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 IASe

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)
Topic Systematic Service Development for Traditional Chinese Medicine - Retrospect and Prospect Tsai-Ya Lai, Industrial Technology Research Institute (ITRI), Taiwan Topic   Informationization Strategy for Traditional Chinese Medicine Shusong Mao, Hubei University of Chinese Medicine, 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)

pp. 10-14

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 Uniersity of Posts and Telecommunications, P.R. China); Xiangyi Li (Beijing University of Posts and Telecommunications, P.R. China)
pp. 32-37

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)
pp. 41-46

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
A monitoring system for type 2 diabetes mellitus
An Interference Avoidance Strategy for Zigbee Based WeHealth Monitoring System
A Study of Regional Cooperative Emergency Care System for ST-elevation Myocardial Infarction Patients Based on the Internet of Things

15:40 - 17:20

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
A Study on Electrical Properties of Acupuncture Points in Allergic Rhinitis
Real-world Clinical Data Mining on TCM Clinical Diagnosis and Treatment: A Survey

pp. 88-93

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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IASe - Part III: Industrial Applications & Services on eHealth

Room: FIT 1-315
Chair: Fabrice Labeau (McGill University, Canada)

Scheduling medical tests: a solution to the problem of overcrowding in a hospital emergency department
Di Lin (McGill University, Canada); Fabrice Labeau (McGill University, Canada); Xidong Zhang (Beijing University of Posts and Telecommunications, P.R. China); Guixia Kang (Beijing University of Posts and Telecommunications, P.R. China)
pp. 100-104

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)
pp. 105-110

On Medical Informatics for Pervasive and Ubiquitous Computing in eHealth
Aravind Kailas (University of North Carolina at Charlotte, USA); Dimitrios Stefanidis (Carolina Healthcare System, USA)
pp. 111-118

Remote Rehabilitation Model Based on BAN and Cloud Computing Technology
Mingyu Wang (Tsinghua University, P.R. China); Qiang Zeng (301 Military Hospital, P.R. China); Weimo Zhu (University of Illinois at Urbana-Champaign, P.R. China); Jijiang Yang (Tsinghua University, P.R. China); Qing Wang (Tsinghua University, P.R. China); Weiyi Qin (Guangzhou General Hospital of Guangzhou Military Command, P.R. China); Dingcheng Xiang (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); Hao Chen (Guangzhou General Hospital of Guangzhou Military Command, P.R. China); Jian Liu (Guangzhou General Hospital of Guangzhou Military Command, P.R. China); Xiaoqian Li (IVT (BEIJING) Technology Inc, P.R. China); Geng Li (IVT Technology Inc., P.R. China); Qiang Gao (IVT Corpration, P.R. China)
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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 ResearchInstitute (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

fSessionII-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

Tung-Hung Lu (Industrial Technology Research Institute, Taiwan); Hsing-Chen Lin (Industrial Technology Research Institute, Taiwan); Yueh-Hsuan Lee (Industrial Technology Research Institute, Taiwan); Rong-Rong Chen (Industrial Technology Research Institute, Taiwan); Hsueh-Lin Chen (Industrial Technology Research Institute, Taiwan); Shu-Yuan Chang (Industrial Technology Research Institute (ITRI), Taiwan); Ji-Ding Chen (Industrial Technology Research Institute, Taiwan); Bo-Ru Wu (Industrial Technology Research Institute, Taiwan); Tsong-Ho Wu (Industrial Technology Research Institute, Taiwan)
pp. 167-171

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); Yi-Yung Yang (Taipei Veterans General Hospital, Taiwan); Huang-Ren Chen (Central University, Taiwan); Yen-Po Hung (National Central University, Taiwan)
pp. 190-195

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)

pp. 208-212

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)
   pp. 213-217

Surgery Telepresence for Universities and Symposia
   Sven Ubik (CESNET, Czech Republic); Jiri Navratil (CESNET, Czech Republic)
   pp. 218-222

fSession II-II: 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); Jijiang 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)
   pp. 244-249

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-II: 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 (Polytecnic 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

CVPN: 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)
> pp. 279-285

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 Heath Service Platform for Elderly People

Qiang Lin (Northwestern Polytechnical University, P.R. China); Hongbo Ni (Northwestern Polytechnical University, P.R. China); Xingshe Zhou (Northwestern Polytechnical University, P.R. China)
pp. 317-320

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)
pp. 347-352

10:30 - 12:10

sSessionI-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 (Industried 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)

pp. 361-364

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)
pp. 365-366

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)
pp. 371-374

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)
pp. 379-382

Using Wireless Technologies for Healthcare Monitoring at Home: a Survey

Youssouf Zatout (University of Toulouse, UTM, France)
pp. 383-386

A Wireless Noncontact ECG Detection System Based on Capacitive Coupling

Xianxiang Chen (Institute of Electronics, Chinese Academy of Sciences, P.R. China); Yuansheng Lv (Institute of Electronics, CAS, P.R. China); Ren Ren (Institute of Electronics, CAS, P.R. China); Zhen Fang (Chinese Academy of Science, P.R. China); Shanhong Xia (Institute of Electronics, CAS, P.R. China); Huaiyong Li (Navy General Hospital of PLA, P.R. China); Lili Tian (Navy General Hospital of PLA, P.R. China)
pp. 387-390

sSessionIII-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)

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13:30 - 15:10

sSession I-II :Applications and system development for eHealth

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

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)
> pp. 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)
> pp. 435-438

Taipei Smart Medical Package
> Mei-Ju Chen (Taipei City Hospital, Taiwan); Kuan-Yu Chen (Taipei City Hospital, Taiwan); Shuo-Ju Chiang (Taipei City Hospital, Taiwan); Polun Chang (National YANG-MING University, Taiwan)
> pp. 439-442

Sleep Apnea Monitoring Using Mobile Phones
> Shamma Alqassim (American University of Sharjah, UAE); Madhumeta Ganesh (American University of Sharjah, UAE); Shaheen Khoja (American University of Sharjah, UAE); Meher Zaidi (American University of Sharjah, UAE); Fadi Aloul (American University of Sharjah, UAE); Assim Sagahyroon (American University of Sharjah, UAE)
> pp. 443-446

Inter-User Interference in Body Sensor Networks: A Case Study in Moderate-scale Deployment in Hospital Environment
> Wen Sun (National University of Singapore, Singapore); Yu Ge (Institute for Infocomm Research, Singapore); Wai-Choong Wong (National University of Singapore, Singapore)
> pp. 447-450

sSession III-II :eHealth information and network Infrastructure

Room: FIT 1-515
Chair: Joel J. P. C. Rodrigues (Instituto de Telecomunicações, University of Beira Interior, Portugal)

Required EMS Channels via Satellite Communications after Major Disaster
> Isao Nakajima (Tokai University School of Medicine, Japan); Kaoru Nakada (Tokai University, Japan); Toshihiko Kitano (Tokai University, Japan); Sadaki Inokuchi (Tokai University, Japan)
> pp. 451-454

A Content Adaptation Middleware for Use in a mHealth System
> Zhanlin Ji (University of Science and Technology Beijing, P.R. China); Xueji Zhang (University of Science and Technology Beijing, P.R. China); Ivan Ganchev (University of Limerick & Telecommunications Research Centre, Ireland); Mairtin O'Droma (University of Limerick & Telecommunications research Centre, UL (Director), Ireland)
> pp. 455-457

Error Rate Analysis and Co-operative Communication for Ad-hoc and Sensor Network to Combat Rician fading Based on Disaster Healthcare
> Salah Ibrahim (Beijing University of Posts and Telecommunications, P.R. China); Guixia Kang (Beijing University of Posts and Telecommunications, P.R. China)
> pp. 458-461

Packet Loss Ratio Evaluation of the Impact of Interference on ZigBee Network caused by Wi-Fi (IEEE 802.11b/g) in E-health Environment
> Muhammad Usman Memon (Sukkur Institute of Business Administration, Pakistan); Li Zhang (University of Leeds, United Kingdom); Bushra Shaikh (Mehran UET & MUET, Pakistan)
> pp. 462-465

The GAL Monitoring Concept for Distributed AAL Platforms
> Felix Büsching (Technische Universität Braunschweig, Germany); Maximiliano Bottazzi (Technische Universität Braunschweig, Germany); Lars C Wolf (Technische Universität Braunschweig, Germany)
> pp. 466-469

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sSession II-III :eHealth information and network Infrastructure

Room: FIT 1-415
Chair: Yu Chen (Tsinghua University, P.R. China)

A Reliable, Efficient Routing Protocol for Dynamic Topology in Wireless Body Area Networks using Min-Max multi-commodity flow model
> Hassine Moungla (Paris Descartes University & LIPADE Labs, France); Nora Touati (LIX, Ecole Polytechnique, France); Ahmed Mehaoua (University of Paris Descartes, France)
> pp. 470-473

A Personalized Middleware for Ubiquitous mHealth Services
> Zhanlin Ji (University of Science and Technology Beijing, P.R. China); Xueji Zhang (University of Science and Technology Beijing, P.R. China); Ivan Ganchev (University of Limerick & Telecommunications Research Centre, Ireland); Mairtin O'Droma (University of Limerick & Telecommunications research Centre, UL (Director), Ireland)
> pp. 474-476

High Performance Java Sockets (HPJS) for Scientific Health Clouds
> Muhammad Bilal Amin (Kyung Hee University, Korea)
> pp. 477-480

Intelligent Healthcare Computing and Networking
> Masum Z. Hasan (Cisco Systems, USA)
> pp. 481-485

A 3R Dataflow Engine for Restoring Electrophysiological Signals in Telemedicine Cloud Platforms
> Yingrui Zhang (Peking University, P.R. China); Anpeng Huang (Peking University, P.R. China); Daoxian Wang (Peking University, P.R. China); Xiaohui Duan (Peking University, P.R. China); Bingli Jiao (Peking University, P.R. China); LinZhen Xie (Peking University, P.R. China); Fan Liu (People Hospital of Peking University, P.R. China); Shan Wang (People Hospital of Peking University, P.R. China)
> pp. 486-489

Design and Development of an m-Health Multi-Conference and Multi-Platform Application
> Rodrigo Ramos (IFSC, Brazil); Fernando S Pacheco (Federal Institute of Santa Catarina, Brazil); Leandro Schwarz (UTFPR, Brazil); Begoña García Zapirain (University of Deusto, Spain)
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sSession III-III :Privacy, Security in eHealth & eHealth information and network Infrastructure

Room: FIT 1-515
Chair: Sheikh Iqbal Ahamed (Marquette University, USA)

iPAT: Intelligent Privacy-preserving Administration Tool for IRB Applications
> 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)
> pp. 494-497

Secure Data Storage for Java ME-Based Mobile Data Collection Systems
> Samson H Gejibo (University of Bergen & UiB, Norway); Federico Mancini (FFI - Norwegian Defence Research Establishment & University of Bergen, Norway); Khalid Mughal (University of Bergen, Norway); Remi Valvik (University of Bergen, Norway); Jørn Klungsøyr (University of Bergen, Norway)
> pp. 498-501

Securable Personal Health Records using Ciphertext Policy Attribute Based Encryption
> Nzanywayingoma Frederic (University of Science and Technology Beijing, P.R. China); Qiming Huang (University of Science and Technology in Beijing, P.R. China)
> pp. 502-505

A Telemedicine Protocol Based on Watermarking Evidence for Identification of liabilities in Case of Litigation
> Dalel Bouslimi (Institut Mines - Telecom, Telecom Bretagne, France); Gouenou Coatrieux (INSTITUT TELECOM - TELECOM Bretagne, France); Michel Cozic (MEDECOM, France); Christian Roux (Institut National de la Sant´e et de Recherche M´edicale, France)
> pp. 506-509

Chronic Disease Management System with Body-implanted Medical Devices Based on Wireless Sensor Networks
> 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 Uniersity of Posts and Telecommunications, P.R. China)
> pp. 510-513

Further Research on Market Oriented Grid Based on Contract Management
> Yinghua Sun (Information and Engineering College of Qingdao University, P.R. China); Zhehui Wu (Shandong University of Science and Technology, P.R. China)
> pp. 514-517

sSessionI-III: Health Service based on new IT technology

Room: FIT 1-315
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Interoperability of Communicating Medical Devices in Telemedicine - Regulations initiatives in France
> Norbert Noury (University of Lyon & Team Biomedical Sensors, France)
> pp. 518-521

Smarter Wheelchairs Who Can Talk to Each Other: An Integrated and Collaborative Approach
> Junjun Kong (Peking University & The Hong Kong Polytechnic University, P.R. China); Jiannong Cao (Hong Kong Polytechnic Univ, Hong Kong); Yang Liu (The Hong Kong Polytechnic University, Hong Kong); Yao Guo (Peking University, P.R. China); Weizhong Shao (Peking University, P.R. China)
> pp. 522-525

Constructing Ideas of Health Service Platform for the Elderly
> Huaxin Shi (China Academy of Chinese Medicine Science, P.R. China); Baoyan Liu (Chinese Academy of TCM, P.R. China); Qi Xie (Chinese Academy of TCM, P.R. China); Xiaodong Li (China Academy of Traditional Chinese Medicine, P.R. China); Shusong Mao (Hubei University of Chinese Medicine, P.R. China); Xuezhong Zhou (Beijing Jiaotong University, P.R. China)
> pp. 526-529

Bridging gaps between three-generation families' Needs and Attitudes towards e-health technologies
> Odelia Tan (Institute for Infocomm Research, Singapore); Jamie Ng (Institute for Infocomm Ressearch, Singapore); Alvin Wong (Institute for Infocomm Ressearch, Singapore); Wei Kiat Koh (Institute for Infocomm Research, Singapore)
> pp. 530-533

A Proposal for Construction of Telemedicine Information Platform and Extension of Health Care Service
> Meikui Zhang (The General Hospital of the People's Liberation Army (PLAGH), P.R. China); JingSheng Hu (First Affiliated Hospital, General Hospital of PLA, P.R. China); Chen Jiang (General Hospital of PLA, P.R. China)
> pp. 534-537

How e-Health Reduces Days Spent for Treatment of Patients with Lifestyle-related Diseases
> Yuji Akematsu (Osaka University, Japan); Masatsugu Tsuji (University of Hyogo, Japan)
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