Advancing Automation in National Topographic Map Production in the National Land Survey of Finland - Challenges and Opportunities of Utilizing AI Technologies

Since 1970s, national mapping agencies (NMAs) have lived in a digital transition where geospatial information stored and represented on paper maps have been transformed to national digital topographic databases and dynamic representations on a number of publishing channels. This first digital transformation made use of geographic information ubiquitous and pervasive in our daily life and business. Now NMAs are facing new challenges, since new technologies, such as AI/machine learning and big data analytics, and global actors on IT-sector creates pressure on the traditional methods of topographical mapping. The on-going second digital transformation is about the transformation from big data to geographic knowledge for the purposes of spatial planning and decision making. The second digital transformation will eventually solve some long-lasting mapping challenges, such as fully automatic feature extraction and map generalization.

With recent advances in AI, machines are gaining the ability to learn, improve, and execute repetitive tasks accurately and precisely. In our geospatial communities, the roles of AI are expanding in both research and practice. In order to share information about utilization of AI technologies inside the National Land Survey of Finland (NLS-FI), the ICA Working Group on Digital Transformation of National Mapping Agencies and the Cartographic Society of Finland together with the NLS-FI hosts this webinar entitled 'Advancing automation in national topographic map production in the National Land Survey of Finland - Challenges and opportunities of utilizing AI technologies' on 2.00PM-3.00PM (EEST), August 31st.

You are warmly welcome to the webinar!

Please, register the event before the 30th of August by sending an email to inkeri.lantta@nls.fi. The webinar link will be sent to the registered participants forenoon the 31st of August.

AGENDA (EEST)

2.00 PM	Opening words and a short intro to the NLS-FI's AI project Prof. Juha Oksanen, Finnish Geospatial Research Institute (FGI) in the NLS-FI
2.15 PM	Experience on selecting data labelling tools for Remote Sensing data Mrs. Emilia Huttula, FGI/NLS-FI
2.30 PM	Using Deep learning for building outline extraction Mr. Jesse Anttila, FGI/NLS-FI
2.45 PM	Preliminary experiences in utilizing AI in automatic hydrographic mapping Mr. Christian Koski, FGI/NLS-FI
2.55 PM	Closing of the webinar Prof. Juha Oksanen, FGI/NLS-FI