



Exploring new tools to communicate live data and encourage community participation in stormwater management

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Biography:

Jason is a researcher and lecturer in the College of Science & Engineering at James Cook University with expertise in computer programming, design thinking, and e-learning. A passionate local Advance Queensland Community Digital Champion, Jason works with many schools in the Cairns region to encourage and support coding, IoT, mobile technology and robotics activities and outcomes.

Jason has contributed to the Cairns Regional Council led Smart Catchments project by leading and guiding current IT students and graduates develop online educational tools to encourage interest in and caring for local catchments.

During her early career Helen gained valuable experience in graphic design and publishing that she now utilizes in the area of community and stakeholder engagement. Having worked in industry sectors from the arts and environment to education and research, Helen aims to develop engaging and inspiring communication and education tools that enhance the stakeholder experience and encourage a desire for learning and participation.

Helen has supported the Cairns Regional Council led Smart Catchments project by identifying and engaging with its key stakeholders and audiences and assisting in the design and development of online educational tools.

Abstract:

The Smart Catchments: Saltwater Creek pilot study (www.cairns.qld.gov.au/smartcatchments) has two main objectives:

1. To monitor stormwater discharge from an urban environment using smart sensors producing live data; and
2. To encourage local community members to access this data and be encouraged to care for and assist in nurturing their local creek and river catchments, particularly those impacting on the Great Barrier Reef.

To achieve these objectives the project team, which includes Cairns Regional Council and James Cook University, has worked closely with school students, educators and stakeholders in the catchment to develop engaging online tools for individuals and class rooms to understand the data that is generated through the project's smart technology.

A significant number of James Cook University students have had the opportunity to participate in the project including environmental, information technology and Internet of Things engineering students. This has allowed the project to benefit from fresh ideas and has also given students the opportunity to work on 'real life' projects as part of work placements or internships.

Jason Holdsworth (JCU) who will first explain the 'Internet of Things' and with Helen Cook (CRC) will take participants in this SHOT session through the Smart Catchments online tools design and delivery process; followed by a discussion on how and where smart technology sits and compares to traditional educational and engagement methodology.