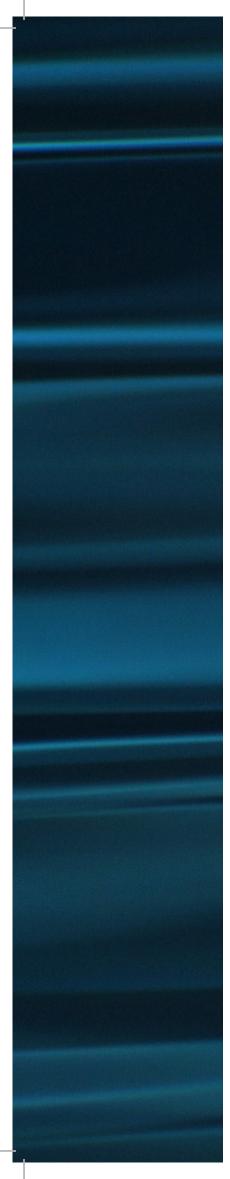


THE INTERNATIONAL SYMPOSIUM ON ENERGY 8

Conference Guide
6-9 August 2018



WELCOME

Distinguished Delegates,

A hearty welcome to Aberdeen and the Eighth International Symposium on Energy! Following on from the successful integration last year of two former symposia on energy challenges, "Working on Small Scales" and "Towards a Big Picture", this year an innovative 'online participation' method has been developed enabling researchers to present their recent results on the conference website. This is ideally suited to those passionate about their research but unfortunately unavailable to attend in person.

Aberdeen, nicknamed the "Granite City", is the third most populous city in Scotland. In 1969 an extensive amount of crude oil was discovered in the North Sea, overshadowing traditional industries and elevating Aberdeen to become the "Oil Capital of Europe". Today Scotland is moving to cleaner energy, and the city is becoming the "Energy Capital of Europe" as a growing centre for renewable energy development.

Notable Aberdonians include James Clerk Maxwell, famous for formulating the classical theory of electromagnetic radiation, bringing together for the first-time electricity, magnetism and light as different manifestations of the same phenomenon and John Mathieson Dodds, an engineer and radar pioneer. This symposium also commemorates the Scottish Inventor James Watt who improved the efficiency of the world's first successful steam engine invented by Thomas Newcomen sparking the industrial revolution and leading to the production of electricity which we rely on today.

Our purpose is to gain a complete view of the world's energy challenges and to identify creative solutions and cross-disciplinary collaborations between the attendees of this summit. Energy8 remains unique in combining many disparate disciplines in technology, science and policy making.

We trust you will take this opportunity to foster many new relationships and collaborations. Feel free to contact the conference organiser or staff for further assistance.

Welcome to Energy8 2018!

Best regards,

Dr. Henry Tan E8 Chairman

University of Aberdeen

Dr Mark S. D. Read CSci CChem FRSC FHEA

E8 Co-Chair

University of Birmingham

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IMPORTANT POINTS

Transportation

Venue Address:

DoubleTree by Hilton Aberdeen Treetops 161 Springfield Road, Aberdeen, AB15 7AQ **Tel:** 01224 313377

Local Taxi Services:

- » Rainbow 01224 87 87 87 or 01224 49 49 49
- » ComCab 01224 35 35 35
- » Aberdeen Taxis 01224 68 68 68

Bus Service:

Buses 15 and 15A stop outside the front of the hotel on the main road and connects in the city centre. An adult day ticket is £4.00, and an adult evening ticket is £3.00. Further details including timetables can be found at www.firstgroup.com

Identification

All delegates must wear their lanyard name badge at all times. Your badge is your ticket and therefore gives you access to all sessions, lunch catering and the social programme.

Badges are strictly non-transferable. Please ensure you keep these safe. If you cannot provide a badge or identification to verify your booking, then you may be asked to leave the event.

Certificate Of Attendance

All delegates had the opportunity to request a certificate during the online booking process (see your registration packet). If you did not request a

certificate during booking, an electronic version can be sent to you following the conference. Please notify the organisers at the Information Desk if you will require an electronic certificate.

Session Etiquette

Speakers: During the 20-minute break before your session slot, find your presentation room and upload your presentation files to the provided laptop. **Please ensure that you remain within your time slot for your presentation and the allowed time for Q&A**. It is essential that the conference runs on time.

Moderators: Please arrive for your session at least 5 minutes in advance, so you are prepared and ready to begin the session on time. Please complete the Moderator's Report Form which can be picked up from the information desk, and return it back after the session is over.

Audience: Please note that the use of photography during presentations is strictly forbidden. It is unethical to take photographs without the consent of a speaker (you may be asked to delete images). Please respect the speakers and limit your photos to before/after the talks.

Slide Copyright: All slides presented are the sole property of each speaker and cannot be copied or redistributed without permission.

Presentation & Technology Tips

The conference room is equipped with a laptop, projector, and clicker for controlling the PowerPoint presentations.

(1) To access the Microsoft suite, press the windows key (lower left on the keyboard). A start menu will appear where you can click the program you need. Each laptop/projector will be pre-set to the "extend" display setting, which means the laptop will function as one screen and the projector will function as another. When you open a PowerPoint presentation, it will only appear on the laptop screen.

(2a) View the presentation in full-screen mode in order to utilise both screens. Choose full screen mode within the slideshow menu or by pressing the F5 key on the keyboard.

(2b) If you are using an Adobe PDF presentation, move the whole PDF window onto the 2nd screen, which is the projector. This is done by clicking and holding onto the title bar of the window and dragging it to the right until it appears on the projector screen.

Please Note:

- » Our computers are not connected to the Internet and are unable to do so during presentations.
- » All presentations and data left on the Laptops after each day WILL be erased from the computer. However, we strongly encourage erasing all data at the end of your session.

Smoking Policy

It is forbidden to smoke anywhere inside a building in the UK. Please smoke outside at a good distance from the hotel entrance and make use of the cigarette disposal areas.

SCHEDULE NOTES

Lunch

A lunch buffet will be served each day for all Delegates in Springfield's Restaurant. Your name badge serves as your lunch ticket on all three days.

Welcome Reception & Poster Session

We welcome you to our gathering with a reception in the foyer on Day 1 at 15:30 where you can relax and network with your fellow delegates. Tea and coffee will be provided alongside a cash bar for additional beverages.

An official Energy8 group photo will be taken at 16:00 for all who wish to join. In addition, the poster session will begin at 15:30. Please take the opportunity to view these as part of the afternoon.

Refunds

All refund payments and/or reimbursements will be issued at the conference information table during the hours below:

- » Tuesday 07 August, 10:00-12:00
- » Wednesday 08 Aug 9:30-12:00

CONFERENCE TRIPS

Thursday 09 August 2018, 12:30-18:30

Conference trips include two tours, Old Aberdeen and Dunnottar Castle. Transportation will be provided at the front car park. We will meet at 12:30 and depart at 12:45 sharp, so please do not be late.

For the return journey, we will meet at the castle park at 17:30, depart at 17:45 and return to Hotel by 18:30.

Your badge is your ticket and must be worn at all times during the outings. If you are unable to attend the tours, please notify the organisers at the Information Desk.

Old Aberdeen

We will tour the King's College Campus of the University of Aberdeen, founded by Bishop Elphinstone under a Papal Bull issued by Pope Alexander VI on 10 February 1495. This tour will give you an in-depth overview of the university's main campus, with historical context as well as information on more recent developments provided.



Dunnottar Castle

This dramatic and evocative ruined cliff top fortress was the home of the Earls Marischal, once one of the most powerful families in Scotland. Steeped in history, this romantic and haunting ruin is a photographer's paradise, a history lover's dream and an iconic tourist destination for visitors the world over.



PROCEEDINGS

High-quality papers will be selected and published in Journal of Energy Challenges and Mechanics (JECM). The on-site session proceedings can be downloaded at: https://energy8.nscj.co.uk/sessions/OnSite.pdf

SCHEDULE

Monday, 06 August

PRE-REGISTRATION

16:00-19:00 Reception Foyer

COMMITTEE MEETING

17:00-18:00

DAY 1

Tuesday, 07 August

REGISTRATION

8:00-9:00 Reception Foyer

OPENING REMARKS

9:00-9:20

OPENING LECTURE

9:40-10:20

BREAK

10:20-10:40

PARALLEL A1, A2

10:40-12:30

LUNCH

12:30-13:50

PLENARY B

13:50-15:30

WELCOME RECEPTION

15:30-17:00

Reception Foyer

15:30

Poster Session

16:00

Group Photo

DAY 2

Wednesday, 08 August

PRINCIPAL LECTURE

9:00-9:40

BREAK

9:50-10:10

PARALLEL C1, C2

10:10-11:50

LUNCH

12:00-13:20

PARALLEL D1, D2, D3

13:20-15:00

BREAK

15:00-15:20

PARALLEL E1, E2, E3

15:20-17:00

DAY 3

Thursday, 09 August

CLOSING LECTURE & AWARDS BANQUET

9:00-9:40

Closing Lecture

10:15-10:30

Closing Remarks

10:30-10:45

Group Photo

10:45

Break

11:00-12:20 Lunch Banquet

CONFERENCE TRIP OLD ABERDEEN AND DUNNOTTAR CASTLE*

12:30 - 18:30

*Registered participants only. Bus transportation will be provided.

12:30

Depart Hotel

17:30

Meet in the castle car park for the Return Journey

18:30

Arrive Back at Hilton Treetops

ORGANISERS

Scientific Committee

Dr Henry Tan, UK, Chairman
Dr. Mark S. D. Read, UK, Co-Chairman
Prof. Xiaodong (Chris) Li, USA
Dr. Michaela Killian, Austria
Prof. Kwnag-Bum Kim, South Korea
Mr. Moty Kuperberg, Israel
Dr. Christoph Hametner, Austria
Ms. Jingchao Zhang, Japan
Prof. Nadhir Al-Ansari, Sweden

Organiser

North Sea Conference & Journal Ltd Aberdeen, Scotland, UK

Emergency Phone: +44 (0)7898 700203

THANK YOU

To all the delegates and committee members of Energy8: We thank you for your support! It is only through your dedication, commitment and tireless work that this conference could be a success.

CONFERENCE SONG

We Are The Light

Music & Lyrics by Nils Elders

We'll find our destiny
We were born in the stars
This opportunity to know who we are
Let the world know that we can make a change this
year
Let time show that we made a difference here

When we feel that we've got a lot to prove Take a look at everyone around you Never give up, together we're strong Just see how far we've come

We are the light bright like the sun We are the light that shines for everyone We are the sparks that inspire The flames that keep you right So let's stand together We are the light

An idea is a seedling that you can sow Determination is a sun beam That can help it to grow

Let the world know that our intention's clear Let time show that we made a difference here

When we feel that we've got a lot to prove Take a look at everyone around you Never give up, together we're strong Just see how far we've come

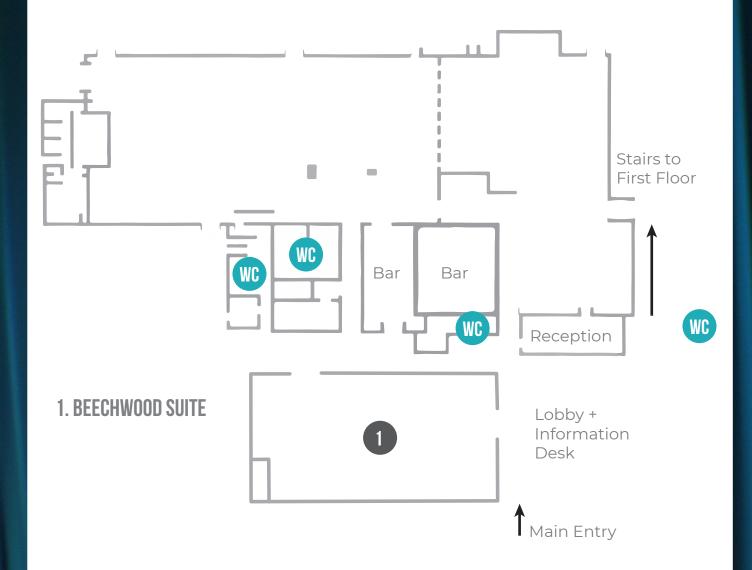
We are the light that's bright like the sun We are the light that shines for everyone We are the sparks that inspire The flames that keep us right So let's stand together We are the light

We are the light bright like the sun We are the light that shines for everyone We are the sparks that inspire The flames that keep us right So let's stand together We are the light

yeah Together we stand Together we stand Together we stand

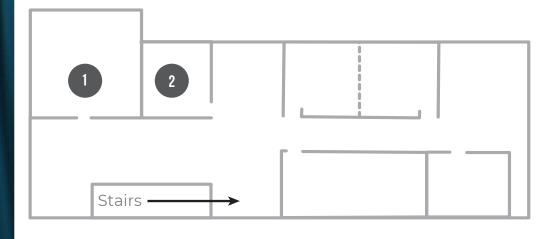
VENUE MAP

Ground floor



VENUE MAP

First floor



- 1. ROWAN SUITE
- 2. MAPLE SUITE

PLENARY LECTURES

OPENING PLENARY LECTURE



Rise of China: Fuel Cells, Hydrogen and Batteries

Prof. Kevin Kendall FRS

University of Birmingham, United Kingdom

Dr Kevin Kendall FRS believes that this century starts the millennium of zero emissions and clean cities where combustion vehicles will be banned; his work over 40 years has been to this aim. He began hydrogen fuel cell activities in Birmingham as Professor at the University in 2000. By 2008 Dr Kendall had installed the first hydrogen station at the University of Birmingham, with five hydrogen fuel cell cars running on campus. In 2009, Dr Kendall was awarded the largest hydrogen fuel-cell training project in the UK. Since 2015 Dr Kendall started a hydrogen fuel cell project with industry in China. Dr Kendall was elected Fellow of the Royal Society in 1993. He has written 3 books and hundreds of papers on hydrogen, fuel cells and other technologies.

PRINCIPAL LECTURE



Energy Future - Fossils and Beyond, The Energy GPS Mr. Moty Kuperberg
Director Oil and Gas at Dynamic Shipping, Haifa, Israel

Mr. Moty Kuperberg has over twenty-five years of experience in shipping and energy, and during the last five years, he has focused on his Independent Energy Security Agency (www.TheIESA. com) as a platform to develop and work an improved global energy security practical model. By the end of 2017 published his 2nd book 'Energy Future - Fossils and Beyond'. The book enables the reader to understand the long history of oil and proposes new ways to achieve energy security and sustainability, in what the author coined as 'The Energy GPS' - to cover the Geopolitics, Price and Supply as the main crucial pillars for energy security.

CLOSING PLENARY LECTURE



Cotton-textile-enabled Flexible Energy Devices Prof. Xiaodong (Chris) Li University of Virginia, United States

Dr Xiaodong (Chris) Li is a Rolls-Royce Commonwealth Professor at the University of Virginia with expertise and interests including nanomaterial-enabled energy systems, biological and bio-inspired materials and devices. His stature in the field of his expertise includes over 230 peer-reviewed journal articles in prestigious journals such as Science, Nature Communications, Advanced Materials, and Advanced Energy Materials; over 12,000 citations with H-index of 54; TMS MPMD Distinguished Scientist/Engineer Award (2015) and Professional Engineering Publisher's PE Prize (2008). His breakthrough work has been featured by over 1,000 media outlets worldwide including BBC, Discovery News, Science Daily, and MSNBC.

SESSION TOPICS

Manchester Nuclear Energy

Spokane Optimizing, Greening to

Smarting

Oxford Energy Efficiency

Argonne Energy Storage

Haifa Energy Future - Fossils and

Beyond

Sheringham Renewable Energy

Technologies

Waterloo Nexus Of Food, Energy, and

Water Systems

Aachen Energy Economy and Policy

Chicago Solar Energy

Seoul Bioenergy

RutgersPorous Materials and Structures

for Energy Applications

Sustainable Energy,

Karlsruhe Transportation and Urban

Systems

Paris Renewable Integration and

Power Distribution

Edinburgh Energy and Environment

WashingtonBiomass Conversion

Technologies

Houston Oil and Gas

Cambridge Nano Energy

Uppsala Environmental Impact of

Materials

Hsinchu Hydrogen Generation and

Storage

Warsaw Dealing With Waste

Berlin Climate Change and Energy

Dublin Heating and Cooling

Windsor Fuel Cells

Princeton Energy Conversion and Fuels

Tokyo Co2 Storage and Utilisation

Osaka Energy Harvesting and Mems

Taipei New Energy Vehicles

Dallas Energy Catalyst

Hiroshima Energy and Superconductivity

WANT MORE DETAILS?

For speaker bio sketches, detailed session descriptions and abstracts, please visit our website at:

https://energy8.nscj.co.uk/Sessions.html

POSTER EXHIBITION

Argonne Session: Energy storage

■ Thermochromic properties of VO2 pigmented coatings - Mohor Mihelčič, National Institute of Chemistry, Slovenia

Houston Session: Oil and gas

Synthesis, structure-activity relationship and evaluation of new nonpolymeric chemical additives based on naphthoquinone derivatives as wax precipitation inhibitors and pour point depressants to petroleum - Bárbara Lemos, Federal University of Espírito Santo (UFES), Brazil

Washington Session: Biomass Conversion Technologies

■ Fast pyrolysis of brown alga Saccharina japonica in a bubbling fluidized-bed reactor: Effect of water-washing pretreatment - Hee Chul Woo, Pukyong National University, Korea South

Seoul Session: Bioenergy

- Effect of pretreatment method of Oil Palm Trunk (OPT) for Ethanol Production by Simultaneous Saccharification and Fermentation (SSF) - Chayanoot Sangwichien, Prince of Songkla University, Thailand
- Experimental Design for Sequential Acid/ Alkaline Pretreatment of Oil Palm Empty Fruit Bunch (OPEFB) and Bioconversion to Ethanol - Taweesak Reungpeerakul, Prince of Songkla University, Thailand

Edinburgh Session: Energy and Environment

 Sustainable removal of carbon tetrafluoride at room temperature to non-greenhouse products by using reduced electron mediator within electro-scrubbing - II-Shik Moon, Sunchon National University, Korea South ■ Lithium Resources Recovery from Used Li-ion Batteries by Innovative Electrodialysis using Lithium Ionic Conductor Membrane - Tsuyoshi Hoshino, National Institutes for Quantum and Radiological Science and Technology (QST), Japan

Berlin Session: Climate Change and Energy

 Identifying policies hampering to solve climate change and air quality problems of energy sector in Korea - Yeora Chae, Korea Environment Institute, Korea South

PRESENTATION SCHEDULE

Opening Lecture

07th August 2018, 09:40 - 10:20

<u>Room:</u> Beechwood Suite

<u>Moderator:</u> Dr. Mark Read FRSC, University of Birmingham, United Kingdom

 Rise of China: Fuel Cells, Hydrogen and Batteries (40 minutes) - Prof. Kevin Kendall FRS, University of Birmingham, United Kingdom

Parallel A1 - Storage

07th August 2018, 10:40 - 12:30

<u>Room:</u> Beechwood Suite

<u>Moderator:</u> Prof. Kwnag-Bum Kim, Yonsei
University, Korea South

- Computational Materials Design for Energy and Environmental Applications (30 minutes)
 Prof. Ki Chul Kim, Konkuk University, Korea South
- Nonlinear system identification based on nonuniformly sampled data for battery state of health estimation (20 minutes) - Dr. Christoph Hametner, Vienna University of Technology, Austria
- Effect of temperature on the electrode reactions in a molten carbonate fuel cell (20 minutes) - Prof. Choong-Gon Lee, Hanbat National University, Korea South
- Cycle Testing and Modeling of High Energy LiCoO2 Cathode based Lithium-ion Batteries (20 minutes) - Mr. Darius Roman, Heriot Watt University, United Kingdom

Parallel A2 - Nuclear1

07th August 2018, 10:40 - 12:30

<u>Room:</u> Rowan Suite

<u>Moderator:</u> Dr. Mark Read FRSC, University of Birmingham, United Kingdom

- The aspects regarding radiological risks on the VVR-S reactor block dismantling (20 minutes)
 Dr. Carmen Tuca, Horia Hulubei National Institute for Physics and Nuclear Engineering, IFIN-HH, Romania
- MOX Irradiation and Performance Testing at Canadian Nuclear Laboratories (25 minutes)
 Ms. Susan Yatabe, Canadian Nuclear Laboratories, Canada
- New Requirements of Defence in Depth and Extension of Its Application (20 minutes) - Ms. Chengcheng Wang, China Nuclear Power Engineering Co. Ltd, China
- A Passive Infinite Cooling Concept for Free From Severe Accident (20 minutes) - Dr. Sungjae Yi, Korea Atomic Energy Research Institute, Korea South

Plenary B - Economy/Policy

07th August 2018, 13:50 - 15:30

<u>Room:</u> Beechwood Suite

<u>Moderator:</u> Mr. Moty Kuperberg, Director Oil and
Gas at Dynamic Shipping, Israel

- Assess and predict Greenhouse Gas emissions (GHG) from agriculture in Europe. The implementation of the Data Envelopment Analysis (DEA) and Artificial Neural Networks (ANNs) can be considered as appropriate approaches? (20 minutes) Prof. George Vlontzos, Department of Agriculture Crop Production and Rural Development, University of Thessaly, Greece
- Energy consumption, capital costs and paybacks of green buildings for low-income households in the United States: A longitudinal study (20 minutes) Prof. Andrew McCoy, Virginia Tech, United States
- Analysis of feed-in tariff policy's effects on firm-level technological innovation of solar photovoltaic industry in China (20 minutes)
 - Dr. Dongdong Song, China University of Geosciences, China
- Cutting Carbon Footprints in Emergency Drills with an Integrated Virtual Reality and Discreteevent Simulation System (20 minutes) - Dr. Henry Lau, The University of Hong Kong, Hong Kong

 Low-quality or high-quality coal? Household energy choice in rural Beijing (20 minutes)
 Ms. Jingchao Zhang, Kochi University of Technology, Japan

Principal Lecture

08th August 2018, 09:00 - 09:40
Room: Beechwood Suite
Moderator: Dr. Mark Read FRSC, University of
Birmingham, United Kingdom

Energy Future – Fossils and Beyond,
 The Energy GPS (40 minutes) - Mr. Moty
 Kuperberg, Director Oil and Gas at Dynamic
 Shipping, Israel

Parallel C1 - Solar

08th August 2018, 10:10 - 11:50
<u>Room:</u> Beechwood Suite <u>Moderator:</u> Dr. Michaela Killian, TU Wien, Austria

- Energy conservation by controlling solar radiation at windows (20 minutes) - Prof. Takashi Inoue, Tokyo University of Science, Japan
- Sustainable Fuel from Sunlight: Compact CPV-Hydrogen system to Convert Sunlight to Hydrogen (20 minutes) - Dr. Muhammad Burhan, King Abdullah University of Science and Technology, Saudi Arabia
- Pigmented electrochromic vanadium oxide thin films (20 minutes) - Dr. Mohor Mihelčič, National Institute of Chemistry, Slovenia
- Indoline Dyes in Dye-sensitized Solar cells (20 minutes) Prof. Masaki Matsui, Gifu University, Japan

Parallel C2 - Thermal

08th August 2018, 10:10 - 11:50 <u>Room:</u> Rowan Suite <u>Moderator:</u> Dr. Jérôme Barrau, Universitat de Lleida, Spain

- Hydrophobic thermal resistance of microencapsulated phase change material (MPCM) suspensions (25 minutes) - Prof. Zhongzhu QIU, Shanghai University of Electric Power, China
- Thermal energy storage using Groundwater in Babylon Governorate (20 minutes) -Prof. Nadhir Al-Ansari, Lulea University of Technology, Sweden
- Heat transfer optimization through an analysis on manifolds (20 minutes) - Dr. Zbigniew
 Drozynski, The Szewalski Institute of Fluid Flow Machinery, Polish Academy of Sciences, Poland

Parallel D1 - Nanomaterial

08th August 2018, 13:20 - 15:00

Room: Beechwood Suite

<u>Moderator:</u> Dr. Henry Tan, University of Aberdeen, United Kingdom

- Rational design of oxide/graphene composite to achieve superior rate-capability via enhanced lithium-ion transport across graphene to oxide (30 minutes) - Prof. Kwnag-Bum Kim, Yonsei University, Korea South
- Nano-engineering thermoelectrics to boost efficiency (30 minutes) - Dr. Marisol Martin-Gonzalez, Instituto de Micro y Nanotecnologia CSIC, Spain
- Fabrication, characterizations and implementation of nanocrystalline MgH2 powders doped with titanium manganese (20 minutes) - Prof. Fahad Alajmi, Nanotechnology and Advanced Materials Program, Kuwait
- Graphene-wrapped PtNi Nanosponge for Enhnaced Oxygen Reduction Reaction Performance (20 minutes) - Prof. Ho-Suk Choi, Chungnam National University, Korea South

Parallel D2 - Building

08th August 2018, 13:20 - 15:00 <u>Room:</u> Rowan Suite <u>Moderator:</u> Ms. Jingchao Zhang, Kochi Uni

<u>Moderator:</u> Ms. Jingchao Zhang, Kochi University of Technology, Japan

- Optimization of smart homes using mixedinteger quadratic-programming and occupancy predictions (20 minutes) - Dr. Michaela Killian, TU Wien, Austria
- Dynamic behaviour and performance impact assessment of the climate on the solariums winter performance (20 minutes) - Dr. Jérôme Barrau, Universitat de Lleida, Spain
- Transforming electric arc furnace waste into value-added building products (20 minutes)
 Dr. Sagar Cholake, University of New South Wales, Australia

Parallel D3 - Environment

08th August 2018, 13:20 - 15:00

<u>Room:</u> Maple Suite

<u>Moderator:</u> Prof. Nadhir Al-Ansari, Lulea University
of Technology, Sweden

 Potential of biomass from agriculture land as the dynamic quantity (20 minutes) - Prof.
 Jaroslav Knápek, Czech Technical University in Prague, Czech Republic

- Continuous Drying of Biomass for Energetic Applications in Fountain Confined Conical Spouted Beds (20 minutes) - Dr. Aitor Pablos, University of the Basque Country, Spain
- Exergy Assessment of a Double Effect Libr– H2O Absorption Chiller (20 minutes) - Mrs.
 Maha Al-Asousi, Ministry of Electricity and Water, Kuwait
- Will low cost MWIR technology provide reliable portable devices for non destructive analysis of fuel blends? (20 minutes) - Miss Maria Maldonado Gil, Polytechnic University of Madrid, Spain

Parallel E1 - Battery

08th August 2018, 15:20 - 17:00

<u>Room:</u> Beechwood Suite

<u>Moderator:</u> Dr. Christoph Hametner, Vienna
University of Technology, Austria

- Boosting all-copper redox flow batteries for large-scale energy storage (25 minutes) - Dr. Cristina Flox, Aalto University, Finland
- Lithium Resources Recovery from Used Liion Batteries by Innovative Electrodialysis using Lithium Ionic Conductor Membrane (20 minutes) - Dr. Tsuyoshi Hoshino, National Institutes for Quantum and Radiological Science and Technology (QST), Japan
- Principles of passive hybrid storage systems for 48 V Mild Hybrid Electric Vehicles (20 minutes)
 Mr. Thorsten Grün, Karlsruhe Institute of Technology, Germany

Parallel E3 - Mechanics

08th August 2018, 15:20 - 17:00

Room: Maple Suite

<u>Moderator:</u> Prof. Xiaodong Li, University of Virginia, United States

- Substantial drag reduction of heavy vehicles using flow control devices (20 minutes) - Prof. Sang Joon Lee, POSTECH, Korea South
- Dynamic Buckling of Cylindrical Storage Tank under Fluctuating Wind Loading (20 minutes)
 - Dr. Jumpei Yasunaga, Steel Research Laboratory, JFE Steel Corporation, Japan
- A proposition of a new constitutive law of gas diffusion layers mechanical behavior (20 minutes) - Dr. Christophe Carral, LEPMI -Université Savoie Mont Blanc, France

Closing Lecture

09th August 2018, 09:00 - 09:40

<u>Room:</u> Beechwood Suite

<u>Moderator:</u> Dr. Henry Tan, University of Aberdeen,
United Kingdom

 Cotton-textile-enabled Flexible Energy Devices (40 minutes) - Prof. Xiaodong Li, University of Virginia, United States

Parallel E2 - Nuclear2

08th August 2018, 15:20 - 17:00

<u>Room:</u> Rowan Suite

<u>Moderator:</u> Ms. Susan Yatabe, Canadian Nuclear
Laboratories, Canada

- Atomistic simulation of PuO2: Storage and MOX Fuel re-use. (30 minutes) - Dr. Mark Read FRSC, University of Birmingham, United Kingdom
- Evolution and Stability of Nano-sized Particles in Austenitic Alloys (25 minutes) - Dr. Jinsung JANG, Korea Atomic Energy Research Institute, Korea South
- Balanced Protection against Commercial Aircraft Crash for Future PWR (20 minutes)
 Ms. Qianwen Liu, China Nuclear Power Engineering Co. Ltd., China

PARTICIPANT LIST

Abbasi, M. Hosein, K. N. Toosi University of Technology, Iran

Abidoye, Luqman, Osun State University, Nigeria

Ahmad, Zulfiqar, Wuhan University, China

Ahmad, Nisar, Balochistan University of Information Technology, Pakistan

Ahna, Mostafa, Islamic Azad University, Sanandaj Branch, Iran

Al-Ansari, Nadhir, Lulea University of Technology, Sweden

Al-Asousi, Maha, Ministry of Electricity and Water, Kuwait

Alajmi, Fahad, Nanotechnology and Advanced Materials Program, Kuwait Almarshoud, Abdulrahman, Qassim University, Saudi Arabia

Almutairi, Abdulrahman, College of Technological Studies, Kuwait

Aloui, Thamer, Faculté des Sciences de Sfax and ENS Paris Saclay, France

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Banat, Fawzi, Khalifa University of science and Technology, United Arab Emirates

Barrau, Jérôme, Universitat de Lleida, Spain

Barsukov, Viacheslav, Kyiv National University of Technologies and Design, Ukraine

Bartolucci, Lorenzo, University of Rome Tor Vergata, Italy

Baur, Lucia, Karlsruhe Institute of Technology (KIT), Germany

Behroozsarand, Alireza, Urmia University of Technology, Iran

Ben Youssef, Wafa, University of Monastir, Tunisia

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Bondarenko, Marina, Frantsevich Institute for Problems of Materials Science of NASU, Ukraine

Bonilla García, Diego Ramón, Engineering Institute, Mexico

Bryant, Scott, University of Sydney, Australia

Burhan, Muhammad, King Abdullah University of Science and Technology, Saudi Arabia

C Nair, Sreeju, Kerala Technological University India, India

Campbell, Michael, University of Rochester, United States

Cardoso Ziebell, Arnfried, University of Coimbra, Portugal

Carral, Christophe, LEPMI - Université Savoie Mont Blanc, France

Çelikler, Cansu, Akdeniz University, Turkey

Chae, Yeora, Korea Environment Institute, Korea South

Charabi, Yassine, Sultan Qaboos University, Oman

Choi, Ho-Suk, Chungnam National University, Korea South

Cholake, Sagar, University of New South Wales, Australia

De las Heras, Alejandro, Independent researcher, Mexico

de Rubeis, Tullio, University of L'Aquila, Italy

Deinert, Mark, The Colorado School of Mines, United States Dey, Amiya, National Institute of Technology Silchar, India

Djuric Ilic, Danica, Linköping University, Sweden

Dong, Jiangfeng, Sichuan University, China

Drozynski, Zbigniew, The Szewalski Institute of Fluid Flow Machinery, Polish Academy of Sciences, Poland

Durazzo, Michelangelo, Nuclear and Energy Research Institute – IPEN/CNEN-SP, Brazil

El Ouahabi, Mohamed Said, Rovira i Virgili, Spain

Ellamla, Harikishan Reddy, PDRF, Brazil

Fang, Liang, Shandong Jianzhu University, China

Farabi-Asl, Hadi, Kyushu University, Japan

Fernandez Melchor, Francisco, Autonomous University of Baja California, Mexico

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