

Report on 5th ISPRS International Workshop “Photogrammetric and computer vision techniques for environmental and infraStructure monitoring, Biometrics and Biomedicine”
24-26 April, 2023, Moscow, Russia

The 5th ISPRS International Workshop “Photogrammetric and computer vision techniques for environmental and infraStructure monitoring, Biometrics and Biomedicine” was organized by ISPRS WG II/8. In 2023 it was held from 24th till 26th in Moscow, Russia. To provide wide possibilities for participation in ISPRS PSBB23 workshop it was organized as a hybrid event. In-person part took place at State Research Institute of Aviation System (GosNIIAS) and Moscow State University of Geodesy and Cartography (MIIGAiK), Moscow, Russia. This year the Research Center of Historical and Cultural Heritage of the Ministry of Education, Science, Culture and Sports of the Republic of Armenia was a partner of the workshop.



Online participants took part in the workshop via videoconference platform, virtually presenting in the conference hall. The PSBB23 continues to the series of the successful workshops of 2015, 2017, 2019 and 2021 years, being a regular biennale for sharing the results of research and development efforts in both national and international environmental monitoring, biometrics, and biomedicine theory, research, experiments, applications, and technology.

The Program Committee included 20 scientists who are experts in areas of environmental and infrastructure monitoring, biometrics, and biomedicine. They reviewed 64 extended abstracts submitted to the workshop. All submissions were evaluated by two-three reviewers. As a result of reviewing process, 40 submissions were accepted for presenting at the Workshop and including in the ISPRS Archives.

The information about the Workshop was available since October 2022 through the workshop website (<http://technicalvision.ru/ISPRS/PSBB23/>). The website contained information on technical program, themes of the workshop, paper submission, venue details and other general information. In order to enable the delegates to register them for participating in the Workshop the PSBB23 registration and submission website was created (<http://psbb.ellectu.net>). Via PSBB23 registration and submission website entire process of online paper submission, anonymous review, rebuttal and communication with authors/contributors was organized.

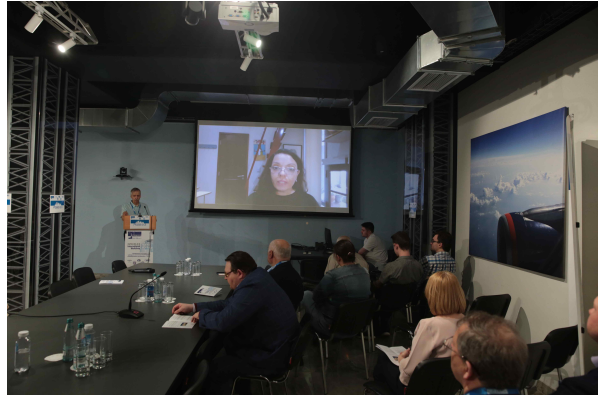
According to the agreement with ISPRS council, the Workshop papers published in the ISPRS Archives by Copernicus GmbH. The USB card with accepted papers was provided to all the delegates as part of their registration kit. Copernicus GmbH uploaded this in ISPRS website (<https://isprs-archives.copernicus.org/articles/XLVIII-2-W3-2023/>).

The Workshop was officially opened by academician of RAS Sergey Zheltov, who stressed the importance of this event for developing modern photogrammetric approaches and methods in Russia. Then PSBB23 participants received welcome addresses from Chair of Working group 8 of ISPRS Technical Commission II Dr. Maria Gabriela Lenzano and from Director of Phystech school of Applied Mathematics and Informatics Dr. Andrey Raigorodski. They expressed the believe that PSBB23 contributes to the development of image processing and analysis techniques and wished a success to the workshop.

The conference topics and the theme on 5th ISPRS International Workshop “Photogrammetric and computer vision techniques for environmental and infraStructure monitoring, Biometrics and Biomedicine” were set to provide the possibility for exchanging approaches, techniques, system descriptions and obtained results. The Workshop Technical program included 9 technical



(a) Welcome from academician of RAS Sergey Zheltov



(b) Welcome from Chair of WG II/8 Maria Gabriela Lenzano

sessions and a panel discussion. 40 oral presentations were presented during the conference, 19 presentations being given in-person and 21 presentations – online.

The technical sessions were organized based on the topics in the program, which covers the following topics:

- Environmental and infrastructure monitoring
- Image and sequence analysis
- Medical imaging, visualization and system
- Human body 3D modelling and shape analysis
- Vision-based computer-aided diagnostics
- Deep learning techniques



(a) Technical session 2 at GosNIAS



(b) Technical session 6 at MIIGAiK

Technical sessions

132 participants registered for the Workshop and took part in the sessions and discussions during three days of the conference work. The participants represented 9 countries.

The conference was very lucky to have a large group of volunteers who contributed greatly to the smooth execution of the pre-conference preparation, conference registration, logistics, and conference programs. Without their dedicate assistance, the conference would not have been done successfully.



Group photo of PSBB23 participants

The conference appreciated very much the support of State research institute of Aviation Systems, Moscow State University of Geodesy and Cartography and Armenian partner Scientific Research Center of Historical and Cultural Heritage.

In summary, the conference has received very positive feedback from the participants about the contents presented, conference organization and technical program offered. The participants expressed the interest in attending future PSBB workshop in 2025. On behalf of Organizing Committee we would like to thank all who contributed to the success of this joint conference.