

### **ES6005 Eyes on Earth – Satellite Remote Sensing (3AUs)**

This course aims to cultivate students' satellite remote sensing literacy – ability to analyse, interpret, and communicate satellite remote sensing products. By the end of the course, students will become experienced in handling these products and in communicating their findings to stakeholders and policymakers.

We will delve into the physical principles underlying various remote sensing techniques through a balanced combination of lectures and tutorials. While a basic understanding of electromagnetic waves will be beneficial, it is not a prerequisite.

Throughout the course, we will explore key methods of remote sensing, including optical, multi/hyper-spectral, and microwave sensing. Students will gain hands-on experience in identifying and measuring geometrical, physical, and chemical parameters of the Earth's surface. These skills are invaluable for applications such as environmental monitoring, hazard assessment, and addressing the impacts of climate change.

This course is designed to foster students' literacy in satellite remote sensing, focusing on the analysis, interpretation, and communication of satellite remote sensing products. The curriculum provides a balance of lectures and tutorials, covering the fundamental principles of various remote sensing techniques. Students will be introduced to key methods such as optical, multi/hyper-spectral, and microwave sensing and will acquire practical skills in identifying and measuring the Earth's surface parameters, which have applications in environmental monitoring and climate change assessment. Assessment will comprise quizzes, assignments, and a term project, aimed at reinforcing the application of learned concepts.