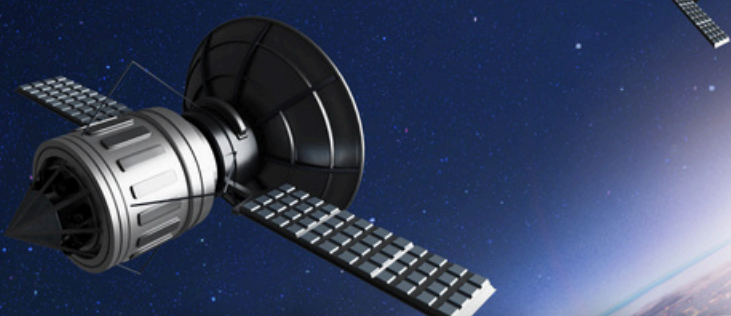




LSGI RESEARCH SEMINAR

Blue Health Watch: Remote Sensing for Monitoring Water Quality and Climate-Sensitive Disease Risks

 **23 OCTOBER 2025 (THU)**

 **10:00 AM - 11:00 AM**

 **EF312, POLYU**

 **ENGLISH**

Prof. Kalum UDAGEPOLA

*Professor and Senior Principal Research Fellow
Scientific Research Development Institute of Technology Australia*



ABSTRACT

Climate change increasingly threatens water security and public health through degraded water quality and rising disease risks. This seminar explores how remote sensing technologies—such as Landsat, Sentinel-2, and MODIS—can monitor key water quality indicators including turbidity, chlorophyll-a, and surface temperature. By linking satellite data with health surveillance, the Blue Health Watch framework offers a low-cost, scalable approach for predicting outbreaks of waterborne and climate-sensitive diseases. The session highlights how integrating Earth observation, machine learning, and public health data can enhance early-warning systems and strengthen climate-resilient health strategies in Australia and the Indo-Pacific region.

BIOGRAPHY

Prof. Kalum Udagepola is an expert in environmental remote sensing and water resource management, with distinguished experience spanning climate-health analytics, public health early warning systems, and applied geospatial science. His work focuses on integrating satellite-based Earth Observation, artificial intelligence, and health data to improve water security and disease risk management in vulnerable communities across Australia, the Indo-Pacific, and internationally.

Prof. Udagepola has contributed conceptual frameworks and technology for operational surveillance and risk assessment, with a current emphasis on the Blue Health Watch platform. This innovative system leverages satellite, drone, and ancillary datasets to provide predictive, cost-effective, and scalable solutions for water quality monitoring and climate-sensitive disease prevention, in alignment with global health and sustainability goals.

Moderator: Dr. Majid NAZEER, Research Assistant Professor, LSGI

All are welcome! Please register now to join us on-site!

Enquiry: lsdept@polyu.edu.hk

