

## **CHIST-ERA Call 2015**

### **Project: USEIT**

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#### **Summary:**

To be trustworthy, any system needs to protect the data it transmits and processes. Realizing such protection is particularly challenging for Internet of Things because of the devices' limitations in terms of resources, user interfaces, connectivity, and bandwidth on the one hand, and because of the open and dynamic nature of their network on the other hand. Unfortunately, applying existing security technologies often results in compromises that harm important requirements to human users such as privacy and manageability of their data. This project will develop and implement new cryptographic algorithms, policy languages, and security tools that enable the strongest privacy and security protection and control to users of IoT devices. The project will test the developed mechanisms, prove their security, and aims to provide open-source implementations of them. To test and validate the mechanisms, the project will consider three important use cases, one related to vehicular networks and two related to the management and protection of data shared between IoT devices in dynamic environments.

The project is very timely because the industry is currently in the process of defining security standards for IoT based on available technology. The project will therefore interact with the relevant stakeholders to ensure future solutions will not compromise on security and privacy for human users.