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Preface

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XIII International Conference on Mathematics, Science and Technology Education

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Abstract. This paper represents a preface to the Proceedings of the XIII International Conference on Mathematics, Science and Technology Education (ICon-MaSTEd 2021) held at the Kryvyi Rih State Pedagogical University, Ukraine, 12–14 May 2021. Background information and the organizational structure of the meeting, paper overview and acknowledgments of the contributions of the many people who made the conference a success are presented.

1. Background

The International Conference on Mathematics, Science and Technology Education (ICon-MaSTEd) is a peer-reviewed international conference, which covers research on mathematics, science and technology education, along with technology-enhanced learning, including blended learning, E-learning, ICT-based assessment, mobile learning etc. (see figure 1)

Since 2001, ICon-MaSTEd is the premier interdisciplinary forum for social scientists, academicians, researchers, professionals, policy makers, postgraduate students and practitioners to present their latest research results, ideas, developments, and applications [1]. There is urgent general need for principled changes in mathematics, science and technology education elicited by promising theories, models, tools, services, networks and communications.

There were 34 submissions selected. Each submission was reviewed by at least 3, and on the average 3.7, program committee members. The committee decided to accept 23 papers.

The spread of the coronavirus that causes COVID-19 has change conference organization. Therefore, the XIII International Conference on Mathematics, Science and Technology

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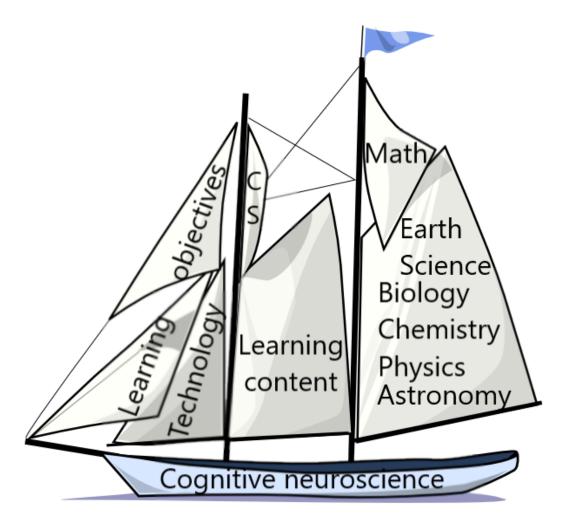


Figure 1. ICon-MaSTEd 2021 logo.

Education (ICon-MaSTEd 2021) took place 12–14 May 2021 at the Kryvyi Rih State Pedagogical University, Ukraine.

More than 100 attendees from 11 countries are joined to ICon-MaSTEd 2021 using Google Meet. The conference featured invited and contributed talks in a wide number of subject areas: Mathematics Education, Biology Education, Chemistry Education, Physics Education, Astronomy Education, Earth Science Education, Computer Science and Computer Science Education, Integrated Science Education, Technology Education, and Educational Technology.

The presentation slots were defined as follows:

- invites talks (30 min): 20 min presentation, 10 min question answering and discussion,
- other talks (20 min): 15 min presentation and 5 minutes question answering and discussion.

The full program with video record of talks is available at https://easychair.org/smart-program/SS2021/ where details of the sessions, usually headed by one or more invited presentations.

2. ICon-MaSTEd 2021 program committee

- Leon Andretti Abdillah, Universitas Bina Darma, Indonesia
- George Abuselidze, Batumi Shota Rustaveli State University, Georgia

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- Dmytro Antoniuk, Zhytomyr Polytechnic State University, Ukraine
- Vitalina Babenko, V. N. Karazin Kharkiv National University, Ukraine
- Spencer A. Benson, Education Innovations International, LLC and University of Maryland, United States
- Liudmyla Bilousova, Independent Researcher, Ukraine
- Nelio Bizzo, Federal University of São Paulo, Brazil
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- Helena Fidlerová, Slovak University of Technology in Bratislava, Slovakia
- Nataliia Franchuk, National Pedagogical Dragomanov University, Ukraine
- Alexey Galuza, National Technical University "Kharkiv Polytechnic Institute", Ukraine
- Michel Enrique Gamboa Graus, Las Tunas University, Cuba
- Irina Georgescu, Bucharest University of Economics, Romania
- J. Paul Gibson, Telecom SudParis, France
- Olena Glazunova, National University of Life and Environmental Sciences of Ukraine, Ukraine
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- Andrii Iatsyshyn, Institute of Environmental Geochemistry of the NAS of Ukraine, Ukraine
- Anna Iatsyshyn, Institute of Environmental Geochemistry of the NAS of Ukraine, Ukraine
- Oleksii Ignatenko, Institute of Software Systems, Ukraine
- Dragos Daniel Iordache, National Institute for Research and Development in Informatics ICI Bucuresti, Romania
- Filiz Kalelioğlu, Başkent University, Turkey
- Michail Kalogiannakis, University of Crete, Greece
- Christos Kaltsidis, Democritus University of Thrace, Greece
- Myint Swe Khine, Emirates College for Advanced
- Arnold Kiv, Ben-Gurion University of the Negev, Israel Education, United Arab Emirates & Curtin University, Australia
- Taras Kobylnyk, Drohobych Ivan Franko State Pedagogical University, Ukraine

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- Vladyslav Kruhlyk, Bogdan Khmelnitsky Melitopol State Pedagogical University, Ukraine
- Milan Kubiatko, Jan Evangelista Purkyně University in Ústí nad Labem, Czechia
- Arkadii Kukh, Kamianets-Podilskyi National Ivan Ohiienko University, Ukraine
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- Viktoriia Tkachuk, Kryvyi Rih National University, Ukraine
- Vera Toktarova, Mari State University, Russia
- Iryna Trubavina, National Academy of the National Guard of Ukraine, Ukraine

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- Nataliia Valko, Kherson State University, Ukraine
- Nataliia Veretennikova, Lviv Polytechnic National University, Ukraine
- Kateryna Vlasenko, Donbas State Engineering Academy, Ukraine
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- Natalia Zhytienova, H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

3. Proceedings structure

- 6 talks were presented in 'Mathematics Education' section: [2], [3], [4], [5], [6] and [7],
- 1 talk was presented in 'Biology Education' section: [8],
- 2 talks were presented in 'Chemistry Education' section: [9] and [10],
- 1 talk was presented in 'Astronomy Education' section: [11],
- 2 talks were presented in 'Computer Science Education' section: [12] and [13],
- 4 talks were presented in 'Technology Education' section: [14], [15], [16] and [17],
- 7 talks were presented in 'Educational Technology' section: [18], [19] and [20], [21], [22], [23] and [24].

4. Conclusion

XIII installment of ICon-MaSTEd was organized by Kryvyi Rih State Pedagogical University, Ukraine (with support of the rector Prof. Yaroslav Shramko), in collaboration with Kryvyi Rih National University, Ukraine (with support of the rector Prof. Mykola Stupnik), Institute of Information Technologies and Learning Tools of the NAES of Ukraine (with support of the director Prof. Valeriy Bykov) and Ben-Gurion University of the Negev, Israel (with support of the rector Prof. Chaim Hames).

We are thankful to all the authors who submitted papers and the delegates for their participation and their interest in ICon-MaSTEd as a platform to share their ideas and innovation. Also, we are also thankful to all the program committee members for providing continuous guidance and efforts taken by peer reviewers contributed to improve the quality of papers provided constructive critical comments, improvements and corrections to the authors are gratefully appreciated for their contribution to the success of the conference. Moreover, we would like to thank the developers of EasyChair and HotCRP, who made it possible for us to use the resources of this excellent and comprehensive conference management system, from the call of papers and inviting reviewers, to handling paper submissions, communicating with the authors, and creating the volume of the conference proceedings. Special thanks to session chairs for their work on the conference and its program, excellent and gratefully appreciated conference support.

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We are looking forward to excellent presentations and fruitful discussions, which will broaden our professional horizons. We hope all participants enjoy this conference and meet again in more friendly, hilarious, and happiness of further ICon-MaSTEd 2022. The next meeting in the series is the XIV International Conference on Mathematics, Science and Technology Education, 2022, Kryvyi Rih, Ukraine (https://icon-masted.easyscience.education/2022/).

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