

Selected Papers
from
International Scientific Conference

**GEODYNAMICS AND
GEOSPATIAL
RESEARCH
2024**

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Foreword

This volume contains invited papers presented at the International Conference “Geodynamics and Geospatial Research 2024”. The conference was organized by the Institute of Geodesy and Geoinformatics of University of Latvia within the framework of 82nd International Scientific Conference of the University of Latvia

The first conference “Geodynamics and Geospatial Research” was organized by the Institute of Geodesy and Geoinformatics of the University of Latvia in February 2017. Since then, the conference has been organised as a scientific and practical event to bring together science and industry in fields such as geodynamics, gravity field and geoid modelling, astrogeodesy, GNSS and satellite geodesy, photogrammetry, remote sensing, unmanned aerial vehicles and related disciplines.

Focus of the conference is on the interdisciplinarity, versatility and possibilities of research to reach significant discoveries, including business applications and innovative solutions for commercial enterprises.

The scientific committee has selected three invited papers to be published as full text papers of the conference.

- Assessment of the accuracy of GNSS measurement models using base station and radio module solutions, addressing problems of the GNSS measurements.
- Comparison of two deep learning models to determine burned forest areas from Sentinel-2 imagery is an interdisciplinary study that utilizes SAR methodology in remote sensing which is still growing methodology across various economic sectors.
- Seismic moment tensor and focal mechanism of the $M_w 3.3$ earthquake on May 11, 2021 in the Kyoto-Osaka border region, determined by waveform inversion. This study was selected by the scientific committee as it represents a new area of research for the Institute of Geodesy and Geoinformatics, in cooperation with colleagues from Ukraine and Japan.

Selection of these papers highlights the research “fields” of the Institute – underground, terrestrial and space.

Ingus Mitrofanovs

Chair of the Conference
Director of the Institute of Geodesy and Geoinformatics,
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Chair of the Conference Ingus Mitrofanovs, Dr.sc.ing.
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