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Program in Chronological Order

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* Author Name – Corresponding Author • * Following Paper Title – Paper not Available

Monday, 5 March 2018

MoAT1: 09:35-11:05	Treasure Island ABC
BHI Session # 1 – Intelligent Sensing Informatics (Oral Session)	
Chair: Trejos, Ana Luisa <i>The University of Western Ontario</i> Co-Chair: Ozturk, Yusuf <i>San Diego State University</i>	

09:35-09:50	MoAT1.1
SSVEP Recognition using Discriminative Score Fusion and Transformation for Portable Brain Computer Interface	1-4
Dehzangi, Omid* (<i>University of Michigan-Dearborn</i>); Farooq, Muhamed (<i>University of Michigan-Dearborn</i>)	
09:50-10:05	MoAT1.2
Phase-Based Cortico-Cortical Connectivity Mapping in Motor Cortex of Nonhuman Primate	5-8
Patil, Reena (<i>San Diego State Univ.</i>); Iseri, Ege (<i>Univ. of California San Diego</i>); Zanos, Stavros (<i>Univ of Washington Schl of Medicine</i>); Fetz, Eberhard (<i>Univ of Washington</i>); Ozturk, Yusuf* (<i>San Diego State Univ.</i>)	
10:05-10:20	MoAT1.3
Multi-Modal Driver Drowsiness Detection: A Feasibility Study	9-12
Lemkaddem, Alia* (<i>CSEM</i>); Delgado-Gonzalo, Ricard (<i>CSEM</i>); Türetken, Engin (<i>CSEM</i>); Dasen, Stephan (<i>CSEM</i>); Moser, Virginie (<i>CSEM</i>); Gressum, Carl (<i>Samsung R&D Institute UK</i>); Sola, Josep (<i>CSEM - Centre Suisse d'Electronique et Microtechnique</i>); Ferrario, Damien (<i>CSEM</i>); Verjus, Christophe (<i>CSEM</i>)	
10:20-10:35	MoAT1.4
A Wearable Monitoring System for At-Home Stroke Rehabilitation Exercises: A Preliminary Study	13-16
Jung, Hee-Tae (<i>University of Massachusetts Amherst</i>); Joon Woo, Park (<i>Daegu University</i>); Jeong, Jugyeong (<i>Heeyeon Hospital</i>); Ryu, Taekyeong (<i>Heeyeon Hospital</i>); Kim, Yangsoo (<i>Heeyeon Hospital</i>); Lee, Sunghoon Ivan* (<i>University of Massachusetts Amherst</i>)	
10:35-10:50	MoAT1.5
Activity and Circadian Rhythm of Sepsis Patients in the Intensive Care Unit	17-20
Davoudi, Anis* (<i>University of Florida</i>); Corbett, Duane B. (<i>University Florida - College of Medicine</i>); Ozrazgat-Baslanti, Tezcan (<i>University of Florida</i>); Bihorac, Azra (<i>University of Florida</i>); Brakenridge, Scott C. (<i>University of Florida</i>); Manini, Todd M. (<i>University of Florida</i>); Rashidi, Parisa (<i>University of Florida</i>)	
10:50-11:05	MoAT1.6
Monitoring and Evaluation of Ingestive Activities	21-24
Hassan, Eman Ayman* (<i>Cairo University</i>); Elmahdy, Mohamed S. (<i>Systems and Biomedical Dept., Faculty of Engineering, Cairo</i>); Morsy, Ahmed (<i>Cairo University</i>)	

MoBT1: 11:20-12:50	Treasure Island ABC
BHI Session # 2 – Intelligent Sensing and Imaging Informatics (Oral Session)	
Chair: Choi, Min-Hyung <i>University of Colorado Denver</i> Co-Chair: Pattichis, Constantinos <i>University of Cyprus</i>	

11:20-11:35	MoBT1.1
Non-Contact Measurements of Diaphragm Electromyogram, Electrocardiogram and Respiratory Variations with Sheet-Type Fabric Electrodes for Neonatal Monitoring	25-28
Uesawa, Hayato* (<i>Tokyo Denki University</i>); Takehara, Tomoya (<i>Tokyo Denki University</i>); Ueno, Akinori (<i>Tokyo Denki University</i>)	

11:35-11:50	MoBT1.2
Spatially-Resolved Estimation of Personal Dosage of Airborne Particulates for Ambulatory Subjects using Wearable Sensors	29-32
Arvind, D K* (<i>University of Edinburgh</i>)	
11:50-12:05	MoBT1.3
Severity Classification of Obstructive Sleep Apnea using Only Heart Rate Variability Measures with an Ensemble Classifier	33-36
Rahman, Md Juber (<i>The University of Memphis</i>); Mahajan, Ruhi (<i>University of Tennessee Health Science Centre</i>); Morshed, Bashir* (<i>The University of Memphis</i>)	
12:05-12:20	MoBT1.4
Assessment of Gait Normality using a Depth Camera and Mirrors	37-41
Nguyen, Trong Nguyen* (<i>University of Montreal</i>); Huynh, Huu Hung (<i>Danang University of Science and Technology</i>); Meunier, Jean (<i>Universite de Montreal</i>)	
12:20-12:35	MoBT1.5
Behavioral Analysis of Turbulent Exhale Flows	42-45
Transue, Shane (<i>University of Colorado Denver</i>); Reza, Sayed Mohsin (<i>University of Colorado Denver</i>); Halbower, Ann (<i>University of Colorado School of Medicine</i>); Choi, Min-Hyung* (<i>University of Colorado Denver</i>)	
12:35-12:50	MoBT1.6
Incremental Diagnostic Information Obtained via Novel Dynamic Contrast Enhanced MRI Framework Applied on Multiple Sclerosis Patients: A Preliminary Study	46-49
Kontopodis, Eleftherios* (<i>Foundation for Research and Technology – Hellas (FORTH), Institut</i>); Manikis, Georgios (<i>Institute of Computer Science, Foundation for Research and Techno</i>); Nikiforaki, Katerina (<i>Institute of Computer Science, Foundation for Research and Techn</i>); Venianaki, Maria (<i>IMT School for Advanced Studies Lucca & Foundation for Research</i>); Marias, Kostas (<i>Foundation for Res. & Tech. Hellas</i>); Maris, Thomas (<i>Dept. of Radiology, Medical School - University of Crete, H</i>); Karantanas, Apostolos (<i>Radiology, University of Crete, Chairman, Dept. of Medical</i>); Papadaki, Efrosini (<i>Dept. of Radiology, School of Medicine, University of Cret</i>)	

MoPO: 18:15-20:15	Caribbean ABC
Poster Session # 1 and BSN Innovative Health Technology Demonstrations (Poster Session)	
18:15-20:15	MoPO.1
Fuzzy Entropy Spectrum Analysis for Biomedical Signals De-Noising	50-53
Xie, Hong-Bo (<i>Queensland University of Technology</i>); Guo, Tianruo* (<i>University of New South Wales</i>)	
18:15-20:15	MoPO.2
Learning a Physical Activity Classifier for a Low-Power Embedded Wrist-Located Device	54-57
Delgado-Gonzalo, Ricard* (<i>CSEM</i>); Renevey, Philippe (<i>CSEM</i>); Tarniceriu, Adrian (<i>PulseOn SA</i>); Parak, Jakub (<i>Tampere University of Technology</i>); Bertschi, Mattia (<i>CSEM</i>)	
18:15-20:15	MoPO.3
Impact of Suppressed Tremor: Is Suppression of Proximal Joints Sufficient?	58-61
Zhou, Yue (<i>University of Western Ontario</i>); Jenkins, Mary (<i>University of Western Ontario</i>); Naish, Michael D. (<i>The University of Western Ontario, Lawson Health Research Institute</i>); Trejos, Ana Luisa* (<i>The University of Western Ontario</i>)	
18:15-20:15	MoPO.4
Preliminary Results on Transthoracic Bioimpedance Measurements with a Variety of Electrode Materials	62-65
Reljin, Natasa* (<i>University of Connecticut</i>); Posada-Quintero, Hugo Fernando (<i>University of Connecticut</i>); Noh, Yeon Sik (<i>University of Connecticut</i>); Eaton-Robb, Caitlin (<i>University of Connecticut</i>); Dimitrov, Tanya (<i>University of Connecticut</i>); Murphy, Laura (<i>University of Connecticut</i>); Riistama, Jarno (<i>Tampere University of Technology</i>); Chon, Ki (<i>University of Connecticut</i>)	
18:15-20:15	MoPO.5
Autonomous Gait Speed Estimation using 24GHz FMCW Radar Technology	66-69
Boroomand, Ameneh* (<i>Univ. of Waterloo</i>); Shaker, George (<i>Univ. of Waterloo / ECE</i>); Morita, Plinio Pelegreini (<i>Univ. of Waterloo</i>); Wong, Alexander (<i>Univ. of Waterloo</i>); Boger, Jennifer (<i>Univ. of Waterloo</i>)	

18:15-20:15		MoPO.6
A Study on IMU-Based Stride Length Estimation for Motor Disabled Subjects: A Comparison under Different Calculation Methods of Rotation Matrix		70-73
Watanabe, Takashi* (<i>Tohoku University</i>); Miyazawa, Tasuku (<i>Tohoku University</i>); Shibasaki, Jun (<i>Minami Tohoku Hospital</i>)		
18:15-20:15		MoPO.7
Fast and Efficient Genotype Encoding using Sparse 2D Bitmaps for Database-Driven Genomics Applications		74-78
Al Kawam, Ahmad* (<i>Texas A&M University</i>); Datta, Aniruddha (<i>Texas A&M University</i>)		
18:15-20:15		MoPO.8
Developing a Novel Noise Artifact Detection Algorithm for Smartphone PPG Signals: Preliminary Results		79-82
Bashar, Syed Khairul* (<i>University of Connecticut</i>); Han, Dong (<i>University of Connecticut</i>); Soni, Apurv (<i>University of Massachusetts Medical School</i>); McManus, David (<i>University of Massachusetts Medical Center</i>); Chon, Ki (<i>University of Connecticut</i>)		
18:15-20:15		MoPO.9
Towards Fully Instrumented and Automated Assessment of Motor Function Tests		83-87
De Luca, Valeria* (<i>Novartis Institutes for Biomedical Research</i>); Muaremi, Amir (<i>ETH Zurich</i>); Giggins, Oonagh (<i>University College Dublin</i>); Walsh, Lorcan (<i>Novartis</i>); Clay, Ieuan (<i>Novartis Institutes for Biomedical Research</i>)		
18:15-20:15		MoPO.10
A Sensor Data Collection Environment for Clinical Trials Investigating Health Effects of Airborne Pollution		88-91
Arvind, D K* (<i>University of Edinburgh</i>)		
18:15-20:15		MoPO.11
Unsupervised Detection of Epileptic Seizures from EEG Signals: A Channel-Specific Analysis of Long-Term Recordings		92-95
Tsiouris, Kostas (<i>Biomedical Engineering Laboratory, School of Electrical and Comp</i>); Konitsiotis, Spiros (<i>Medical School, University of Ioannina</i>); Markoula, Sofia (<i>University of Ioannina</i>); Rigas, Georgios (<i>University of Ioannina</i>); Koutsouris, Dimitrios (<i>Biomedical Engineering Laboratory, School of Electrical and Comp</i>); Fotiadis, Dimitrios I.* (<i>University of Ioannina</i>)		
18:15-20:15		MoPO.12
FCLAB: An EEGLAB Module for Performing Functional Connectivity Analysis on Single-Subject EEG Data		96-99
Pezoulas, Vasileios (<i>Univ. of Ioannina</i>); Athanasiou, Alkinoos (<i>Aristotle Univ. of Thessaloniki</i>); Nolte, Guido (<i>Dept. of Neurophysiology, UKE, Hamburg</i>); Zervakis, Michalis (<i>Technical Univ. of Crete, Greece</i>); Fratini, Antonio (<i>Aston Univ.</i>); Fotiadis, Dimitrios I. (<i>Univ. of Ioannina</i>); Klados, Manousos* (<i>Aston Univ.</i>)		
18:15-20:15		MoPO.13
Deep EEG Super-Resolution: Upsampling EEG Spatial Resolution with Generative Adversarial Networks		100-103
Corley, Isaac* (<i>University of Texas at San Antonio, Southwest Research Institute</i>); Huang, Yufei (<i>University of Texas at San Antonio</i>)		
18:15-20:15		MoPO.14
A Hierarchical LSTM Model for Modeling EEG Non-Stationarity		104-107
Hasib, Md Musaddaqul (<i>University of Texas at San Antonio, San Antonio</i>); Nayak, Tapsya (<i>University of Texas at San Antonio</i>); Huang, Yufei* (<i>University of Texas at San Antonio</i>)		
18:15-20:15		MoPO.18
A Pervasive and Sensor-Free Deep Learning System for Parkinsonian Gait Analysis		108-111
Ajay, Jerry* (<i>University at Buffalo</i>); Song, Chen (<i>University at Buffalo, The State University of New York</i>); Wang, Aosen (<i>University at Buffalo</i>); Langan, Jeanne (<i>University at Buffalo</i>); Li, Zhinan (<i>Sennotech Inc.</i>); Xu, Wenyao (<i>SUNY at Buffalo</i>)		

18:15-20:15	MoPO.21
Pattern Analysis and Classification of Blood Oxygen Saturation Signals with Nonlinear Dynamics Features	112-115
Pham, Tuan D.* (<i>Linkoping University</i>)	
18:15-20:15	MoPO.23
A Hybrid Feature Extraction Method to Detect Atrial Fibrillation from Single Lead ECG Recording	116-119
Mahajan, Ruhi* (<i>University of Tennessee Health Science Centre</i>); Kamaleswaran, Rishikesan (<i>University of Tennessee Health Science Center</i>); Akbilgic, Oguz (<i>UTHSC-ORNL</i>)	
18:15-20:15	MoPO.24
Inverse ECG Modeling with Spatiotemporal Regularization for the Characterization of Myocardial Infarctions	120-123
Yao, Bing* (<i>The Pennsylvania State University</i>); Zhu, Rui (<i>The Pennsylvania State University</i>); Yang, Hui (<i>The Pennsylvania State University</i>)	
18:15-20:15	MoPO.25
A Deep Multi-Task Learning Approach for ECG Data Analysis	124-127
Ji, Jinlong (<i>Case Western Reserve University</i>); Chen, Xuhui (<i>Case Western Reserve University</i>); Luo, Changqing (<i>Case Western Reserve University</i>); Li, Pan* (<i>Case Western Reserve University</i>)	
18:15-20:15	MoPO.26
Free-Living Eating Event Spotting using EMG-Monitoring Eyeglasses	128-132
Zhang, Rui* (<i>Friedrich-Alexander-University (FAU) Erlangen-Nuremberg</i>); Amft, Oliver (<i>Friedrich-Alexander Universität Erlangen-Nürnberg (FAU)</i>)	
18:15-20:15	MoPO.27
Detection of Beat-to-Beat Intervals from Wrist Photoplethysmography in Patients with Sinus Rhythm and Atrial Fibrillation after Surgery	133-136
Tarniceriu, Adrian* (<i>PulseOn SA</i>); Harju, Jarkko (<i>Tampered University hospital</i>); Vehkaoja, Antti (<i>Tampere University of Technology</i>); Parak, Jakub (<i>Tampere University of Technology</i>); Delgado-Gonzalo, Ricard (<i>CSEM</i>); Renevey, Philippe (<i>CSEM</i>); Yli-Hankala, Arvi (<i>University of Tampere</i>); Korhonen, Ilkka (<i>Tampere University of Technology</i>)	
18:15-20:15	MoPO.28
Recognizing Affective State Patterns using Regularized Learning with Nonlinear Dynamical Features of EEG	137-140
Fan, Miaolin (<i>Northeastern University</i>); Chou, Chun-An* (<i>Northeastern University</i>)	
18:15-20:15	MoPO.29
Two Electrode based Healthcare Device for Continuously Monitoring ECG and BIA Signals	141-144
Shin, Seung-chul* (<i>Yonsei University</i>); Lee, Sangyeop (<i>Yonsei University</i>); Lee, Taeho (<i>Yonsei University</i>); Lee, Kyoungwoo (<i>Yonsei University</i>); Lee, Yong Seung (<i>Yonsei University</i>); Kang, Hong-Goo (<i>Yonsei University</i>)	
18:15-20:15	MoPO.30
A Signal Quality Index for Ballistocardiogram Recordings based on Electrocardiogram RR Intervals and Matched Filtering	145-148
Bicen, A. Ozan* (<i>Georgia Institute of Technology</i>); Inan, Omer (<i>Georgia Institute of Technology</i>)	
18:15-20:15	MoPO.31
Energy-Efficient ECG Compression in Wearable Body Sensor Network by Leveraging Empirical Mode Decomposition	149-152
Huang, Hui (<i>Michigan Technological University</i>); Shiyan, Hu (<i>Michigan Technological University</i>); Sun, Ye* (<i>Michigan Technological University</i>)	
18:15-20:15	MoPO.32
Remote Heart Rate Variability for Emotional State Monitoring	153-156
Benezeth, Yannick (<i>Univ. Bourgogne Franche Comté</i>); Li, Peixi* (<i>Université Bourgogne Franche-Comté</i>); Macwan, Richard (<i>Université de Bourgogne</i>); Nakamura, Keisuke (<i>Honda Research Institute</i>); Gomez, Randy (<i>Honda Research Institute</i>); Yang, Fan (<i>Université de Bourgogne</i>)	

18:15-20:15		MoPO.33
Sensitivity Analysis of Wearable Textiles for ECG Sensing		157-160
Tong, Wenxin* (<i>The Pennsylvania State University</i>); Kan, Chen (<i>The Pennsylvania State University</i>); Yang, Hui (<i>The Pennsylvania State University</i>)		
18:15-20:15		MoPO.34
A Predictive Framework for ECG Signal Processing using Controlled Nonlinear Transformation		161-165
Chen, Jiaming (<i>Northern Arizona University</i>); Razi, Abolfazl* (<i>Northern Arizona University</i>)		
18:15-20:15		MoPO.35
Translating sEMG Signals to Continuous Hand Poses using Recurrent Neural Networks		166-169
Quivira, Fernando (<i>Northeastern Univ.</i>); Koike-Akino, Toshiaki* (<i>Mitsubishi Electric Research Laboratories (MERL)</i>); Wang, Ye (<i>Mitsubishi Electric Research Laboratories (MERL)</i>); Erdogmus, Deniz (<i>Northeastern Univ.</i>)		
18:15-20:15		MoPO.36
Inferring Physical Agitation in Dementia using Smartwatch and Sequential Behavior Models		170-173
Alam, Ridwan* (<i>University of Virginia</i>); Anderson, Martha (<i>Virginia Tech Carilion School of Medicine</i>); Bankole, Azziza (<i>Virginia Tech Carilion School of Medicine</i>); Lach, John (<i>University of Virginia</i>)		
18:15-20:15		MoPO.73
A Big Data Repository and Architecture for Managing Hearing Loss Related Data		174-177
Ye, Bin* (<i>City, University of London</i>); Basdekis, Ioannis (<i>City, University of London</i>); Smyrlis, Michail (<i>City University Of London</i>); Spanoudakis, George (<i>City University London</i>); Koloutsou, Konstantina (<i>Guys and St Thomas NHS Trust Hospitals</i>)		
18:15-20:15		MoPO.75
Efficient Detection of Mesial Temporal Sclerosis using Hippocampus and CSF Features in MRI Images		178-181
Wang, Huiquan (<i>Univ. of Alberta</i>); Ahmed, Nizam (<i>Univ. of Alberta</i>); Mandal, Mrinal* (<i>Univ. of Alberta</i>)		

Tuesday, 6 March 2018

TuAT1: 11:10-12:40		Treasure Island ABC
BHI Session # 3 – Bioinformatics for Health Monitoring (Oral Session)		
Chair: Martinez-Torteya, Antonio <i>Universidad de Monterrey</i>		
Co-Chair: Liang, Jie <i>University of Illinois at Chicago</i>		
11:10-11:25		TuAT1.1
Generating Target/non-Target Images of an RSVP Experiment from Brain Signals in by Conditional Generative Adversarial Network		182-185
Lee, Yonggun* (<i>University of Texas at San Antonio</i>); Huang, Yufei (<i>University of Texas at San Antonio</i>)		
11:25-11:40		TuAT1.2
Identifying Patient-Specific Trajectories in Haemodialysis using Bayesian Hierarchical Gaussian Processes		186-189
Zhu, Tingting* (<i>University of Oxford</i>); Colopy, Glen Wright (<i>University of Oxford</i>); Pugh, Christopher (<i>University of Oxford</i>); Clifton, David (<i>University of Oxford</i>)		
11:40-11:55		TuAT1.3
Energy-Efficient Multipath Ring Network for Heterogeneous Clustered Neuronal Arrays		190-193
Ardelean, Andrei* (<i>TUDelft, Delft University of Technology</i>); Zjajo, Amir (<i>Delft University of Technology</i>); Kumar, Sumeet Susheel (<i>Delft University of Technology</i>); van Ieuken, Rene (<i>Delft University of Technology</i>)		

11:55-12:10	TuAT1.4
Computational Analysis of Gefitinib and Methylated-Hydroxypropylated Cyclodextrin Inclusion Complexes for the Treatment of Childhood Malignancies	194-197
Hatzigapiou, Kyriaki (<i>National and Kapodistrian Univ. of Athens, First Dept.</i>); Braoudaki, Maria (<i>National and Kapodistrian Univ. of Athens, First Dept.</i>); Bethanis, Kostas (<i>Agricultural Univ. of Athens, Dept. of BioTechnology.</i>); Yannakopoulou, Konstantina (<i>National Center for Scientific Research "Demokritos", Institute</i>); Anastasiou, Athanasios* (<i>Biomedical Engineering Laboratory, National Technical Univ.</i>); Koutsouri, Georgia (<i>Biomedical Engineering Laboratory, National Technical Univ.</i>); Koutsouris, Dimitrios (<i>Biomedical Engineering Laboratory, School of Electrical and Comp.</i>); Lambrou, George I. (<i>National and Kapodistrian Univ. of Athens</i>)	
12:10-12:25	TuAT1.5
Cloud-Based Solution for Improving Usability and Interactivity of Metagenomic Ensemble Taxonomic Classification Methods	198-201
Alaa, Asem (<i>Cairo University, Faculty of Engineering</i>); Metwally, Ahmed* (<i>University of Illinois at Chicago</i>)	
12:25-12:40	TuAT1.6
Longitudinal Gender-Specific Differences in the Conversion from Mild Cognitive Impairment to Alzheimer's Disease	202-205
Cadena-Hernandez, Angel Guillermo (<i>Universidad de Monterrey</i>); Trejo-Castro, Alejandro Ismael (<i>Universidad de Monterrey</i>); Celaya-Padilla, José María (<i>Universidad Autónoma de Zacatecas</i>); Tamez-Peña, Jose Gerardo (<i>Tecnológico de Monterrey</i>); Martinez-Torteya, Antonio* (<i>Universidad de Monterrey</i>)	
TuBT1: 14:15-15:45	Treasure Island ABC
BHI Session # 4 – Deep Learning and Decision Support Systems (Oral Session)	
Chair: Tourassi, Georgia <i>Oak Ridge National Laboratory</i>	
Co-Chair: Jenssen, Robert <i>UiT The Arctic University of Norway</i>	
14:15-14:30	TuBT1.1
A Novel Channel-Aware Attention Framework for Multi-Channel EEG Seizure Detection via Multi-View Deep Learning	206-209
Yuan, Ye* (<i>Beijing University of Technology</i>); Xun, Guangxu (<i>State University of New York at Buffalo</i>); Ma, Fenglong (<i>State University of New York at Buffalo</i>); Suo, Qiuling (<i>State University of New York at Buffalo</i>); Xue, Hongfei (<i>State University of New York at Buffalo</i>); Jia, Kebin (<i>Beijing University of Technology</i>); Zhang, Aidong (<i>State University of New York at Buffalo</i>)	
14:30-14:45	TuBT1.2
P-QRS-T Localization in ECG using Deep Learning	210-213
Abrishami, Hedayat (<i>University of Cincinnati</i>); Campbell, Matthew (<i>University of Cincinnati</i>); Han, Chia (<i>University of Cincinnati</i>); Czosek, Richard (<i>University of Cincinnati</i>); Zhou, Xuefu* (<i>University of Cincinnati</i>)	
14:45-15:00	TuBT1.3
DeepVoice: A Voiceprint-Based Mobile Health Framework for Parkinson's Disease Identification	214-217
Zhang, Hanbin* (<i>State University of New York at Buffalo</i>); Wang, Aosen (<i>University at Buffalo</i>); Li, Dongmei (<i>University of Rochester Medical Center</i>); Xu, Wenyao (<i>SUNY at Buffalo</i>)	
15:00-15:15	TuBT1.4
Coarse-to-Fine Multi-Task Training of Convolutional Neural Networks for Automated Information Extraction from Cancer Pathology Reports	218-221
Alawad, Mohammed* (<i>Oak Ridge National Laboratory</i>); Yoon, Hong-Jun (<i>Oak Ridge National Laboratory</i>); Tourassi, Georgia (<i>Oak Ridge National Laboratory</i>)	
15:15-15:30	TuBT1.5
Deep Learning from Electronic Medical Records using Attention-Based Cross-Modal Convolutional Neural Networks	222-225
Cheung, Bing Leung Patrick* (<i>Philips Research North America</i>); Dahl, Deborah (<i>Banner Health</i>)	
15:30-15:45	TuBT1.6
Mortality Prediction with Self Normalizing Neural Networks in Intensive Care Unit Patients	226-229
Mohammed, Abdul Hai Zahid* (<i>University of Waterloo</i>); Lee, Joon (<i>University of Waterloo</i>)	

TuPO: 19:30-20:30	Caribbean ABC
Poster Session # 2 and BSN Innovative Health Technology Demonstrations (Poster Session)	
19:30-20:30	TuPO.1
Elastic Deformations for Data Augmentation in Breast Cancer Mass Detection	230-234
Castro, Eduardo* (<i>INESCTEC</i>); Cardoso, Jaime S. (<i>INESC TEC and University of Porto</i>); Costa Pereira, Jose (<i>INESCTEC / Porto University</i>)	
19:30-20:30	TuPO.2
Hippocampal and Entorhinal Cortex Volume Changes in Alzheimer's Disease Patients and Mild Cognitive Impairment Subjects	235-238
Leandrou, Stephanos (<i>European University Cyprus</i>); Mamais, Ioannis (<i>National and Kapodistrian University of Athens, Dept. of Hy</i>); Petroudi, Styliani (<i>University of Oxford</i>); Kyriacou, Panayiotis (<i>City University London</i>); Constantino Reyes-Aldassoro, Carlos (<i>City University London, School of Mathematical Sciences, Compute</i>); Pattichis, Constantinos* (<i>University of Cyprus</i>)	
19:30-20:30	TuPO.3
Non-Contact Comprehensive Breathing Analysis using Thermal Thin Medium	239-242
Schoun, Breawn (<i>University of Colorado Denver</i>); Transue, Shane (<i>University of Colorado Denver</i>); Halbower, Ann (<i>University of Colorado School of Medicine</i>); Choi, Min-Hyung* (<i>University of Colorado Denver</i>)	
19:30-20:30	TuPO.4
Joint Capsule Segmentation in Ultrasound Images of the Metacarpophalangeal Joint using a Split and Merge Approach	243-246
Martins, Nelson* (<i>Neadvance, Machine Vision, SA; Universidade do Porto</i>); Sultan, Malik Saad (<i>University of Porto</i>); Veiga, Diana (<i>Neadvance Machine Vision SA</i>); Ferreira, Manuel Joao (<i>University of Minho</i>); Coimbra, Miguel (<i>Instituto de Telecomunicações / Universidade do Porto</i>)	
19:30-20:30	TuPO.5
Bottom up Saliency Evaluation via Deep Features of State-of-the-Art Convolutional Neural Networks	247-250
Mahdi, Ali* (<i>Southern Illinois University at Carbondale</i>); Qin, Jun (<i>Southern Illinois University Carbondale</i>)	
19:30-20:30	TuPO.6
Prediction of Heart Transplant Rejection using Histopathological Whole-Slide Imaging	251-254
Dooley, Adrienne* (<i>Georgia Institute of Technology</i>); Tong, Li (<i>Georgia Institute of Technology</i>); Deshpande, Shriprasad (<i>School of Medicine, Emory University</i>); Wang, May D. (<i>Georgia Tech and Emory University</i>)	
19:30-20:30	TuPO.13
Classification Models Inspired by Multisensory Integration	255-258
Amerineni, Rajesh (<i>Southern Illinois University</i>); Gupta, Lalit* (<i>Southern Illinois University</i>); Gupta, Resh (<i>Vanderbilt University</i>)	
19:30-20:30	TuPO.14
Kafka Interfaces for Composable Streaming Genomics Pipelines	259-262
Versaci, Francesco* (<i>CRS4</i>); Pireddu, Luca (<i>CRS4</i>); Zanetti, Gianluigi (<i>CRS4</i>)	
19:30-20:30	TuPO.15
On Quantification of Geometry and Topology of Protein Pockets and Channels for Assessing Mutation Effects	263-266
Tian, Wei (<i>University of Illinois at Chicago</i>); Liang, Jie* (<i>University of Illinois at Chicago</i>)	
19:30-20:30	TuPO.16
Parameter-Free Adaptive Step-Size Multiobjective Optimization Applied to Remote Photoplethysmography	267-270
Macwan, Richard* (<i>Université de Bourgogne</i>); Benezeth, Yannick (<i>Univ. Bourgogne Franche Comté</i>); Nakamura, Keisuke (<i>Honda Research Institute</i>); Gomez, Randy (<i>Honda Research Institute</i>); Wu, Yadong (<i>Southwest University of Science and Technology</i>); Mansouri, Alamin (<i>Université de Bourgogne</i>)	
19:30-20:30	TuPO.17
HDNA: Energy-Efficient DNA Sequencing using Hyperdimensional Computing	271-274
Imani, Mohsen* (<i>University of California San Diego</i>); Nassar, Tarek (<i>University of California San Diego</i>); Rahimi, Abbas (<i>University of California Berkeley</i>); Rosing, Tajana (<i>University of California San Diego</i>)	

19:30-20:30	TuPO.23
A Social Cognitive Theory-Based Framework for Monitoring Medication Adherence Applied to Endocrine Therapy in Breast Cancer Survivors	275-278
Boukhechba, Mehdi (<i>University of Virginia</i>); Bae, Sonia* (<i>University of Virginia</i>); Nobles, Alicia (<i>University of Virginia</i>); Gong, Jiaqi (<i>University Maryland, Baltimore County</i>); Wells, Kristen (<i>San Diego University</i>); Barnes, Laura (<i>University of Virginia</i>)	
19:30-20:30	TuPO.24
County-Level Geographic Distributions of Diabetes in Relation to Multiple Factors in the United States	279-282
Oraz, Gulzahan (<i>Indiana University-Purdue University Indianapolis</i>); Luo, Xiao* (<i>Indiana University-Purdue University Indianapolis</i>)	
19:30-20:30	TuPO.41
Using Multiple Sentiment Dimensions of Nursing Notes to Predict Mortality in the Intensive Care Unit	283-286
Tran, Nam* (<i>University of Waterloo</i>); Lee, Joon (<i>University of Waterloo</i>)	
19:30-20:30	TuPO.42
A Novel Estimation Algorithm of Evolutionary Distance based on the Word Frequency Variation of Sequence Segment	287-290
Song, Yong-Joon (<i>Korea Advanced Institute of Science and Technology (KAIST)</i>); Cho, Dong-Ho* (<i>Korea Advanced Institute of Science and Technology (KAIST)</i>)	
19:30-20:30	TuPO.43
Health Data Privacy: A Case of Undesired Inferences	291-294
Daniels, Mark* (<i>University of South Carolina, Medical University of South Caroli</i>); Farkas, Csilla (<i>University of South Carolina</i>)	
19:30-20:30	TuPO.44
HEARTEN: An Integrated Mhealth Platform for Holistic HF Management	295-298
Karanasiou, Georgia (<i>Institute of Molecular Biology and BioTechnology, FORTH, Ioannin</i>); Tripoliti, Evangelia (<i>Dept. of Biomedical Research, Institute of Molecular Biology</i>); Goletsis, Yorgos (<i>University of Ioannina</i>); Kalatzis, Fanis (<i>Dept. of Biomedical Research, Institute of Molecular Biology</i>); Naka, Katerina (<i>University of Ioannina</i>); Fuoco, Roger (<i>University of Pisa, Dept. of Chemistry and Industrial Chemi</i>); Miekisch, Wolfram (<i>Dept. of Anaesthesia and Intensive Care Medicine</i>); Tzanettis, Kostis (<i>AppArt SA</i>); Zervos, Stefanos (<i>BIOAXIS Healthcare</i>); Bausells, Joan (<i>Instituto de Microelectrónica de Barcelona, IMB-CNM</i>); Abdelhamid, Errachid (<i>Université de Lyon, Institut de Sciences Analytiques (ISA)</i>); Fotiadis, Dimitrios I.* (<i>University of Ioannina</i>)	
19:30-20:30	TuPO.45
Cognitive Computing for the Automated Extraction and Meaningful use of Health Data in Narrative Medical Notes: An Application to the Clinical Management of Hearing Impaired Aged Patients	299-302
Tognola, Gabriella* (<i>CNR IEIIT - Istituto di Elettronica e di Ingegneria dell'Informa</i>); Murri, Alessandra (<i>Ospedale "Guglielmo da Saliceto", UO Otorinolaringoiatria</i>); Cuda, Domenico (<i>Ospedale "Guglielmo da Saliceto", UO Otorinolaringoiatria</i>)	
19:30-20:30	TuPO.46
Development and Implementation of Nationwide Predictive Model for Admission Prevention	303-306
Ta, Wee An Andy* (<i>Ministry of Health/ Integrated Health Information Systems PTE LT</i>); Goh, Han Leong (<i>Integrated Health Information Systems (IHIS) Pte Ltd</i>); Tan, Chuen Seng (<i>National University of Singapore</i>); Sun, Yan (<i>National Healthcare Group</i>); Aung, Khin Chaw Yu (<i>Eastern Health Alliance</i>); Teoh, Zsin Woon (<i>Ministry of Health Singapore</i>); Tan, Kelvin Bryan (<i>Ministry of Health, Singapore</i>); Lau, Zheng Yi (<i>Ministry of Health</i>); Abisheganaden, John (<i>Tan Tock Seng Hospital, Singapore</i>); Lee, Kheng Hock (<i>Singapore General Hospital</i>); Wong, Sweet Fun (<i>Khoo Teck Puat Hospital</i>); Chow, Wai Leng (<i>Changi General Hospital</i>); Vinod Kumar, Pranav (<i>Integrated Health Information Systems (IHIS) Pte Ltd.</i>); Choong, Zi Chao (<i>Integrated Health Information Systems Pte Ltd</i>); Ng, Xue Yi Cheryl (<i>Integrated Health Information Systems Pte Ltd</i>); Ang, Gia Lee Christine (<i>Integrated Health Information Systems Pte Ltd</i>); Chan, Mervin (<i>Integrated Health Information Systems Pte Ltd</i>); Lim, Daryl Jin Shui (<i>IHIS</i>); Low, Cheng Ooi (<i>Ministry of Health Singapore, Integrated Health Information Syst</i>)	

19:30-20:30	TuPO.47
Classification of Postoperative Surgical Site Infections from Blood Measurements with Missing Data using Recurrent Neural Networks	307-310
Storvik Strauman, Andreas (<i>Univ. of Tromsø</i>); Bianchi, Filippo Maria (<i>UiT The Arctic Univ. of Norway</i>); Mikalsen, Karl Øyvind (<i>UiT The Arctic Univ. of Norway</i>); Kampffmeyer, Michael (<i>UiT The Arctic Univ. of Norway</i>); Soguero-Ruiz, Cristina (<i>Rey Juan Carlos Univ.</i>); Jenssen, Robert* (<i>UiT The Arctic Univ. of Norway</i>)	
19:30-20:30	TuPO.48
Cardiac Function Recovery using Ejection Fraction in the Presence of a Continuous Flow Left Ventricular Assist Device	311-314
S. Vasudevan, Viswajith* (<i>University of Central Florida</i>); Simaan, Marwan (<i>University of Central Florida</i>)	
19:30-20:30	TuPO.49
Towards Deep Anchor Learning	315-318
Hansen, Mads Adrian (<i>UiT The Arctic University of Norway</i>); Mikalsen, Karl Øyvind (<i>UiT The Arctic University of Norway</i>); Kampffmeyer, Michael (<i>UiT The Arctic University of Norway</i>); Soguero-Ruiz, Cristina (<i>Rey Juan Carlos University</i>); Jenssen, Robert* (<i>UiT The Arctic University of Norway</i>)	
19:30-20:30	TuPO.50
Combinational Feature based Random Forest Classification for Enhanced Bundle Branch Block Beat Detection	319-322
Chen, Hao (<i>Biofournis</i>); Sivanesan, Sudhakar (<i>Biofournis Singapore Pte Ltd</i>); Majmudar, Maulik (<i>Massachusetts General Hospital</i>); Rajput, Kuldeep Singh* (<i>Biofournis</i>)	
19:30-20:30	TuPO.51
Long-Term Blood Pressure Prediction with Deep Recurrent Neural Networks	323-328
Su, Peng* (<i>The Chinese University of Hong Kong</i>); Ding, Xiao-Rong (<i>The Chinese University of Hong Kong</i>); Zhang, Yuan-Ting (<i>The Chinese University of Hong Kong</i>); Liu, Jing (<i>The Chinese University of Hong Kong</i>); Miao, Fen (<i>Key Laboratory for Health Informatics of The Chinese Academy of</i>); Zhao, Ni (<i>The Chinese University of Hong Kong</i>)	
19:30-20:30	TuPO.52
A Decision Support System based on Rapid Progression Rules to Enhance Baseline Evaluation of Parkinson's Disease Patients	329-332
Tsiouris, Kostas (<i>Biomedical Engineering Laboratory, School of Electrical and Comp</i>); Gatsios, Dimitris (<i>University of Ioannina</i>); Rigas, Georgios (<i>University of Ioannina</i>); Konitsiotis, Spiros (<i>Medical School, University of Ioannina</i>); Antonini, Angelo (<i>IRCCS Fondazione Ospedale San Camillo, Division of Parkinson's Di</i>); Fotiadis, Dimitrios I.* (<i>University of Ioannina</i>)	
19:30-20:30	TuPO.53
Reinforcement-Learning Optimal Control for Type-1 Diabetes	333-336
Ngo, Phuong* (<i>UiT - The Arctic University of Norway</i>); Wei, Susan (<i>University of Minnesota</i>); Holubova, Anna (<i>Czech Technical University</i>); Muzik, Jan (<i>Czech Technical University</i>); Godtliebsen, Fred (<i>University of Tromsø</i>)	
19:30-20:30	TuPO.54
Deep Residual Neural Networks for Automated Basal Cell Carcinoma Detection	337-340
Vander Putten, Eric (<i>Bloomberg</i>); Kambod, Ameer* (<i>Wayne State School of Medicine</i>); Kambod, Mobeen (<i>University of Michigan</i>)	
19:30-20:30	TuPO.55
A General Method for Predicting Amino Acid Residues Experiencing Hydrogen Exchange	341-344
Wang, Boshen (<i>University of Illinois at Chicago</i>); Perez-Rathke, Alan (<i>University of Illinois at Chicago</i>); Li, Renhao (<i>Emory University School of Medicine</i>); Liang, Jie* (<i>University of Illinois at Chicago</i>)	
19:30-20:30	TuPO.56
Filter Pruning of Convolutional Neural Networks for Text Classification: A Case Study of Cancer Pathology Report Comprehension	345-348
Yoon, Hong-Jun (<i>Oak Ridge National Laboratory</i>); Robinson, Sarah (<i>Rice University</i>); Christian, Blair (<i>Oak Ridge National Laboratory</i>); Qiu, John (<i>Oak Ridge National Laboratory</i>); Tourassi, Georgia* (<i>Oak Ridge National Laboratory</i>)	

19:30-20:30	TuPO.57
Comparison of Deep Learning based Concept Representations for Biomedical Document Clustering	349-352
Shah, Setu (<i>Indiana University-Purdue University Indianapolis</i>); Luo, Xiao* (<i>Indiana University-Purdue University Indianapolis</i>)	
19:30-20:30	TuPO.58
Assessment of Soft-Tissue Sarcomas Perfusion using Data-Driven Techniques	353-356
Venianaki, Maria* (<i>IMT School for Advanced Studies Lucca & Foundation for Research</i>); Karantanas, Apostolos (<i>Radiology, University of Crete, Chairman, Dept. of Medical</i>); de Bree, Eelco (<i>Dept. of Surgical Oncology, Medical School of Crete Univers</i>); Maris, Thomas (<i>Dept. of Radiology, Medical School - University of Crete, H</i>); Kontopodis, Eleftherios (<i>Foundation for Research and Technology – Hellas (FORTH), Institu</i>); Nikiforaki, Katerina (<i>Institute of Computer Science, Foundation for Research and Techn</i>); Salvetti, Ovidio (<i>CNR</i>); Marias, Kostas (<i>Foundation for Res. & Tech. Hellas</i>)	
19:30-20:30	TuPO.59
Changes in Driving Acceleration Pattern Variability Related to Cognitive and Physical Health	357-360
Howcroft, Jennifer Dawn* (<i>Carleton University</i>); Wallace, Raymond Bruce (<i>Carleton University</i>); Goubran, Rafik A. (<i>Carleton University</i>); Marshall, Shawn (<i>University of Ottawa</i>); Porter, Michelle (<i>University of Manitoba</i>); Knoefel, Frank-Dietrich (<i>Bruyere Continuing Care, University of Ottawa, Carleton Universi</i>)	
19:30-20:30	TuPO.60
Implementing a Data Management Infrastructure for Big HealthCare Data	361-364
Kondylakis, Haridimos* (<i>Foundation for Research and Technology - Hellas</i>); Koumakis, Lefteris (<i>Foundation for Research and Technology Hellas</i>); Tsiknakis, Manolis (<i>ICS-FORTH</i>); Marias, Kostas (<i>Foundation for Res. & Tech. Hellas</i>)	
19:30-20:30	TuPO.61
Deep Learning and Handcrafted Feature based Approaches for Automatic Detection of Angiectasia	365-368
Pogorelov, Konstantin* (<i>Simula Research Laboratory</i>); Ostroukhova, Olga (<i>Simula Research Laboratory</i>); Petlund, Andreas (<i>ForzaSys AS</i>); Halvorsen, Pål (<i>Simula Research Laboratory</i>); De Lange, Thomas (<i>Oslo Univ. Hospital & Institute of Clinical Medicine, Unive</i>); Espeland, Håvard Nygaard (<i>Forzasys AS</i>); Kupka, Tomas (<i>ForzaSys</i>); Griwodz, Carsten (<i>Simula Research Laboratory</i>); Riegler, Michael (<i>Simula Research Laboratory</i>)	
19:30-20:30	TuPO.62
Multi-Scale Context-Aware Networks for Quantitative Assessment of Colorectal Liver Metastases	369-372
Xu, Zhaoyang* (<i>Queen Mary University of London</i>); Zhang, Qianni (<i>Queen Mary University of London</i>)	

Wednesday, 7 March 2018

WeAT1: 08:50-10:20	Treasure Island ABC
BHI Session # 5 – Personalized Health Systems and Public Health Informatics (Oral Session)	
Chair: Chawla, Nitesh <i>University of Notre Dame</i>	
Co-Chair: Giannakakis, Giorgos <i>Institute of Computer Science (ICS), Foundation for Research and Technology Hellas (FORTH)</i>	

08:50-09:05	WeAT1.1
PDCA: An eHealth Service for the Management of Drug Interactions with Complementary and Alternative Medicines*	373-376
Spanakis, Marios* (<i>Post Doc</i>); Sfakianakis, Stelios (<i>Foundation for Research and Technology Hellas</i>); Spanakis, Emmanouil G. (<i>Foundation for Research and Technology – Hellas (FORTH)</i>); Kallergis, George (<i>Foundation for Research and Technology - Hellas</i>); Sakkalis, Vangelis (<i>ICS-FORTH</i>)	
09:05-09:20	WeAT1.2
An Investigation of Proteomic Data for Application in Precision Medicine	377-380
Matlock, Kevin (<i>Texas Tech University</i>); Dhruba, Saugato Rahman (<i>Texas Tech University</i>); Nazir, Moazzam (<i>Texas Tech University</i>); Pal, Ranadip* (<i>Texas Tech University</i>)	

09:20-09:35	WeAT1.3
Quantification of Biological Responses as Predictors of Cognitive Outcome after Developmental TBI	381-384
Sargolzaei, Saman* (<i>University of California Los Angeles</i>); Cai, Yan (<i>UCLA Neurosurgery</i>); Lee, Deborah (<i>UCLA Neurosurgery</i>); Harris, Neil G (<i>UCLA</i>); Giza, Christoper (<i>UCLA Brain Injury Research Center, Dept of Neurosurgery and Divi</i>)	
09:35-09:50	WeAT1.4
Obesity Risk Factors Ranking using Multi-Task Learning	385-388
Wang, Lu (<i>Wayne State University</i>); Zhu, Dongxiao* (<i>Wayne State University</i>); Towner, Elizabeth (<i>Wayne State University</i>); Dong, Ming (<i>Wayne State University</i>)	
09:50-10:05	WeAT1.5
CASSIA: An Assistant for Identifying Clinically and Statistically Significant Decreases in Antimicrobial Susceptibility	389-392
Tlachac, Monica* (<i>Worcester Polytechnic Institute</i>); Rundensteiner, Elke (<i>Worcester Polytechnic Institute</i>); Barton, Kerri (<i>Massachusetts Dept. of Public Health</i>); Tropp, Scott (<i>Massachusetts Dept. of Public Health</i>); Beaulac, Kirthana (<i>Tufts Medical Center</i>); Doron, Shira (<i>Tufts Medical Center</i>); Zou, Jian (<i>Worcester Polytechnic Institute</i>)	
10:05-10:20	WeAT1.6
Leveraging Blockchain for Retraining Deep Learning Architecture in Patient-Specific Arrhythmia Classification	393-397
Marefat, Michael* (<i>University of Arizona</i>); Juneja, Amit (<i>University of Arizona</i>)	
WeBT1: 12:30-14:00	
BHI Session # 6 – Behavioral Informatics and Health Factors Engineering (Oral Session)	
Chair: Honda, Masahiro <i>Nara Institute of Science and Technology</i>	
Co-Chair: Boulton, Elisabeth <i>University of Manchester</i>	
Treasure Island ABC	
12:30-12:45	WeBT1.1
Detecting Suppression of Negative Emotion by Time Series Change of Cerebral Blood Flow using fNIRS	398-401
Honda, Masahiro* (<i>Nara Institute of Science and Technology</i>); Tanaka, Hiroki (<i>Nara Institute of Science and Technology</i>); Sakrani, Sakti (<i>Nara Institute of Science and Technology</i>); Satoshi, Nakamura (<i>Nara Institute of Science and Technology</i>)	
12:45-13:00	WeBT1.2
Sensing-Fi: Wi-Fi CSI and Accelerometer Fusion System for Fall Detection	402-405
Ramezani, Ramin* (<i>University of California, Los Angeles</i>); Xiao, Yubin (<i>University of California, Los Angeles</i>); Naeim, Arash (<i>University of California, Los Angeles</i>)	
13:00-13:15	WeBT1.3
Evaluation of Head Pose Features for Stress Detection and Classification	406-409
Giannakakis, Giorgos* (<i>Institute of Computer Science (ICS), Foundation for Research and</i>); Manousos, Dimitris (<i>ICS-FORTH</i>); Chaniotakis, Vaggelis (<i>Foundation for Research and Technology Hellas (FORTH)</i>); Tsiknakis, Manolis (<i>ICS-FORTH</i>)	
13:15-13:30	WeBT1.4
Wearable Sensors and Machine Learning Diagnose Anxiety and Depression in Young Children	410-413
McGinnis, Ryan S.* (<i>University of Vermont</i>); McGinnis, Ellen (<i>University of Vermont</i>); Hruschak, Jessica (<i>University of Michigan</i>); Lopez-Duran, Nestor (<i>University of Michigan</i>); Fitzgerald, Kate (<i>University of Michigan</i>); Rosenblum, Katherine L. (<i>University of Michigan</i>); Muzik, Maria (<i>University of Michigan</i>)	
13:30-13:45	WeBT1.5
Toward Personalized Sleep-Wake Prediction from Actigraphy	414-417
Khademi, Aria* (<i>Pennsylvania State University</i>); El-Manzalawy, Yasser (<i>Pennsylvania State University</i>); Buxton, Orfeu (<i>Pennsylvania State University</i>); Honavar, Vasant (<i>Pennsylvania State University</i>)	

13:45-14:00	WeBT1.6
Leveraging Health and Wellness Platforms to Understand Childhood Obesity: A Usability Pilot of FitSpace	418-421
Feldman, Keith (<i>University of Notre Dame</i>); Duarte Ow, Mayra (<i>University of Notre Dame</i>); Mikels-Carrasco, Waldo (<i>University of Notre Dame</i>); Chawla, Nitesh* (<i>University of Notre Dame</i>)	

WeDT1: 15:30-17:00	Treasure ABC
BHI Session # 7 – Wearable Systems and Mobile Health (Oral Session)	
Chair: Cho, Dong-Ho <i>Korea Advanced Institute of Science and Technology (KAIST)</i>	
Co-Chair: Jin, Zhanpeng <i>University at Buffalo, SUNY</i>	

15:30-15:45	WeDT1.1
Physiological Changes Over the Course of Cognitive Bias Modification for Social Anxiety	
422-425 Boukhechba, Mehdi* (<i>University of Virginia</i>); Gong, Jiaqi (<i>University Maryland, Baltimore County</i>); Kowsari, Kamran (<i>University of Virginia</i>); Ameko, Mawulolo (<i>University of Virginia</i>); Fua, Karl (<i>University of Virginia</i>); Chow, Philip (<i>University of Virginia</i>); Huang, Yu (<i>University of Michigan</i>); Teachman, Bethany (<i>University of Virginia</i>); Barnes, Laura (<i>University of Virginia</i>)	
15:45-16:00	WeDT1.2
Context-Aware Reinforcement Learning-Based Mobile Cloud Computing for Telemonitoring	
426-429 Wang, Xiaoliang (<i>SUNY-Binghamton University</i>); Wang, Wei (<i>University at Buffalo, The State University of New York</i>); Jin, Zhanpeng* (<i>University at Buffalo, SUNY</i>)	
16:00-16:15	WeDT1.3
ARIMA-Based Motor Anomaly Detection in Schizophrenia Inpatients	
430-433 Tron, Talia* (<i>Hebrew University of Jerusalem, ELSC</i>); Resheff, Yechezkel (<i>Hebrew University of Jerusalem</i>); Bazhmin, Mikhail (<i>Sha'ar Menashe MHC</i>); Weinshall, Daphna (<i>Hebrew University of Jerusalem</i>); Peled, Abraham (<i>Technion</i>)	
16:15-16:30	WeDT1.4
Cluster-Based Approach to Improve Affect Recognition from Passively Sensed Data	
434-437 Ameko, Mawulolo* (<i>University of Virginia</i>); Cai, Lihua (<i>University of Virginia</i>); Boukhechba, Mehdi (<i>University of Virginia</i>); Daros, Alexander (<i>University of Virginia</i>); Chow, Philip (<i>University of Virginia</i>); Teachman, Bethany (<i>University of Virginia</i>); Gerber, Matthew (<i>University of Virginia</i>); Barnes, Laura (<i>University of Virginia</i>)	
16:30-16:45	WeDT1.5
Comparison and Combination of Electrocardiogram, Electromyogram and Accelerometry for Tonic-Clonic Seizure Detection in Children	
438-441 De Cooman, Thomas* (<i>KU Leuven, Dept. of Electrical Engineering-ESAT, STADIUS</i>); Varon, Carolina (<i>Katholieke Universiteit Leuven</i>); Van de Vel, Anouk (<i>University Hospital of Antwerp</i>); Ceulemans, Berten (<i>University Hospital of Antwerp</i>); Lagae, Lieven (<i>University Hospital of Leuven</i>); Van Huffel, Sabine (<i>Katholieke Universiteit Leuven</i>)	
16:45-17:00	WeDT1.6
Deep Learning based Atrial Fibrillation Detection using Wearable Photoplethysmography Sensor	
442-445 Aliamiri, Alireza* (<i>Samsung</i>); Shen, Yichen (<i>Samsung Strategy and Innovation Center</i>)	