

GREG September 2023 Technical Meeting & Dinner

Building Management Systems

On the 14th September, a strong gathering of GREG followers met at The Culinary Collective Davidson Restaurant at The Gordon TAFE to learn about the state-of-the-art of automation and control applied to building management systems (BMS). While some of us may have experienced programmable logic controllers (PLCs) and supervisory control and data acquisition (SCADA) systems in manufacturing and industry applications, Controltech's building automation technology and solutions has taken that experience to a new level applying it to building management. Operating and maintaining building heating, ventilation, and air conditioning (HVAC) systems, lighting, and access/egress requirements, can be costly, labour intensive and time consuming, however Controltech have the means "to deliver improved building functionality and occupant experience" through their engineering initiatives and applying leading industry solutions.

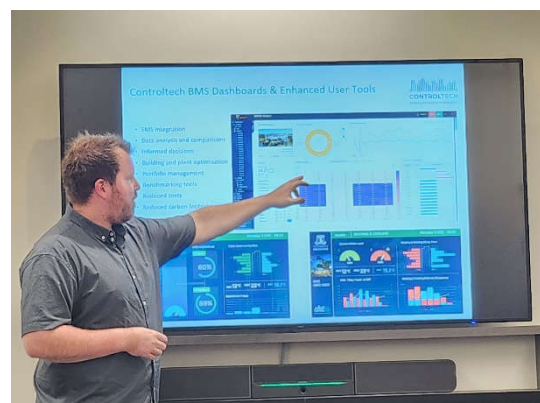
Our guest speakers from Controltech Building Technologies Pty Ltd were Ben Carroll, Business Development Manager, and Darren Ehlert, Engineering Services Manager.

Ben commenced the presentation by introducing the principles of building automation and intelligence and the building automation systems necessary to achieve desired outcomes. His advice was that while "proprietary systems" may provide quick solutions, being locked-in to one system limits flexibility in being able to adopt new technology later without a major refit. The alternative of starting with an "open system"



in which the best components are selected to suit the situation is possibly the preferable pathway to take. The use of a BMS computer dashboard to keep track of the systems operating is an important part of maximising the use of available tools.

While answering questions as they arose, he then spoke about system communications and open communication protocols suggesting that Internet Protocol (IP) systems are preferable and where the future lies compared to Multiple Spanning Tree Protocol (MSTP) systems.



The use of analytics, “a field of computer science that uses maths, statistics, and machine learning to find meaningful patterns in data,” more commonly referred to as data analytics, plays a major role with a Controltech integrated BMS. Darren then discussed the technical benefits and possibilities with the systems that they have developed. We were shown a computer graphic of the temperature profile over a floor area of a building that Controltech has installed a BMS. The benefit of capturing data to replay and analyse later has proven to be of real benefit in identifying problems that may otherwise not be evident. The energy saving possibilities and occupant comfort associated with a well planned BMS was made evident with the presentation.

At the conclusion of the presentation, we adjourned to the Davidson Restaurant for another sumptuous meal where upon the questions and lively discussion continued.



Written by: Ian Burston, 19-Sep-2023