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ISTANBUL 2016

SERCom laboratory, Tunisia Polytechnic School

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This presentation is for

☐ **Workshop 1** Big Data
☐ **Workshop 3** Photonics and Micro-and-Nanoelectronics
☐ **Workshop 2** Robotics
■ **Workshop 4** internet of Things

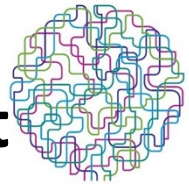
Description of the Organization

- SERCom Laboratory is Research laboratory belonging to the Tunisia Polytechnic School. (http://sercom-lab.com/)
- SERCom Laboratory has several collaborations with academic partners (laboratories and universities) such as:
  - SAMOVAR Lab, Telecom SudParis (http://samovar.telecom-sudparis.eu/)
  - S2IM , Limoges University (http://s2i.ed.univ-poitiers.fr/presentation/)
  - XLIM Research Institute (http://www.xlim.fr/)
  - LPHIA, Photonic Laboratory, Angers University (http://www.univ-angers.fr/)
  - Wirelesslab INRS-EMT, Québec University, Canada (http://www.wirelesslab.ca/)

and industrial partners:

  - Codintek (http://www.codintek.com/)
  - TELNET Innovation Labs, TELNET Group (http://www.groupe-telnet.com/index.php/fr/)
  - Société Tunisienne d'Electricité et du Gaz (STEG) (http://www.steg.com.tn/fr/index.html)

Description of the your research interest



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- SERCom is a research institute within the Tunisia Polytechnic School (www.ept.rnu.tn), one of the best and most renowned modern Tunisian engineering schools.
- The SERCom laboratory was founded in 2012 to support the performance of high quality research, development activities and the provision of scientific service to private and public bodies. The laboratory involves around 60 researcher working in different teams operating different fields:
  - Internet of things,
  - Security and Privacy of distributed systems (IoT, Cloud, Big Data...),
  - Optic Systems,
  - Communication Systems.
  - Computer vision and pattern recognition,
  - Healthcare applications,

H2020 target Call : IoT-03-2017

Intelligent IoT framework for protecting user's privacy in e-health systems

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- This project aims to develop an intelligent system to supervise patients at home while protecting user's privacy and data security based on a novel use of internet of things and cloud computing systems. This system introduces novel security solutions based on using ECG signals to secure communication between WBAN sensors and new cryptographic algorithms to secure the stored data.
- This system can be used in the context of smarts cities especially in medical fields in order to improve comfort of citizens. Indeed, while implementing an innovative e-health system consisting of supervising patients at home, the data collected about the patient's health state will be stored in distant cloud servers in order to be processed and accessible by authorized users such as doctors, patient's family, etc.
- **Objectives:**
  - The design of personalized and secured internet of things system.
  - Securing the communication between sensors based on a novel use of biometric information (ECG signals)
  - A new design for network system protecting user's privacy and data confidentiality.
  - The security of exchanges data between smart systems
  - The security of cloud data storage and data processing.
- **Expected results**
  - Build an intelligent system to supervise patients at home.
  - Protecting user's privacy and data security.

Consortium - profile of known partners *(if any)*

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No	Partner Name	Type	Country	Role in the Project
01	Telnet Innovation Labs	SME	Tunisia	Contributing on the prototyping process
02	Pasteur Institute	Lab	Tunisia	Providing real performances analysis of the project based on medical use cases
03				
04				
05				
06				
07				
08				

Consortium - required partners

No	Expertise	Type	Country	Role in the project
01	IoT Integration	SME/Lab	Europe/ Africa/ Turkey	Prototyping and Implementation
02	Security and Privacy in cloud	SME/Lab	Europe/ Africa/ Turkey	Design and analysis of the solutions
03	Security and Privacy in IoT	SME/Lab	Europe/ Africa/ Turkey	Design and analysis of the solutions
04	IoT for medical applications	SME/Lab	Europe/ Africa/ Turkey	Consultation and performances tests
05				

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Recommendations

- The presentation **has to** last up to **4 minutes (maximum)**
- Do not overload your slides
- Provide weblinks to additional material
- Slides should be in English
- Do not use videos etc. – they might be not supported by the Infoday IT system
- Send your presentation in PDF or PPTX format to: ICT@turkeyinH2020.eu **before November 21, 2016.**