

About The Conference

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WorldSTE2010, will be held in Tartu, the second largest town in Estonia and hosted by ICASE and the University of Tartu. This World Conference is the first in Europe since the Project 2000+ forum on scientific and technological literacy for all, held at UNESCO headquarters in Paris in 1993 and co-chaired by UNESCO and ICASE.

The theme of the WorldSTE2010 is Innovation in Science and Technology Education.

Innovation in science and technology education needs to have a research base, to be guided by policy makers towards relevant intentions and implemented at the practitioner level in meaningful and rewarding ways. Not only is science and technology education expected to play a crucial role in preparing innovative citizens within society, but it also needs to play its part at the forefront of educational innovations, promoting these from within a science frame.

The conference is intended as a bridge between researchers, policy makers and especially, practitioners in the field of science education. Members of Classroom science teachers are especially invited to put forward their innovations and participate in the interactions.

Research

Science and Technology Education is now a recognised research field in its own right, interlinking with, but differing from, research in the Nobel prize winning science areas and in areas such as educational psychology and cognitive science. This conference calls for research papers that advance science and technology education.

Policy

Developments in this key area were recognised in Perth (2007) as crucial if school science is to play a meaningful role in 21st Century teaching, Not only does policy draw on research outcomes, but also on societal needs and values. This conference calls for papers geared to policy related to primary and secondary science and technology education and related areas.

Practice

The conference also seeks innovations in the actual teaching and learning of science subjects. This is an opportunity to share experiences and help create science and technology classrooms suited to the 21st century. Of special interest is the manner in which research outcomes and policy decisions are implemented in science and technology classrooms in innovative ways. This conference calls for papers and posters in the practice of science and technology education, including classroom operations, advances in assessment and pre-and in-service professional development of teachers.

The conference outcomes focus on FOUR major research areas:

- Research into teaching and learning pertaining to science education
- Research-based curriculum development
- Action research guiding classroom teaching
- Validity of large scale international studies: reliability of assessment measures

The conference outcomes focus on FOUR major policy areas:

- Interactions between Research and Policy and Policy and Practice: implications for science education
- Interpretation of NOS (Nature of Science) and NSE (Nature of Science Education)
- Issues related to standards, interdisciplinarity, sustainable development, values, student achievement indicators and science education policy
- Networking and partnerships for professional development of teachers

The conference outcomes focus on FIVE major area of concern for the practice of teaching:

- Enhancing relevance for student needs: context-based teaching: socio-scientific issues
- Competency based curriculum models: the wider science education goals
- Impact of the teaching-learning environment: theoretical teaching constructs
- Student activities: practical (modeling), experimental, ICT related: best practices
- Promoting formative assessment: reviewing assessment practices