The Second International Workshop on Security, Privacy, and Trustworthiness in Medical Cyber-Physical Systems (MedSPT 2017)

in conjunction with IEEE/ACM CHASE 2017

Philadelphia PA, USA, July 17-19, 2016

Medical Cyber Physical Systems (MCPS) are life-critical, context-aware, and networked systems of medical devices that provide tight integration and coordination between the cyber world of computing and communications and the physical world. Recent advances in mobile and wearable healthcare, communication, and Cloud computing technologies are making MCPS a promising platform for scientific advancement and development of new tools that may improve patients' health and wellbeing. Coming along with the potential social economic and personal healthcare benefits are significant security, privacy, and trustworthiness challenges in MCPS, due to unreliable embedded software controlling medical devices, weak computing and networking capabilities of medical devices, and adaptive privacy requirements introduced by complicated physiological dynamics of patient bodies. So far, the security, privacy, and trustworthiness initiatives for MCPS are still at an early stage. On one hand, more and more concerns have been raised in the fields and many security, privacy, and trustworthiness-enhancing techniques have been proposed to resolve these concerns. On the other hand, the emerging mobile and wearable technologies revolutionize the entire MCPS as well as its models of security, privacy, and trustworthiness. It is still not clear that these proposed techniques are useful and effective in practice and how quickly or even possibly they are going to be adopted.

This workshop aims to bring together the technologists and researchers who share interest in the area of security, privacy and trustworthiness in medical cyber physical systems, as well as explore new venues of collaboration. The main purpose is to promote discussions of research and relevant activities in the design of secure, privacy, or trustworthiness architectures, protocols, algorithms, services, and applications on medical cyber physical systems. It also aims at increasing the synergy between academic and industry professionals working in this area. We plan to seek papers that address theoretical, experimental research, and work in-progress for security, privacy and trustworthiness related issues in the context of medical cyber physical system.

Topic of Interest

- Mobile Healthcare Security
- Smartphone Security for Healthcare
- Wearable Device Security
- Medical Device Security
- Security and Privacy on Implantable Medical Sensors
- Biometrics
- Wireless Communication Security
- Security and Privacy for Wireless Body Area Networks
- Secure RFID technology in MCPS
- Software Defined Networks (SDN)
- Security in Virtualized Health Systems
- Security Risk Assessment
- Secure Cloud Health System
- Big Health Data Security
- Differential Privacy on Health Data
- Secure Machine Learning on Health Data
- Privacy Preserving Big Health Data Analysis
- Novel Threats and Attack Models
- Novel Trust Models
- Security Detection and Evaluation
- Key Management
- Cryptography for Health Systems
- Security Management (administration and training) in Health Systems
- Security and Privacy Policies in Health Systems
- Security in Electronic Health Record Systems
- Access Control for Medical Systems

Instructions for Authors

Submitted papers must be neither previously published nor under review by another workshop, conference or journal. Only electronic submissions in PDF will be accepted. Submitted manuscripts may not exceed 6 (or 7 with $100 extra fees) single-spaced double-column pages using 10-point size font on 8.5x11 inch pages (IEEE conference style), including figures, tables, and references. See style templates for details: IEEE Manuscript Templates for Conference Proceedings." Note that at least one of the authors of each paper accepted for presentation in MedSPT 2017 must be registered. All presented papers will be published in formal workshop proceedings and will be included in IEEE Digital Library. Please check our website http://sceweb.sce.uhcl.edu/sha/medspt2017.html for more information on how to submit your paper.

Review and Publication of Manuscripts

Submitted papers will be reviewed by the workshop Program Committee and judged on originality, technical correctness, relevance, and quality of presentation and the comments will be provided to the authors. If any accepted paper is not registered, the paper will be removed from the workshop program and the proceedings. Outstanding papers will be invited to extend to full version for a prestigious journal, ***Elsevier Smart Health***.

ORGANIZING COMMITTEE

Workshop Co-Chairs

Kewei Sha
University of Houston – Clear Lake, USA

Wenjia Li
New York Institute of technology, USA

Technical Program Committee (tentative)

Xiaodong Lin
University of Ontario Inst. of Tech., CA

Hongwei Li
University of Electronic Science and Technology of China, China

Gul Khan
Ryerson University, Canada

Mauro Conti
University of Padua, Italy

Keke Chen
Wright State University, USA

Dongwan Shin
New Mexico Tech, USA

Zhiwei Wang
NJUPT, China

Kim-Kwang Raymond Choo
The University of Texas at San Antonio, USA

Qiben Yan
University of Nebraska, Lincoln, USA

Wei Wei
University of Houston Clear Lake, USA

Timothy Pierson
Dartmouth College, USA

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Georgia Southern University, USA

Weichao Wang
University of North Carolina at Charlotte, USA

Feng Zeng
Central South University, China

Rongxing Lu
Nanyang Technological University, Singapore

Kuan Zhang
University of Waterloo, Canada

Hongwei Li
University of Electronic Science and Technology of China, China

Yehua Wei
Hunan Normal University, China

Sheng Bo
University of Massachusetts Boston, USA

Weidong Shi
University of Houston, USA

Haojing Zhu
Shanghai Jiao Tong University, China

Chiu C. Tan
Temple University, USA

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Tennessee Technological University, USA

Yupeng Hu
Hunan University, China

Qing Yang
Montana State University, USA

Nianhua Yang
Shanghai University of International Business and Economics, China

Xiaohui Liang
University of Massachusetts, USA

TIMELINE

March 31, 2017
Paper submission due

April 21, 2017
Acceptance Notification

April 30, 2017
Camera ready versions due