2012 IEEE 14th International Conference on e-Health Networking, Applications and Services

(Healthcom 2012)

Beijing, China
10 – 13 October 2012
Wednesday, October 10

09:00 - 10:00

Invited Talks for IASc

Room: FIT 1-315
Chair: Guixia Kang (Beijing University of Posts and Telecommunications, P.R. China)
Topic: Healthcare reform through Internet technologies Jeffrey Soar University of Southern Queensland, Australia

Invited Talks for TCM

Room: FIT 1-415
Chair: Baoyan Liu (Chinese Academy of TCM, P.R. China)

10:30 - 12:10

TCM - Part I: Traditional Chinese Medicine

Room: FIT 1-415
Chair: Xuezhong Zhou (Beijing Jiaotong University, P.R. China)

A Study of Repeatability and Reproducibility for Tongue Diagnosis Instrument in TCM
Chiung-Hung Chiang (Chang Gung University, Taiwan); Kang-Ping Lin (Chung-Yuan University, Taiwan); Juei-Chao Chen (Fu Jen Catholic University, Taiwan); Tzung-Yan Lee (Chang Gung University, Taiwan); Su-Tso Yang (China Medical University Hospital & School of Chinese Medicine, China Medical University, Taiwan); Hen-Hong Chang (Chang Gung University & Center for Traditional Chinese Medicine, Chang Gung Memorial Hospital at Taoyuan, Taiwan)
pp. 1-6

Thinking of Comparative Effectiveness Research of the Combination in the Real Traditional Chinese Medicine World
Huaxin Shi (China Academy of Chinese Medicine Science, P.R. China); Qi Xie (Chinese Academy of TCM, P.R. China); Xiaodong Li (China Academy of Traditional Chinese Medicine, P.R. China); Baoyan Liu (Chinese Academy of TCM, P.R. China); Zehuai Wen (Guangdong Provincial Hospital, P.R. China)
pp. 7-9

Clinical Data Preprocessing and Case Studies of POMDP for TCM Treatment Knowledge Discovery
Kai Liu (Beijing Jiaotong University, P.R. China); Xuezhong Zhou (Beijing Jiaotong University, P.R. China)
Using Link Topic Model to Analyze Traditional Chinese Medicine Clinical Symptom-Herb Regularities
Zaixing Jiang (Beijing Jiaotong University, P.R. China); Xuezhong Zhou (Beijing Jiaotong University, P.R. China)
pp. 15-18

IASe - Part I: Industrial Applications & Services on eHealth

Room: FIT 1-315
Chair: Guixia Kang (Beijing University of Posts and Telecommunications, P.R. China)

Full life cycle health records of data base center Architecture research
WeiHua Wang (ChinaUnicomResearchInstitute, P.R. China); Chihang Chen (ChinaUnicomResearchInstitute, P.R. China); Jiangong Li (China Unicom, P.R. China); Hao Chen (China Unicom Research Institute, P.R. China)
pp. 19-22

Technical Models and Key Technologies of E-Health Monitoring
Xueqin Jia (China Unicom Research Institute, P.R. China); Hao Chen (China Unicom Research Institute, P.R. China); Fei Qi (China Unicom Research Institute, P.R. China)
pp. 23-26

New requirements and trends of mHealth
Hao Chen (China Unicom Research Institute, P.R. China); Xueqin Jia (China Unicom Research Institute, P.R. China)
pp. 27-31

Hybrid Decision Making in the Monitoring of Hypertensive Patients
Longfeng Chen (Beijing University of Posts and Telecommunications, P.R. China); Guixia Kang (Beijing University of Posts and Telecommunications, P.R. China); Xidong Zhang (Beijing University of Posts and Telecommunications, P.R. China); Lichen Lee (Beijing University of Posts and Telecommunications, P.R. China); Xiangyi Li (Beijing University of Posts and Telecommunications, P.R. China)
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13:30 - 15:10

TCM - Part II: Traditional Chinese Medicine

Room: FIT 1-415
Chair: Huaxin Shi (China Academy of Chinese Medicine Science, P.R. China)

Integrating Modern Technology with Traditional Chinese Medicine, Sharing Information across Hong Kong
Ruth Leung (Hospital Authority, Hong Kong); Corey Lam (Hospital Authority, Hong Kong); Eric Ziea (Hospital Authority, Hong Kong)
pp. 38-40

Data mining Traditional Chinese Medicine (TCM): lessons learnt from mining in Law and Allopathic medicine
Andrew Stranieri (Ballarat University, Australia); Tony R Sahama (Queensland University of Technology & IEEE ACM IBS ACS SSAInc HISA, Australia)
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Construction of National Clinical Research Data Center of Traditional Chinese Medicine
Liu Baoyan (China Academy of Traditional Chinese Medicine, P.R. China); Lei Zhang (Beijing Jiaotong University, P.R. China); Xie Qi (China Academy of Chinese Medicine Sciences, P.R. China); Huaxin Shi (China Academy of Chinese Medicine Science, P.R. China); Yu Haibin (China Academy of Chinese Medicine Sciences, P.R. China)
pp. 47-51

Multidimensional Analysis for Traditional Chinese Medicine Diagnosis and Treatment on Hepatitis Diseases
Lan Bi (Beijing Jiaotong University, P.R. China); Xuezhong Zhou (Beijing Jiaotong University, P.R. China)
**IASe - Part II: Industrial Applications & Services on eHealth**

Room: FIT 1-315  
Chair: Guixia Kang (Beijing University of Posts and Telecommunications, P.R. China)

*Enhanced Data Extraction, Transforming and Loading Processing for Traditional Chinese Medicine Clinical Data Warehouse*

Xishui Pan (Technology Beijing Jiaotong University, P.R. China)  
pp. 57-61

*A monitoring system for type 2 diabetes mellitus*

Ning Wang (Beijing University of Posts and Telecommunications, P.R. China); Guixia Kang (Beijing University of Posts and Telecommunications, P.R. China)  
pp. 62-67

*An Interference Avoidance Strategy for Zigbee Based WeHealth Monitoring System*

Lichen Lee (Beijing University of Posts and Telecommunications, P.R. China); Guixia Kang (Beijing University of Posts and Telecommunications, P.R. China); Xidong Zhang (Beijing University of Posts and Telecommunications, P.R. China); Xiangyi Li (Beijing University of Posts and Telecommunications, P.R. China); Longfeng Chen (Beijing University of Posts and Telecommunications, P.R. China)  
pp. 68-72

*A Study of Regional Cooperative Emergency Care System for ST-elevation Myocardial Infarction Patients Based on the Internet of Things*

Hao Chen (Guangzhou General Hospital of Guangzhou Military Command, P.R. China); Dingcheng Xiang (Guangzhou General Hospital of Guangzhou Military Command, P.R. China); Weiyi Qin (Guangzhou General Hospital of Guangzhou Military Command, P.R. China); Minwei Zhou (Guangzhou General Hospital of Guangzhou Military Command, P.R. China); Yan Tian (Guangzhou General Hospital of Guangzhou Military Command, P.R. China); Jian Liu (Guangzhou General Hospital of Guangzhou Military Command, P.R. China); Mingyu Wang (Tsinghua University, P.R. China); Jijiang Yang (Tsinghua University, P.R. China); Qing Wang (Tsinghua University, P.R. China); Haifeng Yang (IVT Technology Inc., P.R. China); Xianjun Sun (IVT Technology Inc., P.R. China); Geng Li (IVT Technology Inc., P.R. China); Qiag Gao (IVT Corporation, P.R. China)  
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**TCM - Part III: Traditional Chinese Medicine**

Room: FIT 1-415  
Chair: Huaxin Shi (China Academy of Chinese Medicine Science, P.R. China)

*A Systemic Description of Service Flows in Traditional Chinese Medicine*

Yung-Hsiu Lin (Ta-Hwa University of Science and Technology, Taiwan); Sophie Guo (Chang Gung University, Taiwan); Chien-Hsiung Lin (Chang Gung Memorial Hospital, Taiwan); Tsai-Ya Lai (Industrial Technology Research Institute, Taiwan); Her-Kun Chang (Chang Gung University, Taiwan)  
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*A Study on Electrical Properties of Acupuncture Points in Allergic Rhinitis*

Ming-Hsien Yeh (Buddhist Tsu Chi General Hospital, Taiwan); Hao-Feng Luo (National Chung Cheng University, Taiwan); Nai-Wei Lin (National Chung Cheng University, Taiwan); Zen-Yi Chen (National Chung Cheng University, Taiwan); Chia-Chou Yeh (Tsu Chi University, Taiwan)  
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*Real-world Clinical Data Mining on TCM Clinical Diagnosis and Treatment: A Survey*

Xiaoping Zhang (China Academy of Chinese Medical Sciences & China Academy of Chinese Medical Sciences, P.R. China)
Research on the Nomenclature Relations of Conceptual System in Fundamental Theory of Traditional Chinese Medicine

Cun Cao (Institute of Computing Technology Chinese Academy of Sciences, P.R. China); Qi Xie (Chinese Academy of TCM, P.R. China); Yan Pan (Institute of Information on Traditional Chinese Medicine, China Academy of Chinese Medical Sciences, P.R. China); Ren Yin (Institute of Information on Traditional Chinese Medicine, P.R. China)

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The Development of a Patient Adherence Management System Applying Intelligent Keyword (PAMSIK) Empowered by Peer Learning Mechanism

Yin-Pin Yang (Industrial Technology Research Institute, Taiwan); Tsai-Ya Lai (Industrial Technology Research Institute, Taiwan)

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Thursday, October 11

08:30 - 09:00

Conference Welcome

Welcome Remarks, Opening Remarks
Room: Multi-Function Hall 2nd Floor

09:00 - 12:00

Keynotes Speech
Room: Multi-Function Hall  2nd Floor  
Chair: Jian Song (Tsinghua University, P.R. China)  
Topic: eHealth Development: Challenges and Opportunities  
Wu Tsong-Ho, Industrial Technology Research Institute (ITRI), Taiwan  
Topic: Mobile Health Trends and Challenges  
Joel Rodrigues, Instituto de Telecomunicações, University of Beira Interior, Portugal  
Topic: Biochip enabled translation from central laboratory to portable laboratory  
Cheng Jing, School of Medicine, Tsinghua University, China  

13:30 - 15:10

fSessionI-I: Method, Technology and system for eHealth

Room: FIT 1-315  
Chair: Chi-Ren Shyu (University of Missouri, USA)

Using Artificial Neural Nets to Hemo Metabolites Identification  
Jose Braga (UNIFEI, Brazil); Alexandre C. B. Ramos (Universidade Federal de Itajubá, Brazil); Alvaro Queiroz (UNIFEI, Brazil)  
pp. 124-131

A hypertension monitoring system and its system accuracy evaluation  
Di Lin (McGill University, Canada); Xidong Zhang (Beijing University of Posts and Telecommunications, P.R. China); Fabrice Labeau (McGill University, Canada); Guixia Kang (Beijing University of Posts and Telecommunications, P.R. China)  
pp. 132-137

Acceleration and Electromyography (EMG) Pattern Analysis for Children with Cerebral Palsy  
Qian Wang (University of Science and Technology of China, P.R. China); Xiang Chen (University of Science and Technology of China, P.R. China); De Wu (The First Affiliated Hospital of Anhui Medical University, P.R. China); Lingling Qian (The First Affiliated Hospital of Anhui Medical University, P.R. China); Xu Zhang (University of Science and Technology of China, P.R. China)  
pp. 138-142

Accuracy Estimation of Detection of Extrasystoles in Heart Rate Sequences  
Laimutis Telksnys (Vilnius University Institute of Mathematics and Informatics, Lithuania); Jonas Kaukėnas (Vilnius University Institute of Mathematics and Informatics, Lithuania)  
pp. 143-148

fSessionI-I: Applications and system development for eHealth

Room: FIT 1-415  
Chair: Samir Chatterjee (Claremont Graduate University, USA)

A Lower Limb Fracture Postoperative-guided Interactive Rehabilitation Training System and Its Effectiveness Analysis  
Shih-Ching Yeh (Central University, Taiwan); Shun-Min Chang (Landseed Hospital, Taiwan); Shu-Ya Chen (China Medical University, Taiwan); Wu-Yuin Hwang (National Central University, P.R. China); Tzu-Chuan Huang (National Central University, Taiwan); Te-Lu Tsai (Institute for Information Industry, Taiwan)  
pp. 149-154

A Personalised Lifestyle Advisory System  
Bo Hu (Fujitsu Laboratories of Europe Ltd., United Kingdom)  
pp. 155-160

Evaluating the Influence of Motivational and Educational Strategies in Personalized Medication Management  
Min-Hui Nicole Foo (Agency for Science, Technology and Research, A*STAR, Singapore); Jit Chee Chua (Institute for Infocomm Research, Singapore); Chen Koon Toh (Institute for Infocomm Research, Singapore); Jamie Ng (Institute for Infocomm Ressearch, Singapore)  
pp. 161-166

A Motion-Sensing Enabled Personalized Exercise System for Cardiac Rehabilitation
fSession III-I: Models and algorithms for eHealth

Room: FIT 1-515
Chair: Kaushik Dutta (National University of Singapore, USA)

Content dependent effect of H.264/AVC video compression on CT image quality
Lawrence W.C. Chan (Hong Kong Polytechnic University, P.R. China); Derek So (Hong Kong Polytechnic University, Hong Kong); Yolanda Shiu (Hong Kong Polytechnic University, Hong Kong); David Sin (Hong Kong Polytechnic University, Hong Kong); Ben Chan (Hong Kong Polytechnic University, Hong Kong); Tao Chan (University of Hong Kong, Hong Kong)
pp. 172-177

Analysis of Physiological Responses from Multiple Subjects for Emotion Recognition
Yuan Gu (Nanyang Technological University, Singapore); Kai-Juan Wong (Nanyang Technological University, Singapore); Su-Lim Tan (Singapore Institute of Technology, Singapore)
pp. 178-183

A Survey on PHR Technology
James Robison (Temple University, USA); Li Bai (Temple University, USA); Dimitrios Mastrogiannis (Temple University School of Medicine, USA); Chiu C. Tan (Temple University, USA); Jie Wu (Temple University, USA)
pp. 184-189

Virtual Reality for Post-Stroke Shoulder-Arm Motor Rehabilitation: Training System & Assessment Method
Shih-Ching Yeh (Central University, Taiwan); Si-Huei Lee (Taipei Veterans General Hospital, Taiwan); Jia-Chi Wang (Taipei Veterans General Hospital, Taiwan); Shu-Ya Chen (China Medical University, Taiwan); Yu-Tsung Chen (National Central University, Taiwan); Huang-Ren Chen (Central University, Taiwan); Yen-Po Hung (National Central University, Taiwan)
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15:40 - 17:45

fSession I-II: Method, Technology and system for eHealth

Room: FIT 1-315
Chair: Isao Nakajima (Tokai University School of Medicine, Japan)

Falling Detection Using Multiple Doppler Sensors
Shoichiro Tomii (Keio University, Japan); Tomoaki Ohtsuki (Keio University, Japan)
pp. 196-201

An Enhanced Threshold Based Technique for White Blood Cells Nuclei Automatic Segmentation
Mostafa Mohamed A. Mohamed (University of Calgary, Canada); Behrouz Homayoun Far (University of Calgary, Canada)
pp. 202-207

A Study on New Ku-band Digital Transponder - Built-in Terminal to the Leg Ring to Track Avian Influenza -
Isao Nakajima (Tokai University School of Medicine, Japan); Toshihiko Kitano (Tokai University, Japan); Masaaki Katayama (Nagoya University, Japan); Atsushi Nakajima (Shinshu University, Japan); Tokio Kasai (JAXA, Japan)
An Innovative VR-based Vestibular Rehabilitation System
Shih-Ching Yeh (Central University, Taiwan); Pa-chun Wang (Cathay Hospital, Taiwan); Yen-Po Hung (National Central University, Taiwan); Chia-Huang Chang (Cathay Hospital, Taiwan); Shu-Ya Chen (China Medical University, Taiwan); Mu-Chun Su (National Central University, Taiwan); Hsueh-Lin Chen (Industrial Technology Research Institute, Taiwan)
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Surgery Telepresence for Universities and Symposia
Sven Ubik (CESNET, Czech Republic); Jiri Navratil (CESNET, Czech Republic)
pp. 218-222

fSession II-11: Models and algorithms for ehealth
Room: FIT 1-415
Chair: Lawrence W.C. Chan (Hong Kong Polytechnic University, P.R. China)

A Bayesian Model of Heart Rate to Reveal Real-time Physiological Information
Giorgio Quer (University of California San Diego, USA); Ramesh Rao (University of California at San Diego, USA)
pp. 223-229

A Predictive Modeling Engine Using Neural Networks: Diabetes Management from Sensor and Activity Data
Samir Chatterjee (Claremont Graduate University, USA); Qi Xie (Claremont Graduate University, USA); Kaushik Dutta (National University of Singapore, USA)
pp. 230-237

SemanMedical: A Kind of Semantic Medical Monitoring System Model Based on the IoT Sensors
Zhang Guigang (Tsinghua University, P.R. China); Chao Li (Tsinghua University, P.R. China); Yong Zhang (Tsinghua University, P.R. China); Chunxiao Xing (Tsinghua University, P.R. China); Ji Jiang Yang (Tsinghua University, P.R. China)
pp. 238-243

Automatic Lip-synchronized Video-Self-Modeling Intervention for Voice Disorders
Ju Shen (University of Kentucky, USA); Changpeng Ti (University of Kentucky, USA); Sen-ching Samson Cheung (University of Kentucky, USA); Rita Patel (University of Kentucky, USA)
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Developing a rule-driven clinical decision support system with an extensive and adaptative architecture
Liang Xiao (Hubei University of Technology, P.R. China)
pp. 250-254

fSession III-11: eHealth information and network Infrastructure
Room: FIT 1-515
Chair: Kaoru Sezaki (University of Tokyo, Japan)

eHealth Interconnection Infrastructure Challenges and Solutions Overview
Wei Liu (Georgia Gwinnett College, USA); Ek Park (CSU-Chico, USA); Udo R. Krieger (Otto-Friedrich University Bamberg, Germany)
pp. 255-260

Intra-Mobility Handover Enhancement in Healthcare Wireless Sensor Networks
João M. L. P. Caldeira (Polytechnical Institute of Castelo Branco & Instituto de Telecomunicações, Portugal); Joel J. P. C. Rodrigues (Instituto de Telecomunicações, University of Beira Interior, Portugal); Pascal Lorenz (University of Haute Alsace, France); Lei Shu (Osaka University, Japan)
pp. 261-266

QoS-Driven Scheduling Approach Using Optimal Slot Allocation for Wireless Body Area Networks
Zhisheng Yan (University of Science and Technology of China, P.R. China); Bin Liu (University of Science and Technology of China, P.R. China); Chang Wen Chen (State University of New York at Buffalo, USA)
pp. 267-272
A Novel TDMA-Based MAC Protocol for Mobile in-vivo Body Sensor Networks
Lin Lin (Nanyang Technological University, Singapore); Kai-Juan Wong (Nanyang Technological University, Singapore); Arun Kumar (Nanyang Technological University, Singapore); Su-Lim Tan (Singapore Institute of Technology, Singapore); Soo-Jay Phee (Nanyang Technological University, Singapore)
pp. 273-278

CVNP: A Multi-Homed VPN Solution for Remote Patient Monitoring
Bruce Zamaere (KTH - Royal Institute of Technology, Sweden); Markus Hidell (KTH Royal Institute of Technology, Sweden); Peter Sjödin (KTH, Sweden)
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Friday, October 12

08:30 - 10:10

fSession I-III :Applications and system development for eHealth

Room: FIT 1-315
Chair: Chi-Ren Shyu (University of Missouri, USA)

Improving Disease Management through a Mobile Application for Lymphedema Patients
Shuyu Xu (University of Missouri-Columbia, USA); Blake Anderson (University of Missouri, USA); Jane Armer (University of Missouri, USA); Chi-Ren Shyu (University of Missouri, USA)
pp. 286-291

Development of wearable heart disease monitoring and alerting system associated with smartphone
Hyuma Watanabe (University of Tsukuba, Japan); Masatoshi Kawarasaki (University of Tsukuba, Japan); Akira Sato (University of Tsukuba, Japan); Kentaro Yoshida (University of Tsukuba, Japan)
pp. 292-297

Basic Human Motion Tracking Using a Pair of Gyro + Accelerometer MEMS Devices
Aravind Kailas (University of North Carolina at Charlotte, USA)
pp. 298-302

A Robust and Scalable Framework for Detecting Self-reported Illness from Twitter
Muhammad Asif Khan (University of Tokyo & University of Dhaka, Bangladesh, Japan); Masayuki Iwai (the University of Tokyo & Institute of Industrial Science, Japan); Kaoru Sezaki (University of Tokyo, Japan)
pp. 303-308

sSessionIII-III :Models and Algorithms for ehealth

Room: FIT 1-515
Chair: Norbert Noury (University of Lyon & Team Biomedical Sensors, France)

UE-Based Optimization for Self-Service Community Healthcare Kiosk
Liu Wei (Beijing University of Technology, P.R. China); Lu Yongqiang (Research Institute of Information Technology, P.R. China); Chen Cai (Beijing University of Technology, P.R. China); Du Yuanyuan (Beijing University of Technology, P.R. China); Yan Fanxi (Beijing University of Technology, P.R. China); Xu Shuqi (Beijing University of Technology, P.R. China)
pp. 309-312

Utilizing a Closed Loop Medication Management Workflow through an Engaging Interactive Robot for Older People
Chandan Datta (University of Auckland, New Zealand); Priyesh Tiwari (University of Auckland, New Zealand); Hong Yang (University of Auckland, New Zealand); Elizabeth Broadbent (University of Auckland, New Zealand); Bruce MacDonald (The University of Auckland, New Zealand)
pp. 313-316

An OSGi-Based Health Service Platform for Elderly People
A Multimedia Based Hybrid System for Healthcare Application
Weider D. Yu (San Jose State University, USA); Akash Panwar (San Jose State University, USA); Vikas Dahuja (San Jose State University, USA); Yogesh Goyal (San Jose State University, USA)
pp. 321-324

KiMentia: Kinect based tool to help Cognitive Stimulation for individuals with Dementia
Zelai Sáenz de Urturi Breton (University of Deusto, Spain); Begoña García Zapirain (University of Deusto, Spain); Amaia Mendez Zorrilla (University of Deusto, Spain)
pp. 325-328

fSession II-III: Privacy, Security in eHealth
Room: FIT 1-415
Chair: Zhen Fang (Chinese Academy of Science, P.R. China)

Security Analysis of Emerging Remote Obstetrics Monitoring Systems
Chiu C. Tan (Temple University, USA); Li Bai (Temple University, USA); Dimitrios Mastrogiannis (Temple University School of Medicine, USA); Jie Wu (Temple University, USA)
pp. 329-334

I am not a goldfish in a bowl: A Privacy Preserving Framework for RFID based Healthcare Systems
Sheikh Iqbal Ahamed (Marquette University, USA); Farzana Rahman (Marquette University, USA); Jijiang Yang (Tsinghua University, P.R. China); Qing Wang (Tsinghua University, P.R. China)
pp. 335-340

A framework for privacy-preserving healthcare data sharing
Lei Chen (Tsinghua University, P.R. China); Jijiang Yang (Tsinghua University, P.R. China); Qing Wang (Tsinghua University, P.R. China); Niu Yu (Tsing Hua University, P.R. China)
pp. 341-346

A Viable and Sustainable Key Management Approach for a National E-health Environment
Pei-Yuan Shen (Queensland University of Technology, Australia); Vicky Liu (Queensland University of Technology, Australia); William Caelli (Queensland University of Technology, Australia)
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10:30 - 12:10

sSession I-I: Method, Technology and system for eHealth
Room: FIT 1-315
Chair: Wei Liu (Georgia Gwinnett College, USA)

The Design of an Ontology-based Service-Oriented Architecture Framework for Traditional Chinese Medicine Healthcare
Shih Wei Chen (Industriaed Technology Research Institute, Taiwan); Yu-Ting Tseng (Industrial Technology Research Institute, Taiwan); Tsai-Ya Lai (Industrial Technology Research Institute, Taiwan)
pp. 353-356

Practical Research of Conceptual System Framework Based on TCM Basic Theory
Rui Cao (University of Traditional Chinese Medicine, P.R. China); Cungen Cao (Chinese Academy of Sciences Computer Technology Institution, P.R. China); Qi Xie (Chinese Academy of TCM, P.R. China); Jia Ziru (Chongqing University, P.R. China)
pp. 357-360

Pupil Detection in Hardware using FPGA
Leandro Schwarz (UTFPR, Brazil); Humberto Gamba (UTFPR, Brazil); Fábio Pacheco (IFSC, Brazil); Miguel Antonio Sovierzoski (Federal University of Technology - Parana, Brazil)
The 3AHcare Node: Health Monitoring Continuously
Zhen Fang (Chinese Academy of Science, P.R. China); Zhan Zhao (The Institute of Electronics, Chinese Academy of Sciences, P.R. China); Fangmin Sun (Institute of Electronics Chinese Academy of Sciences, P.R. China); Xianxiang Chen (Institute of Electronics, Chinese Academy of Sciences, P.R. China); Lidong Du (Institute of Electronics, Chinese Academy of Sciences, P.R. China); Huaiyong Li (Navy General Hospital of PLA, P.R. China); Lili Tian (Navy General Hospital of PLA, P.R. China)
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An Architectural Design Framework for an Electronic Health Record System with Hospice Application
Weider D. Yu (San Jose State University, USA); Alla Panova (San Jose State University, USA)
pp. 367-370

sSession II-I: Applications and system development for eHealth

Room: FIT 1-415
Chair: Aravind Kailas (University of North Carolina at Charlotte, USA)

A wearable heart rate belt for ambulant ECG monitoring
Meiran Peng (Tsinghua University & Department of Biomedical Engineering, P.R. China); Tiandong Wang (Tsinghua University, P.R. China); Guangshu Hu (Tsinghua University & Department of Biomedical Engineering, P.R. China); Hui Zhang (Tsinghua University & Department of Biomedical Engineering, P.R. China)
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Wireless eHealth (WeHealth) --- From Concept to Practice
Guixia Kang (Beijing University of Posts and Telecommunications, P.R. China)
pp. 375-378

An Innovative System of Health Monitoring Using Mobile Phones
Manda Yang (Tsinghua University, P.R. China); Xingzhou He (Tsinghua University, P.R. China); Lei Gao (301 Hospital, P.R. China); Li Zhao (Tsinghua University, P.R. China)
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Using Wireless Technologies for Healthcare Monitoring at Home: a Survey
Youssouf Zatout (University of Toulouse, UTM, France)
pp. 383-386

sSession III-I: Models and Algorithms for eHealth

Room: FIT 1-515
Chair: Yongqiang Lu (Research Institute of Information Technology, P.R. China)

NEW e-Health Signaling Model in the NGN Environment
Adel Mounir Said (National Telecommunication Institute (NTI), Egypt); Ashraf William Ibrahim (National Telecommunication Institute (NTI), Egypt)
pp. 391-394

Novel Cochannel Interference Avoidance Strategy For Outdoor Remote Medical Monitor Network
Xidong Zhang (Beijing University of Posts and Telecommunications, P.R. China); Guixia Kang (Beijing University of Posts and Telecommunications, P.R. China); Ping Zhang (Wireless Technology Innovation Lab, Beijing University of Posts and Telecommunications, P.R. China); Heng Zhang (China Equipment System Engineering Corporation, P.R. China); Gui Xin (Beijing University of posts and telecommunications, P.R. China)
**The Citizen Telehealth Care Service Model in Taipei: A Case Study**
Mei-Ju Chen (Taipei City Hospital, Taiwan); Shuo-Ju Chiang (Taipei City Hospital, Taiwan); Jiun-Shiou Lee (Taipei City Hospital, Taiwan); Ernest Yu (Taipei City Hospital, Taiwan)  
pp. 399-402

**Benefit of Internet of Things to Improve Business Interaction with Depression Prevention and Treatment**
Mohsen Yaghoubi Suraki (Qazvin Islamic Azad University, Iran); Morteza Yaghoubi Suraki (Sari Islamic Azad University, Iran); Omid Nejati (Member of Young Researchers Club of Islamic Azad University Qaemshahr Branch, Iran)  
pp. 403-406

**An Integrated System for Brain Machine Interface**
Hung-Chih Chiu (National Tsing Hua University, Taiwan); Chi-Fen Chuang (National Tsing Hua University, Taiwan); Yung-Chan Chen (National Tsing Hua University, Taiwan); Yang-Hang Fan (National Tsing Hua University, Taiwan); Yu-Han Kao (National Tsing Hua University, Taiwan); Hsi-Pin Ma (National Tsing Hua University, Taiwan); Hsin Chen (The Institute of Electronics Engineering, National Tsing Hua University, Taiwan); Shih-Rung Yeh (National Tsing Hua University, Taiwan)  
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**13:30 - 15:10**

**sSession I-I : Applications and system development for eHealth**

Room: FIT 1-315  
Chair: Hsi-Pin Ma (National Tsing Hua University, Taiwan)

**Cellular phone-based Biofeedback to treat physical and mental disorders**
David Infante Sanchez (University of Birmingham, United Kingdom); Tim Collins (University of Birmingham, United Kingdom); Robert Stone (University of Birmingham, United Kingdom); Sandra Woolley (University of Birmingham, United Kingdom)  
pp. 411-414

**Measuring the Speed of Execution of the Resistance Training Exercise Using a Triaxial Accelerometer**
Mayara Sousa (IFSC, Brazil); Leandro Schwarz (UTFPR, Brazil); Jony Silveira (IFSC, Brazil); Wladimir Kükamp (UDESC, Brazil); Jonathan Dias (UDESC, Brazil); Noé Borges Júnior (UDESC, Brazil)  
pp. 415-418

**Social Media Canonicalization in Healthcare: Smart CDSS as an Exemplary Application**
Muhammad Afzal (Kyung Hee University, Korea); Maqbool Hussain (Kyung Hee University, Korea)  
pp. 419-422

**A feasibility Study of Using a Smartphone to Monitor Mobility in Elderly**
Norbert Noury (University of Lyon & Team Biomedical Sensors, France); Kim Anh Quach (INL-INSIA Lyon / Orange Labs, France); Marc Berenguer (Orange Labs, France); Marie-Jeanne Bouzid (Orange Labs, France); Henri Teyssier (Orange Labs, France)  
pp. 423-426

**On Time Series Sensor Data Segmentation for Fall and Activity Classification**
Ifeyinwa Achumba (University of Portsmouth, United Kingdom); Sebastian Bersch (University of Portsmouth, United Kingdom); Rinat Khusainov (University of Portsmouth, United Kingdom); Djamel Azzi (University of Portsmouth, United Kingdom); Ugochukwu Kamalu (University of Portsmouth, United Kingdom)  
pp. 427-430

**sSession II-II : Models and Algorithms for eHealth**

Room: FIT 1-415  
Chair: Weider D. Yu (San Jose State University, USA)
Knowledge Engineering of Healthcare Applications based on Minimalist Multilevel Models
Luciana Cavalini (Rio de Janeiro State University, Brazil); Timothy Cook (National Institute of Science and Technology, Brazil)
p. 431-434

JSM-2 Based Joint ECG Compressed Sensing with Partially Known Support Establishment
Wei Qiao (University of Science and Technology of China, P.R. China); Bin Liu (University of Science and Technology of China, P.R. China); Chang Wen Chen (State University of New York at Buffalo, USA)
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Taipei Smart Medical Package
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Error Rate Analysis and Co-operative Communication for Ad-hoc and Sensor Network to Combat Rician fading Based on Disaster Healthcare
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Hassine Moungla (Paris Descartes University & LIUPEDE Labs, France); Nora Touati (LIX, Ecole Polytechnique, France); Ahmed Mehaoua (University of Paris Descartes, France)
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Ya-Ling Chen (Industrial Technology Research Institute, Taiwan); Hsueh-Lin Chen (Industrial Technology Research Institute, Taiwan); Chia-I Lin (Industrial Technology Research Institute, Taiwan); Bo-Chao Cheng (National Chung Cheng University, Taiwan); Guo-Tan Liao (National Chung Cheng University, Taiwan); Ding-Jun Yin (National Chung Cheng University, Taiwan); Kuo-Yang Hung (National Chung Cheng University, Taiwan)
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Xiangyi Li (Beijing University of Posts and Telecommunications, P.R. China); Guixia Kang (Beijing University of Posts and Telecommunications, P.R. China); Yifan Zhang (Beijing University of Posts and Telecommunications, P.R. China); Xidong Zhang (Beijing University of Posts and Telecommunications, P.R. China); Longfeng Chen (Beijing University of Posts and Telecommunications, P.R. China); Lichen Lee (Beijing University of Posts and Telecommunications, P.R. China)
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