

1. Institutional affiliation of the Professorship

The Institute for Management of Rural Areas was created as one of the five institutes in the Faculty of Agricultural and Environmental Sciences during the restructuring in May 2004. The Professorship for Geodesy and Geoinformatics is one of five Professorships within this institute. The Professorship was created from redeployment of staff from the Chair of Geodesy and Remote Sensing in April 1994. It therefore has a history of over 10 years of considerable success in research and teaching.

2. Teaching Responsibilities of the Professorship

The Professorship for Geodesy and Geoinformation lectures in six courses in Rostock University, teaching up to 200 students per year. The main part of the lectures and practical exercises are for the Land Improvement and Environmental Protection degrees. Diplomas, and from the winter semester 2004/05 Bachelor and Masters degrees, are taught in the nationally-unique courses in "Land Improvement and Environmental Protection". The only similar German-language courses are available at the University for Soil Culture in Vienna.

A broad range of courses are also offered for Bachelor and Masters students in Agroecology. The theme of Geoinformatics is also offered for students on Informatics degrees under the heading "Environmental Informatics". Since 2001 a biannual course in "Surveying for Archaeologists" has also been offered to Archaeology students. Finally, modules are offered in Rostock University's distance-learning courses in "Environmental Protection".

3. Personnel and Equipment

The core funding of the Professorship provides for four members of scientific staff and four support staff. These are complemented by further project-funded scientific staff and an unaffiliated permanent staff member. The scientific profile of the Professorship is provided by an interdisciplinary team of Geoinformaticians, Geographers and graduates in Land Improvement and Environmental Protection. The following table shows the current members of staff in alphabetical order; GA=core-funded, DM=project-funded; e-mail *@uni-rostock.de.

Name	Title/Qualification	Funding	Start date	End date	E-mail*
Ralf Bill	Prof. Dr.-Ing.	GA	01/04/1994	-	ralf.bill
Helga Brockmann	Kart. Zeichnerin	GA	15/11/1966	-	helga.brockmann
Hauke Christoph	Dipl.-Ing.	DM	01/10/2004	31/08/2005	hauke.christoph
Lisa Dittmann	Dr. agr. habil.	-	01/01/1996	-	lisa.dittmann
Görres Grenzdoerffer	Dr.-Ing.	GA	01/04/1994	31/03/2006	goerres.grenzdoerffer
Bernd Große	Dipl.-Geogr.	GA	01/09/1965	-	bernd.grosse
Marina Hosak	Sekretärin	GA	01/11/1999	-	marina.hosak
Martin Kofahl	Dipl.-Ing.	DM	01/04/2004	31/12/2005	martin.kofahl
Peter Korduan	Dr.-Ing.	GA	01/03/1999	28/02/2011	peter.korduan
Edward Nash	Dr.	DM	01/01/2005	31/12/2007	edward.nash
Matthias Naumann	Dipl.-Ing. (FH)	GA	01/11/2001	-	matthias.naumann
Andrea Schwarz	Dipl.-Ing. Ök.	GA	01/11/1994	-	andrea.schwarz
Marco Lydo Zehner	Dipl.-Ing.	DM	01/04/2004	31/12/2006	marco.zehner

The Professorship has access to a range of modern equipment for Geodesy, Cartography, Remote-Sensing and GIS such as a GIS/Remote-Sensing Laboratory with the ArcGIS products, including ArcIMS, and Erdas Imagine, modern geodetic equipment (Leica and Sokkia total stations and Leica and Garmin GPS-receivers) and the close-range photogrammetry system ELCOVision 10. For teaching in the PC-Laboratories the facilities of ArcView, Idrisi, ERMapper and PCMap are used.

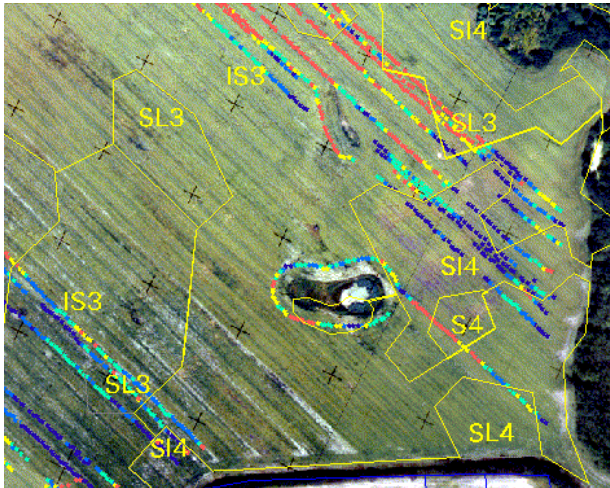
4. Project Funding and Know-How Transfer

In recent years the German Federal Ministry of Education and Research and the Education Ministry of Mecklenburg-Vorpommern have funded a number of scientific posts.

Project Title	Funding	Staff	Funding Period
preagro II – Geodata Infrastructure for Precision Farming	BMBF	Korduan/Nash/Kofahl	01/01/05-31/12/07
Multimedia Content Management in Mobile Environments	Land M-V	Zehner	01/01/14-31/12/06
Mobile GIS in Waterbody Maintenance	UTL	Kofahl	01/04/04-31/06/05
Real-Estate Data	LKR DBR	Christoph	01/09/04-31/08/05
Teaching-Methods Toolbox	BMBF	Zehner	01/03/01-28/02/04
Historical Information System for the Baltic	Land M-V	Foy	01/11/01-31/12/05
Positioning within limited sensor networks	DFG	NN	01/09/05-31/08/08

5. Research Themes

In **Remote-Sensing**, methods are being developed for digital image-capture, interpretation and processing, particularly in agricultural areas and with multi-sensor and multi-temporal systems. The Remote-Sensing techniques such as the low-cost aerial flight system PFIFF are particularly focussed on applications in Precision Farming.



Layering of aerial photographs, yield mapping and substrate values

In **Engineering Geodesy**, investigation in geodetic positioning techniques for energy-limited sensor networks is of particular interest.

For historical cultural-landscape research, **Computer-supported Cartography** is an advanced tool. Regional records of kettle-holes, water-mills and windmills are currently being used.

Using **Engineering Photogrammetry**, exact 3D building-models for 3D-cityscapes and virtual-reality modelling are being created.

In the area of **Geoinformatics**, virtual city-tours of Rostock have been developed for various applications (town-planning, economic development, tourism) and made available

online using methods such as VRML and Quicktime. Electronic learning modules for GIS have been produced. Communal internet-GIS solutions based on Open-Source software have been developed.



3D-Model of the University Central Buildings

Further information, and even online examples of current research are available on the internet site (<http://www.auf.uni-rostock.de/gg>). Also on this site you will find the Geoinformatics-Service, a consultancy offer in the field of GIS.

6. Know-How Transfer

A further focus is Know-How Transfer through the Steinbeis Transfer-Centre for Geoinformatics with advice, studies, development and training courses. Main focus lies on Internet GIS development and precise aerial photographs for urban and agricultural purposes.



UNIVERSITÄT ROSTOCK

Faculty of Agricultural
and Environmental
Sciences

Institute for
Management of
Rural Areas

Information on the
Professorship for
Geodesy and
Geoinformatics

Further information is available from:
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Institute for Management of Rural Areas
Professorship for Geodesy and Geoinformatics
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