

ISASD 2024 Workshop Proposal Form

The workshops will be held from July 8th to July 11th, 2023. Please provide the following information, which will be reviewed by the ISASD 2024 committee.

1. Workshop Title:

Future STEM education: new imaginations of instructional design, field and assessment

2. Workshop Chairs:

Name	Sheng-Yi Wu	Cheng-Hung Wang
Affiliation	National Pingtung University	National University of Kaohsiung
E-mail	digschool@gmail.com	wang101@go.nuk.edu.tw

3. Workshop Chair's Introduction (please provide a 150-word introduction):

Sheng-Yi Wu currently serves at National Pingtung University in Taiwan and holds the position of Director of the International Master Program in STEM Education. His main research areas include digital learning, STEM education, VR and educational metaverse, computational thinking, etc

Cheng-Hung Wang currently teaches at the Department of Crafts and Creative Design, National University of Kaohsiung, and serves as the director of the Digital Content Design Research Center. His research fields include digital learning, VR and educational metaverse.

4. Statement of Objectives (200-500 words):

STEM education has been a topic of discussion among many scholars to date, and there are already many related departments internationally. So far, there have been many studies and journals themed around STEM education. In response to technological innovations such as AI, 5G, the Metaverse, XR, etc., these technologies provide innovative opportunities for teaching and learning activities in STEM education. Therefore, this workshop is themed around 'Future STEM education' and 'new imaginations', with the

hope that researchers can break free from existing frameworks and consider the possible future developments of STEM education.

Workshop Topics

1. Review and explore the possible future developments based on the current state of STEM education.
2. Future teaching strategies and curriculum design in STEM education.
3. Future student learning and assessment methods in STEM education.
4. Future teaching materials and aids in STEM education.
5. Key competencies and literacies in future STEM education.
6. Changes in the field and potential benefits of future STEM education.
7. Professional development of teachers in future STEM education.
8. In-service teachers' perspectives on future STEM education.
9. Imagination and impact of technology (such as AI, 5G, the Metaverse, XR, etc.) on STEM education.
10. Data collection and analysis in STEM education.
11. Other imaginings about STEM education."

5. Target Article Quantity and Expected Number of Participants:

Target Article Quantity: 8

Expected Number of Participants: 12

6. Expected Technical Program Committee Members:

Chia-Ching Lin, National Kaohsiung Normal University, Taiwan

Chih-Ming Chu, National Ilan University, Taiwan

Kuay-Keng Yang, National Pingtung University, Taiwan

Po-Han Wu, National Taipei University of Education, Taiwan

Wen-Chun Hsu, National Pingtung University, Taiwan

Chin-Chung Yu, National University of Kaohsiung