

The IPSI Lecture Series Presents:



Security and Privacy in Smart Cities
Applications: Challenges and Research
Opportunities

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Every day more computer-based devices are connected to the internet. Most of these devices have at least one sensing unit, creating opportunities for more direct integration between the physical world and computer-based systems. This is the idea behind Internet of Things (IoT), a development of the Internet in which everyday objects have network connectivity, allowing them to send and receive data. In the near future, Wireless Sensor Networks (WSNs) are expected to be integrated into the Internet of Things and consequently to smart cities. The sensing infrastructures have a major role in the IoT and great research opportunities. Sensor nodes can join the Internet dynamically and use it to collaborate and accomplish their tasks. The future Internet, designed as an IoT is foreseen to be a world-wide network of interconnected objects uniquely addressable, based on standard communication protocols. However, security and privacy in smart cities and IoT remain a niche. The increase of the data transmission not only increases the demand for improved network performance but also increases the need for security mechanisms to protect crucial information. This talk will explore different aspects of security and privacy issues related to smart cities: from smartphones and IoT devices to smart health and smart traffic management.

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Petros Spachos (M'14) received the Diploma degree in Electronic and Computer Engineering from the Technical University of Crete, Greece, in 2008, the M.A.Sc. degree in 2010 and the Ph.D. degree in 2014, both in Electrical and Computer Engineering from the University of Toronto, Canada. He was a post-doctoral researcher at University of Toronto from September 2014 to July 2015. Since August 2015, he has been an Assistant Professor in the School of Engineering, University of Guelph, Canada. His research interests include wireless networking and network protocols with the focus on wireless sensors, smart cities and Internet of Things. He is involved in protocol design, real world experimentation and performance analysis. He is a member of the IEEE and ACM.

