

PAPER • OPEN ACCESS

Overview of the II International Conference on Agricultural Engineering and Green Infrastructure Solutions – AEGIS-II - 2022

To cite this article: Bakhadir Mirzaev *et al* 2022 *IOP Conf. Ser.: Earth Environ. Sci.* **1076** 011001

View the [article online](#) for updates and enhancements.

You may also like

- [Searching for \$z > 6.5\$ Analogs Near the Peak of Cosmic Star Formation](#)
Xinnan Du, , Alice E. Shapley et al.
- [THE NEWFIRM MEDIUM-BAND SURVEY: PHOTOMETRIC CATALOGS, REDSHIFTS, AND THE BIMODAL COLOR DISTRIBUTION OF GALAXIES OUT TO \$z \approx 3\$](#)
Katherine E. Whitaker, Ivo Labbé, Pieter G. van Dokkum et al.
- [3D-HST WFC3-SELECTED PHOTOMETRIC CATALOGS IN THE FIVE CANDELS/3D-HST FIELDS: PHOTOMETRY, PHOTOMETRIC REDSHIFTS, AND STELLAR MASSES](#)
Rosalind E. Skelton, Katherine E. Whitaker, Ivelina G. Momcheva et al.




ECS The Electrochemical Society
Advancing solid state & electrochemical science & technology



242nd ECS Meeting

Oct 9 – 13, 2022 • Atlanta, GA, US

Presenting more than 2,400 technical abstracts in 50 symposia

 **ECS Plenary Lecture** featuring **M. Stanley Whittingham**, Binghamton University Nobel Laureate – 2019 Nobel Prize in Chemistry

 Register now!



Overview of the II International Conference on Agricultural Engineering and Green Infrastructure Solutions – AEGIS-II - 2022

Bakhadir Mirzaev, Tohirjon Sultonov, Shavazov Kadirjon, Komil Astanakulov and Golibjon Fozilov

“Tashkent Institute of Irrigation and Agricultural Mechanization Engineers” National Research University, Tashkent, Uzbekistan

E-mail: komiljon.astanaqulov@gmail.com

Abstract. The overview describes the main directions and results of the International Conference “AEGIS-II - 2022” held in Tashkent on 19-21 May 2022. It gives the details about the participants and the proceedings. A description of the main trends in agricultural and food technologies, green infrastructure solutions, environmental engineering for sustainable development of the modern society are given in the overview.

The Volume contains Proceedings of the II International Conference on Agricultural Engineering and Green Infrastructure Solutions – AEGIS-II – 2022. The annual event hosted by “Tashkent Institute of Irrigation and Agricultural Mechanization Engineers” National Research University, took place on the 19-21 May 2022 in Tashkent, Uzbekistan.

The purpose of the Conference was the exchange of experience of leading experts in the field of high-tech geochemical, geological, geophysical and information technologies in agriculture; energy, oil and gas engineering; environmental management and engineering, mining and soil processing technologies, as well as in modern areas of biodiversity research and methods for its conservation for sustainable development; the influence of food production on the environment and sustainable systems of food technologies; agroforestry, environmental safety, green technologies and natural resources.

The Conference “AEGIS-II – 2022” was jointly organised by “Tashkent Institute of Irrigation and Agricultural Mechanization Engineers” National Research University (Uzbekistan) with the support of scientists of Iowa State University, North Dakota State University and The Ohio State University (USA), Ondokuz Mayis University and the Association of Ecological Agriculture Organization (Turkey), University Technology Malaysia (Malaysia), Angel Kanchev University of Ruse (Bulgaria), Bangladesh Agricultural University (Bangladesh), Siberian Scientific Centre DNIT (Russia), S.Seifullin Kazakh Agro Technical University and South Kazakhstan University after named M.Auezov (Kazakhstan).

The Program Committee and Editorial Board included prominent professors and scientists from Uzbekistan, Turkey, the USA, Bulgaria, Malaysia, Kazakhstan, Bangladesh.

The Conference was organised in 6 main directions:

- Agricultural Machinery and Power Units, Green Energy Systems;
- Biosystems Engineering and Waste Management;



- Digital Technologies and Automation in Agriculture;
- Food Storage, Processing and Preservation;
- Soil, Tillage and Reclamation Technologies;
- Natural Resources and Geotechnical Engineering.

The conference aims were to provide opportunities to lecturers and researchers throughout Uzbekistan and CIS countries to publish their research at the international level, to discuss technological advances and cutting-edge engineering solutions, related to farming and irrigation as well as to share with the world academic community open access information about actual state of agriculture in Uzbekistan.

Scientists and practitioners from Uzbekistan and abroad submitted over 140 manuscripts. All the papers were peer-reviewed. As a result, almost one hundred of them were selected for publication.

The proceedings present to the readers the recent advances in the field of agricultural machinery, green energy systems; biosystems engineering and waste management; digital technologies in agriculture; food storage and processing; tillage and reclamation technologies; natural resources.

We chose the IOP Conference Series: Earth and Environmental Science (EES) to provide all contributors with the opportunity to publish their papers in an international, peer-reviewed journal. This is appreciated by all the participants of our Conference.

Acknowledgements

We would like to express our deep appreciation and gratitude to all the members of the AEGIS 2022 Scientific Committee for their efforts and cooperation. It would be impossible to hold the discussions at such a high level and to collect quality papers for compiling the conference proceedings without their assistance and dedication. We also appreciate the assistance of IOP Publishing in producing the volume of the collected papers. We wish to extend appreciation to all the authors for their outstanding contributions to this valuable volume.

PROGRAMME COMMITTEE

- Brian Steward** Professor of Agricultural and Biosystems Engineering Department, Iowa State University (USA).
- Thomas Bon** Emeritus Associate Professor of the Department Agricultural and Biosystems Engineering, North Dakota State University (USA).
- Paulo Flores** Assistant Professor of the Department Agricultural and Biosystems Engineering, North Dakota State University (USA).
- Kursat Demiryurek** Professor of Department of Agricultural Economics, Faculty of Agriculture, Ondokuz Mayıs University (Turkey).
- Uygun Aksoy** Chairperson, Association of Ecological Agriculture Organization (Turkey).
- Aini Suzana Ariffin** Associate Professor, Perdana Centre of Science Technology Innovation Policy, University Technology Malaysia (Malaysia).
- Pavel Vitliemov** Associate Professor, Head of Department, University of Ruse "Angel Kanchev", (Bulgaria).
- Rafiq Islam** PhD, Program Lieder, The Ohio State University South Centers (USA).
- Peter Ling** Assistant Professor of the Department of Food, Agricultural and Biological Engineering, The Ohio State University (USA).
- Xin (Rex) Sun** Assistant Professor of the Department Agricultural and Biosystems Engineering, North Dakota State University (USA).
- Sulaymon Eshkabilov** Assistant Professor of the Department Agricultural and Biosystems Engineering, North Dakota State University (USA).
- Kenzhemirza Baimakhanov** Associate Professor of the Department of Water Resources, Land using and Agrotechnology, M.Auezov South Kazakhstan State University (Kazakhstan).
- Esenaly Kaspakov** Candidate of technical sciences, assistant professor, Chief of the Department Agricultural machinery and technology department, S.Seifullin Kazakh Agro Technical University (Kazakhstan).
- Mohammad M.R. Jahangir** Professor, Department of Soil Science, Bangladesh Agricultural University (Bangladesh).
- Jasur Safarov** Doctor of Science, Professor, Dean of Machine Building Faculty, Tashkent State Technical University named after Islam Karimov (Uzbekistan).

Komil Astanakulov Professor, Head of the Department Agricultural machines, “Tashkent Institute of Irrigation and Agricultural Mechanization Engineers” National Research University (Uzbekistan).

ORGANIZING COMMITTEE

Bakhadir Mirzaev **Chairman**
The rector of “Tashkent Institute of Irrigation and Agricultural Mechanization Engineers” National Research University, professor (Tashkent, Uzbekistan)

Tohirjon Sulstonov **Vice-chairman**
Vice-Rector for Scientific Researches and Innovations “Tashkent Institute of Irrigation and Agricultural Mechanization Engineers” National Research University, professor (Tashkent, Uzbekistan)

Abdulkhikim Salohiddinov **Vice-chairman**
Vice-Rector for International Cooperation “Tashkent Institute of Irrigation and Agricultural Mechanization Engineers” National Research University, professor (Tashkent, Uzbekistan)

Kadirjon Shavazov **Responsible officer**
Dean of the Faculty Agricultural Mechanization “Tashkent Institute of Irrigation and Agricultural Mechanization Engineers” National Research University, associate professor (Tashkent, Uzbekistan)

Komil Astanakulov **Responsible officer**
Head of the Department Agricultural machines, “Tashkent Institute of Irrigation and Agricultural Mechanization Engineers” National Research University, professor (Tashkent, Uzbekistan)