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Thursday, 16 February 2017

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Co-Chair: Wong, Stephen T.C. <i>The Methodist Hospital Research Institute, Weill Cornell Medical College</i>	
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Czarnota, Gregory (*University of Toronto, Sunnybrook Health Sciences Centre*)

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Chair: Phelix, Clyde *The University of Texas at San Antonio; AL Phahelix Biometrics, Inc.*
Co-Chair: Wong, Stephen T.C. *The Methodist Hospital Research Institute, Weill Cornell Medical College*

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Chair: Arredondo, María Teresa *Technical University of Madrid*
Co-Chair: Vanrumste, Bart *Katholieke Universiteit Leuven*

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Technology Shenzhen Graduate School*); Li, Jie (*Harbin Institute of Technology Shenzhen Graduate School*);
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Thu1.2: Health Informatics (Public/Lifestyle) (Regular Session)
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Co-Chair: Letouze, Patrick *Universidade Federal do Tocantins*

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 (*Universidade Federal do Rio de Janeiro*); Chagas, Fernando B. (*Faculdade Pitagoras Imperatriz*);
 Ishihara, João Y. (*Universidade de Brasília*)

ThC1: 16:00-17:30	Salon 5
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Chair: Pattichis, Constantinos <i>University of Cyprus</i>	
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Chair: Maglaveras, Nikolaos <i>Aristotle University of Thessaloniki</i>	
Co-Chair: Williams, Sarah <i>Bernoulli Enterprise, Inc.</i>	

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Kitsiou, Spyros* (*University of Illinois at Chicago*); Thomas, Manu (*University of Illinois at Chicago*);
 Marai, Georgeta Elisabeta (*University of Pittsburgh*); Maglaveras, Nikolaos (*Aristotle University of Thessaloniki*);
 Kondos, George (*University of Illinois at Chicago*); Arena, Ross (*University of Illinois at Chicago*);
 Gerber, Ben (*University of Illinois at Chicago*)

Friday, 17 February 2017

FrRAF: 09:05-09:55

Ballroom D

Rapid Fire Session 03: Sensor Informatics II (Special Session)**Chair:** Maglaveras, Nikolaos *Aristotle University of Thessaloniki***Co-Chair:** Kalitzin, Stiliyan *Foundation Epilepsy Institute in The Netherlands (SEIN)*

09:05-09:55

FrRAF.10

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Jafari Tadi, Mojtaba* (*University of Turku*); Lahdenoja, Olli (*Technology Research Center, University of Turku*);
 Hurnanen, Tero (*Technology Research Center, University of Turku*); Koskinen, Juho (*University of Turku*);
 Pänkäälä, Mikko (*Technology Research Center, University of Turku*); Koivisto, Tero (*University of Turku*)

09:05-09:55

FrRAF.11

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09:05-09:55

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Selvaraj, Nandakumar* (*Vital Connect Inc*)

09:05-09:55

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FrA1: 10:10-11:30

Salon 5

Fri1.1: Sensor Informatics (Activity/Motion) (Regular Session)**Chair:** Winfree, Kyle *Northern Arizona University***Co-Chair:** Singapogu, Ravikiran *Clemson University*

10:10-10:20

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FrRPF: 13:25-14:15	Ballroom D
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Chair: Sloane, Elliot B. <i>Center for Healthcare Information Research & Policy (CHIRP)</i>	
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FrB1: 14:30-16:00		Salon 5
Fr1.2: Sensor Informatics (Monitoring/Architecture) (Regular Session)		
Chair: Xu, Wenyao <i>SUNY at Buffalo</i>		
Co-Chair: Penders, Julien <i>Bloom Technologies</i>		
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15:10-15:20		FrB1.5
A Tempo-Spatial Compressed Sensing Architecture for Efficient High-Throughput Information Acquisition in Organs-on-a-Chip	229-232
Song, Chen (<i>University at Buffalo, The State University of New York</i>); Wang, Aosen (<i>University at Buffalo</i>); Lin, Feng (<i>University at Buffalo</i>); Zhao, Ruogang (<i>Dept. of Biomedical Engineering, University at Buffalo (SUN)</i>); Jin, Zhanpeng (<i>Binghamton University, SUNY</i>); Xu, Wenyao* (<i>SUNY at Buffalo</i>)		
15:20-15:30		FrB1.6
Proof-of-Concept Energy-Efficient and Real-Time Hemodynamic Feature Extraction from Bioimpedance Signals using a Mixed-Signal Field Programmable Analog Array	233-236
Töreyin, Hakan (<i>Georgia Institute of Technology</i>); Shah, Sahil* (<i>Georgia Institute of Technology</i>); Hersek, Sinan (<i>Georgia Institute of Technology</i>); Inan, Omer (<i>Georgia Institute of Technology</i>); Hasler, Jennifer (<i>Gatech</i>)		

FrC1: 16:00-17:30	Salon 5
Fr1.3: Health Informatics (Disease Management) (Regular Session)	
Chair: Arredondo, María Teresa <i>Technical University of Madrid</i>	
Co-Chair: Liang, Jie <i>University of Illinois at Chicago</i>	

16:00-16:10	FrC1.1
Definition of a Online to Offline (O2O) System to Support the Individualized Management and Treatment Strategies for Overall Asthma Control	237-240
Hu, Ruofei (<i>Universidad Politécnica de Madrid</i>); Fico, Giuseppe (<i>Technical University of Madrid</i>); Vera-Muñoz, Cecilia (<i>Universidad Politécnica de Madrid (UPM)</i>); Lan, Fen (<i>The Second Affiliated Hospital of Zhejiang University School of</i>); Arredondo, María Teresa* (<i>Technical University of Madrid</i>)	
16:10-16:20	FrC1.2
Visualization of Patient Specific Disease Risk	241-244
Arandjelovic, Ognjen* (<i>University of St Andrews</i>); Osuala, Richard (<i>University of St Andrews</i>)	
16:20-16:30	FrC1.3
Automatic Analysis of LENA Recordings for Language Assessment in Children Aged Five to Fourteen Years with Application to Individuals with Autism	245-248
Pawar, Rahul (<i>Georgia Institute of Technology</i>); Albin, Aaron (<i>Georgia Institute of Technology</i>); Gupta, Udit (<i>Georgia Institute of Technology</i>); Rao, Hrishikesh (<i>Georgia Institute of Technology</i>); Carberry, Caroline (<i>Centre for Autism and the Developing Brain, Weil Cornell Medicin</i>); Hamo, Amarelle (<i>Centre for Autism and the Developing Brain, Weil Cornell Medicin</i>); Jones, Rebecca M. (<i>Centre for Autism and the Developing Brain, Weil Cornell Medicin</i>); Lord, Catherine (<i>Centre for Autism and the Developing Brain, Weil Cornell Medicin</i>); Clements, Mark A.* (<i>Georgia Institute of Technology</i>)	
16:30-16:40	FrC1.4
Relation between Estimated Cardiorespiratory Fitness and Running Performance in Free-Living: An Analysis of HRV4Training Data	249-252
Altini, Marco* (<i>Bloom Technologies, USA - ACTLab, University of Passau, DE</i>); Van Hoof, Chris (<i>IMEC</i>); Amft, Oliver (<i>University of Passau</i>)	
16:40-16:50	FrC1.5
Variance Analysis in Task-Time Matrix Clinical Pathways	253-256
Yan, Hui (<i>Zhejiang Univ.</i>); Kaymak, Uzay (<i>Eindhoven Techniche Univ.</i>); Van Gorp, Pieter* (<i>Eindhoven Univ. of Technology</i>); Ji, Lei (<i>Chinese PLA General Hospital</i>); Lu, Xudong (<i>Zhejiang Univ.</i>); Chiap Chiau, Choo (<i>Philips China</i>); H.M. Korsten, Hendriks (<i>Catharina Ziekenhuis</i>); Duan, Huilong (<i>Zhejiang Univ.</i>)	
16:50-17:00	FrC1.6
Prospects for Anticipating Kidney's Damage in Type-2 Diabetes Patients through the Sensing of Albumin Passing through the Renal Glomerulus	257-260
Nieto-Chaupis, Huber* (<i>Universidad de Ciencias y Humanidades</i>)	

Saturday, 18 February 2017

SaRAF: 09:05-09:55	Ballroom D
Rapid Fire Session 05: General and Theoretical Informatics I (Special Session)	
Chair: Huang, Yufei <i>University of Texas at San Antonio</i>	
Co-Chair: Herasevich, Vitaly <i>Mayo Clinic</i>	

09:05-09:55	SaRAF.1
Incorporating Domain Knowledge into Clinical Goal Discovering for Clinical Pathway Mining	261-264
Xu, Xiao* (<i>Tsinghua University</i>); Jin, Tao (<i>Tsinghua University</i>); Wei, Zhijie (<i>Tsinghua University</i>); Wang, Jianmin (<i>Tsinghua University</i>)	
09:05-09:55	SaRAF.2
Addressing Bias from Non-Random Missing Attributes in Health Data	265-268
Napoli, Nicholas* (<i>University of Virginia</i>); Kotoriy, Madeline (<i>University of Virginia, Batten School of Leadership and Public P</i>); Barnhardt, William (<i>University of Virginia, University of Virginia Health System</i>); Young, Jeffrey (<i>University of Virginia, Dept. of Surgery</i>); Barnes, Laura (<i>University of Virginia</i>)	

09:05-09:55		SaRAF.3
Assessing Bouts of Activity using Modeled Clinically Validated Physical Activity on Commodity Hardware	269-272	
Barrett, Caitlin (<i>Northern Arizona University</i>); Dominick, Gregory (<i>University of Delaware</i>); Winfree, Kyle* (<i>Northern Arizona University</i>)		
09:05-09:55		SaRAF.4
A Hidden Markov Model based Dynamic Scheduling Approach for Mobile Cloud Telemonitoring	273-276	
Wang, Xiaoliang (<i>SUNY-Binghamton</i>); Xu, Wenyao (<i>SUNY at Buffalo</i>); Jin, Zhanpeng* (<i>Binghamton University, SUNY</i>)		
09:05-09:55		SaRAF.5
UMLS Visualization for Biomedical and Health Science Classroom Teaching and Student Learning	277-280	
Saripalle, Rishi* (<i>Illinois State University</i>)		
09:05-09:55		SaRAF.6
Measurement of Spontaneous Body Sway during Quiet Stand using UWB Sensor	281-284	
Joshi, Vilas* (<i>Carleton University</i>); Knoefel, Frank-Dietrich (<i>Bruyere Continuing Care, University of Ottawa, Carleton University</i>); Goubran, Rafik A. (<i>Carleton University</i>); El-Tanany, Mohamed (<i>Carleton University</i>)		
09:05-09:55		SaRAF.7
Data Mining Methods for Identification of Concussion using Standardized Neurological Signs and Symptoms	285-288	
Venugopalan, Janani (<i>Georgia Institute of Technology</i>); Gore, Russell (<i>Shepherd Center</i>); Espinoza, Tamara (<i>Emory University</i>); Wright, David (<i>Emory University</i>); LaPlaca, Michelle (<i>Georgia Institute of Technology</i>); Wang, May D.* (<i>Georgia Tech and Emory University</i>)		
09:05-09:55		SaRAF.8
Continuous and Unconstrained Vital Signs Monitoring with Ballistocardiogram Sensors in Headrest Position	289-292	
Sadek, Ibrahim* (<i>Image and Pervasive Access Lab</i>); Biswas, Jit (<i>Institute for Infocomm Research</i>); Abdulrazak, Bessam (<i>University of Sherbrooke</i>); Zhang, Haihong (<i>Institute for Infocomm Research</i>); Mokhtari, Mounir (<i>Institut Mines-Telecom/CNRS</i>)		
09:05-09:55		SaRAF.9
Instantaneous Heart Rate as a Robust Feature for Sleep Apnea Severity Detection using Deep Learning	293-296	
Pathinarupothi, Rahul Krishnan* (<i>Amrita Vishwa Vidyapeetham</i>); Vinaykumar, R (<i>Amrita Vishwa Vidyapeetham (University)</i>); Rangan, Ekanath (<i>Amrita Vishwa Vidyapeetham</i>); Gopalakrishnan, E. A (<i>Amrita Vishwa Vidyapeetham (University)</i>); Soman, K. P. (<i>Amrita Vishwa Vidyapeetham (University)</i>)		
09:05-09:55		SaRAF.10
Effective and Efficient Visual Stimuli Design for Quantitative Autism Screening: An Exploratory Study	297-300	
Vu, Tri (1996); Tran, Hoan (<i>University at Buffalo</i>); Cho, Kun Woo (<i>University at Buffalo</i>); Song, Chen (<i>University at Buffalo, The State University of New York</i>); Lin, Feng (<i>University at Buffalo</i>); Chen, Chang Wen (<i>University at Buffalo, State University of New York</i>); Hartley-McAndrew, Michelle (<i>SUNY at Buffalo</i>); Doody, Kathy (<i>Buffalo State University (SUNY)</i>); Xu, Wenyao* (<i>SUNY at Buffalo</i>)		
09:05-09:55		SaRAF.11
Wellness Sensors and Proprietary Protocols, a Solution for Health Monitoring?	301-304	
Georgi, Nawras* (<i>Université de Rennes 1 - LTSI INSERM U1099</i>); Le Bouquin Jeannes, Regine (<i>Université de Rennes 1 - LTSI INSERM U1099</i>)		
09:05-09:55		SaRAF.12
Development and Perceptual Evaluation of Pitch Controllable Electrolarynx	305-308	
Wang, Li (<i>Beihang University</i>); Feng, Yijun (<i>Beihang University</i>); Yang, Ze (<i>Beihang University</i>); Niu, Haijun* (<i>Beihang University</i>)		
09:05-09:55		SaRAF.13
Spatial and Spectral Features Fusion for EEG Classification during Motor Imagery in BCI	309-312	
Tan, Chuanqi (<i>Tsinghua University</i>); Sun, Fuchun* (<i>Tsinghua University</i>); Zhang, Wenchang (<i>Tsinghua University</i>); Liu, Shaobo (<i>Tsinghua University</i>); Liu, Chunfang (<i>Tsinghua University</i>)		

09:05-09:55		SaRAF.14
The AKRON-Kalman Filter for Tracking Time-Varying Networks		313-316
Carluccio, Victor (<i>Rowan University</i>); Ditzler, Gregory (<i>University of Arizona</i>); Bouaynaya, Nidhal* (<i>Rowan University</i>); Fathallah-Shaykh, Hassan (<i>UAB</i>)		
09:05-09:55		SaRAF.16
A Cost Sensitive Approach to Predicting 30-Day Hospital Readmission in COPD Patients		317-320
Baechle, Christopher* (<i>Florida Atlantic University</i>); Agarwal, Ankur (<i>Florida Atlantic University</i>); Behra, Ravi (<i>Florida Atlantic University</i>); Zhu, Xingquan (<i>Florida Atlantic University</i>)		
09:05-09:55		SaRAF.17
Co-Occurring Evidence Discovery for COPD Patients using Natural Language Processing		321-324
Baechle, Christopher* (<i>Florida Atlantic University</i>); Agarwal, Ankur (<i>Florida Atlantic University</i>); Behra, Ravi (<i>Florida Atlantic University</i>); Zhu, Xingquan (<i>Florida Atlantic University</i>)		
09:05-09:55		SaRAF.19
Changes in Synergy of Transtibial Amputee during Gait: A Pilot Study		325-328
Mehryar, Pouyan* (<i>University of Leeds</i>); Sharif Shourijeh, Mohammad (<i>University of Ottawa</i>); Rezaeian, Tahmineh (<i>University of Leeds</i>); Iqbal, Nadeem (<i>Abdul Wali Khan University Mardan Pakistan</i>); Messenger, Neil (<i>University of Leeds</i>); Dehghani-Sanij, Abbas A. (<i>University of Leeds</i>)		
09:05-09:55		SaRAF.20
Relationship between Kernel Density Function Estimates of Gait Time Series and Clinical Data		329-332
Qureshi, Asma* (<i>University of Virginia</i>); Brandt-Pearce, Maite (<i>University of Virginia</i>); Engelhard, Matthew (<i>University of Virginia</i>); Goldman, Myla D. (<i>University of Virginia</i>)		
09:05-09:55		SaRAF.21
Gaits Analysis using Pressure Image for Subject Identification		333-336
Heydarzadeh, Mehrdad (<i>The University of Texas at Dallas</i>); Birjandtalab, Javad (<i>University of Texas at Dallas</i>); Baran Pouyan, Mazyar (<i>University of Texas at Dallas</i>); Nourani, Mehrdad* (<i>University of Texas at Dallas</i>); Ostadabbas, Sarah (<i>Northeastern University</i>)		
09:05-09:55		SaRAF.22
Heuristic based Gait Event Detection for Human Lower Limb Movement		337-340
Muhammad, Zakria (<i>Abdul Wali Khan University Mardan Pakistan</i>); Maqbool, Hafiz Farhan (<i>University of Leeds</i>); Hussain, Tahir (<i>Abdul Wali Khan University Mardan Pakistan</i>); Awad, Mohammed Ibrahim (<i>University of Leeds</i>); Mehryar, Pouyan* (<i>University of Leeds</i>); Iqbal, Nadeem (<i>Abdul Wali Khan University Mardan Pakistan</i>); Dehghani-Sanij, Abbas A. (<i>University of Leeds</i>)		
09:05-09:55		SaRAF.23
Application of Multiscale Entropy on EEG Signals for Emotion Detection		341-344
Michalopoulos, Kostas* (<i>Wright State University</i>); Bourbakis, Nikolaos (<i>Wright State University</i>)		
09:05-09:55		SaRAF.24
Classification of ADHD and Non-ADHD using Theta/Beta Power Ratio Features		345-348
Lopez Marcano, Juan* (<i>DSPRL-Wireless@VT-ECE, Virginia Tech, Blacksburg VA</i>); Bell, Martha Ann (<i>Psychology Dept., Virginia Tech, Blacksburg VA</i>); Beex, A. A. (Louis) (<i>DSPRL-Wireless@VT-ECE, Virginia Tech, Blacksburg VA</i>)		
09:05-09:55		SaRAF.25
Analyzing the Usage of Standards in Radiation Therapy Clinical Studies		349-352
Zhen, Yi (<i>University of North Carolina at Charlotte</i>); Jiang, Yuliang (<i>Peking University 3rd Hospital</i>); Yuan, Lulin (<i>Duke University Medical Center</i>); Kirkpatrick, John (<i>Duke University Medical Center</i>); Wu, Jackie (<i>Duke University Medical Center</i>); Ge, Yaorong* (<i>UNC Charlotte</i>)		

SaA1: 10:10-11:30 Salon 11
Sat1.1: General and Theoretical Informatics (Machine Learning Methods) (Regular Session)
Chair: Wong, Stephen T.C. *The Methodist Hospital Research Institute, Weill Cornell Medical College*
Co-Chair: Tourassi, Georgia *Oak Ridge National Laboratory*

10:10-10:20 SaA1.1
Applying Machine Learning Methods to Predict Hand Hygiene Compliance Characteristics 353-356
 Zhang, Peng* (*Vanderbilt University*); White, Jules (*Vanderbilt University*); Schmidt, Douglas (*Vanderbilt University*); Dennis, Tom (*ZH Solutions*)

10:20-10:30 SaA1.2
Glycaemic Index Prediction: A Pilot Study of Data Linkage Challenges and the Application of Machine Learning 357-360
 Li, Jingyuan (*University of St Andrews*); Arandjelovic, Ognjen* (*University of St Andrews*)

10:30-10:40 SaA1.3
Deep Recurrent Neural Networks for Predicting Intraoperative and Postoperative Outcomes and Trends 361-364
 Gopalswamy, Shruthi* (*University of Florida*); Tighe, Patrick (*University of Florida*); Rashidi, Parisa (*University of Florida*)

10:40-10:50 SaA1.4
Deep Learning Analytics for Diagnostic Support of Breast Cancer Disease Management 365-368
 He, Tiancheng* (*Methodist Hospital Research Institute, Weill Cornell Medical Col*); Puppala, Mamta (*Houston Methodist Research Institute, Weill Cornell Medical Coll*); Ogunti, Richard (*Houston Methodist Research Institute, Weill Cornell Medical Coll*); Mancuso, James (*Houston Methodist Research Institute, Weill Cornell Medical Coll*); Yu, Xiaohui (*Houston Methodist Research Institute, Weill Cornell Medical Coll*); Chen, Shenyi (*Houston Methodist Research Institute, Weill Cornell Medical Coll*); Chang, Jenny C. (*Houston Methodist Cancer Center*); Patel, Tejal A. (*Houston Methodist Cancer Center*); Wong, Stephen (*Houston Methodist Research Institute*)

10:50-11:00 SaA1.5
Automated Histologic Grading from Free-Text Pathology Reports using Graph-of-Words Features and Machine Learning 369-372
 Yoon, Hong-Jun (*Oak Ridge National Laboratory*); Tourassi, Georgia* (*Oak Ridge National Laboratory*); Roberts, Larry (*Oak Ridge National Laboratory*)

11:00-11:10 SaA1.6
Low Quality Dermal Image Classification using Transfer Learning 373-376
 Elmahdy, Mohamed S.* (*Systems and Biomedical Dept., Faculty of Engineering, Cairo*); Abdeldayem, Sara (*Faculty of Engineering, Cairo University*); Yassine, Inas (*Cairo University*)

SaA2: 10:10-11:30 Salon 12
Sat1.2: Brain / Head Informatics (Regular Session)
Chair: Ralston, John D. *IMPAXX Solutions, Inc.*
Co-Chair: Fotiadis, Dimitrios I. *University of Ioannina*

10:10-10:20 SaA2.1
Cerebral Blood Flow Velocity Pulse Onset Detection using Adaptive Thresholding 377-380
 Asgari, Shadnaz (*California State University, Long Beach*); Arevalo, Natalie* (*California State University, Long Beach*); Hamilton, Robert (*University of California, Los Angeles*); Hanchey, Dan (*Neural Analytics*); Scalzo, Fabien (*UCLA*)

10:20-10:30 SaA2.2
Squizofrenia: Classification and Correlation from MRI 381-384
 Rodrigues, Ana Filipa (*U. Coimbra*); Barros, Mariana (*U. Coimbra*); Furtado, Pedro* (*U. Coimbra*)

10:30-10:40 SaA2.3
Trajectory based Predictive Modeling of Conversion from Mild Cognitive Impairment to Alzheimer's Disease 385-388
 Minhas, Sidra (*Forman Christian College*); Khanum, Aasia (*Forman Christian College*); Riaz, Farhan* (*National University of Sciences and Technology*); Khan, Shoab (*CASE-Center for Advanced Studies*); Alvi, Atif (*Forman Christian College*)

10:40-10:50		SaA2.4
Resting EEG Functional Connectivity and Graph Theoretical Measures for Discrimination of Depression		389-392
Orgo, Laura* (<i>Tallinn University of Technology</i>); Bachmann, Maie (<i>Tallinn University of Technology</i>); Kalev, Kaia (<i>Tallinn University of Technology, Technomedicum</i>); Järvelaid, Mari (<i>The North Estonia Medical Centre</i>); Raik, Jaan (<i>Tallinn University of Technology</i>); Hinrikus, Hiie (<i>Tallinn University of Technology</i>)		
10:50-11:00		SaA2.5
Scalable Mental Health Analysis in the Clinical Whitespace via Natural Language Processing		393-396
Coppersmith, Glen (<i>QNTFY</i>); Hilland, Casey* (<i>QNTFY</i>); Frieder, Ophir (<i>Georgetown University</i>); Leary, Ryan (<i>QNTFY</i>)		
11:00-11:10		SaA2.6
A Candidate Neuromechanical Biomarker and Dosimeter for Monitoring Cumulative Head Impact Trauma		397-400
Ralston, John D.* (<i>IMPAXX Solutions, Inc.</i>); Grafton, Scott (<i>UCSB</i>); Meiring, Wendy (<i>UCSB</i>); Cieslak, Matthew (<i>UCSB</i>); Woodard, Jon (<i>Globalatom, Inc.</i>); Alex, Asturias (<i>UCSB</i>)		
SaRPF: 13:25-14:15		Ballroom D
Rapid Fire Session 06: General and Theoretical Informatics II (Special Session)		
Chair: Exarchos, Themis P. <i>Unit of Medical Tech & Intelligent Info</i>		
Co-Chair: Mezghani, Neila <i>Telug University</i>		
13:25-14:15		SaRPF.1
Phenotyping Hypotensive Patients in Critical Care using Hospital Discharge Summaries		401-404
Dai, Yang (<i>MIT</i>); Lokhandwala, Sharukh (<i>MIT</i>); Long, William (<i>Massachusetts Institute of Technology</i>); Mark, Roger (<i>Massachusetts Institute of Technology</i>); Lehman, Li-Wei* (<i>Massachusetts Institute of Technology</i>)		
13:25-14:15		SaRPF.2
An Embedded Gabor-Based Palm Vein Recognition System		405-408
Cancian, Pierandrea (<i>Politecnico di Milano</i>); Di Donato, Guido Walter (<i>Politecnico di Milano</i>); Rana, Vincenzo* (<i>Politecnico di Milano</i>); Santambrogio, Marco (<i>Politecnico di Milano</i>)		
13:25-14:15		SaRPF.3
Integrating Markov Model and Morphology Analysis for Finer Classification of Ventricular Arrhythmia in Real Time		409-412
Gawde, Purva* (<i>Kent State Univ.</i>); Bansal, Arvind (<i>Kent State Univ.</i>); Nielson, Jeffrey (<i>Summa Health System</i>)		
13:25-14:15		SaRPF.4
Towards Unsupervised Coherence-Based Assessment of ECG Quality in Different Posture and Movement Conditions		413-416
Gupta, Rishabh (<i>INRS-EMT</i>); Javaid, Abdul Qadir (<i>Georgia Inst. of Technology</i>); Etemad, S. Ali* (<i>Myant Inc.</i>)		
13:25-14:15		SaRPF.5
Predicting Episodes of Atrial Fibrillation using RR-Intervals and Ectopic Beats		417-420
Wickramasuriya, Dilranjan* (<i>University of South Florida</i>); Perumalla, Calvin (<i>University of South Florida</i>); Gitlin, Richard (<i>USF</i>)		
13:25-14:15		SaRPF.6
Estimation of New York Heart Association Class in Heart Failure Patients based on Machine Learning Techniques		421-424
Tripoliti, Evanthia (<i>University of Ioannina</i>); Papadopoulos, Theofilos (<i>Unit of Medical Technology and Intelligent Information Systems.</i>); Karanasiou, Georgia (<i>Institute of Molecular Biology and Biotechnology, FORTH, Ioannin</i>); Kalatzis, Fanis (<i>Dept. of Biomedical Research, Institute of Molecular Biology</i>); Bechlioulis, Aris (<i>Michaelidion Cardiac Center, University of Ioannina, and 2nd Dep</i>); Goletsis, Yorgos (<i>University of Ioannina</i>); Naka, Katerina (<i>University of Ioannina</i>); Fotiadis, Dimitrios I.* (<i>University of Ioannina</i>)		
13:25-14:15		SaRPF.7
Time-Series Data Analysis of Home Blood Flow Velocity Measurements from Radial Artery in Relation to Lifestyle Factors		425-428
Takeuchi, Hiroshi* (<i>Takasaki Univ. of Health and Welfare</i>); Kodama, Naoki (<i>Takasaki Univ. of Health and Welfare</i>)		

13:25-14:15		SaRPF.8
Non-Fiducial PPG-Based Authentication for Healthcare Application		429-432
Karimian, Nima* (<i>Univ. of Connecticut</i>); Tehranipoor, Mark (<i>Univ. of Florida</i>); Forte, Domenic (<i>Univ. of Florida</i>)		
13:25-14:15		SaRPF.9
Precise Calibration for the Coordinates of Surgical Needle's Tip based on Transform Invariant Matrix and Spherical Constraints		433-436
Jin, Jing (<i>Hefei Institute of Physical Science, Chinese Academy of Sciences</i>); Zhang, Liwei (<i>Hefei Institutes of Physical Science, Chinese Academy of Science</i>); Wang, Hongzhi (<i>Hefei Institutes of Physical Science, Chinese Academy of Science</i>); Wong, Stephen (<i>Houston Methodist Research Institute</i>); Li, Hai* (<i>Hefei Institutes of Physical Science, Chinese Academy of Science</i>)		
13:25-14:15		SaRPF.10
Fractal Features for Automatic Detection of Dysarthria		437-440
Spangler, Taylor* (<i>University of Nebraska - Lincoln</i>); Variyam, Vinod (<i>University of Nebraska - Lincoln</i>); Samal, Ashok (<i>University of Nebraska - Lincoln</i>); Green, Jordan (<i>MGH Institute of Health Professions</i>)		
13:25-14:15		SaRPF.11
A High Accuracy and Low Latency Patient-Specific Wearable Fall Detection System		441-444
Saadeh, Wala (<i>Lahore University of Management Sciences (LUMS)</i>); Altaf, Muhammad Awais Bin (<i>Lahore University of Management Sciences (LUMS)</i>); Shoab Bin Altaf, Muhammad* (<i>University of Wisconsin Madison</i>)		
13:25-14:15		SaRPF.12
Mining Motor Symptoms UPDRS Data of Parkinson's Disease Patients for the Development of Hoehn and Yahr Estimation Decision Support System		445-448
Tsiouris, Kostas (<i>Biomedical Engineering Laboratory, School of Electrical and Comp</i>); Rigas, Georgios (<i>University of Ioannina</i>); Antonini, Angelo (<i>IRCCS Fondazione Ospedale San Camillo, Division of Parkinson's Di</i>); Gatsios, Dimitris (<i>University of Ioannina</i>); Konitsiotis, Spiros (<i>Medical School, University of Ioannina</i>); Koutsouris, Dimitrios (<i>Biomedical Engineering Laboratory, School of Electrical and Comp</i>); Fotiadis, Dimitrios I.* (<i>University of Ioannina</i>)		
13:25-14:15		SaRPF.13
Estimating Patient's Health State using Latent Topics Inferred from Clinical Time Series and Text		449-452
Zalewski, Aaron (<i>MIT</i>); Long, William (<i>Massachusetts Institute of Technology</i>); Johnson, Alistair Edward William (<i>University of Oxford</i>); Mark, Roger (<i>Massachusetts Institute of Technology</i>); Lehman, Li-Wei* (<i>Massachusetts Institute of Technology</i>)		
13:25-14:15		SaRPF.14
Balance-Based Time-Frequency Features for Discrimination of Young and Elderly Subjects using Unsupervised Methods		453-456
Javaid, Abdul Qadir (<i>Georgia Institute of Technology</i>); Gupta, Rishabh (<i>INRS-EMT</i>); Mihailidis, Alex (<i>University of Toronto</i>); Etemad, S. Ali* (<i>Myant Inc.</i>)		
13:25-14:15		SaRPF.15
Early Detection of Diseases using Electronic Health Records Data and Covariance-Regularized Linear Discriminant Analysis		457-460
Bian, Jiang (<i>Missouri Univ. of Science and Technology</i>); Barnes, Laura (<i>Univ. of Virginia</i>); Chen, Guanling (<i>Univ. of Massachusetts Lowell</i>); Xiong, Haoyi* (<i>Missouri Univ. of Science and Technology</i>)		
13:25-14:15		SaRPF.16
Computer Aided Detection of Anemia-Like Pallor		461-464
Roychowdhury, Sohini (<i>University of Washington, Bothell</i>); Sun, Donny (<i>University of Washington, Bothell</i>); Bihis, Matthew (<i>University of Washington, Bothell</i>); Ren, Johnny (<i>University of Washington, Bothell</i>); Hage, Paul* (<i>The University of Washington Bothell</i>); Rahman, Humairat (<i>University of South Florida</i>)		
13:25-14:15		SaRPF.17
Multimodal Ambulatory Sleep Detection		465-468
Chen, Weixuan* (<i>Massachusetts Institute of Technology</i>); Sano, Akane (<i>Massachusetts Institute of Technology</i>); Lopez Martinez, Daniel (<i>Harvard-MIT Division of Health Sciences and Technology, Massachu</i>); Taylor, Sara (<i>Massachusetts Institute of Technology</i>); McHill, Andrew (<i>Brigham and Women's Hospital/Harvard Medical School</i>); Phillips, Andrew J. K. (<i>Brigham and Women's Hospital, Harvard Medical School</i>); Barger, Laura (<i>Brigham and Women's Hospital/Harvard Medical School</i>); Klerman, Elizabeth B. (<i>Division of Sleep Medicine, Brigham and Women's Hospital -Harvar</i>); Picard, Rosalind (<i>Massachusetts Institute of Technology</i>)		

13:25-14:15	SaRPF.18
Spectral Model based Intent Detection for Multichannel Semg Signals	469-472
Patil, Reena (<i>San Diego State University</i>); Kang, Ke (<i>San Diego State University</i>); Ozturk, Yusuf* (<i>San Diego State University</i>)	
13:25-14:15	SaRPF.19
Context Aware Adaptable Approach for Fall Detection bases on Smart Textile	473-476
Mezghani, Neila* (<i>Teluq University</i>); Ouakrim, Youssef (<i>Ecole de Technologie Superieure</i>); Md. Rabiul, Islam (<i>LIO</i>); Yared, Rami (<i>Sherbrooke University</i>); Abdulrazak, Bessam (<i>University of Sherbrooke</i>)	
13:25-14:15	SaRPF.20
A Presentation Semantic for the Operational Data Model (ODM)	477-480
Deserno, Thomas* (<i>RWTH Aachen University</i>); Haak, Daniel (<i>Uniklinik RWTH Aachen, Dept. of Medical Informatics</i>); Harmsen, Markus (<i>Uniklinik RWTH Aachen, Dept. of Medical Informatics</i>); Geisler, Sandra (<i>RWTH Aachen University, Chair of Computer Science 5</i>); Jarke, Matthias (<i>RWTH Aachen University, Chair of Computer Science 6</i>)	
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Norman, Brittany* (<i>Children's Healthcare of Atlanta</i>); Davis, Tod (<i>Children's Healthcare of Atlanta, Business Intelligence Dept.</i>); Quinn, Shannon (<i>University of Georgia</i>); Massey, Robert (<i>Children's Healthcare of Atlanta, Business Intelligence Dept.</i>); Hirsh, Daniel (<i>Children's Healthcare of Atlanta, Emergency Dept.</i>)	
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Bakal, Gokhan* (<i>University of Kentucky</i>); Kavuluru, Ramakanth (<i>University of Kentucky</i>)	
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Cole, Casey* (<i>University of South Carolina</i>); Thrasher, James (<i>University of South Carolina</i>); Strayer, Scott (<i>University of South Carolina</i>); Valafar, Homayoun (<i>University of South Carolina</i>)	
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Harris, Daniel* (<i>University of Kentucky, Center for Clinical and Translational Sc</i>); Henderson, Darren (<i>University of Kentucky, Center for Clinical and Translational Sc</i>); Talbert, Jeffery (<i>University of Kentucky</i>)	