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Overview of the III International Conference on Agricultural Engineering and Green Infrastructure Solutions (AEGIS-III 2023)

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Overview of the III International Conference on Agricultural Engineering and Green Infrastructure Solutions (AEGIS-III 2023)

K A Shavazov¹, M Kh Shomirzaev², K D Astanakulov¹ and Z M Umurzakov¹

¹National Research University - Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, 39, Street Kari Niyaziy, Tashkent, 100000, Uzbekistan

²Termez State University, 43, Street Barkamol avlod, Termez, 190111, Uzbekistan

E-mail: komiljon.astanaqulov@gmail.com

Abstract. The overview describes the main directions and results of the III International Conference on Agricultural Engineering and Green Infrastructure Solutions (AEGIS-III 2023) held in Tashkent on 28-30 March 2023. It gives the details about the participants and the proceedings. A description of the main trends in agricultural mechanization 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 III International Conference on Agricultural Engineering and Green Infrastructure Solutions (AEGIS-III 2023). The event hosted by National Research University “Tashkent Institute of Irrigation and Agricultural Mechanization Engineers” took place on 28-30 March 2023 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-III 2023” was held with the support of scientists of Iowa State University, North Dakota State University and The Ohio State University (USA), Ondokuz Mayıs University and the Association of Ecological Agriculture Organization (Turkey), University Technology Malaysia (Malaysia), Angel Kanchev University of Ruse (Bulgaria), Bangladesh Agricultural University (Bangladesh), S.Seifullin Kazakh Agro Technical University and South Kazakhstan University named after 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 the following 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 almost 200 manuscripts.

All the papers were peer-reviewed. As a result, about 90 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 2023 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.

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