

***Manchester Metropolitan University***

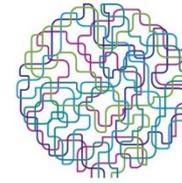
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**This presentation is for**

- Workshop 1** Big Data
- Workshop 4** internet of Things

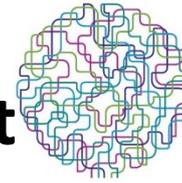
# Description of the Organization



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- A history dating back 150 years
- MMU is one of the top performing new universities in the UK in terms of its research
- Dedicated administrative teams to support and manage research projects
- Facilities and resources: IoT Lab
- Current research projects: total value > €400,000

# Description of the your research interest

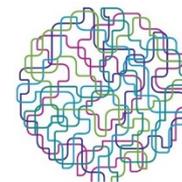


- Head of MMU IoT Lab
- Seven academics researching the following areas:
  1. IoT – Security, applications (healthcare, transport, smart cities, etc.)
  2. Cloud Computing
  3. Big Data
  4. Digital Forensics
  5. Intelligent transport
- Several EU and nationally funded projects.



- Objectives:
  - Experience building: Establish a learning process within a common experience platform on smart environments in collaboration with key innovation, commercial and city partners to identify factors associated with risk for assisted living among older people
  - Living-lab: Replicate smart environment systems to design a package of tools for key stakeholders
  - Empowering elderly people in smart cities: Identify and implement methods to raise citizens awareness of the personal benefits of smart environments
  - Leverage big, open and smart environment data to create new services: Use open data to offer enhanced or new urban services
  - Holistic approach to common goals: Develop integrated products in the form of applications that contribute towards common goals of smart cities
- Expected results
  - The learning platform aims at identifying further application of effective and preventing intervention in elderly community to make their independent living at home possible
  - key stakeholders take investments decisions in an efficient and inclusive manner
  - To improve general user acceptance of smart solutions and put them in a position to optimise their environment
  - Design services for businesses to offer personalised services for elderly customers
  - Standardising smart environment management practices

# Consortium - required partners

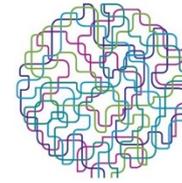


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No	Partner Name	Type	Country	Role in the Project
01		RTD		Big sensory data analytics and visualisation
02		SME		Elderly care – charities – requirements gathering & testing
03		IND		Intelligent transport, smart cities, etc.
04				
05				
06				
07				
08				

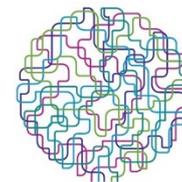
# IoT-03-2017: R&I on IoT integration and platforms

*Lightweight, scalable and platform independent privacy preserving authentication of smart objects in the IoT*

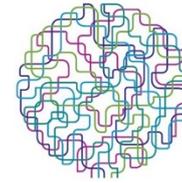


- Objectives:
  - to design and build into the core of IoT devices the ability to perform strong authentication
  - to develop a mechanism to ensure that the device is booted in a known valid state
  - to develop a cryptographic mechanism to allow readers of messages received from a manipulated device to confirm that the device was not compromised when the previous message was sent
  - . Finally,.
- Expected results
  - the envisaged solution combines high-integrity smart object identity verification with backward enabled object support to recover from attacks
  - ensures compliance with the security policy, before a device can transmit authentication messages to other network actors
  - methods for protecting the device credentials that are used for exchanging authenticated messages will be implemented to ensure that these credentials are bound to a specific object and cannot be exported to other objects

# Consortium - required partners



No	Partner Name	Type	Country	Role in the Project
01		RTD		<b>Any role related to securing IoT systems.</b>
02		SME		
03		IND		
04				
05				
06				
07				
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