MINOR
EARTH OBSERVATION (EO)

THE WORLD IS FACING CHALLENGES ON A GLOBAL, NATIONAL, LOCAL AND INDIVIDUAL LEVEL. UP-TO-DATE INFORMATION ON THE EARTH' SURFACE IS NEEDED TO BETTER UNDERSTAND THE CURRENT AND FUTURE SITUATIONS. THE LATEST EARTH OBSERVATION TECHNIQUES ENABLE US TO MONITOR CROPS, PREDICT WHERE THE WATER FLOWS, ANALYZE THE RISK OF LAND SLIDES, BY THE PRODUCTION OF HIGHLY DETAILED GEO-INFORMATION, SUCH AS THEMATIC OR TOPOGRAPHIC MAPS.

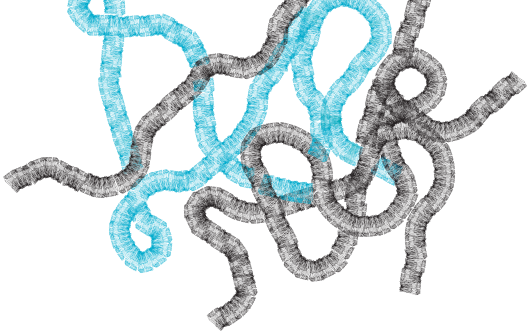
WHAT IS A HTHT MINOR?

A HTHT-minor fits within the UT profile: High Tech, Human Touch. The minor is offered in English and accessible for both national and international students. The goal of the HTHT-minor is to illuminate specific societal themes for which the UT develops High Tech Human Touch solutions. These solutions are created by conducting high-quality research. Both the form and the content of the minors are High Tech Human Touch (multidisciplinary) and are profiling for the student.

The UT offers most HTHT-minors in a coherent package of 2 (30 EC). There are also HTHT minors of 15 EC that do not belong to a package. You can choose one of these minors and combine this with one minor of a package. If possible, you can even choose 2 minors from different packages.

MINOR INFORMATION

The module on Earth Observation deals with sensors, platforms and data processing techniques that are used to derive information about physical, chemical and biological properties of the Earth's surface without direct physical contact.
Sensors can be mounted on Earth orbiting satellites, aircrafts, UAV's, but can also be mounted on a car or even hand-held. Sensors measure electro-energetic emissions from objects and material on the earth's surface. Data processing techniques subsequently transform raw data into meaningful information sources for a large variety of applications, such as disaster mapping and monitoring, 3D city and landscape modelling and urbanization.
Students learn how to combine data, use multi-resolution data, assess aspects of spatial resolution, spectral information and thus make the most out of the available earth observation data.
The final phase of this module consist of an inter- or multi-disciplinary project.



This time tomorrow what will we see [The Kinks, 1970]

Part of a HTHT package

Earth Observation is the second part of the HTHT package GIS & Earth Observation, although it can be taken independently.

Target group

The package is designed to meet the needs of students from both the technical (addressing technical aspects of spatial information) and the social sciences (addressing impacts and decision making).
Specifically links to gamma students, and therefor of high interest for both beta and gamma students:

- seminars on acquisition of 3D city models for communication and promotion purpose.
- The impact of Geo-hazards to people, and how important it is to monitor earth processes (e.g. landslides). This is dealt with during the lectures series (how to monitor crop growth, and how to communicate these results) but also during projects, like Geo-hazards in a changing world.

About ITC

The Faculty of Geo-Information Science and Earth Observation (ITC) of the University of Twente provides international postgraduate education, research and project services in the field of geo-information science and earth observation using remote sensing and GIS. The aim of ITC's activities is the international exchange of knowledge, focusing on capacity building and institutional development in developing countries and emerging economies.

MORE INFORMATION

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For more information about this minor and for general information about minors:
www.utwente.nl/majorminor/