



Institute for Environmental Studies, Faculty of Science  
**GIS Laboratory**

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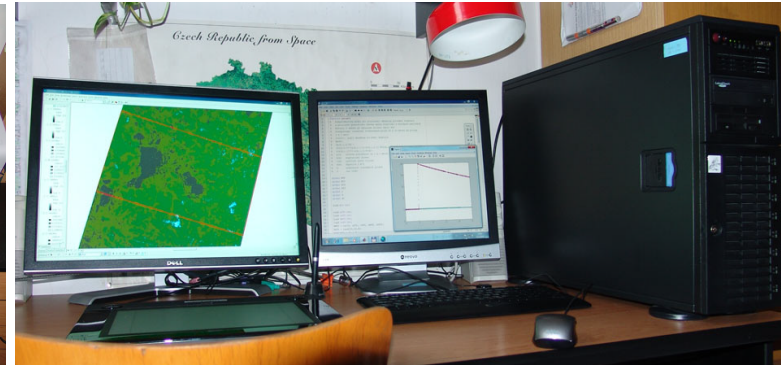
**GIS Laboratory** is a part of the Institute for Environmental Studies at Charles University in Prague. Our research themes, spanning the whole of environmental science from the spatio-temporal modelling point of view, have been running for a few years. Our research is closely integrated with our teaching, providing a wide range of courses. The staff of the GIS Laboratory participates in the full range of degree programmes from the Ph.D. to the M.Sc. and the B.Sc. in environmental science. In addition to official courses, the GIS Laboratory offers interdisciplinary programmes, available through the Faculty of Science. Our students are drawn mainly from the Czech Republic, and partly from the European Union and other countries.

**Objectives:** Environmental modelling and informatics, geographic and landscape information systems.

**History:** The laboratory was established in the framework of the research project supported by the Ministry of Education, Youth and Sports. The research project was maintained for 4 years (1997-2000). Our activities mainly included applied research in environmental science represented by spatio-temporal modelling and landuse/landcover geodatabase management. Recently, the research and education activities have been extended in the framework of university grants and projects.

**Equipment-software:** Sharing of the Institute of Higher Education Master Site License Agreement with ESRI for its geographic information system (GIS) software (ArcGIS 9.x, ArcPad 8.x), remote sensing (Erdas Imagine 8.7 and LPS software), modelling (MATLAB with toolboxes), data processing (SPlus, R), computer graphics, higher programming languages.

**Equipment-hardware:** local computer network, large format scanner, plotter and digitizer, GPS.



**Selected data resources:** ArcCR 500 (the digital map collection of the Czech Republic, 1:500,000), ZABAGED (student licenses of the selected areas in the Czech Republic), LANDSAT 7 and ASTER (selected satellite images).

**Lectures and exercises:** Environmental Modelling (lectures and exercises), Environmental Informatics (lectures and exercises), Applied Ecology (exercises), Ecological Modelling (optional lectures), Introduction to GIS (optional lectures), GIS and Remote Sensing in Environmental Protection (optional lectures).