

Presented at the FIG e-Working Week 2021,
21-25 June 2021 in Virtually in the Netherlands

SMART SURVEYORS FOR LAND AND WATER MANAGEMENT CHALLENGES IN A NEW REALITY



eWORKING WEEK 2021
20-25 JUNE

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Curricula Enrichment for Sri Lankan Universities Delivered Through the
Application of Location-based Services to Intelligent Transport Systems
23 June, 10:30 – 12:00 CEST

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Categories for Education in Geodesy and Transportation Science

- Understanding travel behavior
- Modelling transport
- Navigation and mobile guides
- Non-navigation assistive systems
- Optimization of traffic flows / transport demand management
- Location based gaming including fitness monitoring
- Other emerging applications such as advertisement, education, logistics goods transportation





Train-the-teachers Courses

- Transportation system planning for smart cities
- Alternative PNT technologies
- Estimation theory and processing of spatial data
- Data and models in transportation
- Smartphone positioning techniques for in- and outdoor localization
- LBS and multi-media cartography





Innovation

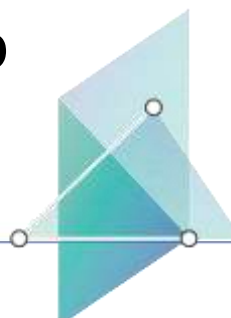
- Integration of various aspects of LBS into ITS
- Higher level of interdisciplinarity
- Major aims in education in these domains include:
 - (1) Geomatics / Geodesy dealing with PNT and sensors
 - (2) LBS including cartography and GIS
 - (3) Smart transportation and mobility
- Focus on problem-based learning (PBL) and quality assurance (QA) in teaching





Covid-19 Impact

- Project start with kick-off only virtual
- Virtual meeting was productive, but no personal contact between actors is problematic
- Workshops and train-the-teachers courses must be held mainly hybrid or virtual in dependence on covid-19 situation
- Student involvement and interaction with teachers critical
- But distance learning can bring the benefit for students to be able to participate in courses of other Universities more easily





Lessons Learned

- Progress in blended learning expected
- Requirements for succesful implementation:
 - (1) Modernization or establishment of e-learning platforms at all participating Universities essential
 - (2) Purchase of equipment for better possibilities for live-streaming and video recording of lectures





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