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.