT SENSOR ***1631***
Huan Liu{1}, Dingkang Wang{2}, Dong F. Wang{1}
{1}Jilin University, China; {2}University of Florida, United States

4:15
MICROPLASMA DRAWING OF THERMOCOUPLE SENSORS ***1634***
Ahmed M. Abdul-Wahed, Anindya Roy, Kenichi Takahata
University of British Columbia, Canada

4:30
FLUORESCENCE-BASED TEMPERATURE SENSOR FOR IN-SITU IMAGING LOCAL TEMPERATURE OF ALUMINUM NANOPARTICLES ON PLASMONIC GRATINGS ***1637***
Biyan Chen, Haisheng Zheng, Junsang Yoon, Sangho Bok, Cherian Mathai, Keshab Gangopadhyay, Shubhra Gangopadhyay, Matthew R. Maschmann
University of Missouri, United States

4:45
CHARACTERIZATION OF PIEZORESISTIVE AND ELECTROTHERMAL SENSORS IN MEMS DEVICES ***1640***
Mohammad Maroufi, S. O. Reza Moheimani
University of Texas at Dallas, United States

5:00
TOWARDS A TRI-AXIAL FLEXIBLE FORCE SENSOR FOR CATHETER CONTACT FORCE MEASUREMENT ***1643***
Hardik Pandya{1}, Jun Sheng{2}, Jaydev Desai{2}
{1}Brigham and Women's Hospital / Harvard Medical School, United States; {2}Georgia Institute of Technology, United States

5:15
GRAPHENE OXIDE BASED SENSOR WITH DIFFERENTIAL STRUCTURE FOR HUMIDITY AND TEMPERATURE DETECTION ***1646***
Xiaohui Leng, Xingwei Chen, Fei Wang
South University of Science and Technology of China, China

4:00 PM - 5:30 PM
C4L-B: Physical Biosensors & Fluidics
LOCATION: Curacao 3-4
SESSION CHAIRS:
Paddy French, TU Delft
Michael Vellekoop, University of Bremen

4:00
A HIGHLY INTEGRATABLE MICROFLUIDIC BIOSENSING CHIP BASED ON MAGNETOELASTIC-SENSOR AND PLANAR COIL ***1649***
Qiushi Jiang{1}, Ping Chen{1}, Suiqiong Li{1}, Heming Zhao{1}, Yuzhe Liu{2}, Shin Horikawa{2}, Bryan Chin{2}
{1}Soochow University, China, {2}Auburn University, United States

4:15
SENSITIVITY ENHANCEMENT OF SPLIT RING RESONATOR BASED LIQUID SENSORS ***1652***
Mohammad Abdolrazzaghi, Mohammad Hossein Zarifi, Mojgan Daneshmand
University of Alberta, Canada

4:30
A NOVEL SCREENING PLATFORM FOR ELECTROMICROBIOLOGY: A 3-D PAPER-BASED SENSING ARRAY WITH CONDUCTIVE PEDOT:PSS ***1655***
Yang Gao{1}, Maedeh Mohammadifar{1}, Daniel Hassett{2}, Seokheun Choi{1}
{1}State University of New York at Binghamton, United States; {2}University of Cincinnati College of Medicine, United States

4:45
RAPID DETECTION OF THEOPHYLLINE USING APTAMER-BASED NANOPORE THIN FILM SENSOR ***1658***
Silu Feng, Xiangchen Che, Long Que, Changtian Chen, Wei Wang
Iowa State University, United States

5:00
AN AUTOMATED MICROFLUIDIC ASSAY FOR THE DETECTION OF CANCER BIOMARKERS IN SERUM USING PHOTONIC CRYSTAL ENHANCED FLUORESCENCE ***1661***
Lydia Kwon, Caitlin Race, Myles Foreman, Brian T. Cunningham
University of Illinois at Urbana–Champaign, United States

5:15
ACHIEVING UNIFORMITY AND REPRODUCIBILITY FOR PHOTONIC CRYSTAL FLUORESCENCE ENHANCED DISEASE DIAGNOSTIC MICROARRAYS ***1664***
Caitlin Race, Lydia Kwon, Brian T. Cunningham
University of Illinois at Urbana–Champaign, United States

4:00 PM - 5:30 PM
C4L-C: Wireless Sensors & Interfaces
LOCATION: Curacao 5-6
SESSION CHAIRS:
Mehdi Kiani, Penn State University
Ryutaro Maeda, AIST

4:00
INVITED: WIRELESS HYDROGEL-BASED GLUCOSE SENSOR FOR FUTURE IMPLANTABLE APPLICATIONS ***1667***
Yuechuan Yu, Tram Nguyen, Prashant Tathireddy, Darrin Young, Shad Roundy
University of Utah, United States

4:30
SELF-POWERED AND TRANSPARENT ALL-GRAPHENE BIOSENSOR ***1670***
Ali Shahini{2}, Mehdi Hajizadegan{2}, Maryam Sakhdari{2}, Mark Ming-Cheng Cheng{2}, Pai-Yen Chen{2}, Haiyu Huang{1}
{1}Maxim Integrated Inc., United States; {2}Wayne State University, United States

4:45
PASSIVELY-POWERED WIRELESS MICROMACHINED QUARTZ MAGNETOFLEXOELASTIC MAGNETOMETER ***1673***
Paul Nordeen{2}, Grergory P. Carman{2}, Eugene Freeman{1}, Gokhan Hatipoglu{1}, Srinivas Tadigadapa{1}
{1}Pennsylvania State University, United States; {2}University of California, Los Angeles, United States

5:00
AN EMBEDDED SYSTEM TO CONTROL CONDUCTING INTERPENETRATING POLYMER NETWORKS ACTUATORS ***1676***
Tien Anh Nguyen{3}, Luc Chassagne{3}, Barthélemy Cagneau{3}, Adelyne Fannir{2}, Kätlin Rohtlaid{2}, Tran Minh Giao Nguyen{2}, Cedric Plesse{2}, Frédéric Vidal{2}, Chia-Ju Peng{1}, Shih-Jui Chen{1}
{1}National Central University, Taiwan; {2}Université de Cergy-Pontoise, France; {3}Université de Versailles Saint-Quentin-en-Yvelines, France

5:15
PROGRAMMABLE MULTIMODE, MULTICHANNEL UNIVERSAL WIRELESS RECEIVER WITH FFT-BASED MULTICARRIER DEMODULATOR FOR BATTERYLESS WIRELESS SENSORS ***1679***
Hisashi Nishikawa, Kei Igarashi, Takeshi Nishihashi, Yuya Shimizu, Ryota Suematsu, Ami Tanaka, Takakuni Douseki
Ritsumeikan University, Japan

4:00 PM - 5:30 PM
C4L-D: Sensors & Systems for Health Monitoring & Harsh Environments
LOCATION: Curacao 7-8
SESSION CHAIR:
Christian Zorman, Case Western Reserve University

4:00
INVITED: WIRELESS BLADDER PRESSURE MONITOR FOR CLOSED-LOOP BLADDER NEUROMODULATION ***1682***
Steve Majerus{3}, Anisha S. Basu{1}, Iryna Makovey{2}, Peng Wang{1}, Hui Zhui{3}, Christian Zorman{1}, Wen Ko{1}, Margot Damaser{3}
{1}Case Western Reserve University, United States; {2}Cleveland Clinic, United States; {3}Cleveland VA Medical Center, United States

4:30
MHEALTH DIPSTICK ANALYZER FOR MONITORING OF PREGNANCY COMPLICATIONS ***1685***
Karthik Konnaiyan{1}, Surya Cheemalapati{1}, Anna Pyayt{1}, Michael Gubanov{2}
{1}University of South Florida, United States; {2}University of Texas at San Antonio, United States

4:45
ROBUST IMPLANTABLE BLOOD PRESSURE SENSOR PACKAGING FOR LONG-TERM LABORATORY ANIMALS MONITORING ***1688***
Xing Chen, Darrin Young
University of Utah, United States

5:00
MULTI-SENSOR MODULE FOR A MOBILE ROBOT OPERATING IN HARSH ENVIRONMENTS ***1691***
Guangfen Wei{1}, Julian Gardner{2}, Marina Cole{2}, Yuxin Xing{2}
{1}Shandong Technology and Business University, China; {2}University of Warwick, United Kingdom

5:15
GLASS MICROBUBBLE ON-CHIP PACKAGED FERROFLUID BASED MAGNETOVISCOUS MAGNETOMETER ..... **N/A**
Chenchen Zhang, Eugene Freeman, Srinivas Tadigadapa
Pennsylvania State University, United States

4:00 PM - 5:30 PM
C4L-E: Sensor Network, Applications and IoT
LOCATION: Bonaire 1-2
SESSION CHAIRS:
Fabien Josse, Marquette University
Sang-Seok Lee, Tottori University

4:00 PM - 5:30 PM
C4L-F: Focused Session: Energy Harvesting & Low-Power Sensors II
LOCATION: Bonaire 3-4
SESSION CHAIRS:
Shashank Priya, Virginia Tech
Ryohei Takei, National Institute of Advanced Industrial Science and Technology