

e-ISSN 2833-5473

# CTE Workshop Proceedings

Electronic edition

**Vol. 10 (2023)**

**Editor-in-Chief**

Serhiy Semerikov

<https://acnsi.org/cte>



**Academy of Cognitive  
and Natural Sciences**

Kyryvi Rih, Ukraine

## Editorial board

Assoc Prof. Leon A. Abdilla, <https://orcid.org/0000-0001-9733-1110>, Universitas Bina Darma, Indonesia

Fernando Almeida, <https://orcid.org/0000-0002-6758-4843>, University of Porto, ISPGAYA & INESC TEC, Portugal

Dr. Chun-Yen (Jim) Chang, <https://orcid.org/0000-0003-2373-2004>, National Normal Taiwan University, Science Education Center, Taiwan

Dr. Roman Danel, <https://orcid.org/0000-0001-9333-0567>, VSB-Technical University of Ostrava, Czech Republic

Helena Fidlerova, <https://orcid.org/0000-0002-3426-5803>, Slovak University of Technology in Bratislava, Slovakia

Dr. Irina-Alexandra Georgescu, <https://orcid.org/0000-0001-9333-0567>, Bucharest University of Economics, Romania

Dr. Dragos-Daniel Iordache, <https://orcid.org/0000-0002-0032-6495>, ICI Bucharest, Romania

Dr. M.-Carmen Juan, <https://orcid.org/0000-0002-8764-1470>, Universitat Politècnica de València, Spain

Dr., Assoc. Prof. Orken Mamyrbayev, <https://orcid.org/0000-0001-8318-3794>, Institute of Information and Computational Technologies, Kazakhstan

Olha Pinchuk, <https://orcid.org/0000-0002-2770-0838>, Institute for Digitalisation of Education of the NAES of Ukraine, Ukraine

Prof. Kateryna Vlasenko, <https://orcid.org/0000-0002-8920-5680>, National University of "Kyiv Mohyla Academy", Ukraine