IEEE-EMB Proponent

Wearables and Medical IoT Interoperability & Intelligence (WAMIBIO) Workshop 2018

Security, Data, privacy and interoperability for a connected medical devices ecosystem

The Workshop is intended to address the emerging technical challenges and research needs for the interoperability of medical devices and wearables with the goal of engaging the research community in developing solutions, technologies, and health professionals – to participate in wireless bedside and workstations for technical frameworks for standards and tech policy guidelines for patient privacy and security.

Dates:
Wednesday, 25 April 2018

Times:
Registration: 08:30
Opening Remarks: 08:45
Sessions: 09:00 - 16:30
Reception: 16:30

Venue:
Johns Hopkins University
Homewood Campus Campus
3400 Wyndhall Center Drive
Baltimore, MD 21218
Map

Why WAMIBIO?

The IoMT market is exploding with millions of new devices and creaking bedside monitors lower and middle income countries (LMICs) are being upgraded with connectivity. Medical device manufacturers and devices (ex.pacemakers, implantable devices) are increasingly connected and healthcare market will reach $158.8 billion by 2021.

Medical devices connected to the Internet devices could deliver much promise in advancing the healthcare delivery and quality of care. The exponential growth of this market has brought greater demand for more robust and secure devices that can deliver data interoperably, security and safety. The Food and Drug Administration (FDA) has issued guidance for industry professionals, regulators, research sponsors, developers, and others who are involved in clinical action or exploring frameworks for technical standards and/or policy guidelines to address these critical concerns.

If these critical issues can be resolved, then the ability to tap into well of big valuable data can be realized to improve the quality of healthcare delivery, reduce costs, improve patient safety, research, innovation, and/or personalized medicine and engagement for clinical trials, lower and prevent diagnostic, and more. To achieve this, we need you to be part of this Workshop, the goal of which is to bring together researchers, practitioners, and policy makers to discuss the unprecedented dynamics that are shaping the future of healthcare and medical devices.

This is not just a one-time Workshop. The workshop (day 1) is a key facilitator in presenting the challenges and opportunities for interoperability and intelligence for a connected medical ecosystem. Do not wonder and only recommendations (day 2) to "security" space, privacy and safety patient data data is advancing the future of medicine.

The Education

The Workshop is intended for attendees to learn about the opportunities and challenges in mounting data interoperability of wearable devices within a connected medical ecosystem. The workshop will also provide a forum for discussion of the current state of the art, and will lay the groundwork for future collaborations and research activities.

Learning Objectives - Opportunities and Challenges

1. **TECHNOLOGY** – Boosting the uptake of the sensors – more processing and security.
2. **INTEROPERABILITY** – Hardware and Software Strong Data Interoperability from device to device, device to cloud, cloud to cloud and beyond.
3. **SECURITY** – Security Data at rest (Encryption/PKI) is secure and protect patient data while enabling treated users to use certificate-based data to improve great interventions.
4. **PRIVACY** – Protecting the patient's data, Privacy by Design and Privacy in clinical applications (ex. Critical care, research, diagnostics, precision medicine, innovation in medicine).
5. **POLICY & PRACTICE** – protecting the patient's data, meeting regulatory guidelines for hardware/software/firmware, Privacy by Design, Policy and Consent – where normal standards and tech policy guidelines can deliver on this.

Who Should Attend?

FDA Cures are in way of the following areas:

- Medical Device Manufacturers
- Clinical Medical Professionals
- Health Care Providers
- Health Research Experts
- Hospital/Health System – Innovation and Research Leaders
- Medical Device Manufacturers – product design or engineering
- Software Developers – design or engineering
- Data Security/Anonymization Experts (HIPAA)
- Medical Device Security Experts
- Medical Device Cybersecurity
- Cybersecurity Research Engineering
- Medical Device Interoperability
- Wearable Devices Interoperability
- Wearable Devices Data Security
- Wearable Devices Data Privacy
- Wearable Devices Data Intelligence
- Wearable Devices Data Analytics
- Wearable Devices Data Mining
- Wearable Devices Data Visualization
- Wearable Devices Data Interpretation
- Wearable Devices Data Prediction
- Wearable Devices Data Prescription
- Wearable Devices Data Medical Intervention
- Wearable Devices Data Medical Treatment
- Wearable Devices Data Medical Diagnostics
- Wearable Devices Data Medical Research
- Wearable Devices Data Medical Innovation
- Wearable Devices Data Medical Personalization
- Wearable Devices Data Medical Precision
- Wearable Devices Data Medical Prevention
- Wearable Devices Data Medical Prediction
- Wearable Devices Data Medical