GEOINFORMATICS



THE GEOINFORMATICS RESEARCH GROUP AT AALBORG UNIVERSITY

DEPARTMENT OF SUSTAINABILITY AND PLANNING TECHNICAL FACULTY OF IT AND DESIGN

The research group works with mapping and measuring the world in order to do spatial planning and regulation, to make viable presumptions about future occurences and to determine the effects of climate change and migration patterns.

RESEARCH

KEY RESEARCH AREAS

The use of land and sea space is under pressure from population growth, economic development and climate change, and needs to be regulated by knowledge-driven spatial planning relying on high quality data, innovative analytical tools and models.

The research group covers spatial planning, land management, maritime spatial planning, climate change, migration modelling, land-cover change, citizen science, mobilities studies, digital governance, urban structure and living, SDI, satellite positioning, geodesy, remote sensing, cadastral systems, and real property formation.

KEY RESULTS

Promote the use of Galileo in Denmark and stimulate the use of precise satellite-based positioning, navigation, and timing, mobility, and UAVs.

Promote the use of more sustainable mobility solutions.

Insights about future land/maritime resource, population/migration patterns, citizen involvement in environmental monitoring and decision making.

EDUCATION

STUDY RELATED ACTIVITIES

- > TECH Talents coordination Cph.
- GNSS positioning and reference frame teaching related to Galileo
- > Chartered surveyors
- Urban planning, land management, sustainable mobilities, practice research
- > Geocomputational tools/models

COLLABORATION

WHO BENEFITS FROM OUR RESEARCH

Most of our research is funded by the EU with an international scope.
Besides the EC, the users are environmental analysts, practitioners, and decision/policy makers aiming at addressing societal challenges (SDGs).

EXTERNAL PARTNERS

SDFE, DMI, NIRAS, Geoforum, Nordregio, IIASA, PIK, IOW, Turku University, Oldenburg University, GST, DHI Gras, DTU, Aarhus University, Hermes Traffic Intelligence. RUC, University of South Australia, University of Nürtingen/Geislingen, Copenhagen municipality, By og Havn, Lets'go, Bycyklen (citybikes), travelplanner.dk, Danish Surveying companies e.g. LE34, Danish Association of chartered Surveyors.

PUBLICATIONS

IMPORTANT PUBLICATIONS

- Modelling the future coastal zone urban development as implied by the IPCC SRES and assessing the impact from sea level rise
- > A Geoprivacy Manifesto
- Preliminary gravity recovery from CryoSat-2 data in the Baffin Bay
- Mobility in daily life between freedom and unfreedom
- Further modelling of LADM's rights, restrictions and responsibilities (RRRs)
- Understanding value changes in the urban development process



AALBORG UNIVERSITY

DENMARK

KEY PROJECTS

BONUS BASMATI

Develop integrated and innovative solutions for maritime spatial planning.

FUME

Understanding the patterns, motivations and modalities of migration at multiple geographical scales.

DANGO

Accelerating the use of Galileo High Accuracy Service by geodetic transformations to the Danish reference frame.

SIMS

Develop sustainable innovative mobility solutions in urban and rural areas, with focus on user practice.

VIDEO PRESENTATION



CONTACT

HEAD OF RESEARCH GROUP

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