



WorldSTE2013 Borneo
Live Science, Love Learning, Create Change



World Conference on Science and Technology Education 2013

UNIMAS, Kota Samarahan,
Sarawak, Malaysia

29th September – 3rd October
2013



Under the patronage of
UNESCO



Welcome message from Dr Ben Akpan, President of ICASE

I am delighted to welcome all delegates to the 2013 World Conference on Science and Technology Education. The International Council of Associations for Science Education, widely known as ICASE, is the world body representing and supporting science teacher associations and science education in formal and non-formal settings. ICASE is celebrating its 40th anniversary in 2013, particularly at this conference - the 4th ICASE World Conference on Science and Technology Education. World Conferences are jewels in the ICASE crown and opportunities for truly international collaboration.

I thank Kuching and the Sarawak and Malaysian Governments for hosting this important international event and the Convenors for all their hard work.

The World Conferences offer exceptional support in the range of issues and contexts relating to science teaching and education and in re-energising and informing practitioners in their professional and personal lives.

I look forward to your insights and inputs for the benefit of all participants at the conference and for science education around the world.



Dr Ben Akpan
President
International Council of Associations for Science Education (ICASE)



Message from the International Convenor

A very warm welcome to the 2013 World Conference on Science and Technology Education. I hope this will be a major professional highlight for all of us.

Kuching was selected by ICASE as the conference host city in 2010 following worldwide expressions of interest. Exceptional speakers have been approached over the three years leading up to the conference and I am very pleased that such eminent speakers have agreed to participate. Many other wonderful paper, seminar, workshop and poster proposals have been received through the call for papers process. We have outstanding contributors in all major areas of science, classroom practice, the intersection of science, technology and policy, STEM education and sustainability and environmental education. The program is ambitious and will hopefully resound through science and technology in schools and other settings around the world for years to come.

As well as trying to provide the best professional experience possible, the World Conference is an opportunity for all delegates and invited speakers to determine the future actions in these areas by developing the Kuching Declaration. We will consider and discuss important goals related to science and technology education and in consideration of the human presence on our fragile planet. These will be determined and shaped into a set of goals and actions for delegates, associations and countries to use in planning for engagement, achievement and participation in science and technology education systems and classrooms.

The World Conference on Science and Technology Education will be a success with everybody's participation and great ideas. I look forward to these valuable interactions and experiences, developing partnerships and significant outcomes from this conference.



Elaine Horne
International Conference Convenor
ICASE



Message from the Local Convenor

Welcome to Sarawak, I hope you enjoy your visit to the Sarawak, the land of the hornbill.

You being here is very important to us. Not only are you here for a conference, but your presence here is part of our vision to develop science education across the State of Sarawak. Malaysia is rapidly moving towards becoming a developed nation by 2020, and to keep up with the pace of economic and social development, we too must ensure that the States has a strong education system.

In 2010 we reached out to ICASE for support in these development goals and they have been instrumental in assisting us to develop a strong organisation which can provide the necessary support that the state's education sector will need in the years to come, particularly in the areas of international relationships and transnational collaboration.

As such, the WorldSTE conference is our launching platform for our new association to be based in Malaysia, known as STEM States Incorporated.

A not for profit association, it will be a legacy of this conference as it supports local teachers with professional development and with engaging with the education community around the world. To get this started, we have extended our invitation to other like minded associations to also join us in running a series of conference to form not only a festival of science, but an entire festival of conferences.

We are delighted to welcome you to Kuching Malaysia, we are at your service and we hope that you have an enjoyable and educational conference.



Scott Campbell
Local Co-Convenor
STEM States Incorporated



WorldSTE2013 Keynote Speakers



Professor Eric Mazur, Harvard University, USA

Eric Mazur is the Balkanski Professor of Physics and Applied Physics at Harvard University and Area Dean of Applied Physics.



Dr Mee Young Choi, UNESCO

Dr. Mee Young Choi is a Programme Specialist in Education at the UNESCO Jakarta Office in charge of environmental and health-related education programmes.



Dr Kevin Urama, African Technology Policy Studies Network

Professor Kevin Chika Urama is an Environmental & Ecological Economist and received his Ph.D from Cambridge University.



Professor John Hattie, Melbourne Education Research Institute

Professor John Hattie is one of New Zealand's most internationally acclaimed academics. Currently he is Director, Melbourne Education Research Institute, Associate Dean (Research), Graduate School of Education, University of Melbourne, Australia and an Honorary Professor at the University of Auckland, New Zealand.



Professor Lyn Beazley, Chief Scientist of Western Australia

After Professor Beazley undertook her doctorate at Edinburgh University, she moved to Perth and built up an internationally renowned research team that focused on recovery from brain damage. Professor Beazley is currently the Chief Scientist of Western Australia.



Professor Charbel N. El-Hani, Federal University of Bahia in Brazil

Professor El-Hani is a Professor of History, Philosophy, and Biology Teaching at the Institute of Biology, Federal University of Bahia in Brazil.



Dr Azian TS. Abdullah, Department of Education, Malaysia

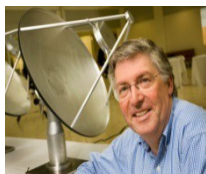
Dr Azian T. S. Abdullah was previously the Director of the South East Asian Ministers of Education Regional Centre for Science and Mathematics Education

Highlighted Speakers for WorldSTE2013



Professor David Blair, Australian International Gravitational

Professor Blair is a Winthrop Professor and Director of the Australian International Gravitational Research Centre (WA Government Centre of Excellence).



Professor Peter Quinn, International Centre for Radio Astronomy Research, Australia

Prof. Peter Quinn in 2005 was awarded the Computerworld 21st Century Achievement Award for his work at the ESO Very Large Telescope (VLT), the world's largest optical and infrared observatory.



Dr John Oversby, Prospect School, UK

at Leeds University in the UK, he is an honorary member of staff at Dr John Oversby has over 40 years of experience providing support and training for science education professionals at all levels. He completed his PhD Prospect School, Reading.



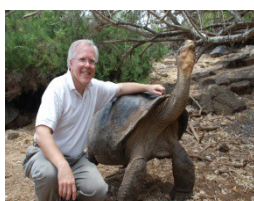
Dato Prof Dr Aminah Ayub, SIEU, Malaysia

Professor Aminah is the former Vice Chancellor of Sultan Idris Education University (SIEU) Malaysia and is currently working as a fulltime professor at the same university.



Professor BaoHui Zhang, Nanjing University, China

BaoHui Zhang is a Professor at the Institute of Education, Nanjing University China. He received his PhD from the University of Michigan)



Dr William McComas, University of Arkansas, USA

William F. McComas is the Parks Family Endowed Professors in Science Education at the University of Arkansas following a career as a biology and physical science teacher and professor at University of Southern California.



Dr Alan Finkel, Australian Academy of Technological Sciences and Engineering, Australia

Alan Finkel AM PhD FTSE is Chancellor of Monash University and President of the Australian Academy of Technological Sciences and Engineering. He is co-founder and chairman of Cosmos Media, publisher of Cosmos Magazine, the chairman of the Australian Centre of Excellence for All-Sky Astrophysics and the CEO of Stile Education.



Dr Peter Pentland, STELR Project, Australia

Peter Pentland is the STELR Project and Education Program Manager for the Australian Academy of Technological Sciences and Engineering. STELR is a national secondary school science program – the key education initiative of the Australian Academy of Technological Sciences and Engineering (ATSE).



Dr Di Hartwell

Di Hartwell is the Project Manager for the Learning Hubs project (The Science Learning Hub and the Biotechnology Learning Hub) based at the University of Waikato, New Zealand. The Hubs are a national project funded by the New Zealand government through the Ministry of Business, Innovation and Employment. The University of Waikato manages the project.

WORLD STE 2013 FIELD TRIPS

| No | Destination | 29th September 2013 (Sunday) | 30th September 2013 (Monday) | 1st October 2013 (Tuesday) | 2nd October 2013 (Wednesday) | 3rd October 2013 (Thursday) | Departure time / venue |
|----|---|------------------------------|------------------------------|----------------------------|------------------------------|-----------------------------|--|
| 1 | Sarawak Biodiversity Centre | | | | | | 9.30pm from DeTAR PUTRA carpark area |
| 2 | Semenggoh Wildlife Centre - Trip 1 | | | | | | 8.30am from Pullman Hotel, and 9.00am from Merdeka Palace Hotel Lobby area |
| 3 | Semenggoh Wildlife Centre - Trip 2 (Specialist Topic : IUFRO) | | | | | | 1.30pm from DeTAR PUTRA carpark area |
| 4 | School Visit (NOW CLOSED) | | | | | | 8.30am from DeTAR PUTRA carpark area |
| 5 | Waterfront Visit / Sarawak River Cruise | | | | | | 4.30pm from DeTAR PUTRA carpark area |
| 6 | Planetarium (Specialist Topic : Astronomy) | | | | | | 11.00am from DeTAR PUTRA carpark area |



THE SCIENCE LEARNING HUB

www.sciencelearn.org.nz

Explore the Science Learning Hub to find a wealth of resources for year 5–10 teachers including contemporary science stories, feature articles, people profiles, images, animations and video clips that showcase New Zealand's world class science sector.





World STE Welcome Reception

The Welcome reception is directly following the General Assembly. This includes welcome presentation from leaders at the STEM States Incorporated and the International Council of Associations for Science Education (ICASE), followed by a networking reception. Food and drinks are included in the price. Buses will depart from the Merdeka Palace Hotel, the Pullman Hotel, and the Grand Margherita at 1.00pm for those participating in the General Assembly, and at 4.00pm for those just wanting to attend the welcome reception. Return buses will be available at 8.30pm to the same hotels.

Date –Sunday 29th September 2013

Time - 5pm to 8.30pm

Venue - Citadines Hotel, Kuching Sarawak Malaysia (near the Spring Shopping Complex)

Dress - Casual

WorldSTE/ STEMfest Gala Dinner

A night of glitz and glamor as people from over 40 countries come together for a fun night celebrating World STE and STEMfest and with a China National Day theme! Join us for Chinese Banquet at the 5 star Pullman Hotel.

Date - Tuesday 1st October 2013

Time - 7.00pm to 11.30pm

Venue - Pullman Hotel, Kuching Sarawak Malaysia

Dress – Dress to impress

UNIMAS Open Days and Education Fair

Two of UNIMAS's leading faculties (Faculty of Engineering and Faculty of Resource Science and Technology) will be holding Open Days during STEMfest 2013. With our aim being to encourage more students to study and participate in science, technology, engineering and mathematics education, it is a chance for prospective students and parents to visit UNIMAS and learn more about STEM education.

Each open day includes;

- Poster displays of UNIMAS student work
- Talks by eminent STEM educators from around the world
- Food stalls

UNIMAS Open Days and Education Fair are open on two days;

Date : Monday 30th September 2013 & Tuesday 1st October 2013

Time: 9.00 am to 4.00 pm

Venue: UNIMAS Faculty of Engineering Walkway

University Presidents and Chancellors Forum

Hosted by Dr Teresa Kennedy, President Elect of ICASE, the Chancellors Forum includes the leaders of Universities from around the world.

A conference panel session will be held as part of the WorldSTE Conference, followed by networking with Presidents and Vice Chancellors at the STEMfest exhibition.

Date: Monday 30th September 2013 from 3.30pm to 4.30pm (Directly following the STEMfest launch)

Theme: "Summit on STEM and sustainability education directions in universities."

Venue: UNIMAS DeTAR PUTRA



Awards Ceremony and Chisman Oration

Named after Dennis Chisman (1928 to 2008), this lecture is presented by Prof Akaneren Essien, National Universities Commission, Abuja, Nigeria

Akaneren Essien is a seasoned teacher who has held several positions in the university system. At various times he was Head of Department, Dean, Chairman Committee of Deans, Deputy Vice Chancellor, and Vice Chancellor in a Nigerian Federal University. Akaneren has higher degrees in Biochemistry, Nutrition, and Animal Science. He is currently a visiting professor at the Nigerian National Universities Commission in Abuja where he serves as Chairman, Standing Committee on Private Universities. A member of numerous professional bodies, Akaneren gave the lead keynote address at this year's annual conference of the Science Teachers Association of Nigeria (STAN).

Date - Wednesday 2nd October 2013

Time - 11am to 1.30pm (including lunch)

Venue – UNIMAS DeTAR PUTRA





The Adventure Learning program Ride To Learn thematizes global citizenship, sustainability, and humane education through a variety of engaging and interactive multimedia teaching activities.

The main objective of Ride To Learn is to provide an enriching environment in which participants can create and collaborate on solutions to the real life global challenges they learn about in the context of a live cycling adventure with World By Cycle.

After riding through China, the team from Ride 2 Learn have introduced a Kuching Malaysia leg to their journey to ride around the globe.

On the 1st October the Kristina Stoney and Nicholas Arney will ride in to the UNIMAS DeTAR Putra.

Date: Monday 30th September 2013, arriving at UNIMAS Sarawak around 12.30pm

Venue: UNIMAS DeTAR PUTRA



Kristina Stoney, Explorer-Program Director

Kristina is currently riding her bicycle around the world with World By Cycle Expedition! When she's not riding a bike she enjoys her role as a Social Educator, connecting with youth and developing Solution-Focused programs.



Her research at the University of Sydney MEd(Education/Psychology) explored the potential of online environments to reach and engage young women. Continuing the exploration of online education, in 2012 Kristina became an inaugural member of the Australian Apple Professional Development network, leveraging innovative technology solutions with thought leading education concepts. She resonated immediately with Adventure Learning as a pedagogy to inspire meaningful connections to teaching and learning.

Kristina believes that pairing Adventure Learning with a Solution Focus perspective has potential to empower youth globally to become critical and creative thinkers, action makers and collaborators in a shared sustainable future.

Nicolas Arney, Explorer-Creative Director

Nicolas is an extreme hybrid. Right now he's out there exploring with Ride To Learn and bringing the richness of imagery and film to the virtual classroom—however most of his professional background has been in developing and implementing behaviour change programs for major organisations.



His experiences in the spheres of influence and behaviour change, coupled with a passion for design and visual arts, mesh into artfully created program elements that astutely invite interaction and engagement with the content. Nicolas believes that an opportunity to get someone's attention should be optimized by delighting that attention with a captivating and relevant experience.

As an ambassador for self-directed learning, Nicolas is excited about this opportunity to create fun and relevant learning for our next generation

Check them out at www.ride2learn.org

SPECIAL WORKSHOPS

EduChange – STEM Education Workshops

EduChange[®] provides professional development; creates content, curriculum & assessment systems; and conducts program evaluation services for the K-12 educational community. EduChange clients and collaborators include public and independent schools, universities, non-profit organizations, and corporations.



The company is led by Catherine Saldutti, a former teacher and administrator with over 19 years of experience in schools. The EduChange mission is to optimize a wide variety of teaching and learning environments for educators and students. EduChange[®] provides practical solutions based on experiences in real-world public and independent schools.

The EduChange[®] approach is a customized one, catering directly to your organization's complex needs. Our wide array of services offers you the flexibility needed to address your diverse population of educators and learners.

Workshop 1: Tuesday 1st October 1:30pm – 2:30pm, DeTAR PUTRA - UNIMAS

Theme: Co-Creating E-Texts with Students, Critical Reading, Writing and Thinking in a Spiralled Curriculum

Workshop 2: Wednesday 2nd October 2:00pm – 3:00pm, DeTAR PUTRA – UNIMAS

Theme: Building Critical Thinking and Academic Discourse across Disciplines

Workshop 3: Thursday 3rd October 1:30pm – 2:30pm, DeTAR PUTRA - UNIMAS

Theme: Integrating Biology and Chemistry in Authentic STEM Contexts for Secondary and Beyond.





Workshop: Understanding networks and the importance of networking

The **Earth Science Women's Network** (ESWN; ESWNOnline.org) is an international peer-mentoring network of women in the Earth Sciences, many in the early stages of their careers. ESWN's mission is to promote career development, build community, provide opportunities for informal mentoring and support, and facilitate professional collaborations. This has been accomplished via email and a listserv, on Facebook, at in-person networking events, and at professional development workshops. Over the last 10 years, ESWN has grown by word of mouth to include more than 2000 members working on all 7 continents. We propose a session in which we introduce participants to the importance of networking and invite them to find out more about ESWN.

The overarching goal of the proposed workshop is to empower women working in Earth Sciences to successfully progress into senior position and take on leadership roles. Women in Earth Sciences often perceive a sense of isolation, and certainly a lack of role models or understanding of the difficulties facing women in the workplace. The absence of a community of women in the discipline can result in a lack of collaborations among women, and less networking and recognition by others in their fields. This isolation contributes to a deficiency of social capital, and can lead to lower productivity and lower success rate. Awareness of the importance of networks and expanding women's networks can contribute to overcome these obstacles and have been shown to increase women's participation and retention in science. In fact one of the largest recognized needs for women students is a feeling of connection with others in their fields.

Date: Friday 4th October 2013
Time : 1.30-4.30pm
Venue: UNIMAS DeTAR PUTRA
FREE To attend for WorldSTE Delegates



Special Workshops

Laboratory Safety Institute Two Day Training Course



Day One

| | |
|-------|---|
| 8:00 | Registration |
| 8:30 | Introduction |
| 9:15 | Scope of the Problem |
| 9:45 | Activity I - Accidents |
| 10:00 | BREAK |
| 10:15 | Legal Aspects of Safety |
| 11:00 | OSHA Laboratory Standard |
| 12:00 | LUNCH BREAK |
| 1:00 | Fire Control |
| 1:30 | Labeling |
| 2:00 | BREAK |
| 2:15 | Biological and Animal Hazards |
| 2:45 | Handling Glassware |
| 3:15 | BREAK |
| 3:30 | Eye and Face Protection |
| 4:00 | Activity (II): Planning for Emergencies |
| 4:30 | Discussion |

Day Two

| | |
|-------|--|
| 8:00 | Review/Introduction |
| 8:15 | Handling Chemical Reagents |
| 9:00 | Ventilation |
| 9:30 | Electrical Safety |
| 10:00 | BREAK |
| 10:15 | Activity (III) - Your Most Serious Problem |
| 11:00 | Storage of Chemicals |
| 11:30 | Discussion |
| 12:00 | LUNCH BREAK |
| 1:00 | Disposal of Chemicals |
| 1:30 | Safety Equipment Display |
| 2:00 | Needs Assessment |
| 2:30 | BREAK |
| 2:45 | Employee/Student Involvement |
| 3:15 | Activity (IV) - Safety Program Planning |
| 4:00 | Movie: "Safety - Isn't It Worth It?" |
| 4:15 | Workshop Critique and Discussion |

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Date: Monday 7th and Tuesday 8th October 2013

Time: 9.00am – 5.00pm

Venue: UNIMAS Sarawak

Cost: RM900 (AUD\$300)

Tickets can be purchased from the registration desk



Secure more funding!

BidWrite Grant Development Workshop

Interested in learning more about how to write or prepare bids, tenders or proposals? One of the region's leading bid management and consulting firms will be in Kuching to run a workshop as part of STEMfest on how to successfully write proposals, bids and tenders.

Ideal for anyone involved in grant applications or writing to source new funding for research or projects.

Date – Thursday 3rd October 2013

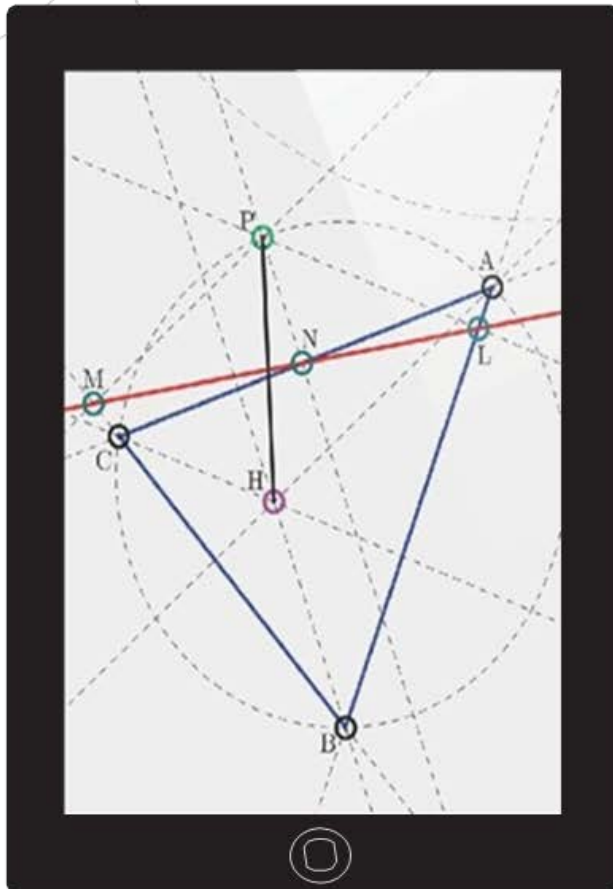
Time – 1.30pm - 4pm

Venue – UNIMAS Hal Ehwal Pelajar (HEP) Building, Dewan Delima

Cost – RM250 (AUD\$90)

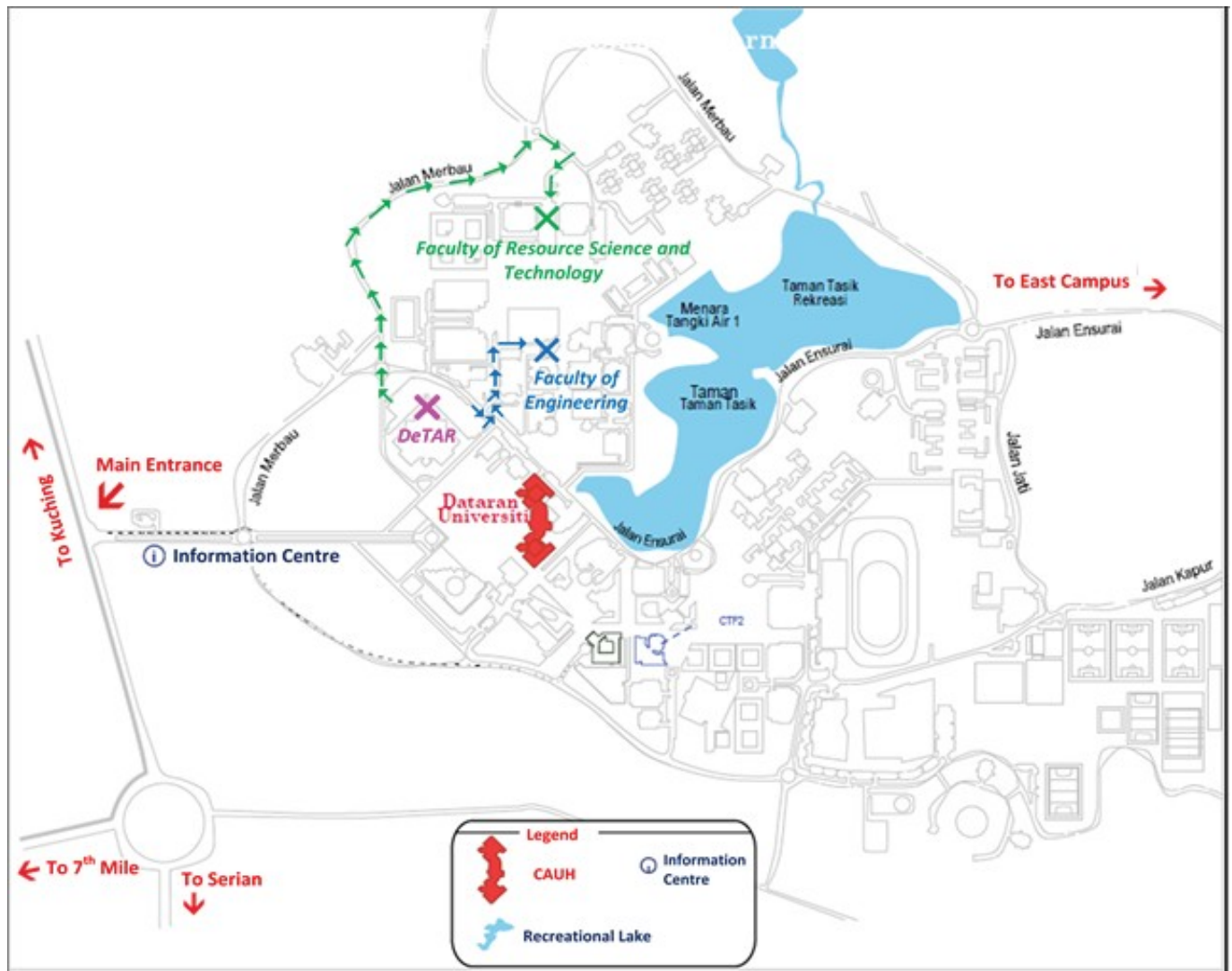
Tickets are available from the Registration Desk

Apollonius



UNIMAS Sarawak, DeTAR Putra

The University Malaysia Sarawak campus is the chosen venue for STEMfest.



The UNIMAS DeTAR Putra Convention Centre is a 20-25 minute drive from Kuching Central Business District. Conference Bus will transfer between hotels and UNIMAS.

Exhibitor List

| Exhibitor | Country | Booth Number |
|---|----------------|---------------------|
| The University of Waikato | New Zealand | L3 |
| Global STEM States Inc | International | L4 |
| Asia Pacific Society for Solar and Hybrid Technologies (APSSAHT) | International | L5 |
| International Council of Associations For Science Education (ICASE) | International | L6 |
| Laboratory Safety Institute (LSI) | USA | L7 |
| PASCO | USA | L8 |
| Tourism Saskatoon Canada | Canada | L9 |
| Science House Foundation | USA | L11 |
| University of Texas at Tyler | USA | L12 |
| ICRAR | Australia | L13 |
| New Sarawak Tribune | Malaysia | L15 |
| Learning Journeys (New Zealand) | New Zealand | L16 |
| Murdoch University | Australia | Pavilion |
| World Hybrid 14 Darwin Australia | Australia | L26 |
| Royal Australian Chemical Institute (RACI) | Australia | L27 |
| Bid Write | Australia | L28 |
| Universiti Malaysia Sarawak | Malaysia | L31 |
| | | L32 |
| Universal IT Solutions Sdn Bhd | Malaysia | L35 |
| Renet Asia Sdn Bhd | Malaysia | L36 |
| Volvo | Switzerland | L37 |
| Environment Centre NT | Australia | M3 |
| Ride To Learn | Australia | M4 |
| Apollonius | Canada | M5 |
| Taylor & Francis | Malaysia | M10 |
| Sarawak Teachers' Union | Malaysia | M13 |
| Jabatan Pendidikan Sarawak | Malaysia | M14 |
| | | M15 |
| | | M21 |
| Sarawak Cottage | Malaysia | M21 |

Does your city excel in STEM education and innovation?



Annual STEM States International Awards

Starting in 2013, the STEM States Incorporated recognizes the leaders in the STEM community who are supporting with the development of science across a range of categories.

Recognising those people and communities who are helping others to move forward in education

1. Leading STEM State's Conference Destinations
2. STEM State's Information Sharing Award
3. STEM State's Leader in Education Award

The STEM States Incorporated undertakes a meta- analysis each year of known research studies to determine the cities and organisations who excel in these areas, with the final decisions made by the STEM States Executive. Awards will be presented on the 1st October 2013.

If you would like to learn more about our awards, simply email us at dgoncalves@stemstates.org

WorldSTE2013 Program

| Event | Description | Time | Venue |
|---|---|---------------|------------------------------|
| Sunday 29 September | | | |
| Bump-in for Exhibitors. Exhibition Hall. | UNIMAS Exhibition Hall, lunch for Exhibitors. | 7.30 onwards | UNIMAS |
| WorldSTE Tour | Semonggoh Orang Utan Tour Bus departs from Pullman Hotel at 8.30 and returns to the Pullman Hotel. | 8.30 – 12.00 | Departure from Pullman Hotel |
| ICASE Executive meeting | Executive planning session. Morning tea. | 9.00 – 12.00 | Citadines Hotel |
| Citadines Hotel Registration Desk Open | If you are attending the ICASE General Assembly you can register upon arrival at Citadines Hotel. Alternatively, a second registration desk is available at the UNIMAS DeTAR Putra Convention Centre from Monday morning 7.30am onwards. <i>For delegates attending the ICASE GA, buses depart at 1.00pm from Pullman Hotel, Merdeka Palace and Grand Margherita Hotel going to the Citadines Hotel (Welcome reception venue) Buses will also leave at 16.00 for delegates who just want to Register and attend the Welcome.</i> | 12.00 | Citadines Hotel |
| ICASE General Assembly. | ICASE Members Forum and General Assembly. Election of officers. <i>Tea and Coffee Available</i> | 14.00 – 17.00 | Citadines Hotel |
| Registration continues | Registration desk open to welcome reception delegates. Informal networking. 16.45 delegates move into Meeting Hall. | 16.00 – 17.00 | Citadines Hotel |
| Welcome. | Welcome to WorldSTE2013 Conference. Chairs Elaine Horne and Scott Campbell. 30 minute Address by Lyn Beazley, Chief Scientist of Western Australia | 17.00 – 18.00 | Citadines Hotel |
| WorldSTE2013 Welcome reception | Reception and cocktail party. <i>Buses depart 20.30 for Pullman Hotel, Merdeka Palace & Grand Margherita Hotel</i> | 18.00– 20.30 | Citadines Hotel |

Monday 30 September

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| Buses depart for UNIMAS | | 7.30 | |
| Registration | Registration desk <i>Buses depart to UNIMAS Sarawak at 7.30am from the Pullman Hotel, Merdeka Palace Hotel, Grand Margherita Hotel and Citadines Apartment Hotel.</i> | 7.30 onwards | DeTAR Foyer |
| WorldSTE2013 Opening | Chaired by Convenors (Scott Campbell and Elaine Horne) - Dr Ben Akpan, President of ICASE - Prof Datuk Kadim, Vice Chancellor of UNIMAS - 30 minute Address by Mr. Gijzen, Director of the UNESCO Regional Science Bureau for Asia and the Pacific - Welcome cultural performance | 8.30 – 9.30 | Meeting Room 1 (Auditorium Gemilang) |
| Keynote 1 | Mee Young Choi, UNESCO. A Sustainable Learning Model through Green Schools. Introduction ICASE President Elect, Dr Teresa Kennedy | 9.30 – 10.00 | Meeting Room 1 (Auditorium Gemilang) |
| Plenary Panel Introduction to Discussion Groups | The Kuching Declaration. Short challenging talks about critical issues in STE for the future. Brief explanation of discussion groups. Challenge – think on the direction of Science Education for the next three years. Chair Elaine Horne | 10.00 – 10.30 | Meeting Room 1 (Auditorium Gemilang) |
| Morning Tea | Tea, coffee, cake or biscuits in Exhibition Hall | 10.30 – 11.00 | Exhibition Areas |
| Session A: Highlighted Speaker plus concurrent sessions | Professor David Blair, World Science Project – LIGO, observing Gravity waves, Co-Chair Astronomy and Einsteinian Physics Education stream. Einstein First: Changing the paradigm of physics teaching at school" Chair Dr Patrick Uko | 11.00 - 12.00 | Meeting Room 1 (Auditorium Gemilang + UNIMAS rooms) |

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| ICASE Roundtable : <i>Creating and Managing Change in Science and Technology Education</i> | Moderators : Dr Ben Akpan and Dr Teresa Kennedy Speakers: from national associations throughout the world | 11.00-12.00 | Meeting Room 2 (Delima) |
| Catered Lunch Optional to attend – 100 UNIMAS student posters are on display on Level 2 and Level 3 | | 12.00pm - 13.00pm | Meeting Room 2 (Delima) |
| Field Trips and tours Leaving at 13.00 and back by 16.30pm | | 13.00 – 16.30 | |
| STREAM: Einsteinian Physics | Moderator : Prof David Blair Session 1.00-2.00: Prof Grady Venville, Professor David Blair, Assoc Prof Marzan Zadnik (20 mins each – made up of 15mins talks and 5 mins questions) Session 3.00-4.00: Dr Martin Hendry and Dr Szabi Marka (30 min seminar each – 25 mins and 5 mins question each – as in all seminars) | 13.00-16.00 1 hour break for Launch | Meeting Room 5 (Serindit 1) |
| Session B Highlighted Speaker plus Concurrent sessions Chair Dr Mary Mullaghy, ISTA. | Professor Alan Finkel and Peter Pentland <u>Science & Technology Education Leveraging Relevance</u> An initiative of the Australian Academy of Technological Sciences and Engineering | 13.00-14.00 | Meeting Room 1 (Auditorium Gemilang + UNIMAS rooms) |
| ICASE Roundtable , continued: <i>Creating and Managing Change in Science and Technology Education</i> | Moderators : Dr Ben Akpan and Dr Teresa Kennedy Speakers: from national associations throughout the world | 13.00 - 14.00 | Meeting Room 2 (Delima) |
| Launch of STEMfest 2013 and formal recognition of ICASE support in developing science education in Malaysia. | Cultural Performance Chaired by Co-Convenors - Scott Campbell, Prof Datuk Kadim (VC of UNIMAS) and Datuk Len (Minister for Advanced Education) and MC. - Speech | 14.00 – 15.30 | Meeting Room 1 (Auditorium Gemilang) |

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|--|--|-------------|--------------------------------------|
| | <ul style="list-style-type: none"> - Speech by David Goncalves, Executive Director of Global STEM States - Launch involving Dr Ben Akpan - President of ICASE, Prof Dr Nader Barsoum - President of the Asia Pacific Society for Solar and Hybrid Technologies, Joshua S Fouts - Executive Director of Science House Foundation of New York, Dr James Kaufman - President of Laboratory Safety Institute, and Dr Andrew Wong – International Union of Forest Research Organisations. - Welcome speech by Chief Minister of Sarawak and gimmick launch. | | |
| Session C (Poster Session) | Poster Presentations (Level 2 and 3 of DeTAR) | 14.00-15.00 | DeTAR Putra |
| ICASE University Summit on STEM Education | <p>Special Chancellors’ and University Presidents’ Forum Moderator: Dr Teresa Kennedy</p> <p>Summit on STEM education directions in universities. All delegates welcome.</p> <p>Moderator: Dr. Teresa Kennedy, ICASE President-Elect Summit on STEM in Higher Education. All delegates welcome.</p> <p>Discussants: Dr. Alan Finkel, Chancellor, Monash University, Melbourne, Australia; Dr. Jim Mienczakowski, Pro Vice Chancellor, Curtin University, Sarawak, Malaysia; Dr. Michael Odell, Vice President, Sponsored Research and Technology Transfer, University of Texas at Tyler, USA; Dr. Mohamad Kadim bin Suaidi, Vice Chancellor, Universiti Malaysia Sarawak (UNIMAS), Sarawak, Malaysia; Dr. Patrick Uko, Provost, Akwa Ibom State College of Education, Afaha Nsit, Nigeria; Dr. Mamman Wasagu, Provost, Federal College of Education, Katsina, Nigeria.</p> | 15.30-16.30 | Meeting Room 1 (Auditorium Gemilang) |

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|--|---|------------------|-----------------------------|
| Session D Highlighted Speaker plus Concurrent sessions. | Professor Robyn Lucas – What can the successful response to stratospheric ozone depletion teach us about managing climate change? A focus on health risks. Chair Dr Uchenna Nzewi | 15.00 - 16.00 | Meeting Room 4 (Mutiara) |
| Tastes of Malaysia Coffee Break | Social function in the Exhibition Area – a relaxing finish to the day. <i>Buses depart at 16.30pm direct for River Cruise, and 17.00 for Pullman Hotel, Citadines Apartment Hotel, Merdeka Palace & Grand Margherita Hotel</i> | 16.00-17.00 | Exhibition Areas |
| Evening Cruise (leave from Kuching city centre riverside at 17.30) or own activities. | Cruise or own evening arrangements. Tickets can be purchased at the Registration desk. <i>Buses depart at 16.30pm direct for River Cruise from UNIMAS</i> | 17.30- 19.00 | |

Tuesday 1 October

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| Registration | Registration desk open <i>Buses depart to UNIMAS Sarawak at 7.30am from the Pullman Hotel, Merdeka Palace Hotel, Grand Margherita Hotel and Citadines Apartment Hotel.</i> | 8.00 onwards | DeTAR Foyer |
| Tai Chi | Led by Highlighted Speaker Dr Baohui Zhang | 8.45 – 8.55 | Meeting Room 1 (Auditorium Gemilang) |
| Keynote 2 | Professor Eric Mazur Chair Dr Declan Kennedy, ICASE representative for Europe. Eric Mazur is a prominent physicist and educator at Harvard University, USA. Professor Mazur is known for his work in experimental ultrafast optics and condensed matter physics and a national leader in science education | 9.00 – 10.00 | Meeting Room 1 (Auditorium Gemilang) |
| Panel | Discussion of issues. Chair Dr Bulent Cavas, ICASE Publications Chair | 10.00 - 10.30 | Meeting Room 1 (Auditorium Gemilang) |
| Morning tea | Exhibition Hall | 10.30– 11.00 | |
| Keynote 3 | Professor John Hattie Chair Dr Lindsey Connor, ICASE Treasurer. Professor John Hattie is one of New Zealand’s most internationally acclaimed academics and undertook the largest study on education in the world. What makes a good teacher? | 11.00 - 12.00 | Meeting Room 1 (Auditorium Gemilang) |
| Panel | Discussion of issues. | 12.00- 12.30 | Meeting Room 1 (Auditorium) |

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| Catered Lunch | | 12.30 - 13.30 | (Meeting Room 2) Delima |
| Optional to attend – 100 UNIMAS student posters are on display on Level 2 and Level 3 | | | |
| Session E Highlighted Speaker plus Concurrent sessions | Dr Baohui Zhang. From iMVT to WiMVT: Integrating ICT into Science Learning. Chair Professor Akaneren Essien | 13.30- 14.30 | Meeting Room 1 (Auditorium Gemilang + UNIMAS rooms) |
| ICASE Symposium | Moderator: Dr. Steven Sexton, College Of Education, New Zealand Symposium : Cultural Perspectives in Teacher Professional Development, Discussants: Professor Mamman Wasagu, Nigeria, Dr Steven Sexton, New Zealand, Dr Lindsey Connor, Sabina and Chris Astall, New Zealand. Dr Christiane Gioppo by video conference. | 13.30- 14.30 | Meeting Room 2 (Delima) |
| The Kuching Declaration discussions Facilitated Group Discussions (all delegates) | All delegates and speakers join groups to discuss issues and directions for World STEM and Sustainability leading to the Kuching Declaration/s. Break as needed.Groups will determine their direction and statements which will be crafted to produce the Kuching Declaration/s. | 14.30- 16.30 | Meeting Room 1 (Auditorium Gemilang) + ALL available UNIMAS rooms |
| Tastes of Malaysia Coffee Break | Social function in the Exhibition Hall – a relaxing finish to the day. | 16.30 - 17.00 | Buses leave at 17.00 |
| Gala Conference Dinner | Dinner, entertainment and dancing till late. | 19.00 – Midnight | Pullman Hotel |

Wednesday 2 October

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| Registration | Registration desk open <i>Buses depart to UNIMAS Sarawak at 7.30 from the Pullman Hotel, Merdeka Palace Hotel, Grand Margherita Hotel and Citadines Apartment Hotel.</i> | 8.00 onwards | DeTAR Exhibition area |
| Move into Auditorium | | 8.50 | Meeting Room 1 (Auditorium Gemilang) |
| Keynote 4 | Dr Azian Abdullah , Former Director SEAMEO RECSAM. Malaysian STEM curriculum and Blueprint of Education. Enhancing Achievements in TIMSS and PISA for Malaysia – A need to engage students cognitively. Chair Dr Sue Dale Tunnicliffe | 9.00 - 10.00 | Meeting Room 1 (Auditorium Gemilang) |
| Session F Highlighted Speaker plus Concurrent sessions | Dr William McComas, University of Arkansas, USA Evolution and recent findings in Biology Chair Professor Miia Rannikmae, ICASE University Liaison. Einsteinian Physics Stream: Dr Ju Li Blair, Bernie Carr, Tejinder Kaur | 10.00 - 11.00 | Meeting Room 1 (Auditorium Gemilang) Meeting Room 5 (Serendit room 1) |
| Morning tea | Exhibition Area | 11.00 - 11.30 | |

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| Awards Ceremony and Chisman Oration | <p>Presentation of ICASE and other awards by Dr Ben Akpan (President) and Dr Teresa Kennedy (President Elect), International Council of Associations for Science Education (ICASE)</p> <p>Premier event on the ICASE calendar to commemorate the life and contribution of Dennis Chisman to international science education.</p> <p>Tribute to Dennis Chisman : Lady Sue Dale Tunnicliffe. Introduction Dr Teresa Kennedy, President elect ICASE.</p> <p>Presented by : Prof Akaneren Essien, National Universities Commission, Abuja, Nigeria. Chair Dr Ben Akpan, President of ICASE</p> | 11.30 - 13.00 | Meeting Room 1 (Auditorium Gemilang) |
| Catered Lunch | | 13.00 - 14.00 | Meeting Room 2 (Delima) |
| Field Trips Leaving at 13.30 and back by 17.00 | | 13.30-17.00 | |
| ICASE Symposium | <p>Moderator : Dr Jack Holbrook</p> <p>ICASE European partner projects – PROFILES and ESTABLISH and ENGINEER Discussants: Prof Jack Holbrook, ICASE Past President; Prof Mii Rannikmae, University of Tartu & ICASE</p> <p>A Motivational Approach to Promoting 21st Century Science Learning Speakers: Jack Holbrook, ICASE Past President, Bulent Cavas, Chair ICASE Publications, Declan Kennedy, ICASE European Regional Representative, Mii Rannikmae, Chair ICASE-University Links</p> | 14.00 - 15.00 15.00 – 17.00 | Meeting Room 2 (Delima) |

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| Session G Highlighted Speaker plus Concurrent sessions | Prof. Eunice Okeke , Faculty Of Education, Abia State University, Uturu, Nigeria “Best Practices in Dissemination and Utilisation of Science Education Research Findings”. | 14.00 – 15.00 | Meeting Room 1 (Auditorium Gemilang) + UNIMAS rooms |
| Session H Highlighted Speaker plus Concurrent sessions | Professor Dato Dr Aminah Ayob , Former Vice Chancellor of Sultan Idris Education University, Malaysia, held key positions in UNESCO and IOSTE. Early Years Education Chair Dr Jingyi Jiang | 15.00 – 16.00 | Meeting Room 1 (Auditorium Gemilang) + UNIMAS rooms |
| Session I Highlighted Speaker plus Concurrent sessions | Professor Peter Quinn , World Science Project – The Square Kilometre Array, Co-Chair Astronomy and Einsteinian Physics Education Stream. Australia Chair Dr Michael Odell | 16.00-17.00 | Meeting Room 1 (Auditorium Gemilang) + UNIMAS rooms |
| Chisman Oration Reception | Chisman Reception in the Exhibition Hall Hosts Dr Ben Akpan and Dr Teresa Kennedy, ICASE. | 17.00-18.00 | Exhibition Hall, Buses leave 6pm |

Thursday 3rd October

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| Registration | Registration desk open <i>Buses depart to UNIMAS Sarawak at 7.30 from the Pullman Hotel, Merdeka Palace Hotel, Grand Margherita Hotel and Citadines Apartment Hotel.</i> | 8.00 onwards | |
| * Optional Astronomy special session - Field Trip to Sultan Iskandar Planetarium leaving at 11.00 back by 15.30 | | 11.00-15.30 | Lunch at the Planetarium |
| * OPTIONAL | Watch the launch proceedings of the World Conference on Safety in Science, Industry and Education, and the International Conference on Transnational Collaboration in Science, Technology, Engineering, Arts and Mathematics Education. | 8.30 – 8.55 | Meeting Room 1 (Auditorium Gemilang) |
| Keynote 6 | Dr Tin Hlaing , Science Advisor of Aung San Suu Kyi, Myanmar. Taped message to WorldSTE2013 from Aung San Suu Kyi. Chair Dr Michael Padilla, ICASE Representative for North America and Past President NSTA. | 9.00 – 10.00 | Meeting Room 1 (Auditorium Gemilang) |
| Panel | Panel with UNESCO's Jong Hwi Park, Boeing's President Asia Pacific Skip Boyce, Dr James Kaufman and New York Academy of Science's Meghan Groome along with a range of speakers organised by Science House. Moderated by Joshua S Fouts, Science House Foundation of New York Chair Dr Michael Padilla | 10.00 – 11.00 | Meeting Room 1 (Auditorium Gemilang) |
| Morning tea | | 11.00-11.30 | |
| Keynote 7 | Professor Charbel N. El-Hani Professor El-Hani is Professor of History, Philosophy, and Biology Teaching at the Institute of Biology, Federal University of Bahia in Brazil, South America. | 11.30 - 12.30 | Meeting Room 1 (Auditorium Gemilang) |

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| | Chair Elaine Horne, Chair World Conferences | | |
| Catered Lunch | | 12.30 -13.00 | Meeting Room 2 (Delima) |
| ICASE Symposium | Moderator Dr Jack Holbrook Promoting Primary Level STEM education. Discussants: Jack Holbrook, ICASE Past President, Bulent Cavas, Chair ICASE Publications, Steven Sexton, Chair ICASE Pre-secondary Science and Janchai Yingprayoon, Chair ICASE Science Centres | 13.30 -15.30 | Meeting Room 2 (Delima) |
| Session J Highlighted Speaker plus Concurrent sessions | Dr John Oversby. "Drugs, bananas and earrings." Chair Dr Janchai Yingprayoon, ICASE, Science Centres Plus Concurrent sessions. | 13.30- 14.30 | Meeting Room 1 (Auditorium Gemilang + UNIMAS rooms) |
| Session K. Highlighted Speaker plus Concurrent sessions | Di Hartwell. Project Manager for the Learning Hubs project (The Science Learning Hub and the Biotechnology Learning Hub) based at the University of Waikato, New Zealand. Regional centres for sharing learning. Chair Debra Smith, Past President ASTA. Plus Concurrent Sessions | 14.30- 15.30 | Meeting Room 1 (Auditorium Gemilang) + UNIMAS rooms |
| ICASE2016 presentation | | 15.30- 15.45pm | Meeting Room 1 (Auditorium Gemilang) |
| Kuching Declaration | Discussion Group conclusions and announcement of Kuching Declaration Chair Elaine Horne, ICASE World Conferences. | 15.45- 16.15pm | Meeting Room 1 (Auditorium Gemilang) |

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| Closing Ceremony | Chairs - Elaine Horne, Scott Campbell. | 16.15- 16.45pm | Meeting Room 1 (Auditorium Gemilang) |
| Farewell afternoon tea | | 4.45pm | Exhibition hall |

STREAMS

Concurrent Sessions include;

- 1) Primary/ECE/Elementary school science education
- 2) Secondary/middle /senior school science education
- 3) University education/science education research
- 4) Science research/world science projects
- 5) Biology education/marine education /aquatic education/biodiversity and ecosystem services
- 6) Physics/astronomy education/Einsteinian physics stream/Space travel and near-Earth science
- 7) Chemistry education/Green chemistry
- 8) Human biology/medical education
- 9) Earth sciences/geography education
- 10) STEM – Science, technology, engineering and mathematics education/Cross-curricula education
- 11) Non – formal STE (museums, centres)/Science communication/Youth Forum stream
- 12)Technology education and research
- 13) Non-nuclear renewable energy/energy efficiency
- 14) Safety in science/laboratory practice
- 15) Sustainability/environmental education /climate change/global environmental issues/Rio +20 follow up STE action
- 16) Science in society/nature of science/industry and economic links/world of work/responsible decision making
- 17)Curriculum, policy and assessment/Standards/Future directions in STE and education/Education issues/Effective strategies and practice/Education management/STE resources
- 18) Science education associations/academies/
- 19) ICASE Symposium

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Concurrent Sessions

| Session | Start Time | End Time | Date of Presentation | Meeting Room Number | Speaker Paper Title | Country | Abstract Number | Session Type | Speaker Theme Description |
|--|------------|----------|----------------------|--------------------------------------|--|-----------|-----------------|----------------------------------|--|
| Session A - Monday 30th September 2013 - 11.00 to 12.00 | | | | | | | | | |
| AO1_Highlighted | 11.00 | 12.00 | 30/09/2013 | Meeting Room 1 (Auditorium Gemilang) | Professor David Blair, World Science Project – LIGO, observing Gravity waves, Co-Chair Astronomy and Einsteinian Physics Education stream. Einstein First: Changing the paradigm of physics teaching at school" Chair Dr Patrick Uko | AUSTRALIA | | Highlighted Presentation | |
| A01 | 11.00 | 11.20 | 30/09/2013 | Meeting Room 3 (Zamrud) | Prof Bernadette Ezeliora, Anambra State University, ULI, Nigeria, Prof Abigail Osuaforphot, Nnamdi Azikiwe University, Awka, Nigeria "BUILDING BLOCK FOR FUTURE ASTRONAUT USING MOON PHASE PROJECT" | NIGERIA | 79 | Peer Reviewed Paper Presentation | 01. Primary/ECE/Elementary School Science Education |
| A01 | 11.20 | 11.40 | 30/09/2013 | Meeting Room 3 (Zamrud) | Mrs. Amina Suwaid, Federal College Of Education, Kano, Nigeria "TECHNOLOGY ASSISTED LEARNING (TAL): A POTENTIAL FOR THE ACQUISITION OF BASIC SCIENCE PROCESS SKILLS AND ICT SKILLS BY SCHOOL CHILDREN" | NIGERIA | 261 | Peer Reviewed Paper Presentation | 01. Primary/ECE/Elementary School Science Education |
| A01 | 11.40 | 12.00 | 30/09/2013 | Meeting Room 3 (Zamrud) | Dr. Gregory Smith, Charles Darwin University, Australia "TRENDS IN PRIMARY SCIENCE A DECADE ON" | AUSTRALIA | 359 | Peer Reviewed Paper Presentation | 01. Primary/ECE/Elementary School Science Education |
| A02 | 11.00 | 11.20 | 30/09/2013 | Meeting Room 15 (BS4) | Dr. Chinwe Nwagbo, University Of Nigeria, Nigeria "BIOLOGY LABORATORY MATERIAL RESOURCES UTILIZATION IN COLLEGES OF EDUCATION: IMPLICATIONS FOR BIOLOGY CURRICULUM DELIVERY IN NIGERIAN SECONDARY SCHOOLS" | NIGERIA | 217 | Peer Reviewed Paper Presentation | 02. Secondary/Middle/Senior School Science Education |
| A02 | 11.20 | 11.40 | 30/09/2013 | Meeting Room 15 (BS4) | Mohun Cyparsade, Mauritius Institute Of Education, Mauritius "BEATING THE LANGUAGE BARRIER IN SCIENCE EDUCATION: IN-SERVICE EDUCATORS COPING WITH SLOW LEARNERS IN MAURITIUS" | MAURITIUS | 366 | Peer Reviewed Paper Presentation | 02. Secondary/Middle/Senior School Science Education |
| A02 | 11.40 | 12.00 | 30/09/2013 | Meeting Room 15 (BS4) | Mrs. Bernadette Ozoji Ebele, University Of Jos, Nigeria "EFFECT OF CONCEPT MAPPING TECHNIQUE ON STUDENTS' COGNITIVE DEVELOPMENT IN NIGERIA: IMPLICATIONS FOR SCIENCE AND TECHNOLOGY INSTRUCTION" | NIGERIA | 382 | Peer Reviewed Paper Presentation | 02. Secondary/Middle/Senior School Science Education |
| A02 | 11.00 | 11.20 | 30/09/2013 | Meeting Room 16 (Library Auditorium) | Miss Rachel Atomatofa, Delta State College Of Physical Education, Mosogar, Nigeria "USING A CONSTRUCTIVIST LEARNING ENVIRONMENT TO MINIMIZE GENDER DIFFERENCES IN A RURAL BASIC SCIENCE CLASSROOM IN NIGERIA" | NIGERIA | 219 | Peer Reviewed Paper Presentation | 02. Secondary/Middle/Senior School Science Education |
| A02 | 11.20 | 11.40 | 30/09/2013 | Meeting Room 16 (Library Auditorium) | Dr Johanne Patry, JP Instructional Leadership Pédagogique, Canada "PROBING MATTER: ENGAGING SECONDARY STUDENTS IN AUTHENTIC RESEARCH WITH A SYNCHROTRON" | CANADA | 224 | Peer Reviewed Paper Presentation | 02. Secondary/Middle/Senior School Science Education |

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| A02 | 11.40 | 12.00 | 30/09/2013 | Meeting Room 16 (Library Auditorium) | Mr. Kofi Owusu, University Of Canterbury, New Zealand "CONTEXTUALIZED USE OF TECHNOLOGY IN SCIENCE CLASSROOMS BY HIGH SCHOOL SCIENCE TEACHERS" | NEW ZEALAND | 206 | Peer Reviewed Paper Presentation | 02. Secondary/Middle/Senior School Science Education |
| A05 | 11.00 | 11.20 | 30/09/2013 | Meeting Room 5 (Serindit 1) | Miss Nurazidawati Mohamad Arsad, National University of Malaysia, Malaysia; Mohamed Amin Embi; Kamisah Osman, National University of Malaysia and Rian Vebrianto, National University of Malaysia "THE USAGE OF WEB 2.0 APPLICATION AMONG TEACHERS." | MALAYSIA | 351 | Peer Reviewed Paper Presentation | 02. Secondary/Middle/Senior School Science Education |
| A05 | 11.20 | 11.40 | 30/09/2013 | Meeting Room 5 (Serindit 1) | Mrs Crescentia Sekegor, Delta State College of Physical Education, Nigeria, and Mr Agadaigho Amos, Nigeria "AVAILABILITY AND UTILIZATION OF BIOLOGY LABORATORY FACILITIES IN SECONDARY SCHOOLS TO AID LEARNING IN ETHIOPE-WEST LOCAL GOVERNMENT AREA OF DELTA STATE" | NIGERIA | 282 | Peer Reviewed Paper Presentation | 05. Biology Education |
| A07 | 11.00 | 11.20 | 30/09/2013 | Meeting Room 9 (FRST Tutorial Room 1) | Dr Bello Gusau, Intellect Educational College, Nigeria "CUMULATIVE EFFECTS OF UNDERSTANDING PRE-REQUISITE CHEMISTRY CONCEPTS ON PROBLEM SOLVING ABILITY AMONG SENIOR SECONDARY SCHOOL STUDENTS, ZAMFARA STATE,NIGERIA" | NIGERIA | 115 | Peer Reviewed Paper Presentation | 07. Chemistry Education |
| A07 | 11.20 | 11.40 | 30/09/2013 | Meeting Room 9 (FRST Tutorial Room 1) | Dr Nur Jahan Ahmad, South East Asia Ministers of Education Organisation Regional Centre for Science and Mathematics Education, Malaysia "DESIGNING A WORKED EXAMPLE TO ENHANCE STUDENTS CONCEPTUAL UNDERSTANDING OF ELECTROCHEMISTRY" | MALAYSIA | 182 | Peer Reviewed Paper Presentation | 07. Chemistry Education |
| A07 | 11.40 | 12.00 | 30/09/2013 | Meeting Room 9 (FRST Tutorial Room 1) | Prof Zephrius Njoku, University of Uyo, Nigeria "DIFFICULTIES EXPERIENCED IN THE LEARNING OF ELECTROCHEMISTRY CONCEPTS BY STUDENTS OF DIFFERENT COGNITIVE STYLES" | NIGERIA | 283 | Peer Reviewed Paper Presentation | 07. Chemistry Education |
| A11 | 11.00 | 11.20 | 30/09/2013 | Meeting Room 6 (Serindit 2) | Lady Sue Dale Tunnicliffe, University of London, United Kingdom "TALKING SCIENCE- A PROJECT IN RURAL BANGLADESH TO INCREASE SELF ESTEEM OF WOMEN THOUGH HEIGHTENING THEIR AWARENESS OF THEIR KNOWLEDGE OF SCIENCE AND TECHNOLOGY FROM THEIR EVERYDAY LIVES AND TALKING TO THEIR CHILDREN" | UNITED KINGDOM | 102 | Peer Reviewed Paper Presentation | 11. Non-Formal STE (Museums, Centres) |
| A11 | 11.20 | 11.40 | 30/09/2013 | Meeting Room 6 (Serindit 2) | Dr Sean Perara, Australian National University, Australia "IS POST-COMPULSORY SCIENCE A STUDY OPTION FOR EVERYONE? FINDINGS FROM AN INNOVATIVE SCIENCE PROGRAMME FOR YOUNG HUMANITARIAN IMMIGRANTS IN AUSTRALIA" | AUSTRALIA | 370 | Peer Reviewed Paper Presentation | 11. Non-Formal STE (Museums, Centres) |
| A11 | 11.40 | 12.00 | 30/09/2013 | Meeting Room 6 (Serindit 2) | Ms Miriam Sullivan, University of Western Australia; Efrat Eilam; and Zmira Mevarech "IS YOUTUBE A USEFUL CHANNEL FOR INFORMAL SCIENCE EDUCATION?" | AUSTRALIA | 365 | Peer Reviewed Paper Presentation | 11. Non-Formal STE (Museums, Centres) |

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| A15 | 11.00 | 12.00 | 30/09/2013 | Meeting Room 4 (Mutiarra) | Mr Fettes Falconer, Sevenoaks Senior College, Australia "SOIL CARBON SEQUESTRATION: MITIGATING CLIMATE CHANGE THROUGH SUSTAINABLE GRAZING METHODS. PLUS: CREATING HOPE, NOT ONLY THROUGH GEOGRAPHY LESSONS, BUT ALSO THROUGH AN HOLISTIC EDUCATIONAL APPROACH" | AUSTRALIA | 162 | Workshop | 15. Sustainability/Environmental Education |
| ICASE Roundtable - 30/09/13 | | | | | | | | | |
| ICASE Roundtable | 11.00 | 12.00 | 30/09/2013 | Meeting Room 2 (Delima) | Dr Ben Akpan, President of ICASE, Nigeria "ICASE ROUNDTABLE: CREATING AND MANAGING CHANGE IN SCIENCE AND TECHNOLOGY EDUCATION" | NIGERIA | 268 | ICASE Symposium | 18. Science Education Associations/Academies |
| ICASE Roundtable | 13.00 | 14.00 | 30/09/2013 | Meeting Room 2 (Delima) | Dr Teresa Kennedy, President Elect of ICASE, USA "ICASE ROUNDTABLE: CREATING AND MANAGING CHANGE IN SCIENCE AND TECHNOLOGY EDUCATION" | NIGERIA | 269 | ICASE Symposium | 18. Science Education Associations/Academies |

Session B - 30th September 2013 - 13.00 to 14.00

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| B01_Highlighted | 13.00 | 14.00 | 30/09/2013 | Meeting Room 1 (Auditorium Gemilang) | Professor Alan Finkel and Peter Pentland Science & Technology Education Leveraging Relevance An initiative of the Australian Academy of Technological Sciences and Engineering | AUSTRALIA | | Highlighted Presentation | |
| B01 | 13.00 | 13.20 | 30/09/2013 | Meeting Room 3 (Zamrud) | A/Prof Agnaldo Arroio, University Of São Paulo, Brazil "THE SYSTEMS OF REPRESENTATION IN EARLY SCIENCE EDUCATION" | BRAZIL | 267 | Peer Reviewed Paper Presentation | 01. Primary/ECE/Elementary School Science Education |
| B01 | 13.20 | 13.40 | 30/09/2013 | Meeting Room 3 (Zamrud) | Mrs. Fatima Hamza, Federal College Of Education Kano, Nigeria "INCREASING FUN IN SCIENCE TEACHING AND LEARNING BY MEANS OF POEMS AND SONGS" | NIGERIA | 260 | Peer Reviewed Paper Presentation | 01. Primary/ECE/Elementary School Science Education |
| B01 | 13.40 | 14.00 | 30/09/2013 | Meeting Room 3 (Zamrud) | Dr. Steven Sexton, College Of Education, New Zealand "OVERCOMING BARRIERS TO TEACHING SCIENCE IN PRIMARY EDUCATION" | NEW ZEALAND | 107 | Peer Reviewed Paper Presentation | 01. Primary/ECE/Elementary School Science Education |
| B02 | 13.00 | 13.20 | 30/09/2013 | Meeting Room 16 (Library Auditorium) | Mrs Lee Chuo Hiong, National University Malaysia; and Kamisah Osman, National University Malaysia "INCORPORATION OF STEM (SCIENCE, TECHNOLOGY, ENGINEERING, MATHEMATICS) TEACHING AND LEARNING STRATEGIES INTO BIOLOGY CLASSROOM" | MALAYSIA | 325 | Peer Reviewed Paper Presentation | 05. Biology Education |
| B02 | 13.20 | 13.40 | 30/09/2013 | Meeting Room 16 (Library Auditorium) | A/ Prof. Jan Dook, The University Of Western Australia, Australia "ADDING SOME SPICE: SUPPORTING SCIENCE TEACHERS IN WESTERN AUSTRALIA" | AUSTRALIA | 272 | Peer Reviewed Paper Presentation | 02. Secondary/Middle/Senior School Science Education |
| B02 | 13.40 | 14.00 | 30/09/2013 | Meeting Room 16 (Library Auditorium) | Rian Vebrianto, National University Of Malaysia, Malaysia; Kamisah Othman, National University of Malaysia; and Lee Chuo Hiong, National University of Malaysia "EFFECTIVENESS OF THE USE OF E-LEARNING PORTAL AND E-BOOK OF BIOMIND MODULE IN OVERCOMING STUDENTS' MISCONCEPTIONS." | MALAYSIA | 384 | Peer Reviewed Paper Presentation | 02. Secondary/Middle/Senior School Science Education |
| B12 | 13.00 | 13.20 | 30/09/2013 | Meeting Room 5 (Serindit 1) | Dr Karthigeyan Subramaniam, University of North Texas, USA "AN INVESTIGATION OF THE ORGANIZATIONAL IMPACT OF COMPUTER TECHNOLOGY IN SECONDARY SCIENCE CLASSROOMS A COMMUNITY OF PRACTICE PERSPECTIVE" | UNITED STATES | 181 | Peer Reviewed Paper Presentation | 12. Technology Education And Research |
| B12 | 13.20 | 13.40 | 30/09/2013 | Meeting Room 5 (Serindit 1) | Dr Rachel Sheffield, Curtin University, Australia "WHY DO WHALES BEACH THEMSELVES? SCIENTIFIC INQUIRY USING ICT" | AUSTRALIA | 227 | Peer Reviewed Paper Presentation | 12. Technology Education And Research |
| B12 | 13.40 | 14.00 | 30/09/2013 | Meeting Room 5 (Serindit 1) | Dr. John Williams, University of Waikato, New Zealand "USING ICT TO SUPPORT SCIENCE INQUIRY LEARNING" | University of Waikato | 466 | Peer Reviewed Paper Presentation | 12. Technology Education And Research |
| B15 | 13.00 | 13.20 | 30/09/2013 | Meeting Room 4 (Mutiarra) | Ms. Corrienna Abdul Talib, Seameo Recsam, Malaysia "HOW WELL DO TEACHERS KNOW ABOUT CLIMATE CHANGE" | MALAYSIA | 172 | Peer Reviewed Paper Presentation | 15. Sustainability/Environmental Education |

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| B15 | 13.20 | 13.40 | 30/09/2013 | Meeting Room 4 (Mutiar) | Ms. Antoinette Van Der Weerden, Waikato Institute Of Technology, New Zealand "REINSTATEMENT OF INDIGENOUS FLORA IN THE URBAN ENVIRONMENT OF NEW ZEALAND; A CASE STUDY FOR HAMILTON CITY" | NEW ZEALAND | 214 | Peer Reviewed Paper Presentation | 15. Sustainability/Environmental Education |
| B15 | 13.40 | 14.00 | 30/09/2013 | Meeting Room 4 (Mutiar) | Dr. Musiliu Olayiwola, Federal. College Of Education (Technical) Bichi., Nigeria; and Dr Ruth Jarman, Queen's University Belfast, Northern Ireland "ASSESSMENT OF EXPOSURE TO GROUND-LEVEL OZONE OF TRAINEE NIGERIA CERTIFICATE IN EDUCATION CHEMISTRY TEACHERS IN KANO STATE OF NIGERIA" | NIGERIA | 278 | Peer Reviewed Paper Presentation | 15. Sustainability/Environmental Education |
| B17 | 13.00 | 13.20 | 30/09/2013 | Meeting Room 8 (FIT) | Dr. Niklas Gericke, Karlstad University, Sweden; and Michal Drechsler, Karlstad University, Sweden "TEACHERS USE OF TEXTBOOKS – A COMPARATIVE STUDY OF DISCIPLINE BOUND DIFFERENCES" | SWEDEN | 377 | Peer Reviewed Paper Presentation | 17. Curriculum, Policy And Assessment |
| B17 | 13.20 | 13.40 | 30/09/2013 | Meeting Room 8 (FIT) | Mrs Charity Igbokwe, College of Education Afaha Nsit, Nigeria; and Donatus I. Igbokwe "RECENT CURRICULUM REFORMS AT THE BASIC EDUCATION LEVEL IN NIGERIA AIMED AT CATCHING THEM YOUNG TO LOVE SCIENCE, LEARN SCIENCE AND CREATE CHANGE" | NIGERIA | 315 | Peer Reviewed Paper Presentation | 17. Curriculum, Policy And Assessment |
| B17 | 13.40 | 14.00 | 30/09/2013 | Meeting Room 8 (FIT) | Dr. Afolabi Folashade, Adeyemi College Of Education, Ondo, Nigeria "INFLUENCE OF MOTHERS ASSOCIATION ON GENDER DISPARITY IN SCIENCE CLASSROOM IN NORTHERN PART OF NIGERIA" | NIGERIA | 409 | Peer Reviewed Paper Presentation | 17. Curriculum, Policy And Assessment |
| STREAM - Einsteinian Physics | 13.00 | 13.20 | 30/09/2013 | Meeting Room 7 (Nilam) | Prof. Grady Venville, University Of Western Australia, Australia "WHY WE NEED TO BRING EINSTEINIAN PHYSICS INTO SCHOOL SCIENCE CURRICULA" | AUSTRALIA | 297 | Peer Reviewed Paper Presentation | 06. Physics/Astronomy Education/ Einsteinian |
| STREAM - Einsteinian Physics | 13.20 | 13.40 | 30/09/2013 | Meeting Room 7 (Nilam) | Prof David Blair, University of Western Australia "EINSTEIN FIRST, NEWTON SECOND: TEACHING PHYSICS FROM A MODERN STANDPOINT" | AUSTRALIA | 296 | Peer Reviewed Paper Presentation | 06. Physics/Astronomy Education/ Einsteinian |
| STREAM - Einsteinian Physics | 13.40 | 14.00 | 30/09/2013 | Meeting Room 7 (Nilam) | Prof. Marjan Zadnik, Curtin University, Australia "UNDERSTANDING EINSTEINIAN PHYSICS: YEAR 11 STUDENTS LEARNING GAINS AFTER AN INTENSIVE ONE-DAY PROGRAM" | AUSTRALIA | 386 | Peer Reviewed Paper Presentation | 06. Physics/Astronomy Education/ Einsteinian |

Session C - Poster Session - Monday 30th September 2013 - 14.00 to 15.00

| Poster Number | Start Time | End Time | Date | Venue | Speaker Paper Title | Country | AbstractNumber | Session Type | Speaker Theme Description |
|---------------|---------------|---|----------|--|--|------------------|----------------|------------------------|---|
| 1 | 14.00 - 15.00 | Poster presentations are in an informal session over one hour where you can walk around and discuss posters on display. | 30/09/13 | Posters are displayed on levels 2 and 3 of the DeTAR Putra Convention Centre | Mr Sunday Moses, The Federal Polytechnic, Kaura Namoda, Zamfara State, Nigeria THE INFLUENCE OF ORGANIC CONTAMINANTS FROM HOSPITAL WASTE DUMPS AND INCINERATOR ASH ON THE RECEIVING ENVIRONMENT | NIGERIA | 103 | Poster | 15. Sustainability/Environmental Education |
| 3 | | | | | Dr Elaine Lewis, Australian Association For Environmental Education - WA Chapter (Australia) TURTLE WATCH: COMMUNITY PARTICIPATION AND ACTION | AUSTRALIA | 165 | Poster (non-refereed) | 15. Sustainability/Environmental Education |
| 4 | | | | | Associate Professor Basil Marasinghe, University Of Goroka, Goroka, EHP, Papua New Guinea ETHNOCHEMISTRY AND ETHNOMEDICINE OF ANCIENT PAPUA NEW GUINEANS AND THEIR USE IN MOTIVATING STUDENTS IN SECONDARY SCHOOLS AND UNIVERSITIES IN PNG | PAPUA NEW GUINEA | 186 | Poster (peer reviewed) | 07. Chemistry Education |
| 5 | | | | | Dr Yoon Fah Lay, Universiti Malaysia Sabah, Malaysia RELATIONSHIPS BETWEEN THE METACOGNITIVE ORIENTATION OF SCIENCE CLASSROOM ENVIRONMENTS AND BELIEFS ABOUT SCIENCE & SCHOOL SCIENCE AMONG PRESERVIVE SCIENCE TEACHERS | MALAYSIA | 189 | Poster (non-refereed) | 03. University Education/Science Education Research |
| 6 | | | | | Dr Guillaume Schiltz, ETH Zurich (Swiss Federal Institute Of Technology), Switzerland MOBILE LABS AND MOBILE LAB CLASSES | SWITZERLAND | 202 | Poster (non-refereed) | 02. Secondary/Middle/Senior School Science Education |
| 8 | | | | | Dr Akani Omiko, Stan, Nigeria GREEN CHEMISTRY EDUCATION; A STRATEGY FOR ENVIRONMENTAL CONTROL AND SUSTAINABILITY | NIGERIA | 249 | Poster (peer reviewed) | 07. Chemistry Education |
| 9 | | | | | Mrs Barbara Sing, Derby District High School, Australia ADVANCING SCHOOL AND COMMUNITY BIODIVERSITY MONITORING UTILISING MOBILE TECHNOLOGY | AUSTRALIA | 257 | Poster (non-refereed) | 10. STEM-Science, Technology, Engineering and Mathematics |
| 10 | | | | | Mr Pinaki Chowdhury, Mpumalanga Department Of Education, South Africa VYGOTSKIAN APPROACH TO TEACH CHEMISTRY: ANOLOG AN WAY, ECONOMIC AND VIABLE SOLUTION TO QUALITY IMPROVEMENT | SOUTH AFRICA | 258 | Poster (peer reviewed) | 02. Secondary/Middle/Senior School Science Education |
| 11 | | | | | Dr Barbara Sing, Derby District High School K-12, Australia and Michael Wheatley, The Centre for Learning Technology, The University of Western Australia, Australia FISHING LINE RECOVERY BIN PROJECT : ENVIRONMENTAL EDUCATION AND PERSUASIVE TEXTS | AUSTRALIA | 273 | Poster (non-refereed) | 15. Sustainability/Environmental Education |

| | | | | | | | | |
|----|--|------------|--|--|--------------|-----|------------------------|---|
| 12 | 14.00 - 15.00 Poster presentations are in an informal session over one hour where you can walk around and discuss posters on display. | 30/09/2013 | Posters are displayed on levels 2 and 3 of the DeTAR Putra Convention Centre | Mrs Mosunmola Amusan, Federal College Of Education, Nigeria and Dr Joy Alexander - School of Education: Queen's University Belfast. Northern Ireland TEACHER FACTORS AS CORRELATES OF ATTITUDES TO BASIC SCIENCE TEACHING AT THE BASIC EDUCATION LEVEL IN OGUN STATE, NIGERIA | NIGERIA | 277 | Poster (non-refereed) | 01. Primary/ECE/Elementary School Science Education |
| 15 | | | | Associate Professor Toshinobu Hatanaka, Toho University, Japan JAPANESE ELEMENTARY SCIENCE HANDS-ON ACTIVITIES: APPLICABLE TO THE PHILIPPINES? | JAPAN | 352 | Poster | 01. Primary/ECE/Elementary School Science Education |
| 16 | | | | Ms Kirsten Gottschalk, International Centre For Radio Astronomy Research, Australia and Kevin Vinsen, International Centre for Radio Astronomy Research (ICRAR), Western Australia WHY DO CITIZENS DONATE TO SCIENCE? MOTIVATIONS OF THESKYNET VOLUNTEERS. | AUSTRALIA | 356 | Poster | 06. Physics/Astronomy Education |
| 17 | | | | Mr Bernard Carr, University Of Western Australia, Australia WHY WE NEED TO USE DRAMA TO ENGAGE STUDENTS WITH EINSTEINIAN PHYSICS IN PRIMARY SCHOOL SCIENCE | AUSTRALIA | 367 | Poster (non-refereed) | 06. Physics/Astronomy Education |
| 18 | | | | Mr Muhamad Furkan Mat Salleh, Nabilah Abdullah, and Nor Aziah Alias, Universiti Teknologi MARA, Malaysia MALAYSIAN AND STEINER WALDORF SCIENCE CURRICULAR PRACTICES : A COMPARATIVE STUDY AND IMPLICATIONS FOR THE DESIGN OF SCIENCE TEACHER EDUCATION | MALAYSIA | 374 | Poster (peer reviewed) | 03. University Education/Science Education Research |
| 19 | | | | Dr Manabu Sumida, Ehime University, Japan EMERGING TRENDS IN JAPAN IN EDUCATION FOR THE GIFTED IN SCIENCE AND TECHNOLOGY | JAPAN | 379 | Poster (non-refereed) | 17. Curriculum, Policy And Assessment |
| 20 | | | | Mr Mark Bretteny, GLOBE in Africa ERD&T, South Africa GLOBE - INTERNATIONAL SCIENCE AND EDUCATION PROGRAM - AFRICA RESEARCH INITIATIVES AND ACTIVITIES | SOUTH AFRICA | 381 | Poster (non-refereed) | 15. Sustainability/Environmental Education |
| 21 | | | | Miss Vimala Adiapien, Mauritius Institute Of Education, Mauritius and Mohun Cyparsade, Mauritius Institute of Education, Mauritius THE ROLE OF THREE DIMENSIONAL MIND MAPPING IN TEACHING AND LEARNING OF SCIENCE AT EARLY CHILDHOOD LEVEL | MAURITIUS | 383 | Poster (peer reviewed) | 01. Primary/ECE/Elementary School Science Education |

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|---|---|--------------|-------------------|---|---|------------------|-----|---------------------------------|---|
| 23 | 14.00 - 15.00 | | | | Associate Professor Li Ju, University Of Western Australia, Australia and Professor David Blair, University Of Western Australia, Australia EXHIBITS FOR PUBLIC EDUCATION ON EINSTEINIAN PHYSICS AND GRAVITATIONAL WAVES | AUSTRALIA | 422 | Poster (non-refereed) | 06. Physics/Astronomy Education |
| 24 | Poster presentations are in an informal session over one hour where you can walk around and discuss posters on display. | | | | Merike Kesler, Science Education and Teaching SCIENCE EDUCATION | FINLAND | 800 | Poster (non-refereed) | 02. Secondary/Middle/Senior School Science Education |
| Session D - 30th September 2013 - 15.00 to 16.00 | | | | | | | | | |
| D01_Highlighted | 15.00 | 16.00 | 30/09/2013 | Meeting Room 1 (Auditorium Gemilang) | Professor Robyn Lucas, Australian National University, Australia – What can the successful response to stratospheric ozone depletion teach us about managing climate change? A focus on health risks. Chair Dr Uchenna Nzewi | AUSTRALIA | | Highlighted Presentation | |
| D01 | 15.30 | 16.00 | 30/09/2013 | Meeting Room 3 (Zamrud) | Mrs Mady Colquhoun, Armadale Primary School, Australia "HEAT- SUCCESSFULLY TEACHING THIS CHALLENGING CONCEPT TO JUNIOR PRIMARY STUDENTS!" | AUSTRALIA | 197 | Seminar | 01. Primary/ECE/Elementary School Science Education |
| D01 | 16.00 | 16.30 | 30/09/2013 | Meeting Room 3 (Zamrud) | Dr. Steven Sexton, College Of Education, New Zealand "RELEVANT, USEFUL AND MEANINGFUL SCIENCE FOR PRIMARY/ECE/ELEMENTARY SCHOOL SCIENCE ON A MINIMAL BUDGET" | NEW ZEALAND | 178 | Seminar | 01. Primary/ECE/Elementary School Science Education |
| D02 | 15.30 | 16.30 | 30/09/2013 | Meeting Room 15 (BS4) | Mr. Karl Brachtl, Alpen-Adria-University, Austria "IMST-THE AUSTRIAN WAY TO MODERNISE THE EDUCATIONAL SYSTEM" | AUSTRIA | 285 | Workshop | 02. Secondary/Middle/Senior School Science Education |
| D02 | 15.30 | 16.00 | 30/09/2013 | Meeting Room 16 (Library Auditorium) | Dr. Leon Harris, Living Waters Lutheran College, Australia "ARDUINOS IN SCIENCE EDUCATION: A WESTERN AUSTRALIAN EXPERIENCE" | AUSTRALIA | 332 | Seminar | 02. Secondary/Middle/Senior School Science Education |
| D02 | 16.00 | 16.30 | 30/09/2013 | Meeting Room 16 (Library Auditorium) | Dr. Mary Oliver, University Of Western Australia, Australia "IT TAKES MORE THAN BRAINS TO TRUST A SCIENTISTS STORY" | AUSTRALIA | 368 | Seminar | 02. Secondary/Middle/Senior School Science Education |
| D05 | 15.30 | 16.00 | 30/09/2013 | Meeting Room 5 (Serindit 1) | Dr Toma Maina, Federal College Of Education Pankshin, Nigeria "THE EFFECT OF THE VIRTUAL LABORATORY ON STUDENTS ACHIEVEMENT IN BIOLOGY" | NIGERIA | 304 | Seminar | 05. Biology Education |
| D05 | 16.00 | 16.30 | 30/09/2013 | Meeting Room 5 (Serindit 1) | Dr. Siew Yap, Kingsway Christian College, Australia "DEVELOPING, IMPLEMENTING AND EVALUATING THE USE OF ETHICAL FRAMEWORKS IN TEACHING BIOETHICS ISSUES IN A YEAR 10 BIOTECHNOLOGY PROGRAM" | AUSTRALIA | 427 | Seminar | 05. Biology Education |
| D10 | 15.30 | 16.00 | 30/09/2013 | Meeting Room 2 (Delima) | Ms. Kay Lembo, Faculty Of Sciences, Australia "INDUSTRY-EDUCATION SCIENCE PARTNERSHIPS: AN INTEGRATED APPROACH" | AUSTRALIA | 361 | Seminar | 10. STEM-Science, Technology, Engineering and Mathematics |
| D10 | 16.00 | 16.30 | 30/09/2013 | Meeting Room 2 (Delima) | John Williams, University of Waikato, New Zealand "SECONDARY SCHOOL STEM EDUCATION: WHAT DOES THAT LOOK LIKE?" | NEW ZEALAND | 467 | Seminar | 10. STEM-Science, Technology, Engineering and Mathematics |

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|------------------------------|-------|-------|------------|---------------------------|--|----------------|-----|----------------------------------|---|
| D15 | 15.30 | 16.00 | 30/09/2013 | Meeting Room 4 (Mutiarra) | Dr. Joseph O. Ukwungwu, Federal College Of Education Eha-Amufu, Nigeria "THE NEED FOR DEVELOPING A NEW CURRICULUM ON CLIMATE CHANGE FOR TEACHER EDUCATION IN NIGERIA" | NIGERIA | 168 | Seminar | 15. Sustainability/Environmental Education |
| D15 | 16.00 | 16.30 | 30/09/2013 | Meeting Room 4 (Mutiarra) | Dr. Hazura Ab Bakar, Seameo Recsam, Malaysia "EDUCATION FOR SUSTAINABLE DEVELOPMENT: DOES MALAYSIAN SCIENCE CURRICULUM SUPPORT THE AGENDA?" | MALAYSIA | 175 | Seminar (non reviewed) | 15. Sustainability/Environmental Education |
| D17 | 15.30 | 16.30 | 30/09/2013 | Meeting Room 8 (FIT) | Mrs. Beverly Cooper, University Of Waikato & ICASE, New Zealand "SUPPORTING THE IMPLEMENTATION OF THE NEW ZEALAND CURRICULUM: THE NEW ZEALAND SCIENCE HUB AND EDUCATION FOR SUSTAINABLE DEVELOPMENT" | NEW ZEALAND | 229 | Workshop | 17. Curriculum, Policy And Assessment |
| STREAM - Einsteinian Physics | 15.00 | 15.30 | 30/09/2013 | Meeting Room 7 (Nilam) | Prof. Martin Hendry, University Of Glasgow, United Kingdom "EMBEDDING SPECIAL AND GENERAL RELATIVITY IN THE CURRICULUM FOR EXCELLENCE IN SCOTLAND" | UNITED KINGDOM | 362 | Seminar | 06. Physics/Astronomy Education/ Einsteinian |
| STREAM - Einsteinian Physics | 15.30 | 16.00 | 30/09/2013 | Meeting Room 7 (Nilam) | Prof. Szabolcs Marka, Columbia University, USA "GLOBAL NETWORK FOR GLOBAL EDUCATION: OUTREACH OF THE LIGO SCIENTIFIC COLLABORATION" | USA | 469 | Seminar | 06. Physics/Astronomy Education/ Einsteinian |
| D03 | 16.00 | 16.20 | 30/09/2013 | Meeting Room 7 (Nilam) | Dr Aminat Aderonke Agoro, Emmanuel Alayande College Of Education, Nigeria EFFECT OF REFLECTIVE-RECIPROCAL TEACHING STRATEGIES ON PRE-SERVICE TEACHERS, ACHIEVEMENT IN INTEGRATED SCIENCE AND SCIENCE PROCESS SKILLS IN NIGERIAN COLLEGES OF EDUCATION | NIGERIA | 340 | Peer Reviewed Paper Presentation | 03. University Education/Science Education Research |

| Session E - 1st October 2013 - 13.30 to 14.30 | | | | | | | | | |
|---|-------|-------|-----------|--------------------------------------|--|----------------------|-----|----------------------------------|--|
| E01_Highlighted | 13.30 | 14.30 | 1/10/2013 | Meeting Room 1 (Auditorium Gemilang) | Dr Baohui Zhang. From iMVT to WiMVT: Integrating ICT into Science Learning. Chair Professor Akaneren Essien | CHINA | | Highlighted Presentation | |
| E01 | 13.30 | 13.50 | 1/10/2013 | Meeting Room 3 (Zamrud) | Dr Jase Mousa-Inaty, Zayed University, United Arab Emirates "A CLOSER LOOK AT SCIENCE EDUCATION IN ABU DHABI PRIMARY SCHOOLS THROUGH TEACHER SELF-EFFICACY" | UNITED ARAB EMIRATES | 184 | Peer Reviewed Paper Presentation | 01. Primary/ECE/Elementary School Science Education |
| E01 | 13.50 | 14.10 | 1/10/2013 | Meeting Room 3 (Zamrud) | Mrs. Saudat Bala, Federal College Of Education, Kano, Nigeria "THE USE OF MOTHER TONGUE AS A MEANS OF COMMUNICATION IN THE ENHANCEMENT OF SCIENCE LEARNING IN PRIMARY SCHOOLS: THE NIGERIAN SITUATION" | NIGERIA | 262 | Peer Reviewed Paper Presentation | 01. Primary/ECE/Elementary School Science Education |
| E01 | 14.10 | 14.30 | 1/10/2013 | Meeting Room 3 (Zamrud) | Dr. Pongprapan Pongsophon, Faculty Of Education, Kasetsart University, Thailand "EXPLAINING AND PREDICTING ENVIRONMENTAL ATTITUDE AMONG THAI HIGH SCHOOL STUDENTS BY SELECTED BASIC HUMAN VALUES AND ENVIRONMENTAL KNOWLEDGE" | THAILAND | 323 | Peer Reviewed Paper Presentation | 01. Primary/ECE/Elementary School Science Education |
| E01 | 13.30 | 13.20 | 1/10/2013 | Meeting Room 6 (Serindit 2) | Dr. Lydia Barza, Zayed University, United Arab Emirates "A COMPARISON OF PUBLIC VERSUS PRIVATE SCIENCE EDUCATION IN PRIMARY SCHOOLS: THE CASE OF ABU DHABI" | UNITED ARAB EMIRATES | 195 | Peer Reviewed Paper Presentation | 01. Primary/ECE/Elementary School Science Education |
| E02 | 13.30 | 13.50 | 1/10/2013 | Meeting Room 16 (Library Auditorium) | Prof. Nkadi Onyegebu, University Of Nigeria, Nsukka Enugu State, Nigeria "INTERACTION PATTERNS IN NIGERIAN SENIOR SECONDARY SCHOOL PRACTICAL BIOLOGY CLASSROOM" | NIGERIA | 328 | Peer Reviewed Paper Presentation | 02. Secondary/Middle/Senior School Science Education |
| E02 | 13.50 | 14.10 | 1/10/2013 | Meeting Room 16 (Library Auditorium) | Prof. Anna Pascucci, INDIRE - National Association Of Natural Science Teachers, Italy; A 'BLENDED' MODEL FOR SCIENCE TEACHERS TRAINING Antonella Bachiorri, Vincenzo Boccardi, Giovanni Di Pasquale, Serena Goracci, Riccardo Govoni, Michelina Mayer, Anna Pascucci, Maria Giuseppina Staderini, Giuseppe Valitutti INDIRE (National Institute for Documentation, Innovation and Educational Research), Italy | ITALY | 341 | Peer Reviewed Paper Presentation | 02. Secondary/Middle/Senior School Science Education |
| E02 | 14.10 | 14.30 | 1/10/2013 | Meeting Room 16 (Library Auditorium) | Prof. Imo Edet Umoinyang, Dr Joy Eduwem, Institute Of Education, University Of Calabar, Nigeria "ITEM TYPES AND UPPER BASIC EDUCATION STUDENTS PERFORMANCE IN MATHEMATICS IN THE SOUTHERN SENATORIAL DISTRICT OF CROSS RIVER STATE, NIGERIA" | NIGERIA | 349 | Peer Reviewed Paper Presentation | 02. Secondary/Middle/Senior School Science Education |
| E03 | 13.30 | 14.30 | 1/10/2013 | Meeting Room 2 (Delima) | Professor Lyn Beazley, Chief Scientist of Western Australia "VISION: SEEING ACROSS MANY WAVELENGTHS" | AUSTRALIA | 572 | Seminar | 03. University Education/Science Education Research |
| E04 | 13.30 | 13.50 | 1/10/2013 | Meeting Room 5 (Serindit 1) | Abdullah Ambusaidi, Sultan Qaboos University, Oman "OMANI SCIENCE TEACHERS' PROFESSIONAL IDENTITY FROM THEIR SUPERVISERS PERSPECTIVES" | OMAN | 274 | Peer Reviewed Paper Presentation | 04. Science Research/World Science Projects |

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| E02 | 13.50 | 14.10 | 1/10/2013 | Meeting Room 5 (Serindit 1) | Dr Abiodun Ogunkunle, University of Port Harcourt, Nigeria, Dr Cecilia O. Ekwueme, Department of Curriculum and Teaching, University of Calabar, Cross Rivers State, Nigeria and Gladys Charles-Ogan Department of Curriculum Studies and Educational Technology, University of Port Harcourt. Rivers State, Nigeria. REDEFINING MATHEMATICS CLASSROOM CULTURE FOR SUSTAINABLE DEVELOPMENT IN SENIO SECONDARY SCHOOLS IN RIVERS STATE, NIGERIA | NIGERIA | 412 | Peer Reviewed Paper Presentation | 02. Secondary/Middle/Senior School Science Education |
| E05 | 14.10 | 14.30 | 1/10/2013 | Meeting Room 5 (Serindit 1) | Dr Theresa F. Ekarem, Patrick Uko, and Dr Godwin Ikitde, Akwa Ibom State College Of Education COMPARATIVE EFFECTS OF REFORMULATION OF KNOWLEDGE AND INQUIRY METHODS OF TEACHING ON STUDENTS PERFORMANCE AND RETENTION OF ECOLOGICAL CONCEPTS IN BIOLOGY | NIGERIA | 113 | Peer Reviewed Paper Presentation | 05. Biology Education |
| E10 | 13.30 | 14.00 | 1/10/2013 | Meeting Room 7 (Nilam) | Dr Johanne Patry, JP Instructional Leadership Pédagogique, Canada "PEDAGOGICAL ORIGAMI: CONCEPT MAPPING AND SCIENCE LEARNING" | CANADA | 226 | Seminar | 10. STEM-Science, Technology, Engineering and Mathematics |
| E10 | 14.00 | 14.30 | 1/10/2013 | Meeting Room 7 (Nilam) | Dr Teresa Kennedy, University of Texas at Tyler, USA; and Dr. Michael Odell, University of Texas at Tyler, USA "TEXAS STEM CENTER COALITION TRANSFORMS TEACHING AND LEARNING METHODS" | USA | 445 | Seminar | 10. STEM-Science, Technology, Engineering and Mathematics |
| E15 | 13.30 | 13.50 | 1/10/2013 | Meeting Room 17 | Dr. Ayodele Mandela Asebiomo, Nigerian Educational Research And Development Council (NERDC), Nigeria "EFFECT OF INSTRUCTION IN ENVIRONMENTAL EDUCATION ON SENIOR SCHOOL CHEMISTRY STUDENTS' PERCEPTIONS OF WASTE MANAGEMENT IN ABUJA, NIGERIA" | NIGERIA | 222 | Peer Reviewed Paper Presentation | 15. Sustainability/Environmental Education |
| E15 | 13.50 | 14.10 | 1/10/2013 | Meeting Room 17 | Mrs. Fatima Hamza, Federal College Of Education Kano, Nigeria "EMPLOYING COMEDY AND SOCIAL DRAMA MOVIES AS TOOLS FOR THE PROMOTION OF SUSTAINABLE LIVING IN AFRICA" | NIGERIA | 314 | Peer Reviewed Paper Presentation | 15. Sustainability/Environmental Education |
| E15 | 14.10 | 14.30 | 1/10/2013 | Meeting Room 17 | Mr. Julito Aligaen, Seameo Recsam, Malaysia; and Dominador Dizon Mangao "SUSTAINABILITY SCIENCE: A NEO NORMAL" | MALAYSIA | 319 | Peer Reviewed Paper Presentation | 15. Sustainability/Environmental Education |
| E20 | 13.30 | 13.50 | 1/10/2013 | Meeting Room 15 (BS 4) | Dr. Akpan Udoh, University Of Uyo, Nigeria "STATUS OF SAFETY AWARENESS AMONG SENIOR SECONDARY SCHOOL SCIENCE STUDENTS IN AKWA IBOM STATE OF NIGERIA" | NIGERIA | 329 | Peer Reviewed Paper Presentation | 20.safety in science |
| E07 | 13.50 | 14.10 | 1/10/2013 | Meeting Room 15 (BS 4) | Dr Chinwe Nwagbo, University Of Nigeria, Nigeria EFFECT OF CONCEPT MAPPING TEACHING STRATEGY ON STUDENTS, ACHIEVEMENT IN ENVIRONMENTAL CONCEPTS IN CHEMISTRY | NIGERIA | 244 | Peer Reviewed Paper Presentation | 07. Chemistry Education |
| ICASE SYMPOSIUM - 1/10/13 | | | | | | | | | |
| ICASE SYMPOSIUM | 13.30 | 14.30 | 1/10/2013 | Meeting Room 2 (Delima) | CULTURAL PERSPECTIVES IN TEACHER PROFESSIONAL DEVELOPMENT Modertator : Dr Steven Sexton Christiane Gioppo (Video Call) Mamman Wagasu Lidsay Conner are the other presenters | INTERNATIONAL | 754 | ICASE Symposium | 19. ICASE Symposium |

Session F - 2nd October 2013 - 10.00 to 11.000

| Session F - 2nd October 2013 - 10.00 to 11.000 | | | | | | | | | |
|--|-------|-------|-----------|--------------------------------------|--|----------------|-----|----------------------------------|--|
| F01_Highlighted | 10.00 | 11.00 | 2/10/2013 | Meeting Room 1 (Auditorium Gemilang) | Dr William McComas, University of Arkansas, USA Evolution and recent findings in Biology Chair Professor Miia Rannikmae, ICASE University Liaison. Einsteinian Physics Stream: Dr Ju Li Blair, Bernie Carr, Tejinder Kaur | USA | | Highlighted Presentation | |
| F01 | 10.00 | 10.20 | 2/10/2013 | Meeting Room 3 (Zamrud) | Dr. Idongesit Udosen, University Of Uyo,Uyo, Nigeria "IMPROVISATION OF TECHNOLOGICAL INSTRUCTIONAL MEDIA AND STUDENTS PERFORMANCE IN PRIMARY SCIENCE IN NIGERIAN SCHOOLS" | NIGERIA | 271 | Peer Reviewed Paper Presentation | 01. Primary/ECE/Elementary School Science Education |
| F01 | 10.20 | 10.40 | 2/10/2013 | Meeting Room 3 (Zamrud) | Dr. Sue Dale Tunnicliffe, University of London, United Kingdom "TEACHER QUESTIONS IN INQUIRY BASED SCIENCE-THE SWING GAME WITH 5 YEAR OLDS IN AN ENGLISH SCHOOL" | UNITED KINGDOM | 108 | Peer Reviewed Paper Presentation | 01. Primary/ECE/Elementary School Science Education |
| F01 | 10.40 | 11.00 | 2/10/2013 | Meeting Room 3 (Zamrud) | Mr. Emmanuel Emeji, College Of Education, Nigeria "ASEI-PDSI APPROACH TO THE TEACHING OF BASIC SCIENCE AND TECHNOLOGY IN PRIMARY SCHOOL" | NIGERIA | 415 | Peer Reviewed Paper Presentation | 01. Primary/ECE/Elementary School Science Education |
| F02 | 10.00 | 10.20 | 2/10/2013 | Meeting Room 16 (Library Auditorium) | Mrs Vasundhara Padmanabhan, KJ Somaiya Comprehensive College Of Education and Research, India "CONCEPT MAPPING STRATEGY OF LEARNING SCIENCE TO ENHANCE CONCEPTUAL CLARITY AMONG SECONDARY SCHOOL VERNACULAR MEDIUM STUDENTS" | INDIA | 149 | Peer Reviewed Paper Presentation | 02. Secondary/Middle/Senior School Science Education |
| F02 | 10.20 | 10.40 | 2/10/2013 | Meeting Room 16 (Library Auditorium) | Dr. Ernest Onwukwe, Alvan Ikoku Federal College Of Education, Nigeria; Emmanuel, Akuezuiilo, Nnamdi Azikiwe University, Nigeria and Blessing, Ijioma, Alvan Ikoku Federal College of Education, Nigeria "SCIENCE DRAMA: CLUE TO UNDER ACHIEVEMENT IN SECONDARY SCHOOL CHEMISTRY?" | NIGERIA | 232 | Peer Reviewed Paper Presentation | 02. Secondary/Middle/Senior School Science Education |
| F02 | 10.40 | 11.00 | 2/10/2013 | Meeting Room 16 (Library Auditorium) | Dr Declan Kennedy, University College Cork, Ireland "THE ROLE OF INVESTIGATIONS IN PROMOTING INQUIRY-BASED SCIENCE EDUCATION IN IRELAND" | IRELAND | 418 | Peer Reviewed Paper Presentation | 02. Secondary/Middle/Senior School Science Education |
| F03 | 10.00 | 10.20 | 2/10/2013 | Meeting Room 2 (Delima) | Ms Sue Wilson, Australian Catholic University, Australia "THE INFLUENCE OF SCHOOL SCIENCE TEACHERS - THE DIFFERENTIAL IMPORTANCE ATTRIBUTED BY MALES AND FEMALES TO ENCOURAGEMENT FROM SCIENCE TEACHERS" | AUSTRALIA | 378 | Peer Reviewed Paper Presentation | 03. University Education/Science Education Research |
| F03 | 10.20 | 10.40 | 2/10/2013 | Meeting Room 2 (Delima) | Tavasuria Elangovan, School of Educational Studies, Universiti Sains Malaysia, Malaysia; and Zurida Ismail "EFFECTIVENESS OF REALISTIC SIMULATION AND NON-REALISTIC SIMULATION ON STUDENTS' ACHIEVEMENT AND MEMORY RETENTION IN THE LEARNING OF CELL DIVISION" | MALAYSIA | 465 | Peer Reviewed Paper Presentation | 03. University Education/Science Education Research |

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| F03 | 10.40 | 11.00 | 2/10/2013 | Meeting Room 2 (Delima) | Dr. Andrew Whyte, Curtin University, Australia "UNDERGRADUATE CIVIL-ENGINEERING TRAINING REQUIREMENTS TO FACILITATE INTEGRATED PROJECT DELIVERY (IPD)" | AUSTRALIA | 105 | Peer Reviewed Paper Presentation | 03. University Education/Science Education Research |
| F07 | 10.00 | 10.20 | 2/10/2013 | Meeting Room 9 (FRST Tutorial Room 1) | Prof Iroha Kalu, University of Calabar, Nigeria; and Cecilia Nja, University of Calabar, Nigeria "EFFECT OF TEACHING WITH KITCHEN RESOURCES ON STUDENTS' ACADEMIC PERFORMANCE AND RETENTION IN THERMOCHEMISTRY IN CROSS RIVER STATE, NIGERIA" | NIGERIA | 392 | Peer Reviewed Paper Presentation | 07. Chemistry Education |
| F07 | 10.20 | 10.40 | 2/10/2013 | Meeting Room 9 (FRST Tutorial Room 1) | Dr. Bing Wei, University Of Macau, China "EXAMINING THE SENIOR SECONDARY SCHOOL CHEMISTRY CURRICULUM IN CHINA: IN THE VIEW OF SCIENTIFIC LITERACY" | CHINA | 208 | Peer Reviewed Paper Presentation | 07. Chemistry Education |
| F07 | 10.40 | 11.00 | 2/10/2013 | Meeting Room 9 (FRST Tutorial Room 1) | Dr. Anthonia Ugwu, University Of Uyo, Uyo. Akwa Ibom State, Nigeria "CREATING CHANGE THROUGH INTEGRATION OF INDIGENOUS KNOWLEDGE AND PRACTICES INTO CHEMISTRY TEACHING FOR SUSTAINABLE LIVING" | NIGERIA | 313 | Peer Reviewed Paper Presentation | 07. Chemistry Education |
| F17 | 10.00 | 10.20 | 2/10/2013 | Meeting Room 8 (FIT) | Dr Helen Ibe, Imo State University Owerri, Nigeria "USE OF FORMATIVE COMPUTER-BASED ASSESSMENT IN FIELD WORK BIOLOGY" | NIGERIA | 194 | Peer Reviewed Paper Presentation | 17. Curriculum, Policy And Assessment |
| F17 | 10.20 | 10.40 | 2/10/2013 | Meeting Room 8 (FIT) | Dr. Benneth Uzoechi, Nasarawa State University, Keffi, Nigeria "PRE-SERVICE SCIENCE TEACHERS' LEVEL OF AWARENESS OF STRATEGIES FOR ADAPTING TO THE IMPACT OF CLIMATE CHANGE IN NIGERIA" | NIGERIA | 346 | Peer Reviewed Paper Presentation | 17. Curriculum, Policy And Assessment |
| F17 | 10.40 | 11.00 | 2/10/2013 | Meeting Room 8 (FIT) | Mr Stefaan Vande Walle, VVOB Cambodia "INTRODUCING STUDENT CENTRED APPROACHES IN PRE-SERVICE SCIENCE TEACHER EDUCATION IN CAMBODIA" | CAMBODIA | 204 | Peer Reviewed Paper Presentation | 17. Curriculum, Policy And Assessment |
| STREAM - Einsteinian Physics | 10.00 | 10.20 | 2/10/2013 | Meeting Room 7 (Nilam) | Dr Ju Li, University of Western Australia "EXHIBITS FOR PUBLIC EDUCATION ON EINSTEINIAN PHYSICS AND GRAVITATIONAL WAVES" | AUSTRALIA | 422 | Poster Presentation Within Stream | 06. Physics/Astronomy Education/ Einsteinian |
| STREAM - Einsteinian Physics | 10.20 | 10.40 | 2/10/2013 | Meeting Room 7 (Nilam) | Dr Bernard Carr, University of Western Australia "WHY WE NEED TO USE DRAMA TO ENGAGE STUDENTS WITH EINSTEINIAN PHYSICS IN PRIMARY SCHOOL SCIENCE" | AUSTRALIA | 367 | Poster Presentation within Stream | 06. Physics/Astronomy Education/ Einsteinian |
| STREAM - Einsteinian Physics | 10.40 | 11.00 | 2/10/2013 | Meeting Room 7 (Nilam) | Ms. Tejinder Kaur, University Of Western Australia, Australia "TOOLS AND MODELS FOR TEACHING EINSTEINIAN PHYSICS" | AUSTRALIA | 287 | Peer Reviewed Paper Presentation | 06. Physics/Astronomy Education/ Einsteinian |

| Session G - Prof Eunice - 2nd October 2013 - 14.00 to 15.00 | | | | | | | | | |
|---|-------|-------|-----------|--|---|---------------|-----|----------------------------------|---|
| G03_Highlighted | 14.00 | 15.00 | 2/10/2013 | Meeting Room 14 (BS 3) | Prof. Eunice Okeke, Faculty Of Education, Abia State University, Uturu, Nigeria "BEST PRACTICES IN DISSEMINATION AND UTILISATION OF SCIENCE EDUCATION RESEARCH FINDINGS." | NIGERIA | 343 | Forum | 03. University Education/Science Education Research |
| G02 | 14.00 | 14.30 | 2/10/2013 | Meeting Room 9 (FRST Tutorial 1) | Dr. Constant Atiatah, College Of Education Afaha Nsit, Akwa Ibom State, Nigeria "IMPERATIVES OF STEM TEACHERS IN MEETING THE CHALLENGES OF BASIC SCIENCE TEACHING IN NIGERIA THROUGH REFLECTIVE TEACHING" | NIGERIA | 299 | Seminar (non reviewed) | 02. Secondary/Middle/Senior School Science Education |
| G03 | 14.00 | 14.20 | 2/10/2013 | Meeting Room 10 (FRST Tutorial Room 2) | Prof. Uchenna Nzewi, University Of Nigeria, Nsukka, Nigeria "INTEGRATION OF ICT IN BIOLOGY TEACHING: A CASE STUDY OF A TERTIARY TEACHER EDUCATION INSTITUTION IN NIGERIA" | NIGERIA | 388 | Peer Reviewed Paper Presentation | 03. University Education/Science Education Research |
| G03 | 14.20 | 14.40 | 2/10/2013 | Meeting Room 10 (FRST Tutorial Room 2) | Dr. Andrew Whyte, Curtin University, Australia "CROSS-DISCIPLINARY PROJECT-WORK, INTEGRATED WITHIN UNDERGRADUATE CONSTRUCTION COURSE STRUCTURES." | AUSTRALIA | 106 | Peer Reviewed Paper Presentation | 03. University Education/Science Education Research |
| G03 | 14.00 | 14.30 | 2/10/2013 | Meeting Room 15 (BS 4) | Prof. Mamman Audu Wasagu, Federal College Of Education Katsina, Nigeria; and Aliyu Umar Mohammed "CREATIVE SCIENCE, ITS BENEFIT AND STRATEGIES NEEDED FOR TEACHING IT IN RURAL AREAS OF AFRICA" | NIGERIA | 300 | Seminar | 03. University Education/Science Education Research |
| G03 | 14.00 | 14.20 | 2/10/2013 | Meeting Room 2 (Delima) | Dr Andrew Whyte, Curtin University, Australia "CONTRACTUAL ARRANGMENTS FOR BUILDING: AN EDUCATIONAL GUIDANCE TOOL FOR UNDERGRADUATE CIVIL-ENGINEERS" | AUSTRALIA | 104 | Peer Reviewed Paper Presentation | 03. University Education/Science Education Research |
| G03 | 14.20 | 14.40 | 2/10/2013 | Meeting Room 10 (FRST Tutorial Room 2) | Dr. Andrew Whyte, Curtin University, Australia "CROSS-DISCIPLINARY PROJECT-WORK, INTEGRATED WITHIN UNDERGRADUATE CONSTRUCTION COURSE STRUCTURES." | AUSTRALIA | 106 | Peer Reviewed Paper Presentation | 03. University Education/Science Education Research |
| G03 | 14.40 | 14.50 | 2/10/2013 | Meeting Room 2 (Delima) | Mr Prabir Sarker, Curtin University, Australia "ACTIVE LEARNING BY INVOLVEMENT IN CLASSROOM" | AUSTRALIA | 216 | Peer Reviewed Paper Presentation | 03. University Education/Science Education Research |
| G03 | 14.40 | 15.00 | 2/10/2013 | Meeting Room 2 (Delima) | Mr Mohamad Hisyam Ismail, Universiti Teknologi MARA, Malaysia; N. A. Alias, Universiti Teknologi MARA, Malaysia; and N. Abdullah, Universiti Teknologi MARA, Malaysia "INFORMAL SCIENCE LEARNING THROUGH MEDIA: A COMPARISON BETWEEN MALAYSIAN AND BRITISH ADVERTISEMENT CHARACTERISTICS" | MALAYSIA | 373 | Peer Reviewed Paper Presentation | 03. University Education/Science Education Research |
| G06 | 14.20 | 14.40 | 2/10/2013 | Meeting Room 6 (Serindit 2) | Mr. Jong Tze Kian, National Space Agency, Malaysia "LEARN PHYSICS WITH A WATER-PROPELLED ROCKET" | MALAYSIA | 430 | Seminar | 06. Physics/Astronomy Education |
| G16 | 14.40 | 15.00 | 2/10/2013 | Meeting Room 6 (Serindit 2) | Dr Abigail Osuafor, Madeline Nwankwo, and Bernadette Ezeliora, Nnamdi Azikiwe University Awka, Nigeria, BASIC SCIENCE STUDENTS' AWARENESS OF THE IMPORTANCE, METHODS AND PROBLEMS OF AND ATTITUDE TO WASTE MANAGEMENT IN ANAMBRA STATE, NIGERIA: IMPLICATIONS FOR SUSTAINABLE ENVIRONMENT | NIGERIA | 130 | Peer Reviewed Presentation | 15. Sustainability/Environmental Education |
| G10 | 14.00 | 15.00 | 2/10/2013 | Meeting Room 16 (Library Auditorium) | Dr. Lauren Birney, Pace University, USA; Dr. Jonathan H. Hill "BUILDING STEM EDUCATION WITH MULTINATIONALS" | UNITED STATES | 303 | Workshop | 10. STEM-Science, Technology, Engineering and Mathematics |

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| G10 | 14.00 | 14.20 | 2/10/2013 | Meeting Room 3 (Zamrud) | A/Prof Clemente Onwu Iji, The University of Agriculture, Nigeria "LOVE LEARNING AND CREATE CHANGE IN SCIENCE AND TECHNOLOGY THROUGH EFFECTIVE MATHEMATICS EDUCATION AT THE UPPER BASIC EDUCATION LEVEL IN BENUE STATE, NIGERIA" | NIGERIA | 147 | Peer Reviewed Paper Presentation | 10. STEM-Science, Technology, Engineering and Mathematics |
| G10 | 14.20 | 14.40 | 2/10/2013 | Meeting Room 3 (Zamrud) | Dr. Catherine Omole, Polytechnic, Nigeria "STEM EDUCATION AS A TOOL FOR ACHIEVING THE MILLENNIUM DEVELOPMENT GOALS (IN NIGERIA)" | NIGERIA | 403 | Peer Reviewed Paper Presentation | 10. STEM-Science, Technology, Engineering and Mathematics |
| G10 | 14.00 | 14.20 | 2/10/2013 | Meeting Room 7 (Nilam) | Prof. Michael Adikwu, Science And Technology Education Post-Basic, Nigeria "SCIENCE AND TECHNOLOGY EDUCATION INITIATIVES IN NIGERIA: THE CASE OF STEP-B" | NIGERIA | 238 | Peer Reviewed Paper Presentation | 10. STEM-Science, Technology, Engineering and Mathematics |
| G10 | 14.20 | 14.40 | 2/10/2013 | Meeting Room 7 (Nilam) | Mr. Teh Tik Seng, SMK Sacred Heart, Malaysia "ENHANCING EFFICIENCY OF STUDENTS STUDY AND PROBLEM SOLVING IN MATHEMATICS PLAN AND ELEVATION BY EZ DRAWING TECHNIQUE" | MALAYSIA | 210 | Peer Reviewed Paper Presentation | 10. STEM-Science, Technology, Engineering and Mathematics |
| G17 | 14.40 | 15.00 | 2/10/2013 | Meeting Room 7 (Nilam) | Dr Billy McClune, School of Education, Queens University Belfast DEVELOPING A CRITICAL EYE FOR READING MEDIA REPORTS OF SCIENCE | IRELAND | 805 | Peer Reviewed Presentation | 17. Curriculum, Policy And Assessment |
| G18 | 14.00 | 15.00 | 2/10/2013 | Meeting Room 4 (Mutiara) | Prof. Anna Pascucci, ANISN - National Association Of Natural Science Teachers, Italy; A SYSTEMATIC APPROACH TO IBSE IMPLEMENTATION IN ITALY : BUILDING A MODEL THROUGH THE PROGRAM "SCIENTIAM INQUIRENDO DISCERE" - SID A. Pascucci, A. Alfano, P.Bortolon, G.Forni, R. La Torraca, A. Lepre, I.Marini, F.Pagani National Association of Natural Science Teachers –ANISN, Italy School of Advanced Studies, University of Camerino, Italy | ITALY | 339 | Symposium | 18. Science Education Associations/Academies |

| Session H - 2nd October 2013 - 15.00 to 16.00 | | | | | | | | | |
|---|-------|-------|-----------|--------------------------------------|---|----------------|-----|--------------------------------------|--|
| H01_Highlighted | 15.00 | 16.00 | 2/10/2013 | Meeting Room 1 (Auditorium Gemilang) | Professor Dato Dr Aminah Ayob, Former Vice Chancellor of Sultan Idris Education University, Malaysia, held key positions in UNESCO and IOSTE. Early Years Education Chair Dr Jingyi Jiang | MALAYSIA | | Highlighted Presentation | |
| H01 | 15.00 | 15.30 | 2/10/2013 | Meeting Room 3 (Zamrud) | Dr. Ari Widodo, Indonesia University Of Education, Indonesia "PRIMARY SCHOOL TEACHERS' UNDERSTANDING OF SCIENCE AND ITS IMPLICATION FOR TEACHER PROFESSIONAL DEVELOPMENT" | INDONESIA | 331 | Seminar | 01. Primary/ECE/Elementary School Science Education |
| H01 | 15.30 | 16.00 | 2/10/2013 | Meeting Room 3 (Zamrud) | Mrs. Mady Colquhoun, Armadale Primary School, Australia "KULPARTI CALAMITY – (OR SAVING REMNANT BUSHLAND THROUGH TEACHING BIOLOGY)" | AUSTRALIA | 198 | Seminar | 01. Primary/ECE/Elementary School Science Education |
| H02 | 15.00 | 15.30 | 2/10/2013 | Meeting Room 16 (Library Auditorium) | Dr. Yoon Fah Lay, Universiti Malaysia Sabah, Malaysia "RELATIONSHIP BETWEEN THE ACQUISITION OF 21ST CENTURY SKILLS AND CHEMISTRY SELF-EFFICACY AMONG SECONDARY SCHOOL SCIENCE STUDENTS" | MALAYSIA | 190 | Seminar (non reviewed - no synopsis) | 02. Secondary/Middle/Senior School Science Education |
| H02 | 15.30 | 16.00 | 2/10/2013 | Meeting Room 16 (Library Auditorium) | Mr. David Jones, International Baccalaureate Organization, Netherlands "THE INTERNATIONAL BACCALAUREATE DIPLOMA SCIENCE PROGRAMME" | NETHERLANDS | 199 | Seminar (non Reviewed) | 02. Secondary/Middle/Senior School Science Education |
| H11 | 15.00 | 15.30 | 2/10/2013 | Meeting Room 6 (Serindit 2) | Dr. Zsuzsa Marka, Columbia University, USA "IMPACT OF ALL STAR SCIENCE EXPO IN URBAN SCHOOLS" | UNITED STATES | 468 | Seminar | 11. Non-Formal STE (Museums, Centres) |
| H11 | 15.30 | 16.00 | 2/10/2013 | Meeting Room 6 (Serindit 2) | Mr. Bruce Etherington, Cardiff University, United Kingdom "DEVELOPING THE CAPACITY OF UNIVERSITIES FOR PUBLIC ENGAGEMENT WITH STEM" | UNITED KINGDOM | 324 | Seminar | 11. Non-Formal STE (Museums, Centres) |
| H03 | 15.00 | 15.30 | 2/10/2013 | Meeting Room 7 (Nilam) | Dr Meaza Zerihun Demissie, CRDF Global BUILDING SCIENCE AND TECHNOLOGY CAPACITY, THE CASE OF CRDF GLOBAL | USA | 477 | Seminar (non reviewed) | 03. University Education/Science Education Research |
| H03 | 15.30 | 15.50 | 2/10/2013 | Meeting Room 7 (Nilam) | Jay Marhadale and Tan Kok Siang REFLECTIVE LEARNING FOR HIGHER ORDER THINKING | SINGAPORE | 429 | Peer Reviewed Paper Presentation | 03. University Education/Science Education Research |
| H17 | 15.00 | 15.30 | 2/10/2013 | Meeting Room 8 (FIT) | Kui Kian Chong, Ministry Of Education, Brunei "INQUIRY BASED SCIENCE EDUCATION IN BRUNEI DARUSSALAM: FINDINGS OF A 5-YEAR PROGRAM REVIEW" | BRUNEI | 360 | Seminar | 17. Curriculum, Policy And Assessment |
| H17 | 15.30 | 16.00 | 2/10/2013 | Meeting Room 8 (FIT) | Stephen Sexton, University of Waikato; Chair ICASE Standing Committee for Pre-secondary science education, New Zealand "EXPLORING THE 'WOW', THE WHAT AND THE WHY IN PRIMARY SCIENCE" | NEW ZEALAND | 461 | Seminar | 17. Curriculum, Policy And Assessment |
| ICASE SYMPOSIUM - 2/10/13 | | | | | | | | | |
| ICASE SYMPOSIUM | 14.00 | 15.00 | 2/10/2013 | Meeting Room 2 (Delima) | Moderator : Dr Jack Holbrook ICASE European partner projects – PROFILES and ESTABLISH and ENGINEER Discussants: Prof Jack Holbrook, ICASE Past President; Prof Miia Rannikmae, University of Tartu & ICASE, Klaara Kask, University of Tartu, Establish project, The symposium addresses the live science, love learning, create change through 2 presentations 1. The PROFILES project Jack Holbrook, Miia Rannikmae, Bulent Cavas, Declan Kennedy 2. The ESTABLISH project Miia Rannikmae , Jack Holbrook, Anne Laius, Ana Valdmann | ESTONIA | 802 | ICASE Symposium | 19. ICASE Symposium |

| ICASE SYMPOSIUM - 2/10/13 | | | | | | | | | |
|---------------------------|-------|-------|-----------|-------------------------|--|---------|-----|-----------------|--|
| ICASE SYMPOSIUM | 15.00 | 15.30 | 2/10/2013 | Meeting Room 2 (Delima) | Prof Jack Holbrook, University of Tartu, Estonia and ICASE Past President, Estonia "A PHILOSOPHICAL APPROACH TO ENHANCING STUDENT MOTIVATION FOR THE PROMOTION OF SCIENTIFIC LITERACY" Including presentations by Bulent | ESTONIA | 456 | ICASE Symposium | 19.ICASE Symposium |
| ICASE SYMPOSIUM | 15.30 | 16.00 | 2/10/2013 | Meeting Room 2 (Delima) | Dr Bulent Cavas, Dokuz Eylul Universitesi; ICASE Chair of the ICASE Standing Committee for Publications, Turkey "THE USE OF ROBOTICS IN MOTIVATIONAL INQUIRY-BASED SCIENCE EDUCATION" | TURKEY | 457 | ICASE Symposium | 18. Science Education Associations/Academies |
| ICASE SYMPOSIUM | 16.00 | 16.30 | 2/10/2013 | Meeting Room 2 (Delima) | Prof Miiia Rannikmae, University of Tartu; Chair, ICASE Standing Committee on University Links, Estonia "USE OF MICROSCALE EQUIPMENT IN PROMOTING INQUIRY-BASED SCIENCE EDUCATION" | ESTONIA | 459 | Seminar | 18. Science Education Associations/Academies |
| ICASE SYMPOSIUM | 16.30 | 17.00 | 2/10/2013 | Meeting Room 2 (Delima) | Dr. Declan Kennedy, University College Cork and ICASE European Representative, Ireland "THE USE OF DATA-LOGGING IN PROMOTING SCIENTIFIC LITERACY" | IRELAND | 458 | ICASE Symposium | 19.ICASE Symposium |

| Session I - 2nd October 2013 - 16.00 to 17.00 | | | | | | | | | |
|---|-------|-------|-----------|--------------------------------------|---|----------------|-----|----------------------------------|---|
| I01_Highlighted | 16.00 | 17.00 | 2/10/2013 | Meeting Room 1 (Auditorium Gemilang) | Professor Peter Quinn, World Science Project – The Square Kilometre Array, Co-Chair Astronomy and Einsteinian Physics Education Stream. Australia Chair Dr Michael Odell | AUSTRALIA | | Highlighted Presentation | |
| I01 | 16.00 | 17.00 | 2/10/2013 | Meeting Room 3 (Zamrud) | Mr. Stuart Naylor, Millgate House Education, United Kingdom “CONCEPT CARTOONS: WHAT HAVE WE LEARNT?” | UNITED KINGDOM | 155 | Workshop | 01. Primary/ECE/Elementary School Science Education |
| I02 | 16.00 | 17.00 | 2/10/2013 | Meeting Room 7 (Nilam) | Ms Meg Bailey, O'Loughlin Catholic College, Australia; Eda Ozdogru, Dokuz Eylul University, Turkey; Teoman Kesercioglu, Dokuz Eylul University, Turkey and Bulent Cavas, Dokuz Eylul University, Turkey, Simon Aylott Science & Drama Teacher, Australia O'Loughlin Catholic College “DRAMA IN SCIENCE” | AUSTRALIA | 424 | Workshop | 02. Secondary/Middle/Senior School Science Education |
| I02 | 16.00 | 17.00 | 2/10/2013 | Meeting Room 16 (Library Auditorium) | Dr. Mary Oliver, University Of Western Australia, Australia “HOW 'THINKING SCIENCE' CHANGES TEACHING: A PROGRAM OF TEACHER PROFESSIONAL DEVELOPMENT IS AN EFFECTIVE INTERVENTION IN IMPROVING THINKING AND LEARNING IN SCIENCE CLASSES” | AUSTRALIA | 163 | Workshop | 02. Secondary/Middle/Senior School Science Education |
| I15 | 16.00 | 16.30 | 2/10/2013 | Meeting Room 2 (Delima) | Authors/Affiliation: Dr. Cheryl Sundberg, University of Alabama, USA Dr. Teresa Kennedy, University of Texas at Tyler, USA Dr. Michael Odell, University of Texas at Tyler, USA Dr. Dianne Robinson, Hampton University, USA “WEATHER, CLIMATE, WEB 2.0: 21ST CENTURY STUDENTS SPEAK CLIMATE SCIENCE WELL” | USA | 442 | Seminar | 15. Sustainability/Environmental Education |
| I05 | 16.30 | 16.50 | 2/10/2013 | Meeting Room 2 (Delima) | Prof Zephrius Njoku, University Of Nigeria, Nsukka, Nigeria and Dr Josephine Nwanneka, Okoli THE GAPS BETWEEN TEACHERS' CLASSROOM PRACTICES AND BIOLOGY EDUCATION RESEARCH FINDINGS IN NIGERIA: NEED FOR INTEGRATION | NIGERIA | 284 | Peer Reviewed Paper Presentation | 05. Biology Education |
| I10 | 16.00 | 17.00 | 2/10/2013 | Meeting Room 14 (BS 3) | Dr. Johanne Patry, JP Instructional Leadership Pédagogique, Canada; Ingo Salzmänn; and Tanja Tajmel “SCIENCE ON STAGE: A TEACHER ORIENTED APPROACH TO SCIENCE LEARNING AND NETWORKING IN AN INTERNATIONAL COMMUNITY” | CANADA | 269 | (Seminar - non reviewed) | 10. STEM-Science, Technology, Engineering and Mathematics |
| I11 | 16.00 | 16.30 | 2/10/2013 | Meeting Room 6 (Serindit 2) | Mr. Bryan Wunar, Museum Of Science And Industry, USA; and Nicole Kowrach, Museum of Science and Industry, USA “REDEFINING THE ROLE OF MUSEUMS IN ADVANCING SCIENCE EDUCATION” | UNITED STATES | 344 | Seminar (non Peer Reviewed) | 11. Non-Formal STE (Museums, Centres) |
| I06 | 16.30 | 16.50 | 2/10/2013 | Meeting Room 6 (Serindit 2) | Prof. Uchenna Nzewi, University Of Nigeria, Nsukka, Nigeria “EFFECT OF VIDEOTAPED INSTRUCTION AND THE LEARNING CYCLE CONSTRUCTIVIST MODEL ON SECONDARY SCHOOL PHYSICS STUDENTS INTEREST AND ACHIEVEMENT” | NIGERIA | 241 | Peer Reviewed Paper Presentation | 06. Physics/Astronomy Education |
| I15 | 16.00 | 17.00 | 2/10/2013 | Meeting Room 5 (Serindit 1) | Robin McKean; Tonia Ranford and Stephanie O'Gorman (Co-presenting), St Hilda's School, Australia “E-SCAPE” | AUSTRALIA | 441 | Workshop | 15. Sustainability/Environmental Education |

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| 117 | 16.00 | 17.00 | 2/10/2013 | Meeting Room 8 (FIT) | Dr. Michael Padilla, Clemson University, USA "NEXT GENERATION SCIENCE STANDARDS: STIMULATING CHANGE IN US SCIENCE EDUCATION" | UNITED STATES | 240 | Symposium | 17. Curriculum, Policy And Assessment |
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| Session J - 3rd October 2013 - 13.30 to 14.30 | | | | | | | | | |
|---|-------|-------|-----------|--|---|----------------|-----|---|---|
| J01_Highlighted | 13.30 | 14.30 | 3/10/2013 | Meeting Room 1 (Auditorium Gemilang) | Dr John Oversby. "Drugs, bananas and earrings." Chair Dr Janchai Yingprayoon, ICASE, Science Centres | UNITED KINGDOM | | Highlighted Presentation | |
| J01 | 13.30 | 13.50 | 3/10/2013 | Meeting Room 3 (Zamrud) | Dr. Aloysius Ugwu, College Of Education, Nigeria, Emmanuel La'ah; and Olotu A "ENTREPRENEURSHIP; PERFORMANCE INDICATOR FOR INNOVATIVE/SKILL ACQUISITION: IMPERATIVE TO PEDAGOGY OF SCIENCE AND TECHNOLOGY EDUCATION (STE)" | NIGERIA | 333 | Peer Reviewed Paper Presentation | 01. Primary/ECE/Elementary School Science Education |
| J01 | 13.50 | 14.10 | 3/10/2013 | Meeting Room 3 (Zamrud) | Dr. Pamela Harrell, Dr Karthigeyan Subramaniam, University Of North Texas, USA "PROSPECTIVE ELEMENTARY TEACHERS' KNOWLEDGE OF DISSOLVING: A VYGOTSKIAN THEORY OF CONCEPT DEVELOPMENT PERSPECTIVE" | UNITED STATES | 218 | Peer Reviewed Paper Presentation | 01. Primary/ECE/Elementary School Science Education |
| J01 | 14.10 | 14.30 | 3/10/2013 | Meeting Room 3 (Zamrud) | Mr. Mitsuru Nakajo, Kochi University, Japan "A NEW ARRANGEMENT FOR CULTIVATING PRIMARY STUDENTS IN METACOGNITION" | JAPAN | 187 | Peer Reviewed Paper Presentation | 01. Primary/ECE/Elementary School Science Education |
| 131 | 13.30 | 13.50 | 3/10/2013 | Meeting Room 5 (Serindit 1) | Dr Nyet Moi Siew, Universiti Malaysia Sabah LEARNING PROBABILITY IN ART STREAM CLASSES: DO COLOUR BALLS WITH STAD-COOPERATIVE LEARNING HELP IN IMPROVING STUDENT'S PERFORMANCE? | MALAYSIA | 280 | Peer Reviewed Paper Presentation | 01. Primary/ECE/Elementary School Science Education |
| J12 | 13.50 | 14.10 | 3/10/2013 | Meeting Room 5 (Serindit 1) | Devadason Robert Peter, Seameo Recsam, Malaysia "EFFECTIVENESS OF AN ICT BASED CONSTRUCTION TASK ON THE LEARNING OF MOON PHASES" | MALAYSIA | 416 | Peer Reviewed Paper Presentation | 12. Technology Education And Research |
| J16 | 13.30 | 13.50 | 3/10/2013 | Meeting Room 10 (FRST Tutorial Room 2) | Munise Seckin Kapucu, Eskisehir Osmangazi University, Turkey; Gultekin Cakmakci, Hacettepe University, Turkey; and Cemil Aydogdu, Hacettepe University, Turkey "USING DOCUMENTARY MOVIES FOR DEVELOPING 8TH GRADE STUDENTS' UNDERSTANDING ABOUT SCIENCE AND NATURE OF SCIENCE" | TURKEY | 500 | Non - reviewed Peer Reviewed Paper Presentation | 16. Science in Society/Nature of Science |
| J16 | 13.50 | 14.10 | 3/10/2013 | Meeting Room 10 (FRST Tutorial Room 2) | Dr. Kate Rice, Education Support Services, University Of Otago College Of Education, New Zealand "BUILDING NATURE OF SCIENCE: PROFESSIONAL DEVELOPMENT MODEL TO ENHANCE TEACHING PRACTICE" | NEW ZEALAND | 215 | Peer Reviewed Paper Presentation | 16. Science in Society/Nature of Science |
| J16 | 14.10 | 14.30 | 3/10/2013 | Meeting Room 10 (FRST Tutorial Room 2) | A/ Prof. Agnaldo Arroio, University Of São Paulo, Brazil "FOSTERING A GROUP OF SCIENCE TEACHERS SUPPORTED BY AUDIOVISUAL RESOURCES TO APPROACH THE NATURE OF SCIENCE IN TEACHING SITUATIONS" | BRAZIL | 266 | Peer Reviewed Paper Presentation | 16. Science in Society/Nature of Science |
| J17 | 13.30 | 13.50 | 3/10/2013 | Meeting Room 8 (FIT) | Dr. Khar Thoe Ng, Seameo Recsam, Malaysia "INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) IN SCIENCE EDUCATION: LESSONS LEARNT AND THE WAY FORWARD (REVISED VERSION)" | MALAYSIA | 423 | Peer Reviewed Paper Presentation | 17. Curriculum, Policy And Assessment |
| G03 | 14.00 | 14.20 | 2/10/2013 | Meeting Room 2 (Delima) | Dr Andrew Whyte, Curtin University, Australia "CONTRACTUAL ARRANGMENTS FOR BUILDING: AN EDUCATIONAL GUIDANCE TOOL FOR UNDERGRADUATE CIVIL-ENGINEERS" | AUSTRALIA | 104 | Peer Reviewed Paper Presentation | 03. University Education/Science Education Research |
| J20 | 13.30 | 14.00 | 3/10/2013 | Meeting Room 7 (Nilam) | Jerri Gray, Deakin University "WHY DIDN'T THEY TELL ME"? EDUCATION IN THE WORKPLACE | AUSTRALIA | 801 | Seminar | 20.safety in science |

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| J17 | 13.30 | 14.30 | 3/10/2013 | Meeting Room 6 (Serindit 2) | Dr Billy McClune, School of Education, Queens University Belfast TEACHING WITH SCIENCE IN THE NEWS: AN INTERDISCIPLINARY APPROACH TO SUPPORT CURRICULUM AND PROFESSIONAL DEVELOPMENT | IRELAND | 804 | Workshop | 17. Curriculum, Policy And Assessment |
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| ICASE Symposium - 3/10/13 | | | | | | | | | |
|------------------------------|--------------|--------------|------------------|---|---|--------------------|-----|---------------------------------|--|
| ICASE SYMPOSIUM | 13.30 | 14.00 | 3/10/2013 | Meeting Room 2 (Delima) | Dr. Janchai Yingprayoon, Chair ICASE standing committee for ICASE Science Education Centres, Thailand "BUILDING ON THE POPULARISATION OF SCIENCE" | THAILAND | 462 | ICASE Symposium | 19.ICASE Symposium |
| ICASE SYMPOSIUM | 14.00 | 14.30 | 3/10/2013 | Meeting Room 2 (Delima) | Dr Bulent Cavas, Dokuz Eylul Universitesi, ICASE Chair of the ICASE Standing Committee for Publications, Turkey "THE NEED FOR PRIMARY SCIENCE – ITS PURPOSE AND GOALS" | TURKEY | 460 | ICASE Symposium | 19.ICASE Symposium |
| ICASE SYMPOSIUM | 14.30 | 15.00 | 3/10/2013 | Meeting Room 2 (Delima) | Prof Jack Holbrook, University of Tartu, Estonia and ICASE Past President, Estonia "INTRODUCING ENGINEERING IN THE PRIMARY SCIENCE CURRICULUM" | ESTONIA | 752 | ICASE Symposium | 19.ICASE Symposium |
| ICASE SYMPOSIUM | 15.00 | 15.30 | 3/10/2013 | Meeting Room 2 (Delima) | Steven Sexton, Dr. Steven Sexton, College Of Education, New Zealand EXPLORING THE 'WOW', THE 'WHAT' AND THE 'WHAY' IN PRIMARY SCIENCE | NEW ZEALAND | 753 | ICASE Symposium | 19.ICASE Symposium |
| Session K - 3rd October 2013 | | | | | | | | | |
| K01_Highlighted | 14.30 | 15.30 | 3/10/2013 | Meeting Room 1 (Auditorium Gemilang) | Di Hartwell. Project Manager for the Learning Hubs project (The Science Learning Hub and the Biotechnology Learning Hub) based at the University of Waikato, New Zealand. Regional centres for sharing learning. Chair Debra Smith, Past President ASTA. | NEW ZEALAND | | Highlighted Presentation | |
| K01 | 14.30 | 15.00 | 3/10/2013 | Meeting Room 3 (Zamrud) | Ms. Sue John, Caerau Children's Centre, United Kingdom "DEVELOPING THE SCIENTIFIC CURIOSITY OF 3 TO 7 YEAR OLDS" | UNITED KINGDOM | 321 | Seminar | 01. Primary/ECE/Elementary School Science Education |
| K01 | 15.00 | 15.30 | 3/10/2013 | Meeting Room 3 (Zamrud) | Mustapha Mohammed Tajordeen, Science Education, Nigeria "ADOPTING HUMANISTIC APPROACH TO TEACHING SCIENCE IN INCLUSIVE CLASS" | NIGERIA | 312 | Seminar (non reviewed) | 01. Primary/ECE/Elementary School Science Education |
| K01 | 15.00 | 16.00 | 3/10/2013 | Meeting Room 1 (Auditorium Gemilang) | Prof. Aminah Binti Ayob, Sultan Idris Education University Malaysia, Malaysia "ALTERNATIVE SOLUTIONS TO THE DECLINING INTEREST IN SCIENCE EDUCATION AMONGST MALAYSIAN STUDENTS" | MALAYSIA | 221 | Seminar (non reviewed) | 01. Primary/ECE/Elementary School Science Education |
| K02 | 14.30 | 15.30 | 3/10/2013 | Meeting Room 16 (Library Auditorium) | Ms Michelle Graham, Lake Munmorah High, Australia "CONCEPTUAL MEDIATION – A SIMPLE WAY OF TACKLING MISCONCEPTIONS" | AUSTRALIA | 75 | Workshop | 02. Secondary/Middle/Senior School Science Education |
| K11 | 14.30 | 15.00 | 3/10/2013 | Meeting Room 6 (Serindit 2) | Ms. Xinyuan Hu, Children & Youth Science Center Of CAST, China "SCIENCE EDUCATION OF CAST" | CHINA | 211 | Seminar | 11. Non-Formal STE (Museums, Centres) |
| K11 | 15.00 | 15.30 | 3/10/2013 | Meeting Room 6 (Serindit 2) | Jiang Jingyi, Children and Youth Science Center of CAST "CAST SCIENCE EDUCATION PROJECT" | CHINA | 212 | Seminar | 11. Non-Formal STE (Museums, Centres) |
| K12 | 14.30 | 15.30 | 3/10/2013 | Meeting Room 5 (Serindit 1) | Dr James MacKay, Wellington Institute of Technology, New Zealand "WE SHOULDN'T HAVE TO DO THIS; WE'RE GIRLS!" AN EXAMINATION OF GENDER, SELF EFFICACY AND CONCEPTUAL UNDERSTANDING OF ELECTRO-TECHNOLOGY AMONGST SOUTH AFRICAN TECHNOLOGY TEACHER TRAINEES" | NEW ZEALAND | 371 | Seminar (non reviewed) | 12. Technology Education And Research |

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| K16 | 14.30 | 15.00 | 3/10/2013 | Meeting Room 10 (FRST Tutorial Room 2) | A/ Prof. Lindsey Conner, University Of Canterbury, New Zealand "AUTHENTIC LEARNING CONTEXTS FOR ACTION-BASED PROBLEM-SOLVING" | NEW ZEALAND | 421 | Seminar | 16. Science in Society/Nature of Science |
| K17 | 14.30 | 15.00 | 3/10/2013 | Meeting Room 8 (FIT) | Dr. Nsikak-Abasi Udofia, University Of Uyo,Uyo, Nigeria "CREATING SCIENCE WITHIN AND BEYOND THE CLASSROOM: STRATEGIES FOR AFRICANS LEARNERS" | NIGERIA | 397 | Seminar (non Refereed) | 17. Curriculum, Policy And Assessment |
| K17 | 15.00 | 15.20 | 3/10/2013 | Meeting Room 8 (FIT) | Mr Stefaan Vande Walle, Vvob, Cambodia "ACCESSIBILITY CHALLENGES TO SCIENCE EDUCATION IN CAMBODIA: AN INSTITUTIONAL ANALYSIS" | CAMBODIA | 205 | Paper Presentation (non reviewed) | 17. Curriculum, Policy And Assessment |