# Machine-to-Machine and Internet-of-Things for Asset Management

## A Half-Day Seminar

## VENUE

Wednesday, November 11, 2015
Registration: 12:00 noon
Seminar: 12:30pm – 5:00pm

## DATE & TIME

Engineers Australia Harricks Auditorium,
Ground Floor, 8 Thomas Street,
Chatswood, NSW.

## TICKETS (incl. GST)

EA, IET, IEEE Members $110
Non-members $140
Students $22

## PLACES ARE LIMTED SO REGISTRATION IS ESSENTIAL

**REGISTER ONLINE**

## CPD

Eligible for 5 Continuing Professional Development hours.

## CONTACT

Peter Henderson
Email: peter.henderson@ieee.org

## HOSTED BY

The Sydney Branches of the Electrical and ITEE Colleges of Engineers Australia.

Machine to Machine (M2M) communication and the Internet of Things (IoT) are having a dramatic impact on sensing and control networks for asset management. This has been enabled by the proliferation of broadband wide area networks, mobile data and meshed wireless local area networks, and smart devices based on low cost microcontrollers and wireless System-On-Chip devices.

This seminar will examine both the architectural issues that arise in developing an asset management system and the techniques and technologies available to implement such systems: from sensors and actuators to the management and analysis of the generated data. Various standards will also be examined. An important feature of this seminar will be the use of numerous real-world case studies to illustrate the problems and pitfalls that crop up, and the means to defeat them.

Topics covered will include:

·    Architectures and data modelling;
·    Local and wide area networks, wired and wireless;
·    Sensing, actuation systems and device management;
·    Cloud based servers;
·    Data collection, storage and aggregation;
·    Data analysis and presentation;
·    Cyber security.

**Program:**

12:00   Registration and Refreshments
12:30   Welcome - Peter Henderson
12:35   Architecture, Networks and Protocols - Geoff Sizer, Genesys Electronics Design
13:30 Sensing and Actuation, RF Modules, Wireless Networks, Gateways and Device Management - Philip Lark, Braetec
14:30   Break
15:00   Cloud and User Services - Prashant Maharaj, Pervasive Telemetry
16:00   Leveraging the Internet of Things for Operational Telemetry and Asset Management in Industrial applications - Jason Price, Madison Technologies
16:55 Closing Address

# Machine to Machine and Internet -of-Things for Asset Management

**A Half-Day Seminar**

## About the Speakers:

**Geoff Sizer** is CEO and Principal Engineer of Genesys Electronics Design based in Pymble on Sydney's upper north shore.   Genesys is an electronics and software product development and consulting company which Geoff founded in 1991 and has built to its current strength of 20 professional engineers.  Genesys has developed a suite of hardware and software technologies which can be applied to realise M2M/IoT systems top-to-bottom, from Cloud based systems though wide and local area networks, down to deployed sensors and actuators.  Geoff is active in Internet of Things and Machine-to-Machine communications systems and technology development.  He is a member of ISO/IEC JTC 1/WG 10 Internet of Things working group.

**Philip Lark** is the Engineering Manager for Braetec which is the embedded systems division of Braemac. He has degrees in Electrical Engineering and Computer Science and has worked in the embedded system and SCADA fields since 1980. His career spans large security and access control systems (Qantas Jet base), a developer of a distributed VMEbus SCADA system (Leeds & Northrup), Motorola Computer Group Engineering Manager for ANZ and Braetec. This has given him very wide exposure to embedded systems with a major role in assisting customers with system design (hardware and software), system integration and production. Braetec is an Intel®, Digi® and Embedded Systems distributor and Philip's current focus is assisting customers with a diverse range of IoT projects at the sensor, gateway and cloud level.

**Prashant Maharaj** is the Managing Director and Co-Founder of Pervasive Telemetry Pty Ltd. Pervasive has been providing advanced commercial cloud-based telemetry and control solutions since the dawn of GPRS in Australia over a decade ago. Pervasive provides monitoring and control solutions to asset managers in a range of industries including water management, cathodic protection, chemical dosing, refrigeration monitoring and stock control. Prashant has wide product development experience ranging from medical devices to video effects equipment and is involved in every phase of the product development, business development and commercialization process.

**Jason Price** is National Business Development Manager for Madison Technologies, a specialist industrial communications provider and product development company. With formal qualifications from the UK in Electrical/Electronic engineering, Jason has a diverse background in process automation, having worked hands-on as a process engineer/project manager and for the last 15 years in various sales capacities related to hazardous area electronics, analogue signal conditioning, and industrial communications. Jason has a keen interest in utilising communications technologies to provide solutions which enhance operational performance and increase the safety and reliability of business practices.

**[Please note that any proceeds from this seminar will be used to fund prizes for the top student graduating from Undergraduate courses in each of the Electrical and ICT disciplines at relevant Universities within the Sydney area]**