

## **MQ Photonics Research Centre seminars**



Speaker: Dist. Prof. Arnan Mitchell

## When: Wednesday 7 October at 2 PM Location: MPR & Via Zoom

Zoom invitation: Join from a PC, Mac, iPad, iPhone or Android device: Please click this URL to start or join: https://macquarie.zoom.us/j/638365482 Join from dial-in phone line: Dial: +61 2 8015 2088 Meeting ID: 638 365 482

## TITLE: <u>Photonic chips: from accelerating the internet,</u> <u>steering satellites to detecting diseases</u>

**Abstract:** Photonic technologies have transformed how we live and work - optical fibre communications have been instrumental in enabling us to keep working and learning during the current pandemic. Ultrafast optic fibre communications are becoming increasingly accessible due to low-cost and high-performance integrated photonic chips. But these same chips can transform other applications - to guide autonomous vehicles, detect biomolecules such as viruses and to help diagnose and treat disease. This talk will present an overview of the research of my Integrated Photonics and Applications Centre (InPAC) in Melbourne, Australia, and will cover: our integrated photonic chip platforms and how we use these in data communications, analogue sensing, and biomedicine.

**Bio:** Arnan Mitchell is a Distinguished Professor in the School of Engineering at RMIT University, Director of the RMIT Micro Nano Research Facility (MNRF) and leads the Integrated Photonics and Applications Centre (InPAC). He is a highly multidisciplinary researcher working in micro-chip technologies combining light, sound, fluids and electronics with applications spanning radar systems for defence, high speed fibre optic communications and point of care diagnostic systems for biomedicine. He is enthusiastic about translating technology into the hands of end-users and has dedicated much of his career to building and training diverse teams and comprehensive micro and nanotechnology infrastructure to enable breakthrough discoveries to achieve real world impact.