

LSC 2017 Oral Presentation Program

#	Title	Authors
December 13 -- Wednesday -- WeA1 9:00-10:20 (4 papers @20 min)		
2	Development of Printed Sensors for Taste Sensing	Anindya Nag, Subhas Mukhopadhyay, Jürgen Kosel
29	Towards Personalisation of Physical Activity E-Coach using Stage-matched Behavior Change and Motivational Interviewing Strategies	Puspa S Pratiwi, Dian Tjondronegoro
45	A Comparative Study of Wearable Ultraviolet Radiometers	Shayak Banerjee, Eli G. Hoch, Peter D. Kaplan, Emmanuel L. P. Dumont
48	A wearable device for monitoring patients during PAP therapy	Mark Gardner, Sharmil Randhawa, Gordon Malouf, Karen J. Reynolds
December 13 -- Wednesday -- WeA2 9:00-10:40 (4 papers @20 min)		
9	Fundamental Analysis of Relationships between Hearing and Cognition in Maternal Brain Function	Hiroko Kotani, Masako Sugai, Kasumi Kuramoto, Maka Matsuno, Misa Kato, Hidenori Nakagawa
18	Basic Study of Measuring Temperature Distributions with Robot Arm System Using Ultrasound Images	Takahiro Saito, Ryo Matsumura, Kazuo Kato, Kenji Takahashi
21	Window-size impact on detection rate of wearable sensor-based fall detection using supervised machine-learning	I Putu Edy Suardiyana Putra, Rein Vesilo
24	A Software Application Framework for Developing Immersive Virtual Reality Experiences in health domain	Yifan Wang, Kiran Ijaz, Rafael A. Calvo
December 13 -- Wednesday -- WeP1 16:00-17:20 (4 papers @20 min)		
35	Modelling of Multilayer Biological Medium under Molecular Communication Paradigm	Muneer Al-Zubi, Ananda Sanagavarapu Mohan
39	Toward fabric-based EEG access technologies: Seamless knit electrodes for a portable brain-computer interface	Amanda Fleury, Milad Alizadeh, Gabriel Stefan, Tom Chau
44	Artificial Neural Networks Model Design of Lorenz Chaotic System for EEG Pattern Recognition and Prediction	Lei Zhang
60	Vision training: comparing a novel virtual reality game of Snakes with a conventional clinical therapy	Mei Ying Boon, Lisa Asper, Amelia J. Niao, Malcolm Ryan
December 13 -- Wednesday -- WeP2 16:00-17:20 (4 papers @20 min)		
25	A Pulmonary Deformation Registration Framework for Biplane X-ray and CT using Sparse Motion Composition	Tao Wang, Hongzhi Xie, Shuyang Zhang, Dong Chen, Lixu Gu
38	Optofluidic platform to investigate cell community behaviour in microenvironments	Rudra Vaswata Roy Choudhury, Anil Prabhakar, Sunil Laxman
41	Automatic Mimicry Detection in Medical Consultations	Kaihang Wu, Chunfeng Liu, Silas Taylor, Paul W.B. Atkins, Rafael A. Calvo
52	Physical Activity Enjoyment on an Immersive VR Exergaming Platform	Kiran Ijaz, Yifan Wang, Naseem Ahmadpour, Rafael A. Calvo
December 14 -- Thursday -- ThA1 9:00-10:20 (4 papers @20 min)		
67	From information to reflection– Design strategies for personal informatics	Naseem Ahmadpour, Karen Anne Cochrane
73	A METABOLIC EQUIVALENTS ESTIMATION ALGORITHM USING TRIAXIAL ACCELEROMETER AND ADAPTIVE SAMPLING FOR WEARABLE DEVICES	Motofumi Nakanishi, Shintaro Izumi, Mio Tsukahara, Hiroshi Kawaguchi, Masahiko Yoshimoto
74	Automatic Classification of Physical Exercises from Wearable Sensors using Small Dataset from Non-Laboratory Settings	Alok Kumar Chowdhury, Aleksandr Farseev, Prithvi Raj Chakraborty, Dian Tjondronegoro, Vinod Chandran
79	A Wearable Technology to Negotiate Surface Discontinuities for the Blind and Low Vision	Kuan Yew Leong, Simon Egerton, Carina K. Y. Chan
December 14 -- Thursday -- ThA2 9:00-10:20 (4 papers @20 min)		
66	Locomotion Mode Classification using Force Myography	Anoop Kant Godiyal, Srinivas Pandit, Amit Kumar Vimal, U Singh, Sneha Anand, Deepak Joshi
91	Orthopaedic Implant Micromotion Sensing Using An Eddy Current Sensor	Rajas Khokle, Karu Esselle, Michael Heimlich, Desmond Bokor
92	Graph Representation for Content-based fMRI Activation Map Retrieval	Alba Garcia Seco De Herrera, L. Rodney Long, Sameer Antani
December 14 -- Thursday -- ThA3 9:00-10:20 (4 papers @20 min)		
7	Use of Heart Rate Variability Infographics in Identification of Depression Status Complementing the Patient Health Questionnaire-9	Suzan Maleki, Faezeh Marzbanrad, Paul Warner, Herbert F. Jelinek
32	On the function and robustness of skin-electrode interfaces for high-density electromyography: Towards ubiquitous integration with robotics devices	Lukas G. Wiedemann, Andrew J. McDaid
77	Blood Pressure Estimation Based on Pulse Transit Time with LANDMARC	Wang Yang, Zhiwen Liu
82	Cross Recurrence Quantification Analysis of Mild Cognitive Impairment EEG under Working Memory Condition	Leena T. Timothy, Bindu M. Krishna, Usha Nair
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72	A near-infrared intertactance model for the estimation of infant body composition	Jacqueline Huvanandana, Peter Jones, Heather E. Jeffery, Angela E. Carberry, Shane Norris, Alistair L. McEwan
94	Initial mobility behaviours of people with visual impairment in a virtual environment using a mixed methods design	Natasha A. Knopf, Mei-Ying Boon, Gregg J. Suaning, Marc-Patrick H. Zapf, John Grigg
98	Control of Cell Fate and Excitability at the Neural Electrode Interface: Genetic Reprogramming and Optical Induction	Bailey Winter, Monica B. Setien, Joseph W. Salatino, Nathan Blanke, Cort H. Thompson, Kylie R. Smith, Wasif A. Khan, Wen Li, Steven T. Suhr, Erin K. Purcell
129	Fructose Uptake-based Rapid Detection of Breast Cancer	Joseph Fedie, Srinivas Kannan, Vagarshak Begoyan, Shuai Xia, Suhel Shaikh, Marina Tanasova, Smitha Rao
December 14 -- Thursday -- ThP2 16:00-17:20 (4 papers @20 min)		
93	Smartphone-Based Continuous Mobility Monitoring of Parkinsons Disease Patients Reveals Impacts of Ambulatory Bout Length on Gait Features	Wei-Yi Cheng, Florian Lipsmeier, Alf Scotland, Andrew Creagh, Timothy Kilchenmann, Liping Jin, Jens Schjodt-Eriksen, Detlef Wolf, Yan-Ping Zhang-Schaerer, Ignacio Fernandez Garcia, Juliane Siebourg-Polster, Jay Soto, Lynne Verselis, Meret Martin-Facklam, Frank Boess, Martin Koller, Michael Grundman, Andreas Monsch, Ron Postuma, Anirvan Ghosh, Thomas Kremer, Kirsten I. Taylor, Christian Czech, Christian Gossens, Michael Lindemann
95	Simplified Standing Function and Sensory Evaluation System For Fall Prevention	Mami Sakata, Keisuke Shima, Koji Shimatani, Hiroyuki Izumi, Tomoyuki Nagara
100	Identification of Electrical Impedance Tomography as Simulation System Emulating the Electroreceptive System in Aquatic Animals	Tobias Cibis, Sophie Preikschat, Duc Nguyen Minh, Peter Jones, Bjoern M. Eskofier, Alistair McEwan
103	Prediction of core temperature decrease induced by neck cooling in wheelchair athletes with spinal cord injury using the Pierce two-node model and parameter search	Kenta Takizawa, Jun Suzurikawa, Yukiharu Higuchi, Huang Ming, Toshiyo Tamura, Daisuke Kurabayashi, Takenobu Inoue, Toru Ogata, Atsushi Takashima
December 14 -- Thursday -- ThP3 16:00-17:20 (4 papers @20 min)		
13	I don't know: Double strategies based active learning for mammographic mass classification	Jingyang Zhang, Dong Chen, Hongzhi Xie, Shuyang Zhang, Lixu Gu
34	Prediction of major complications affecting very low birth weight infants	Olli-Pekka Rinta-Koski, Simo Särkkä, Jaakko Hollmén, Markus Leskinen, Krista Rantakari, Sture Andersson

42 An automated and unobtrusive system for cough detection	Leonardo Di Perna, Gabriele Spina, Susannah Thackray-Nocera, Michael G. Crooks, Alyn H. Morice, Paolo Soda, Albertus C. den Brinker
99 Automatic Discrimination of Attention Levels Estimated by Frontal EEG Activity in Drivers	Koji Kashihara
December 15 -- Friday -- FrA1 9:00-10:20 (4 papers @20 min)	Consumer Apps -3
115 Towards Non-Laboratory Prediction of Relative Physical Activity Intensities from Multimodal Wearable Sensor Data	Alok Chowdhury, Dian Tjondronegoro, Jinglan Zhang, Puspa Setia Pratiwi, Stewart G. Trost
117 Design of simple three-dimensional musculoskeletal model for wearable sensor system, and optimization method for link joint position using finite element analysis	Haruma Akimoto, Yoshio Tsuchiya, Yumeko Imamura, Takashi Kusaka, Takayuki Tanaka
123 Designing a Wearable MMG-based Mobile App for Gait Rehab	Katherine Plewa, Matthew Silverman, Silvia Orlandi, Tom Chau, Michael Thaut
December 15 -- Friday -- FrA2 9:00-10:20 (4 papers @20 min)	Engineering - 5
107 A Validation Test of Using Shoulder Joint Moment in Evaluation of Load in Wheelchair Propulsion	Daisuke Kobayashi, Takashi Watanabe, Nick Tyler, Tatsuto Suzuki
113 Automated Partial Premature Infant Pain Profile Scoring Using Big Data Analytics	Tanvi Naik, Carolyn McGregor, Andrew James
121 Cost effective electro - resistive band based myo activated prosthetic upper limb for amputees in the developing world	Diego Felipe Ulloa G., Neethu Sreenivasan, Paolo Bifulco, Mario Cesarelli, Gaetano Gargiulo, Upul Gunawardana
122 Segmentation of Overlapping cells obtained from Pap Smear Test	Humaira Nisar, Lim Yin Wai , Loh Siu Hong
December 15 -- Friday -- FrA3 9:00-10:20 (4 papers @20 min)	Biosensors - 2
84 Outlier Removal in Facial Surface Electromyography through Hampel Filtering Technique	Susmit Bhowmik, Beth Jelfs, Sridhar P. Arjunan, Dinesh K. Kumar
26 A Novel Fuzzy Logic Inspired Edge Detection Technique for Analysis of Malaria Infected Microscopic Thin Blood Images	Stephen Bias, Saumya Kareem Reni, Izzet Kale
120 Recognition of Human Motion Exercises using Using Skeleton Data and SVM for Rehabilitative Purposes	Jan Paul Vox, Frank Wallhoff
December 15 -- Friday -- FrP1 16:00-17:20 (4 papers @20 min)	LSC General - 3
116 Identification of Druggable Genome in Staphylococcus aureus Multidrug Resistant Strain	Maria Batool, Sangdun Choi
124 Crowdsourced Generation of Annotated Video Datasets: A Zebrafish Larvae Dataset for Video Segmentation and Tracking Evaluation	Xiaoying Wang, Eva Cheng, Ian S. Burnett, Yushi Huang, Donald Wlodkowic
126 The impact of Gender, Medical History and Vital Status on Emergency Visits and Hospital Admissions: A Remote Patient Monitoring Case Study	Catherine Inibhunu, Adrian Schauer, Olwen Redwood, Patrick Clifford, Carolyn McGregor
127 Predicting Hospital Admissions and Emergency Room Visits using Remote Home Monitoring Data	Catherine Inibhunu, Adrian Schauer, Olwen Redwood, Patrick Clifford, Carolyn McGregor
December 15 -- Friday -- FrP2 16:00-17:20 (4 papers @20 min)	Engineering - 6
125 Classification and Quantitative Estimation of Cognitive Stress from In-Game Keystroke Analysis using EEG and GSR	Deepan Das, Tanuka Bhattacharjee, Shreyasi Datta, Anirban Dutta Choudhury, Pratyusha Das, Arpan Pal
130 Towards Transfers in Paraplegia Assisted by Electrical Stimulation and Inertial System	Lucas Fonseca, Ana Claudia Lopes, Claudia Ochoa-Diaz, Christine Azevedo Coste, Emerson Fachin-Martins, Antônio Bó
78 Big Data Analytics for Enhanced Clinical Decision Support Systems during Spaceflight	Anastasiya Prysyzhnyuk, Roman Baevsky, Azaliya Berseneva, Anna Chernikova, Elena Luchitskaya, Vasily Rusanov, Carolyn McGregor
5 Dietary Prediction for Patients with Chronic Kidney Disease (CKD) by considering Blood Potassium Level using Machine Learning Algorithms	Male Pathiranjana Nimanthika Madhubhashini Wickramasinghe, Dulani Maheshika Perera, Chathurangika Kahandawaarachchi
December 15 -- Friday -- FrP3 16:00-17:20 (4 papers @20 min)	Rehabilitation
12 Prosthetic Hand with a Linkage Finger Mechanism for Power Grasping Applications	H. M. C. M. Herath, R. A. R. C. Gopura, Thilina Lalitharatne
30 Contactless Motion Analysis System Using a Kinect and Musculoskeletal Model	Yuya Hirano, Daisuke Kushida, Hiromi Matsumoto
56 Quest Time with Daring the Dog – an exergame for children with Cerebral Palsy	Dylan Mighell, Naseem Ahmadpour
118 Somatosensory Cortex Activation during Electrical Stimulation of Projected Finger Map on the Stump Skin of Forearm Amputee	Xiaodong Liu, Manzhao Hao, Chunyan Cao, Chuanxin Niu, Ning Lan