

Report on ISPRS International workshop  
”Photogrammetric techniques for video surveillance, biometrics and  
biomedicine - PSBB19”  
13-15 May, 2019, Moscow, Russia

The ISPRS International workshop ”Photogrammetric techniques for video surveillance, biometrics and biomedicine - PSBB19” was held in Moscow, Russia from May 13rd to May 15th 2019. It was the third in row ISPRS WG II/5 and WG II/10 International workshop in Moscow after PSBB15 and PSBB17. The workshop was aimed for providing a platform for sharing the results of research and development efforts in both national and international video surveillance, biometrics, and biomedicine theory, research, experiments, applications, and technology. The workshop took place at Lomonosov Moscow State University.



The Program Committee included 24 scientists who are experts in areas of video surveillance, biometrics, and biomedicine. They reviewed 6 full papers and 89 extended abstracts submitted to the workshop. All submissions were evaluated by two-three reviewers. The rebuttal period allows authors to improve their submissions for being included in the workshop Technical program. As a result of reviewing and rebuttal process 60 submissions were accepted for presenting at the Workshop, and 39 full papers were accepted for including in the ISPRS Archives.

The information about the Workshop was available since September 2018 through the workshop website (<http://technicalvision.ru/ISPRS/PSBB19/>). The website contained information on technical program, themes of the symposium, paper submission, venue details and other general information. In order to enable the delegates to register them for participating in the Workshop the PSBB19 registration and submission website was created (<http://psbb.electu.net>). Via PSBB19 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 were published in ISPRS Archives by Copernicus GmbH. The USB card with published papers was provided to all the delegates as part of their registration kit. Copernicus GmbH also uploaded this in ISPRS website (<https://www.int-arch-photogramm-remote-sens-spatial-inf-sci.net/XLII-2-W12/>).

The Workshop was officially opened by Dr. Igor Sokolov, the Dean of the faculty of Computational Mathematics and Cybernetics of Lomonosov MSU, who stressed the importance of this event for developing modern photogrammetric approaches and methods in Russia. Then Director of GosNIIAS Dmitry Saulsky gave a welcome speech in which he wished the success to the conference and expressed a belief for expanding international scientific cooperation in the field of photogrammetry and computer vision.



(a) Opening



(b) Welcome from MSU

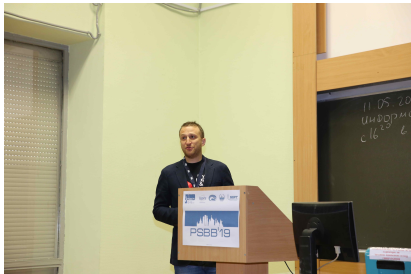


(c) Welcome from GosNIIAS

The conference topics and the theme on ”Photogrammetric techniques for video surveillance,

biometrics and biomedicine” were set to provide the possibility for exchanging approaches, techniques, system descriptions and obtained results. The Workshop Technical program included 6 technical sessions, and 2 poster session. Three keynote talks, 40 oral presentations and 24 posters were presented during the conference.

First workshop day the keynote speech was given by Dr. Paolo Rota, University of Trento, Italy. His keynote talk was entitled ”Beyond pure vision, a quick peek on multimodal deep learning for industrial applications”.



(a) Paolo Rota



(b) Fabio Remondino



(c) Victor Lempitski

Another two keynote talks were given by Dr Victor Lempitsky (Samsung AI Center and Skoltech) on machine learning for telepresence applications and by President of ISPRS Technical Commission II ”Photogrammetry” Dr Fabio Remondino on the perspectives of photogrammetry at the third day of the workshop.

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

- Biomedical image and sequence analysis
- Medical data processing and visualization
- 2D and 3D data analysis
- Photogrammetry for anthropology
- Machine learning
- Object detection and recognition



Technical sessions

This time a special session on new photogrammetric and computer vision methods for anthropology was included in PSBB19 Program. The session was organized in cooperation with

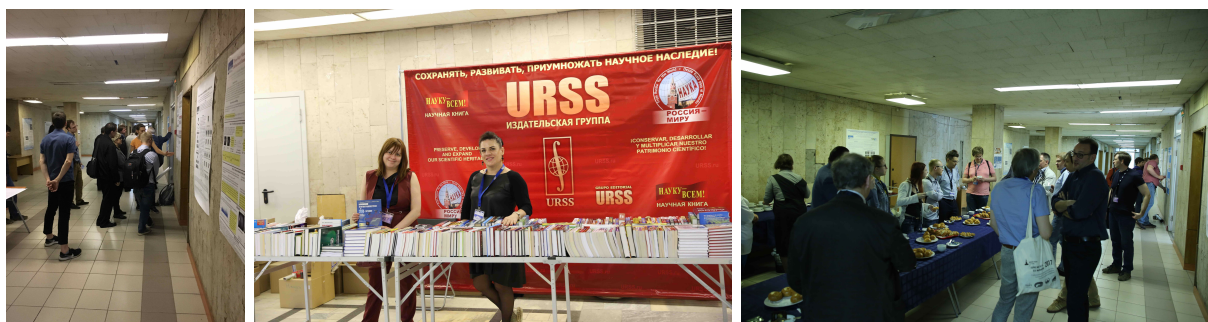
Institute of Ethnology and Anthropology RAS. The session took place in Timiryazev Biological Museum. It has served for extending multidisciplinary collaboration and applying new vision-based techniques for anthropological studies.

The social program of the workshop included visiting Kremlin, museum of Earth sciences in the main building of Lomonosov Moscow State University, Biological museum. The welcome party was organized as the boat trip along Moscow river. The participants had the opportunity to admire the views of Moscow from the board of the boat and to have an ice-breaking party.



### Social program

212 participants registered for the Workshop and took part in the sessions and discussions during three days of the conference work. The participants represented 15 countries. Beside technical program attendees have opportunity to find scientific publication at stand of URSS Publishing house and to discuss conference topics during poster sessions and panel discussions.



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.

The conference appreciated very much the support of State research institute of Aviation Systems, Lomonosov Moscow State University and Moscow Institute of Physics and Technology (MIPT).

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 2021. On behalf of Organizing Committee we would like to thank all who contributed to the success of this joint conference.