The International Institute for Aerospace Survey and Earth Sciences (ITC), Enschede, The Netherlands

An institute's profile

General

ITC is an autonomous foundation partially supported by the Netherlands' Ministry of Education, Culture and Science and the Directorate General for International Co-operation of the Ministry of Foreign Affairs. It was founded in 1950, and its principal mission is to assist developing countries in the process of human resource development in aerospace surveys and remote sensing applications for natural resource development and environmental planning and management. This includes the establishment of geographic information systems and the management of geoinformation.

Board of Governors and Directorate

The senior managerial body of the Institute is the Board of Governors, with members all external to ITC, and nominated by the Minister of Education, Culture and Science. The Institute is headed by Prof.Dr.Ir. K. Harmsen (Rector) and a Vice-Rector.

Scientific Divisions

Fifteen Scientific Divisions are responsible for training, research and development:

- Geoinformatics and Spatial Data Acquisition
- Geoinformatics, Cartography and Visualisation
- Geoinformatics, Spatial Information Theory and Applied Computer Science
- Geoinformatics Management and Infrastructure
- Social Sciences
- Forest Sciences
- Soil Sciences
- Agriculture, Conservation and Environment
- Urban Survey, Planning and Management
- Applied Geomorphological Sciences
- Water Resources Survey
- Geological Survey
- Engineering Geology
- Mineral Exploration
- Exploration Geophysics

They receive support from the following laboratories, facilities and services:

- Computer centre
- Digital image processing laboratory
- Photogrammetric/digital map production facilities
- Geoinformation processing centres
- Geochemical and geophysical laboratories and equipment
- Cartographic, reprographic and printing facilities
- Photographic laboratory

ITC's training programmes offer some 40 different specialisation courses, most at professional master, MSc and PhD levels. In 48 years, ITC has trained approximately 13,000 scientists and other professionals from more than 150 countries, thus creating a worldwide network of alumni.

The educational system is international and intended primarily for mid-career professionals and scientists from developing countries. ITC's education programmes thus contribute to manpower development within production organisations, and educational and scientific institutes in the third world.

Educational programme levels

- *Special courses*
  Tailor made short courses, duration various
- *Diploma course*
  GFM4 diploma course in Geoinformatics, duration approx. 9 months
- *Professional Master*
  Programme of Professional Master degree course, duration 12 months
- *MSc*
  Programme of Master of Science degree courses, duration ranging from 18 – 24 months
- *Doctorate*
  PhD study and research programme, duration at least 3 years

Advisory services

Since 1958, ITC has been involved in approximately 750 advisory projects in more than 70 countries. These assignments are co-ordinated by ITC's Bureau Project Coordination (BPC), which is responsible for project acquisition and administration. BPC also supports the scientific divisions in the co-ordination and execution of assignments.

The principle objective of ITC's advisory services is to assist developing countries in human resource development in compliance with its mission and within its fields of expertise. These services are available to government agencies and organisations, international funding agencies, consulting engineering and private companies, NGO's, educational and research institutes.

The spectrum of ITC's advisory services includes:
- Development of human resources
- Institutional support
- Contract research and development
- Technical assistance

Research

The thrust of the Institute's research and development is multi-disciplinary and problem-oriented. The Research Programme is entitled: "Geoinformation Management for Sustainable Natural and Human Resources Development".

ITC alumni network

More than 13,000 persons from some 150 nationalities have attended courses at ITC since its foundation in 1950. These alumni form the backbone of ITC's worldwide scientific network.

An important place in the ITC network of alumni and other professionals in the geosciences is taken up by its affiliated regional institutes in developing countries. These were set up with ITC's support in India, Colombia, Nigeria, Indonesia, China, Bolivia, Namibia, South Africa, Tanzania and Zimbabwe. They continue to share many of ITC's goals and enable students to study in their own country or region. There is an active information exchange between ITC and these institutes, and staff/student co-operation in several joint projects is mutually beneficial.

Regional institutes with a long lasting relationship with ITC

- Indian Institute of Remote Sensing – IIRS, Dehra Dun, India (since 1966)
- The Department of Education and Investigation at the Instituto Geográfico 'Agustin Codazzi' – IGAC (formerly CIAF), Bogotá, Colombia (since 1967)
- Regional Centre for Training in Aerial Survey – RECTAS, Ile-Ife, Nigeria (since 1972)
- Department of Geodesy at the Institute of Technology of Bandung – ITB, Bandung, Indonesia (since 1975)
- The School of Urban Studies – SUS (formerly ECURSPAM) at Wuhan Technical University of Surveying and Mapping (WTUSM), P.R. China (since 1987)
- Universidad Major San Simon, Cochabamba, Bolivia (since 1996)
- Polytechnic of Namibia, Windhoek, Namibia (since 1997)
- University of Zimbabwe, Dept. of Geography, Harare, Zimbabwe (since 1997)
- University of Dar es Salaam, University College of Lands and Architectural Studies (UCLAS), Tanzania, (since 1998)

ITC Journal

As part of ITC's commitment to the "continuing education" of its alumni, the Institute publishes a quarterly, the ITC Journal, which is distributed free of charge to alumni and also to survey organisations in developing countries. Approximately 50 articles are published each year in ITC's fields of specialisation, with emphasis on applications in the developing countries. With a circulation of over 6,000 in 150 countries, it is the second largest journal in the world dealing with earth science applications of aerospace surveys.