

Remote Sensing: Image Acquisition, Analysis and Applications



an on-line course in remote sensing, developed as an educational initiative of the IEEE Geoscience and Remote and Remote Sensing Society

THE COURSE

This course covers the fundamental nature of remote sensing, and the platforms and sensor types used. It also provides an in-depth treatment of the computational algorithms employed in image understanding, ranging from the earliest historically important techniques to more recent approaches based on deep learning. The course material is extensively illustrated by examples and commentary on how the technology is applied in practice.

It is arranged in the following three five-week modules, each requiring about one hour of commitment per week

- Module One: Acquiring images and understanding how they can be analysed
- Module Two: Computer-based interpretation – fundamentals of machine learning
- Module Three: Computer-based image interpretation in practice; Imaging Radar

While broad in its coverage the 15 hours of instruction, supported by quizzes and tests, will prepare participants to use the material in their own disciplines and to undertake more detailed study in remote sensing and related topics.

THE STAFF

The *instructor* for the course is

Emeritus Professor John Richards
Australian National University
University of New South Wales



He will be assisted by five *tutors*:

Associate Professor Xiuping Jia	School of Eng and IT, University of New South Wales, Canberra
Professor Junping Zhang	School of Electronics and Inf Eng, Harbin Institute of Technology
Associate Professor Lamei Zhang	School of Electronics and Inf Eng, Harbin Institute of Technology
Dr Muhammad Imran	Institute of Geoinformation & Earth Observation PMAS-ARID Agriculture University, Rawalpindi
Rabia Munsaf Khan	Environmental Resources Eng., SUNY

ACCESSING THE COURSE

The course is being hosted on Coursera. To gain access participants set up an account on the Coursera platform (Coursera.org) and then search for

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COURSE COSTS AND LEARNING CREDITS

The course can be taken without seeking learning credits, in which case there is no cost and participants do not need to undertake the quizzes and tests.

However, if the course is to be used for credit, the cost is USD49 and participants are required to sit the quizzes and tests as outlined in the course description in Coursera.