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Indian Institute of Technology Guwahati | IIT Guwahati 1994 – 2019 25 years Silver Jubilee Celebration of IIT Guwahati

Indo-UK joint International Webinar on

Current Trends in Chemical Process Technology and Materials Development

19 — 20 August 2020

About of the Webinar

The aim of this webinar is to provide an overview of recent advances in chemical process technology and materials development. The webinar will also provide opportunities to researchers, faculty members, graduate students, industry personnel for discussion with the presenters and networking for potential future collaborations.

SPEAKERS

Dr. Bidyut Baran Saha
Professor
Kyushu University, Japan
19 August, 09:30 – 10:00 am BST
(Adsorption heat pump)

Dr. Agus Saptoro
Associate Professor
Curtin University, Malaysia
19 August, 10:00 – 10:30 am BST
(CO_2 capture)

Mr. Han Bo
Researcher
Nanyang Technological University (NTU), Singapore
19 August, 10:30 – 11:00 am BST
(Adsorption cooling, Desalination)

Dr. Cameron Brown
Strathclyde Chancellor's Fellow
University of Strathclyde, UK
19 August, 11:00 – 11:30 am BST
(Data mining in crystallisation)

Dr. Raghvendra Gupta
Associate Professor
Indian Institute of Technology Guwahati (IITG), India
19 August, 1:00 – 1:30 pm BST
(Multiphase microfluidics)

Dr. Venkata R. Gadhamshetty
Associate Professor
South Dakota School of Mines & Technology, USA
19 August, 1:30 – 2:00 pm BST
(2D Materials)

Dr. Arvind Rajendran
Professor
University of Alberta, Canada
19 August, 2:00 – 2:30 pm BST
(Gas adsorption)

Dr. Sharon Shui Yee Leung
Assistant Professor
The Chinese University of Hong Kong, Hong Kong
20 August, 9:30 – 10:00 am BST
(Microfluidics)

Dr. Aniruddha Majumder
Lecturer
University of Aberdeen, UK
20 August, 10:00 – 10:30 am BST
(Preferential crystallisation)

Dr. Botond Szilagyi
Postdoctoral Researcher
Purdue University, USA
20 August, 10:30 – 11:00 am BST
(Crystallisation)

Dr. Jia Yan Law
Postdoctoral Researcher
University of Seville, Spain
20 August, 11:00 – 11:30 am BST
(Additive manufacturing)

Dr. Sibnath Kayal
Associate Professor
Department of Metallurgy,
O. P. Jindal University, India
20 August, 1:00 – 1:30 pm BST
(Advanced materials)

Dr. Jiang Long
Lecturer
University of Aberdeen, UK
20 August, 1:30 – 2:00 pm BST
(Adsorption, Carbon capture)

Mr. Rupam Sinha
Researcher
Indian Institute of Technology Guwahati, India
20 August, 2:00 – 2:30 pm BST
(Nanomaterials)

For free registration: https://tinyurl.com/reg-iitg or use QR code

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Programme Schedule

19 August 2020 (Day-1)

As per British Summer Time (BST, GMT+1)

(9:20 – 9:30 am BST) : Inaugural address by Dr. Igor Guz, Professor & Head of School of Engineering, University of Aberdeen, UK and Dr. Anugrah Singh, Professor & Head of the Department of Chemical Engineering, Indian Institute of Technology Guwahati (IITG), India.

Talk 1 – (9:30 – 10:00 am BST) : "Biomass-derived activated carbons for adsorption heat pump applications" by Dr. Bidyut Baran Saha.

Talk 2 – (10:00 – 10:30 am BST) : "Energy Efficient Process Modifications of CO_2 Capture Systems" by Dr. Agus Saptoro.

Talk 3 – (10:30 – 11:00 am BST) : "Advanced cooling heat pump and desalination employing functional UiO-66 (Zr) metal-organic frameworks" by Mr. Han Bo.

Talk 4 – (11:00 – 11:30 am BST) : "Data mining crystallisation kinetics" by Dr. Cameron Brown.

Talk 5 – (1:00 – 1:30 pm BST): "Gas-liquid flow in microsystems" by Dr. Raghvendra Gupta.

Talk 6 – (1:30 – 2:00 pm BST) : "2D-Materials for Biofilm Science, Engineering and Technology" by Dr. Venkata R. Gadhamshetty.

Talk 7 – (2:00 – 2:30 pm BST) : "Modelling and optimization tools for gas adsorption processes" by Dr. Arvind Rajendran.

20 August 2020 (Day-2)

As per British Summer Time (BST, GMT+1)

Talk 1 – (9:30 – 10:00 am BST) : "Microfluidic-assisted bacteriophage encapsulation into liposomes" by Dr. Sharon Shui Yee Leung.

Talk 2 – (10:00 – 10:30 am BST) : "Separation of conglomerate forming enantiomers using preferential crystallization" by Dr. Aniruddha Majumder.

Talk 3 – (10:30 – 11:00 am BST) : "Application of population balance modeling for the optimization driven design of integrated crystallization-wet milling systems" by Dr. Botond Szilagyi.

Talk 4 – (11:00 – 11:30 am BST) : "Lab-scale production of soft magnetic filaments with enhanced uniformity for additive manufacturing" by Dr. Jia Yan Law.

Talk 5 – (1:00 – 1:30 pm BST) : "The Prospect of Advanced Porous Materials for Sustainable Low Carbon Economy through Carbon Dioxide Capture and Methane Storage" by Dr. Sibnath Kayal.

Talk 6 – (1:30 – 2:00 pm BST) : "Thermal analysis for adsorption capture by using carbon pump theory" by Dr. Jiang Long.

Talk 7 – (2:00 – 2:30 pm BST) : "Growth of Carbon Dot-Decorated ZnO Nanorods on a Graphite-Coated Paper Substrate to Fabricate a Flexible and Self-Powered Schottky Diode for UV Detection" by Mr. Rupam Sinha.

(2:30 – 2:40 pm BST) : Valedictory address by Dr. Tapas K. Mandal, Professor, Indian Institute of Technology Guwahati (IITG), India.

Organising Committee

Indian Institute of Technology Guwahati, India

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