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UNIVERSITY OF
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Digital Research Innovation
Capability Platform

Internet of Things Lab

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Internet of Things Lab

Our IoT solutions have driven significant impact in the manufacturing, agriculture, retail, health and defence sectors in Australia and overseas.

The Internet of Things (IoT) Lab addresses important challenges in our industries, cities, farms, hospitals, homes, retail chains, personal lives and our society. Securely, and in real time, we collect, integrate and analyse data from millions of internet-connected devices that range from sensors, cameras, smart phones and wearables, to smart meters, vehicles, medication pills, and industrial machines. We develop innovative IoT-based solutions for industries and governments.

The IoT Lab's research focus includes:

- **Development of advanced IoT devices and robots** that provide information from and perform actions in the IoT cyber-physical ecosystem
- **Discovery and integration of IoT devices** and their data permitting the use of billions of IoT devices that have been deployed, owned, and controlled by others
- **Real-time IoT data analysis** on the cloud, at the edge, and on the move, including localisation, personalisation, and contextualisation of IoT data
- **IoT security and privacy** for IoT devices with limited computing resource and connectivity
- **IoT actuation via IoT devices**, robots and process-based automation
- **Lower-power and longer-range IoT networking** for IoT devices
- Wearable IoT devices and systems
- Human performance, human/IoT integration, and IoT information visualisation

FACILITIES

The IoT Lab experiments with several hundred commercial IoT sensors, sensor nodes, and other IoT devices. This also includes water-proof networking equipment, servers, and cloud and edge computing resources.

KEY CONTACTS

Professor Dimitrios Georgakopoulos, Director of the Internet of Things Lab, comes to the Lab from his roles as Research Director at CSIRO's ICT Centre and Professor at RMIT. He is currently an Adjunct Professor at Australian National University and a CSIRO Adjunct Fellow. Professor Georgakopoulos has also held research and management positions in several industrial labs in the USA, including Telcordia Technologies (where he help found Telcordia's research labs in Austin, Texas and Poznan, Poland), Microelectronics and Computer Corporation, GTE (now Verizon) Laboratories, and Bell Communications Research. He has won numerous research awards, produced two hundred publications, and attracted significant external research funding ($35M+) from industry and government organisations in the USA, EU and Australia.

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