



International Council of Associations for Science Education

*Supporting and promoting science education internationally*  
**The ICASE Newsletter**

*January/February 2021*

## **Welcome to the ICASE January/February 2021 Newsletter!**

Welcome to the ICASE January/February 2021 Newsletter! The ICASE Newsletter is a publication containing current information about ICASE initiatives conducted by ICASE member organisations, and topics of interest in the field of science education. The table of contents for this issue is in the right-hand column. The International Council of Associations for Science Education (ICASE) was established in 1973 by leadership at the United Nations Educational, Scientific and Cultural Organization (UNESCO) to link national science teacher associations and to extend and improve science education for children and young people throughout the world. Today, ICASE is a network of science teacher education associations, institutions, foundations and companies, working together to promote science and technology education internationally. ICASE facilitates communication and cooperation at national, regional, and international levels. The ICASE Strategic Plan (2013-2023) calls for ICASE member organisations to adopt a position of Excellence and Leadership in Science Education.



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Over the past 40+ years, over 200 organizations have been members of ICASE. Currently, there are 32 organizations from 30 countries contributing to the financial administration of ICASE.

[www.icasonline.net/membership.htm](http://www.icasonline.net/membership.htm)

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## ICASE Annual Membership Update

**It's time to renew your organizational ICASE member fees!**

We are updating our records, please complete the ICASE member information sheet found on our membership page: <https://www.icasonline.net/membership.html>

Membership fees are due January 1st each year and three-year options are available at a reduced rate!

Membership renewal is easy and can be done totally online on the ICASE Website at:

<http://www.icasonline.net/membership.html> and a receipt will be sent to you. If your organization needs to receive an invoice, please notify us to request an invoice.

ICASE provides opportunities for member organizations and their representatives to promote excellence and innovation in science teaching and learning for all through:

- connections to the members of other science organizations around the world;
- opportunities to serve in ICASE international leadership positions on standing committees and in international research initiatives;
- communication venues to disseminate information internationally to the members of international science organizations through the ICASE listserv, newsletter and peer-reviewed ICASE journal;
- collaborative funding opportunities to promote science education at regional levels; and
- organization of ICASE World Conferences, regional events, and workshops providing opportunities for professional development and networking.

### **How are your membership fees put to use?**

ICASE membership fees are used for financial support of regional activities. Approval for funding will be considered based on a written submission (request for funding support) to the ICASE secretary, which clearly indicates how the activity meets the following criteria. All financial support for activities will be approved by the ICASE management committee, in consultation with the Executive Committee, and is subject to the availability of funds (generated by ICASE membership fees).

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### **Procedure to request financial support of regional activities**

1. The applicant organisation must be a current financial member of ICASE.
2. The activity must promote science education at a regional level.
3. The applicant organisation should provide a description of the activity and the potential benefits (including the extent of benefits - number of beneficiaries, and how the activity meets the short-term and long-term goals of promoting science education in that region).
4. ICASE must be acknowledged as a sponsor on all publicity material, including the website advertising the initiative. The ICASE logo must be displayed on all materials associated with the funding.
5. Funding requests will be accepted for the following range in US dollars: \$500 – \$2,000. These funds are intended to cover special initiatives associated with activities occurring in benefit of each region.
6. The applicant organisation must provide a budget for the activity including other sources of funding.
7. The applicant organisation must have an institutional bank account for the transfer of funds.
8. The applicant organisation must nominate a person in their organisation who will take responsibility for the activity, all expenditures and reporting (via presentation and in writing) at the subsequent ICASE World Conference.

The report may be presented via video conferencing if the organization is unable to fund a member to attend an ICASE World Conference. Please note that the ICASE Management Committee reserves the right to approve funding for second and subsequent applications from the same region within a three-year period, even when the application may come from a different organisation.

### **BECOMING A MEMBER ORGANISATION**

ICASE invites national, sub-national and multi-national organisations interested in the promotion of science and technology education to join its worldwide network. Organisations eligible to join are Science Teacher Associations (STAs), Science Societies, Institutes, Universities (or University Departments/Faculties), Industries, Companies, Centres and Museums. These organisations may have a sole interest in science education (or in one of its sub-disciplines such as biology, chemistry, physics, Earth sciences, etc.) or have wider interests, one of which is science education. Following the ICASE Constitution, requests for new members, whether full or associate, are approved by the ICASE Executive Committee.

### **ICASE provides opportunities for member organizations and their representatives:**

- to promote excellence and innovation in science teaching and learning for all through
- connections to the members of other science organizations around the world;
- to serve in ICASE international leadership positions on standing committees and involvement with international research initiatives;
- to disseminate information internationally to the members of international science organizations through the ICASE listserv, newsletter and peer-reviewed ICASE journal;



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- to obtain collaborative funding aimed at promoting science education at regional levels; and
- to participate in ICASE World Conferences, regional events, and workshops providing opportunities for professional development and networking.

In addition, ICASE member organizations and their representatives receive reduced conference registration fees for attendance at all ICASE World Conferences. <http://www.icaseonline.net/membership.html>



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## SEAMEO, MIT J-WEL, Unilab, CISTEM, US SLA and SEAMEO STEM-ED Centre Converge for the 2<sup>nd</sup> Integrated STEM Leadership Summit in Asia

Sheryl Lyn C. Monterola<sup>1,2</sup> and Manabu Sumida<sup>3</sup>

<sup>1</sup>Center for Integrated STEM Education (CISTEM), <sup>2</sup>University of the Philippines, <sup>3</sup>Ehime University, Japan

The Southeast Asian Ministers of Education Organization (SEAMEO), MIT Abdul Latif Jameel World Education Lab (J-WEL), Unilab, Center for Integrated STEM Education (CISTEM), US STEM Leadership Alliance, and SEAMEO STEM Ed Centre joined forces to continue the work of advancing integrated STEM leadership in the Asian region through the **2<sup>nd</sup> Integrated STEM Leadership Summit in Asia**, which was held on **21-22 January 2021**.

More than 3,000 participants consisting of policymakers, industry leaders, non-profit organizations, academics, school administrators, researchers, and teachers from all over the world joined the virtual summit which had the theme ***“Reimagining Integrated STEM Education: Amplifying Agility and Transformational Collaboration for a Post-Pandemic Asia”***.

To view the highlights, visual summaries, and resources of the 2<sup>nd</sup> Integrated STEM Leadership Summit in Asia, visit

[www.stemsummitasia.org](http://www.stemsummitasia.org)



### ***Policies, Strategies, and Initiatives for an Agile and Collaborative STEM Ecosystem***

The 2-day virtual summit featured almost 100 experts, leaders, and champions from all around the globe to share their pioneering experiences and best practices. The elite roster of speakers included various Ministers and Secretaries of Education in Southeast Asia including their senior officers: **Senior Minister Dr. Radzi Jidin** of the Ministry of Malaysia, who is the incumbent SEAMEO Council President; **Minister Nataphol Teepsuwan** of Thailand; **Minister Sengdeuane Lachanthaboun** of Lao, **Madame Lee Lin Ye** of Singapore; **Dr. Haji Hazri Kifle** of Brunei; **Dr. Silinthone Sacklokh** of Lao PDR; and **Secretary Leonor Magtolis-Briones** joined as well by **Usec. Nepomuceno Malaluan** and **Usec. Diosdado San Antonio** from the Department of Education, Philippines.

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The event was also graced by the presence of **Dr. John Law**, Chargé d' Affaires of the United States Embassy Manila; **Dr. Tom LeBlanc**, Director of Education of USAID; **Dr. Jeff Weld**, Former White House Policy Advisor for STEM Education; **Dr. Barbara Morgan**, former NASA astronaut, **Dr. Matthew Pearce** of NASA Goddard Space Flight Center, **Dr. Carol O'Donnell**, Director of the Smithsonian Science Education Center, and **Dr. Lance Bush**, CEO and President of Challenger Center. They emphasized the need to collaborate to put STEM at the forefront of the national development agenda.

### ***Shaping the Future of STEM Education and Workforce Development***

Leaders of well-renowned academic and research institutions such as **Dr. M.S. Vijay Kumar**, Associate Dean for Open Learning of Massachusetts Institute of Technology; **Dr. George Westerman** of MIT Sloan School of Management and J-WEL; **Prof. Daniel Rouan** of the French National Academy of Sciences; **Prof. Manabu Sumida** of Ehime University, Japan; **Prof. Hee-chan Lew** of Korea National University of Education; **Prof. Peter Charles Taylor** of Murdoch University, Australia; **Prof. Zsolt Lavicza** of Johannes Kepler University, Austria; **Prof. Yoshisuke Kumano** of Shizuoka University, Japan; **Assoc. Prof. Tang Wee Teo** and **Assoc. Prof. Aik Ling Tan** of the National Institute of Education (NIE), Nanyang Technological University, Singapore; **Prof. Sukit Limpijumrong** of the Institute for the Promotion of Science and Technology, Thailand; **Prof. Padma Sarangapani** of Tata Institute of Social Sciences, India; and **Prof. Roberto Araya** of University of Chile shared insightful perspectives, education strategies, and practical teaching tools in delivering quality STEM education.

Organizations that were represented by speakers in the summit were the following: **The World Bank**, **International Labour Organization (ILO)**, the **Asian Development Bank (ADB)**, **National Science Teaching Association (NSTA)**, **National Council of Teachers of Mathematics (NCTM)**, **American Society for Engineering Education (ASEE)**, **International Technology and Engineering Educators Association (ITEEA)**, the **Southeast Asian Journal of STEM Education**, and the **Japan Society for Science Education**.



*Panel discussion on STEM education strategies for the region which was moderated by Dir. Richard Burgos, Department of Science and Technology (Philippines) and participated in by the panelists: Prof. Manabu Sumida of Japan Society for Science Education, Assoc. Prof. Aik Ling Tan of National Institute of Education (Singapore), Dr. Sumardiyono of SEAMEO QITEP in Mathematics, Mr. Lukman Nulhakim of SEAMEO QITEP in Science, and Usec. Diosdado San Antonio of the Department of Education (Philippines). The session was hosted by Dr. Orawan Sriboonruang of SEAMEO Secretariat.*

The virtual summit successfully provided learning opportunities and cross-sectoral dialogues through its panel discussions on integrated STEM Education initiatives, industry perspective on durable skills for the future of work, STEM education for a post-pandemic world, policies and education strategies, agile and collaborative STEM ecosystem, digital solutions and initiatives, and the future of STEM education and workforce development.

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## **The First International Forum of Artificial Intelligence and STEM Education (IFAISE2020), Xi'an, China**

Sarfraz Aslam, ZHANG BaoHui, YU Shuzhen

On December 26, 2020, The International Forum of Artificial Intelligence and STEM Education (IFAISE2020) was hosted by The School of Education of Shaanxi Normal University, Xi'an, China. Coordinated by the International Exchange and Cooperation Office of Shaanxi Normal University and funded by Wang Kuancheng Education Foundation, managed by the Ministry of Education, this seminar is one of the international academic exchange activities of Shaanxi Normal University. Based on careful consideration of the epidemic situation, funding, and time, the conference was entirely online. At the opening ceremony, Dong Zhibao, vice president of Shaanxi Normal University, Zhou Jianzhong, director of Science popularization and Education Research Support Center of Chinese Academy of Sciences, and Chen Peng, president of School of Education of Shaanxi Normal University delivered speeches respectively, highly supporting the content of the conference, and introducing relevant information of Shaanxi Normal University, Chinese Academy of Sciences and School of Education respectively. The conference contents were utterly consistent with the goals of the "Shaanxi Science Education Research Center," which was recently established by our school.

The organizing committee and representatives of this conference came from 12 countries and regions, respectively. The total number of participants in each venue during the conference was more than 300 people, including more than 30 foreign scholars. Executive committee members from ICASE participated the conference as invited panellists. A new feature of the international representatives attending the conference was that some of them were overseas students or postdoctoral researchers studying or working in Chinese universities. A total of 39 papers were submitted in Chinese and 17 in English. The deadline for submission of the proceedings of the conference was January 30, 2021. There were 6 keynote reports (4 Chinese keynote reports, 2 English keynote reports), 1 round-table forum (5 domestic and foreign speakers), and 7 sub-forums (29 domestic and foreign speakers).



### **Roundtable**



Prof. ZHANG Baihui  
Shaanxi Normal University  
President of ICASE



Prof. Manuel F. M. Costa  
University of Minho  
Portugal



Prof. Manuel F. M. Costa  
University of Minho  
Portugal



Dr. Steven Sexton  
University of Otago,  
New Zealand



Dr. CHEN Penghe  
Beijing Normal University

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During the conference, three ZOOM platforms and four Tencent conference platforms were successively used. Due to the time difference, the English keynote reports and the round-table forum were arranged in the afternoon with simultaneous interpretation. Primary education content in China in the artificial intelligence (AI) and STEM education, the relationship between artificial intelligence and STEM eight topics such as how to change science and technology (see the conference website: <https://ifaise2020.edtechstar.com/en/> ).

Professor Xiong Zhang's report from Beihang University has impacted the popularization and legislation of artificial intelligence and science and technology education in China. Professor Eric Hamilton, the keynote speaker from the United States, a professor at once as the national science foundation (NSF), the project manager, be responsible for the management of the five hundred million\$ research funding at a time, his report "Opportunities and Challenges of AI-Enabled STEM Education", introduced the major progress was made in artificial intelligence to promote STEM education, pointed out that the artificial intelligence in STEM education is divided into the application of data mining, intelligent, individualized learning and interactive learning, and other fields, he related projects in different countries in order to promote the global justice and prosperity as the goal.

Huang Guozhen, Chair Professor of the Institute of Digital Learning and Education at Taiwan University of Science and Technology and Dean of the School of Humanities and Social Sciences, was ranked as the world's most prolific and highly cited scholar in the social sciences in Time magazine's World University Rankings 2016. His report showed the design pattern and teaching research of team AI and STEM teaching activities, which played an important guiding role in selecting and developing related research topics.

Reports by Cai Yiyu from Singapore, Zhang Jinbao from Beijing Normal University, and Qin Jian from Shaanxi Normal University present more practical cases and results. The feedback questionnaire survey on the conference arrangement showed that most of the delegates spoke highly of the speakers' international influence and report quality. The round-table forum expanded the participants' scope to include Europe (Turkey, Portugal) and Oceania (New Zealand) and China's efforts to introduce AI into science and technology education in primary and secondary schools. Scholars were agreed with the role of artificial intelligence, as we have seen the radio, TV, computer and other new technologies, such as the Internet, will eventually become a part of our society and schools, there is no need to spend too much time to let all students specialized related content, the emphasis is on learning how to apply these techniques to solve the problem.

Papers from this conference will be recommended for publication in high-level journals in both Chinese and English, and a collection of papers will also be published. The conference results will directly contribute to developing the interdisciplinary integration (STEM) education foundation MOOC course, which is being developed by Professor ZHANG BaoHui's team. The course is scheduled to be launched on China University MOOC - iCourse platform in early 2021. This conference demonstrated the efforts made by Shaanxi Normal University in the field of artificial intelligence and STEM education in China, expanded the influence of Shaanxi Normal University, and laid a good foundation for the integration of internal and external forces and transnational cooperation in the field of science and technology education.





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### **NEW ICASE COMMITTEE – EARLY YEARS SCIENCE – SEEKS MEMBERS**

Dr. Sue Dale Tunnicliffe

Science in the early years includes experiences from the period of birth to eight years of age according to UNESCO. This age group is of increasing importance in the educational world.

The ICASE primary (Pre-Secondary) science committee was initiated in 1988. Now is the time to assist practitioners in pre formal school and in the early formal school context, as well as supporting parents and communities with the first few year of a child's learning journey and increasing understanding, skills and competencies in STEM as they explore the world. Many of the adults involved in such have little or no identity as Science or STEM teachers or adults with a STEM literacy.

ICASE Early Years seeks to support its Science Association members who have recognised this important new area of learning to support the practitioners.

If you are interested in developing such and being part of the committee please contact the Chair, Dr Sue Dale Tunnicliffe at [s.tunnicliffe@UCL.ac.uk](mailto:s.tunnicliffe@UCL.ac.uk) or [STEM@sdtunnicliffe.ac.uk](mailto:STEM@sdtunnicliffe.ac.uk)

Please provide the following information:

- Name
- Position
- ICASE organisation membership:
- Indicate your interested in early years Science (with mathematics, engineering and technology)
- Experience in Play or early years work

**early years  
STEM**

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## UNESCO NEWS



In partnership with  
**UNESCO**

Information compiled by Dr Teresa Kennedy  
ICASE Representative to UNESCO

**From the Collective Consultation of NGOs on Education 2030 (CCNGO)**

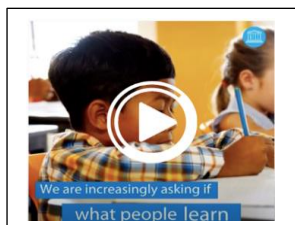
### ROADMAP for the next ten years of Education for Sustainable Development launched in regionally

In November and December, UNESCO launched its [Roadmap](#) for implementation of the [new global framework 'Education for Sustainable Development: Towards achieving the SDGs'](#) (ESD for 2030) with a series of five regional online events.

Representatives of national and regional institutions exchanged on their ongoing efforts, key challenges and future commitments on ESD implementation, which will be discussed further at the [UNESCO World Conference on Education for Sustainable Development](#) on 17-19 May 2021.

Watch the ESD 2030 regional launches in [Africa](#), [the Arab region](#), [Asia and the Pacific](#), [Latin America](#) and [Europe and North America](#)

### #ESDfor2030: A roadmap for Education for Sustainable Development - Video



[View the Video](#)

Be part of the transformation of education with [#ESDfor2030](#)  
Read the roadmap: <https://unesdoc.unesco.org/ark:/48223...>  
More about ESD: <https://en.unesco.org/themes/education...>

### Monitoring and Evaluation of Climate Change Education Project (MECCE)



The Monitoring and Evaluation of Climate Change Education project (MECCE) aims at advancing global climate literacy and action through improving the quality and quantity of climate change education, training, and public awareness with over 80 international partners and collaborators. [Read more](#)

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## UNESCO News Cont.

### World Conference on Education for Sustainable Development

**17-19 May 2021**

UNESCO will gather stakeholders from all over the world from 17 to 19 May 2021 in Berlin, Germany to launch its new Framework "Education for Sustainable Development: Towards achieving the SDGs" (ESD for 2030). [Find out more](#)



### UNESCO World Conference on Education for Sustainable Development: Pre-conference workshops

The [online workshop series](#) in preparation for the [UNESCO World Conference on Education for Sustainable Development](#) attracted strong participation from around the world.

The second online workshop addressed 'ESD in remote and digital settings: Lessons learned during the COVID-19 pandemic'. [Read a summary](#) and [watch on YouTube](#).

The third online workshop covered the topic 'Youth, Education for Sustainable Development and resilience: empowered young people mobilizing beyond the crises'. [Read a summary](#) and [watch on YouTube](#).

The fourth online workshop focused on the topic 'ESD and global health: Inter-linkage of the health of people and planet'. You can [watch on YouTube](#).

The fifth workshop 'ESD and Climate Emergency: Bend the curve for climate change'. [More information here](#)

### UNESCO Green Citizens showcases grassroot projects in support of biodiversity and sustainable development



<https://www.unescogreencitizens.org/>

UNESCO has launched the [Green Citizens initiative](#) to amplify the voice of some 100 local citizen projects worldwide in key domains of biodiversity and sustainable development. The Organization wishes to highlight and support local, innovative, duplicable citizen projects with a verifiable impact on their community and stimulate the dissemination of new change driving ideas worldwide. [Find out more](#)

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## UNESCO News Cont.

### Resources from UNESCO Partners



The enrollment for the [2021 Online Certificate on Education for Sustainable Development \(ESD\)](#) is open. This unique programme is designed for participants who want to enhance their knowledge and skills related to sustainability and bring them to educational processes. [Register here](#)



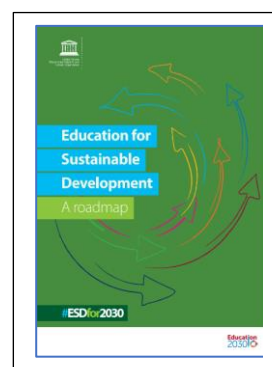
The [#Youth4ClimateLive Educational Toolkit](#) aims to help educators, students, and parents take climate education even further.

[Discover more](#) about the toolkit and the [#Youth4ClimateLive series](#)



[The Guidelines to strengthen the right to education in national frameworks](#) aim to strengthen national frameworks by assisting countries and stakeholders in conducting an assessment of the compatibility of their national education legal and policy framework with international standard-setting instruments on the right to education (refer to [Sustainable Development Goal 4](#))

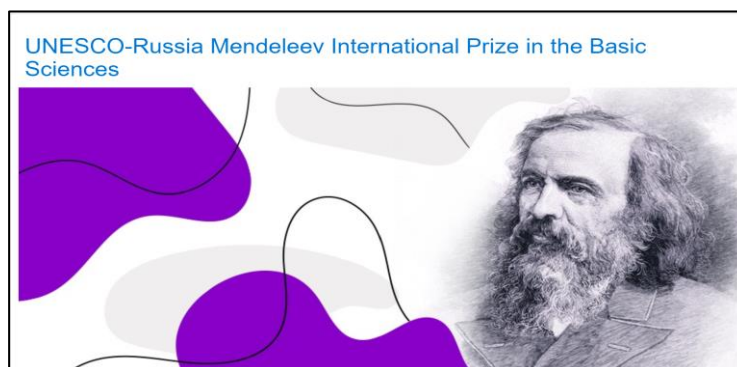
[Education for Sustainable Development: A roadmap](#) which provides guidance for Member States and other stakeholders for the implementation of the new global framework 'Education for Sustainable Development: Towards achieving the SDGs' (ESD for 2030). [Learn more](#)





## UNESCO News Cont.

### International Prize in the Basic Sciences



#### **Application Deadline: 15 March 2021**

2021 marks the first edition for this new Prize aiming to reward major achievements in research, education and international cooperation in the basic sciences for sustainable development.

The Prize shall be awarded annually to two individual prize-winners for achievements that are conducive to socio-economic transformation and development on a global or regional scale, based on:

1. excellence in research in the basic sciences fields;
2. basic sciences education and popularization;
3. international or regional cooperation in the basic sciences.

Sponsored by the Russian Federation, the Prize consists of a monetary reward of US \$250,000 for each of the two winners. A gold medal and a diploma will also be awarded to each of the recipients.

In accordance with the Statutes of the Prize, nominations shall be submitted by the Governments of Member States, in consultation with their National Commissions, by non-governmental organizations maintaining official partnerships with UNESCO and active in relevant fields covered by the Prize, by UNESCO Chairs, Category 2 Centres, international scientific unions and universities.

All applications must be submitted online via a dedicated template available on the [Application Process's webpage](#), by **15 March 2021 at the very latest, in English or French**.

The Mendeleev International Prize's Team (tel.: +33 (0)1 45 68 10 61; e-mail: [mendeleevprize@unesco.org](mailto:mendeleevprize@unesco.org)) remains at your disposal for any clarification regarding the nomination process.



## UNESCO News Cont.

Annex I

### ANNEX I

#ESDfor2030



### UNESCO-Japan Prize on Education for Sustainable Development (ESD)

*Explanatory note for the 2021 call for nominations*

#### A. Background

##### 1) What is ESD?

"ESD empowers learners with knowledge, skills, values and attitudes to take informed decisions and make responsible actions for environmental integrity, economic viability and a just society empowering people of all genders, for present and future generations, while respecting cultural diversity. ESD is a lifelong learning process and an integral part of quality education that enhances cognitive, social and emotional and behavioural dimensions of learning. It is holistic and transformational and encompasses learning content and outcomes, pedagogy and the learning environment itself. ESD is recognized as a key enabler of all SDGs and achieves its purpose by transforming society." (*Education for Sustainable Development: A Roadmap, UNESCO 2020*)

##### 2) Establishment of the Prize

The Prize was established by the UNESCO Executive Board in 2014, and has been awarded five times since the first edition in 2015. The Prize was renewed in November 2019 for a period of six years (2020-2025) with a biennial cycle. It consists of three awards of US \$50,000 for each recipient.

Within the framework of "Education for Sustainable Development: Towards achieving the SDGs (ESD for 2030)", adopted by the 40<sup>th</sup> session of the UNESCO General Conference, and acknowledged by the UN General Assembly in 2019, the renewed UNESCO-Japan Prize on Education for Sustainable Development honours institutions or organizations for outstanding projects or programmes undertaken in the field of ESD. The Prize also recognizes the role of ESD as an integral element of Sustainable Development Goal 4 on Education, and as key enabler of all 17 SDGs.

#### B. Nominations

Nominations can be made by Governments of UNESCO Member States via their Permanent Delegation to UNESCO, in consultation with the National Commission for UNESCO, as well as by non-governmental organizations (NGOs) in official partnership with UNESCO. Nominations must focus on a specific ESD project or programme. Each Member State or NGO can make up to three nominations for any edition of the Prize. If more than three nominations are submitted by a Member State or NGO, the submission will not be considered. Member States are invited to closely coordinate between the Permanent Delegation and the National Commission. Self-nominations are not accepted.

#### C. Eligibility and Selection Criteria

The three winners will be selected by the Director-General of UNESCO on the basis of recommendations made by an independent international jury, consisting of five experts from all geographical regions. To be eligible, the project/programme of the nominee must:

- be ongoing and have already been running for **at least four years**
- show presence of evidence of **results** and a **high impact** relative to the invested resources
- be **replicable and scalable**
- contribute to **one or more of the five priority action areas** of the ESD for 2030 framework (i.e. advancing policy, transforming learning and training environments, developing capacities of educators and trainers, mobilizing youth, accelerating sustainable solutions at local level).

Eligible projects will then be assessed by the jury on the basis of the following three criteria:





## UNESCO News Cont.

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**1) Transformation: practices ESD as transformative education in support of sustainable development, leading to individual and social change**

ESD empowers learners to transform themselves and the society they live in. The project/programme of the nominee should therefore enable learners to bring about changes with a view to building a more just, peaceful and sustainable world. This can mean, for example, taking action against climate change, changing one's consumption patterns, developing social entrepreneurship and sustainable livelihoods, or supporting those struggling against poverty.

**2) Integration: addresses the three dimensions of sustainable development (society, economy, environment) in an integrated way**

Sustainable development calls for the integration of the social, economic and environmental dimensions of development. The project/programme of the nominee should be in line with this definition of sustainable development. It should address the three dimensions (society, economy, environment), and help learners understand the interdependence between them and act accordingly.

**3) Innovation: demonstrates an innovative approach to ESD**

Sustainable development requires going beyond 'business as usual' and 'out-of-the-box' thinking. The project/programme of the nominee should demonstrate an innovative and inspirational approach to ESD, be it in the themes it covers, the methodology it employs, or the way the learning environment is designed. Reaching out to sectors beyond education and working with new partners can also be a sign of innovation.

### D. Submission Procedure

- The nomination form must be completed online in **English or French** via an online platform accessible at the following link: <https://unesco.sharepoint.com/sites/committees/ESD-Prize/>.
- Nominations must be submitted online by the **Permanent Delegation to UNESCO** of the concerned Member State, or by an **NGO in official partnership with UNESCO**. \* Self-nominations are not accepted.
- Attention should be paid to presenting the project/programme of the nominee in a **clear and structured way**, following the instructions given in the form and respecting the indicated word limit. All **supporting material** (e.g. publications, photos, videos) must be transmitted electronically through the online system. Kindly note that each Member State or NGO may not submit more than three nominations.
- Nominations must be submitted in the online system by the concerned Permanent Delegations, or the NGO, by **midnight of 30 April 2021** (UTC+1, Paris time). An automatic notification message will be sent to the official or registered e-mail address of the Permanent Delegation/the National Commission or the NGO to this end.

ICASE Members: If you are interested in nominating a program or project for the Japan Prize on Education for Sustainable Development, please contact: Teresa Kennedy [tkennedy@uttyler.edu](mailto:tkennedy@uttyler.edu), ICASE Representative to UNESCO, for more information about eligibility.

The Prize honours outstanding projects by institutions and organizations related to Education for Sustainable Development

<https://en.unesco.org/prize-esd>







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## UNESCO News Cont.



UNESCO has established [official partnerships](#) with 401 international NGOs and foundations and similar institutions, in either consultative partnership or associate partnership status. Every two years, UNESCO hosts an **International Conference of NGOs** in official partnership with the Organization. At this biannual event, the designated representatives from each NGO meet to review the state of cooperation with UNESCO and discuss initiatives underway. In addition, the body of NGO's elect a new Chairperson, as well as ten NGO representatives, to serve on the **NGO-UNESCO Liaison Committee** for a two-year period.

The NGO-UNESCO Liaison Committee represents the interests of the entire group of NGO partners in relation to UNESCO, oversees the effective functioning of the partnership and promotes consultation between the NGOs and the exchange of relevant information. In addition, the [Committee is tasked](#) with the organization and planning of the International Conference of NGOs, UNESCO-sponsored Forums, and facilitating efforts associated with UNESCO International Day celebrations.

**The UNESCO 2020 International Conference of NGOs “Envisioning a better and sustainable future – a new paradigm for civil society”** took place online from 16-20 December 2020.

We are pleased to announce that **ICASE**, represented by **Dr Teresa Kennedy**, ICASE representative to UNESCO, was elected to the NGO-Liaison Committee for the 2020-2022 period. ICASE President **Dr ZHANG BaoHui** will serve as the alternate representative. Committee members and their organizations represent Brazil, Bulgaria, China, Congo, Ecuador, France, Ireland, Malaysia, Switzerland, United Kingdom, and the United States—spanning five regions of the world.



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## UNESCO News Cont.

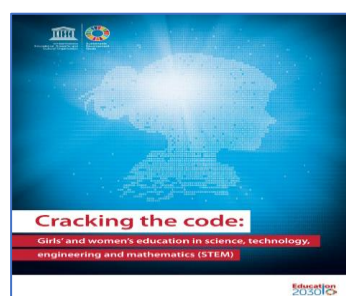
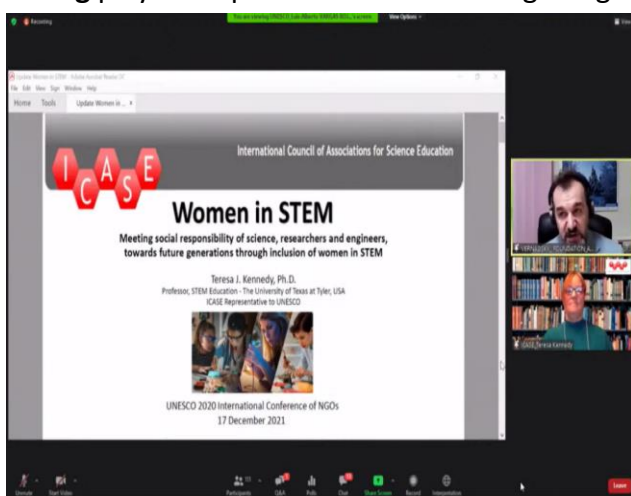
The NGO's elected for the 2020-2022 **NGO-UNESCO Liaison Committee** include the following:

**Chair** - International Music Council (IMC)

**Committee Members:**

- African Federation of National Associations of Parents of Pupils and Students (FAPR)
- Associated Country Women of the World (ACWW)
- Coordinating Committee for International Voluntary Service (CCIVS)
- International Council of Associations for Science Education (ICASE)
- International Council of Organizations for Folklore Festivals and Folk Art (CIOFF)
- International Federation of Business and Professional Women (BPW International)
- Latin American Campaign for the Right to Education (CLADE)
- SOZOPOL Bulgarian Cultural Foundation
- World Committee for Lifelong Learning (CMA)
- World Organization of the Scout Movement (WOSM)

During the event, Dr Teresa Kennedy was invited to participate in a panel presentation entitled: *"Envisioning a better and sustainable future: a new paradigm for civil society."* Her presentation, *"Meeting social responsibility of science, researchers and engineers, towards future generations through inclusion of women in STEM,"* examined the progress documented to date regarding international efforts to build a globally equitable STEM workforce and provided examples of educational initiatives currently underway to increase the number of women in the STEM pipeline around the world. She also highlighted the UNESCO publication *"Cracking the code: girls' and women's education in STEM"* describing the overlapping factors influencing female involvement in STEM; reiterating the point that **education and schooling** play an important role in reducing the global gender gap.



UNESCO. (2017). Cracking the Code: Girls' and women's education in Science, Technology, Engineering and Mathematics (STEM).  
<https://unesdoc.unesco.org/ark:/48223/pf0000253479>

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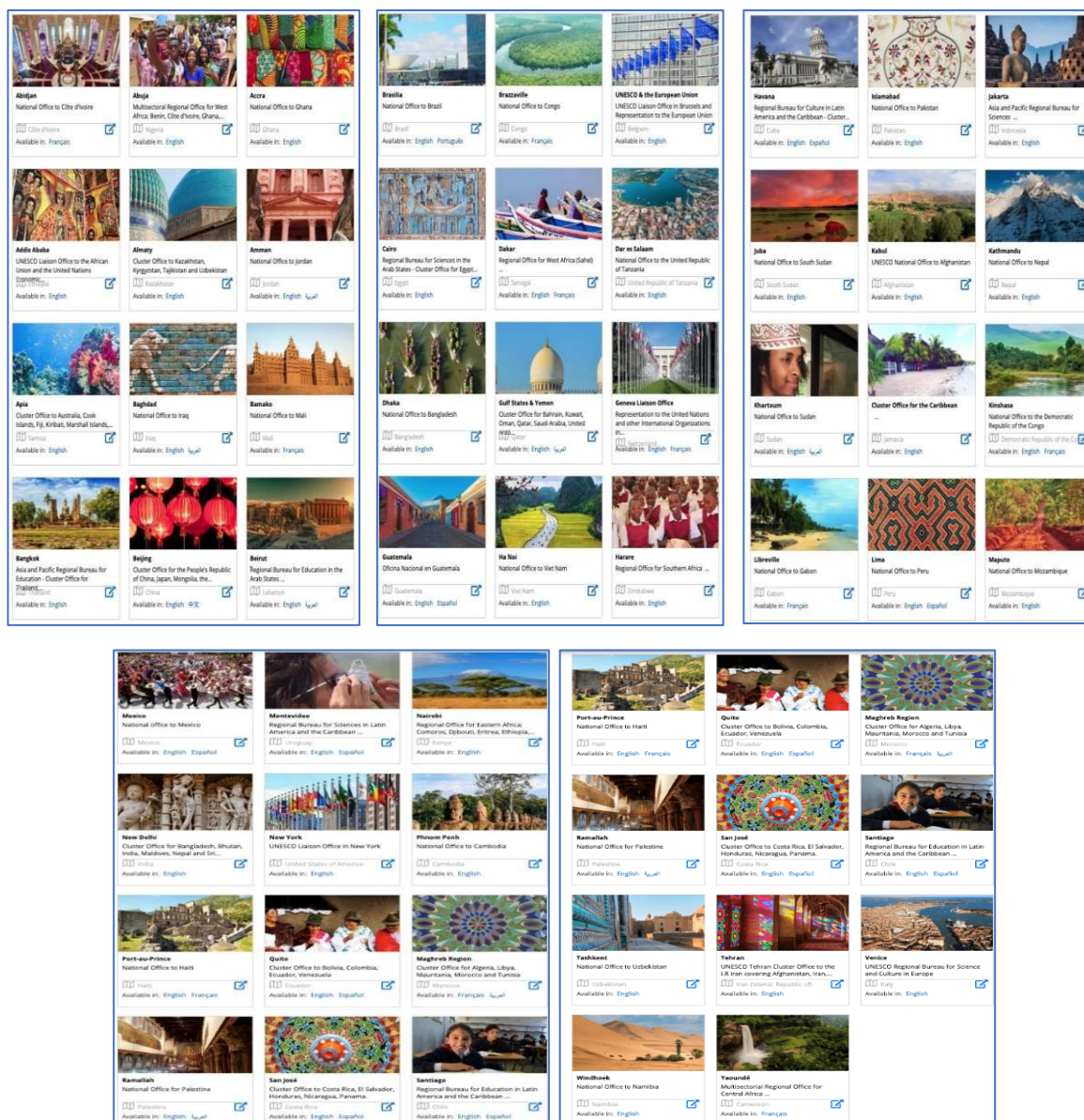
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## UNESCO FIELD OFFICES

Through its field offices, UNESCO develops strategies, programmes and activities in consultation with national authorities and other partners. UNESCO also operates a number of specialized institutes and centres. Check the list below to see the location of the UNESCO Field Offices.

For more information see:

[https://en.unesco.org/fieldoffice?field\\_country\\_reference\\_target\\_id=All](https://en.unesco.org/fieldoffice?field_country_reference_target_id=All)



For all UNESCO Offices by Region see: <http://www.unesco.org/new/bfc/all-offices/>

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## Up Coming Events

### **The Association for Science Education UK (ASE) Annual Conference 2021**



**The Association for Science Education in the UK (ASE) will hold its next annual conference on the  
5 – 8 January 2022.**

The first day is the **International Day**. Proposals for sessions usually have to be received by the end of May. Further details will be posted on [www.ASE.org.uk](http://www.ASE.org.uk)

The 2021 conference was extremely successful. It was entirely online and took place in early January. Important sessions were recorded and available for one month after the last conference day for delegates who paid registration. Exhibits were available to view online between sessions.

The conference is scheduled to be held in a face-to-face at Sheffield Hallam University in Yorkshire but there will be some online facility too. Should the pandemic still persist, the conference will be entirely on line. Day tickets are available for the online conference. For more information, contact:

Katherine Robertson

Events and Business Support Officer

**The Association for Science Education**

*Promoting Excellence in Science Teaching and Learning*

T: 01707 283015

E: [katherinerobertson@ase.org.uk](mailto:katherinerobertson@ase.org.uk)

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[nsta.org/engage-spring-21](https://nsta.org/engage-spring-21)

[REGISTER](#) (Early bird pricing ends: 22 February)

[Call for Proposals](#) (Deadline: 16 February)

## Conference Details

Weekly programming will be scheduled for approximately three to four hours each day, between 4:00 and 8:00 PM Eastern Time, excluding Sunday. Each week will kick off with a keynote speaker and focus on a different grade band:



April 12-17  
Elementary



April 19-24  
Middle Level



April 26-May 1  
High School



May 3-8  
\*Postsecondary and  
Informal Education

## Conference Highlights

- Weekly programming will be scheduled for approximately three to four hours each day, between 4:00 and 8:00 PM Eastern Time, excluding Sunday. Each week will kick off with a keynote speaker and focus on a different grade band:
- A weekly look at the "State of Science Education" with messages from thought leaders and [policymakers](#);
- Virtual hands-on workshops (materials will be identified by presenters in advance to encourage audience participation);
- Speed-sharing [chats](#);
- Featured [panels](#);
- Polling to identify "hot" topics for unconference [sessions](#);
- Dynamic concurrent sessions; and
- Networking and social activities, including happy hours, designed to foster community and create lasting experiences.

## Conference Strands

- Social Emotional Learning and the Science Classroom
- Climate Justice and Climate Science
- Supporting Equity in the Science Classroom
- Reimagining Assessment
- Continuing Effective Distance Learning Strategies Post-COVID
- Community and Global Impacts on Classroom Learning
- Integrating Science and Literacy

  
**ENGAGE**  
SPRING 21  
VIRTUAL CONFERENCE  
**APRIL 12 - MAY 8**

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<http://www.icaseonline.net>





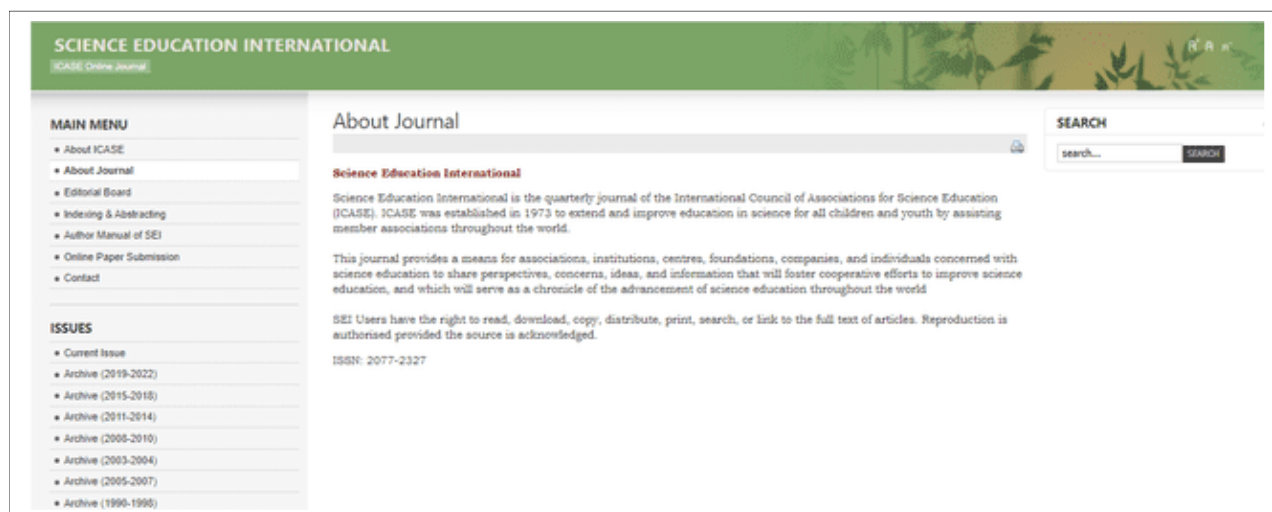
## ICASE Journal - Science Education International

Steven Sexton - Editor

In 2020, *Science Education International* journal applied for and was accepted into the Directory of Open Access Journals (DOAJ) (<https://doaj.org/toc/2077-2327>). Articles published in 2019 (Volume 30) and 2020 (Volume 31) have been uploaded to DOAJ to broaden the readership and exposure of articles.

All future article will continue to be uploaded. Articles in Volumes 28 and 29 published between 2017 and 2018 will be amended for DOI to allow them to be uploaded to DOAJ as well. As we work to extend the readership of articles, this will support our application in 2021 to Social Sciences Citation Index (SSCI), the next step in raising the profile of *Science Education International*, ICASE and its contributing authors.

*Science Education International* is an open access journal published four times a year: <http://www.icasonline.net/journal/index.php/sei/index>. We only accept online submissions (<http://www.icasonline.net/journal/index.php/sei/about/submissions>). Each submission will go through a peer review process to determine if the article is suitable for our journal. The review process takes several months depending on reviewers and their availability. Most articles suitable for publishing take about six months to work their way through the process.



ICASE also welcomes new reviewers. If you are interested please contact **Dr. /Prof. ZHANG BaoHui**, Chair, ICASE Research and Publications Standing Committee at [icase2017bhzhang@163.com](mailto:icase2017bhzhang@163.com).

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## ICASE Executive Committee 2020-2023

ICASE membership spans the world led by an Executive Committee, with a Management Committee (President, President-Elect, Immediate Past President, Secretary, and Treasurer) responsible for the day-to-day administration and working closely with Appointments Co-opted to the Management Committee, Regional Representatives, and Chairs of Standing Committees. Presidential terms are noted below.

### Management Committee (2020-2023)

	<p><b>President (2020-2023)</b>            Dr. ZHANG BaoHui            Qujiang Scholar Professor, Shaanxi Normal University, Xi'an, China            E-mail: <a href="mailto:icase2017bhzhzhang@163.com">icase2017bhzhzhang@163.com</a>            (Member Organization: National Association for Science Education, The Chinese Society of Education - CNASE)  <i><b>*Also Chair of Research and Publications Committee</b></i></p>		<p><b>Immediate Past- President</b>            Dr. Bulent Cavas            Professor, Department of Science Education , Dokuz Eylul University Izmir, Turkey            E-mail: <a href="mailto:bulentcavas@gmail.com">bulentcavas@gmail.com</a>  <i><b>*Also Chair of Web Communications Committee (Presidential Term: 2017-2020)</b></i></p>
	<p><b>President-Elect</b>            Dr. Declan Kennedy            Senior Lecturer in Science Education Department of Education, University College Cork, Ireland            E-mail: <a href="mailto:d.kennedy@ucc.ie">d.kennedy@ucc.ie</a>            (Member Organisation – Irish Science Teachers Association – ISTA)  <i><b>*Also World Headquarters Coordinator</b></i></p>		<p><b>Treasurer</b>            Ms. Mary Mullaghy            Eureka Secondary School, Kells, Co Meath Dublin, Ireland            E-mail: <a href="mailto:mmullaghy@gmail.com">mmullaghy@gmail.com</a>            (Member Organization: Irish Science Teachers Association -ISTA)</p>
	<p><b>Secretary</b>            Dr. Sarfraz Aslam            Postdoctoral Researcher, School of Education, Shaanxi Normal University, Xi'an, China            E-mail: <a href="mailto:miansarfraz@hotmail.com">miansarfraz@hotmail.com</a>            (Member Organization: National Association for Science Education, The Chinese Society of Education - CNASE)  <i><b>*Also ICASE Newsletter Editor</b></i>  <a href="http://www.icasonline.net/news.html">http://www.icasonline.net/news.html</a></p>		 <small>International Council of Associations for Science Education</small>  <p><b>ICASE Website</b>  <a href="http://www.icasonline.net/index.html">http://www.icasonline.net/index.html</a></p>

### Appointments Co-opted to Management Committee (2020-2023)

	<p><b>Editor, <i>Science Education International</i></b>  <b>The Official Journal of ICASE</b>            Dr. Steven Sexton            Senior Lecturer, Science Education, College of Education, University of Otago Dunedin, New Zealand            E-mail: <a href="mailto:steven.sexton@otago.ac.nz">steven.sexton@otago.ac.nz</a>            (Member Organization: New Zealand Association of Science Educators - NZASE)  <i><b>*Also Chair of Pre-secondary &amp; Informal Science Education Committee</b></i></p>		<p><b>Representative to UNESCO</b>            Dr. Teresa Kennedy            Professor, Bilingual STEM Education University of Texas at Tyler Tyler, Texas USA            E-mail: <a href="mailto:tkennedy@uttyler.edu">tkennedy@uttyler.edu</a>            (Member Organization: National Science Teachers Association of the U.S. - NSTA)  <i><b>*Also Past President and North America Representative (Presidential Term: 2014-2017)</b></i></p>
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## Regional Representatives (2020-2023)

	<p><b>Africa Regional Representative</b> Mr. David Itamah Director of Education, Chair of the STAN Board of Trustees; Chair of the Board of Directors of The STAN Place Ltd, the official publishers of STAN books Abuja, Nigeria E-mail: <a href="mailto:daitamah@yahoo.com">daitamah@yahoo.com</a> (Member Organization: Science Teachers Association of Nigeria - STAN)</p>		<p><b>Europe Regional Representative</b> Dr. Manuel Filipe Pereira Cunha Martins Costa Professor, Departamento de Fisica, Universidade do Minho, Campus de Gualtar Braga, Portugal Email: <a href="mailto:mfcosta@fisica.uminho.pt">mfcosta@fisica.uminho.pt</a> (Member Organization: Hands-on Science Network – HSCI)</p>
	<p><b>Asia Regional Representative</b> Dr. Manabu Sumida Professor, Faculty of Education, Ehime University Bunkyo-cho, Matsuyama City, Japan E-mail: <a href="mailto:msumida@ed.ehime-u.ac.jp">msumida@ed.ehime-u.ac.jp</a> (Member Organization: Japan Society for Science Education - JSSE)</p>		<p><b>Latin America Regional Representative</b> Dr. Cesar Mora, Professor Titular Posgrado de Física Educativa, Centro de Investigación en Ciencia Aplicada Tecnología Avanzada Unidad Legaria del Instituto Politécnico Nacional (CICATA-IPN) Del, Miguel Hidalgo, CP, México D.F. E-mail: <a href="mailto:ceml36@gmail.com">ceml36@gmail.com</a> (Member Organization: Latin American Science Education Research Association - LASERA)</p>
	<p><b>Australia/Pacific Regional Representative</b> Dr. Leah Moore, Associate Professor University of Canberra Canberra, Australia E-mail: <a href="mailto:Leah.Moore@canberra.edu.au">Leah.Moore@canberra.edu.au</a> (Member Organization: Australian Science Education Research Association - ASERA)</p>		<p><b>North America Regional Representative</b> Dr. Teresa Kennedy Professor, Bilingual STEM Education University of Texas at Tyler Tyler, Texas USA E-mail: <a href="mailto:tkennedy@uttyler.edu">tkennedy@uttyler.edu</a> (Member Organization: National Science Teachers Association of the U.S. - NSTA) <b>*Also Past President and Representative to UNESCO (Presidential Term: 2014-2017)</b></p>

## Chairs of Standing Committees

	<p><b>Early Years STEM Education</b> Dr. Sue Dale Tunnicliffe Senior Academic, UCL Institute of Education Leadership, Commonwealth Association of Science, Technology and Mathematics Educators - CASTME, United Kingdom E-mail: <a href="mailto:lady.tunnicliffe@mac.com">lady.tunnicliffe@mac.com</a> (Member Organizations: Commonwealth Association of Science, Technology and Mathematics Educators - CASTME and the Association for Science Education of the UK – ASE)</p>		<p><b>International Projects</b> Dr. Jack Holbrook Visiting Professor, Center of Science Education, University of Tartu Past President and Newsletter Editor Tartu, Estonia E-mail: <a href="mailto:jack@ut.ee">jack@ut.ee</a> (Member Organization: Hong Kong Association for Science and Mathematics Education - HKASME) <b>*Also Past President (Presidential Term: 2008-2011)</b></p>
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## Chairs of Standing Committees



### Research and Publications

Dr. ZHANG BaoHui  
Qujiang Scholar Professor, Shaanxi Normal University, Xi'an, China  
E-mail: [icase2017bhzhang@163.com](mailto:icase2017bhzhang@163.com)  
(Member Organization: National Association for Science Education, The Chinese Society of Education - CNASE)  
**\*Also President (Presidential Term: 2020-2023)**



### Pre-secondary & Informal Science Education

Dr. Steven Sexton  
Senior Lecturer, Science Education, College of Education, University of Otago Dunedin, New Zealand  
E-mail: [steven.sexton@otago.ac.nz](mailto:steven.sexton@otago.ac.nz)  
(Member Organization: New Zealand Association of Science Educators – NZASE)

**\*Also Editor, Science Education International The Official Journal of ICASEResearch and Publications**



### Safety in Science Education

Mr. Bob Worley  
Chemistry Advisor, CLEAPSS Science United Kingdom  
E-mail: [bob.worley@cleapss.org.uk](mailto:bob.worley@cleapss.org.uk)  
(Member Organization: CLEAPSS Science and the Association for Science Education of the UK – ASE)



### Web Communications

Dr. Bulent Cavas  
Professor, Department of Science Education Dokuz Eylul University Izmir, Turkey  
E-mail: [bulentcavas@gmail.com](mailto:bulentcavas@gmail.com)  
(Member Organization – Dokuz Eylul University)

**\*Also Past President (Presidential Term: 2017- 2020)**



### World Headquarters Coordinator

Dr. Declan Kennedy  
Senior Lecturer in Science Education, Department of Education, University College Cork, Ireland  
E-mail: [d.kennedy@ucc.ie](mailto:d.kennedy@ucc.ie)  
(Member Organization: Irish Science Teachers Association-ISTA)

**\*Also President Elect (Presidential Term: 2023-2026)**



### Membership

Dr. Virgilio Umangay Manzano  
Dean, Graduate School and Advanced Studies of the Urdaneta City University in Urdaneta City, Philippines  
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(Member Organization: The Comparative Education Society of the Philippines – CESP)



### Science & Technology Education Centers

Dr. Janchai Yingprayoon  
Deputy Director, International College, Suan Sunandha Rajabhat University, Bangkok, Thailand  
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(Member Organization – Suan Sunandha Rajabhat University)  
**\*Also Past President (Presidential Term: 2004- 2007)**



### University Liaison

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E-mail: [miaa@ut.ee](mailto:miaa@ut.ee)  
(Member Organization – Centre for Science Education, University of Tartu)



### World Conferences

Dr. Ben Akpan  
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E-mail: [ben.b.akpan@gmail.com](mailto:ben.b.akpan@gmail.com)  
(Member Organization: Science Teachers Association of Nigeria - STAN)  
**\*Also Past President (Presidential Term: 2011- 2014)**



### Sustainability & Environmental Education

Dr. Yasemin Ozdem  
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(Member Organization: Science Teacher's Association of Turkey – FENÖDER)