Remote Sensing Experts Train Tomorrow's Earth Observation Scientists

World-renowned remote sensing experts gathered in Valencia, Spain, in early September to train the next generation of Earth observation scientists in the exploitation of satellite data for land applications. As part of the Scientific Exploitation of Operational Missions programme, ESA organises the Advanced Land Training Course each year.

The aim is for students to learn the theoretical principles of land remote sensing and how to exploit satellite Earth observation data with scientific toolboxes for research in domains such as agriculture, forests, hazards and water availability. For this fifth edition, more than 70 PhD students from 36 countries gathered at Spain's University of Valencia to attend the week-long event.

Sensors

Particular focus was given to theoretical concepts of radar sensors, as well as optical and thermal sensors. Taking into consideration the different backgrounds of the students, the course was organised in parallel sessions, covering both basics and advanced concepts in each field.

Training the next generation of scientists that will be able to transfer the satellite data into scientific knowledge and practical applications is always essential, particularly in this moment when a new era is starting with the launch of Sentinels, said Prof. José Moreno, local organiser of the training course.

The Sentinel satellites are being developed for Europe's Copernicus environment monitoring programme. The first of the fleet, Sentinel-1A, was launched last spring carrying an advanced radar.

Leading role

With the series of Sentinel satellites and the latest generation of its meteorological satellites, Europe has taken on a leading role in the peaceful use of space technology for environmental monitoring, said Prof. Wolfgang Wagner from the Vienna University of Technology. This training course makes an important contribution towards training scientific experts that are capable of developing and operating innovative algorithms for processing petabytes of data.

The replays of selected lectures are available online.

The videos include the welcome address by Esteban Morcillo, Chancellor of the University of Valencia, as well as a presentation by Emilio Vez Rodríguez from CDTI-Madrid and Spanish delegate at ESA PB-EO on Land Remote Sensing activities in Spain.

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