

PREFACE:

Special issue dedicated to the proceedings of the 17th All-Russia Open Conference on Current Problems in Remote Sensing of the Earth from Space

On November 11–15, 2019, the *17th All-Russia Open Conference on Current Problems in Remote Sensing of the Earth from Space* with international participation was held in the Space Research Institute of the Russian Academy of Sciences, Moscow, Russia. The history of the Conference started in 2003 and saw its rapid growth into the largest Russia's annual open event gathering researchers from all over Russia and other countries. In 2019, the Conference hosted participants from Russia, Austria, Belarus, Bulgaria, Great Britain, Germany, India, Kazakhstan, Kyrgyzstan, Tadjikistan and Uzbekistan. The Conference welcomed over 537 reports that covered the whole scope of theoretical and experimental results and development of instrumentation and monitoring systems related to remote sensing of ground ecosystems, vegetation and soils, processes in ocean and atmosphere and their interactions, geological and geophysical phenomena. Original research and state-of-the-art in the development of methods and systems of remote sensing of the Earth and use of satellite monitoring techniques in fundamental studies and applications were discussed. The following sections were convened in the framework of the Conference and the Young Scientist School:

- Satellite data processing: methods and techniques
- Using satellite data in monitoring systems: methods and technologies
- Developing and using instruments and systems for satellite remote sensing of the environment
- Remote sensing of atmosphere and climate
- Remote sensing of ocean and ice cover
- Remote sensing of vegetation and soils
- Remote sensing in geology and geophysics
- Remote sensing of ionosphere
- Remote sensing of planets of the Solar System

Also, two Round Tables were held during the Conference:

- Round Table 1 (Russian-British): Developing international cooperation between science projects on the studies of boreal ecosystems in condition of climate change;
- Round Table 2: Using satellite data in investigation and monitoring of water resources of the agrarian sector of Central Asia (international cooperation experience).

The members of the Program Committee of the Conference were leading researchers and experts in Earth remote sensing from Russia, Great Britain, Germany and Belarus (<http://conf.rse.geosmis.ru/engl.html>).

The present Number of our Journal is dedicated to the Conference proceedings, featuring 25 papers prepared by the authors of the best works presented in various sections of the Conference. The papers were selected and carefully peer-reviewed by the Program Committee of the Conference. All papers are published in the authors' edition.

The organizers of the Conference are grateful to the administration of the Space Research Institute of the Russian Academy of Sciences for their help with the venue and organization, as well as the Russian Foundation for Basic Research for financial support (project No. 19-05-20012).

Editorial Board of the Journal & Program Committee of the Conference