



## **International Council of Associations for Science Education**

### **The Dubai Declaration on STEM Education Solutions to Complex Global Challenges**

The 7<sup>th</sup> ICASE World Conference on Science and Technology Education, which also marked the 50<sup>th</sup> anniversary of the founding of ICASE, was held in Dubai, UAE from 27 – 30 March, 2023. We, the conference participants from across Africa, Asia, Australasia, Europe, Latin America, and North America believe that education through science and technology should provide solutions to complex global challenges. This will require teachers to be equipped with quality teacher education and teaching materials for both learning in and out of the classroom. However, parents, industry, government officials, and the wider community need to recognize that education has changed from when they were students. Science and technology are a part of everyone's life and therefore necessitates functional literacy. While there are some teachers who may not realize they are already incorporating relevant practices, not enough teachers have been trained nor are there enough student teachers being prepared for relevant education through science and technology.

The conference participants call upon all involved in research, policy development and practice in Science and Technology Education to carry out their actions in implementing this Declaration in their region of the world, acknowledging the key role of teachers for all students.

We resolve to:

- increase ICASE member organizations' appreciation of the need to provide STEM education solutions to complex global challenges by raising teacher diversity of teaching approaches and assessment techniques and for ICASE to provide support and encouragement in this;
- highlight the importance of education through science and technology to promote problem-solving, decision-making, and personal development of not only teachers but also their students;
- build on students' intrinsic motivation and initial enthusiasm for learning through STEM education;
- pursue educational policies related to promoting education through science and technology both within society and the world of work/industry;
- promote a common language for the goals of education through science and technology that recognizes its place in STEM education for students;
- rethink current certification and summative examination policies to enable greater attention to assessment of personal and social development of the individual through STEM education; and
- work in collaboration with UNESCO, national and regional governments, science teacher associations, and other NGOs to further the cause of science and technology education in a changing world.

Dated in Dubai, UAE this 29<sup>th</sup> day of March 2023