

Preface

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Abstract. The Overview is devoted to the main directions and results of the II International Conference “ETESD - 2023” held in Tashkent on 13-15 September 2023. It describes the main directions and gives the details about the participants and the proceedings.

This Volume contains Proceedings of the main directions and results of the II International Conference on Environmental Technologies and Engineering for Sustainable Development (ETESD-II 2023) organized by National Research University “Tashkent Institute of Irrigation and Agricultural Mechanization Engineers” on 13-15 September 2023 in Tashkent, Uzbekistan.

The Organizers and Partners of the Conference were 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), S. Seifullin Kazakh Agro Technical University and South Kazakhstan University named after M. Auezov (Kazakhstan).

The purpose of the Conference was to share the experience in the areas of environment protection, biodiversity preservation, innovative technologies used in agriculture, preventing environmental damage, as well as to discuss the urgent problems and prospects of advanced technologies of food production, soil protection and tillage, water saving, environmental research and earth space systems.

The Program Committee and Editorial Board included famous professors and scientists from USA, Bulgaria, Turkey, Malaysia, Kazakhstan, Bangladesh and Uzbekistan (see Appendix 1).

The Conference was organised in the following directions: natural resources and environmental protection, biodiversity; technologies and technical means for storage, processing and preservation of food products; environmental technologies and techniques of energy and oil and gas industries; innovative technologies of agriculture; Soil protection

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technologies and tillage technologies; civil engineering and environmental research; Technologies for cleaning up environmental damage and waste disposal; water resources and water saving technologies; digitalization and earth space sensing systems.

The conference aims were to provide opportunities to lecturers and researchers throughout Uzbekistan, Vietnam, Kazakhstan and other 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 200 manuscripts. All the papers were peer-reviewed. As a result, almost two hundred of them were selected for publication.

The proceedings present to the readers the recent advances in the field of natural resources and environmental protection, biodiversity, water resources and water saving technologies; technologies and technical means for storage, processing and preservation of food products; environmental engineering and soil technologies, techniques of energy, oil and gas industries; innovative technologies of agriculture, civil engineering and environmental research; technologies for cleaning up environmental damage and waste disposal; Computing, mathematics, cybernetics, information and earth space sensing systems for sustainable development.

We would like to express our deep appreciation and gratitude to all the members of the ETESD-II 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 EDP Science 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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