



2024 ASEAN Joint Workshop (online)

(Hanoi-Penang-Osaka, on Wednesday, March 27th, 2024)

VAST-OU Joint Campus Programme: The 7th IMS-Vast and INSD-OU Joint Workshop on Frontier Nanomaterials,

and

USM-OU Joint Programme: The 4th USM and OU Joint Colloquium on Nanoscience and Nanotechnology,

Topics: Zero Carbon, Renewable Energy, and Semiconductor Devices

INSD-OU: R³ Institute for Newly-Emerging Science Design, Osaka University

IMS-VAST: Institute of Materials Science, Vietnam Academy of Science and Technology

USM: University of Science Malaysia

Program:

15:00-18:30 in Osaka (14:00-17:30 in Penang, 13:00-16:30 in Hanoi))

Opening

15:00-15:15 ***Opening***

Chair: Prof. Tadashi Itoh

Opening Address

Prof. Yasufumi Fujiwara, Director of INSD, OU

Prof. Abdul Rahman Bin Mohamed, Vice-Chancellor, USM

Prof. Hoang Anh Son, Director of IMS-VAST

Oral Talks

First Session: Zero Carbon

15:15-16:30 in Osaka (14:15-15:30 in Penang, 13:15-14:30 in Hanoi)

15:15-15:40 Development of High Performance Catalysts toward Sustainable Society

Prof. Tomoo Mizugaki, Division of Chemical Engineering, Graduate School of Engineering Science, OU

15:40-16:05 Structural and Chemical Modifications of Stand-alone Graphene Oxide-based Materials as Solar-driven Photocatalyst: A Synergistic Experimental and DFT Investigation

Dr. Khozema Bin Ahmed Ali, School of Industrial Technology, USM



16:05-16:30 ***Research and Development of Transition Metal-Based Electrocatalysts for Efficient Water Splitting in Green Hydrogen Production***

Dr. Bui Thi Hoa, Lab. of Technologies for Hydrogen and Corrosion, IMS, VAST

16:30-16:40 ***Intermission***

Second Session: Renewable Energy

16:40-17:05 in Osaka (15:40-16:05 in Penang, 14:40-15:05 in Hanoi)

16:40-17:05 ***Solar-to-Chemical Energy Conversion on Powder Photocatalysts***

Associate Prof. Yasuhiro Shiraishi, Research Center for Solar Energy Chemistry & Division of Chemical Engineering, Graduate School of Engineering Science, OU

Third Session: Semiconductor Devices

17:05-18:20 in Osaka (16:05-17:20 in Penang, 15:05-16:20 in Hanoi)

17:05-17:30 ***Double-Shelling AgInS₂ Quantum Dots with GaS_x and ZnS for Bright and Stable Excitonic Luminescence***

Dr. Nguyen Thu Loan, Lab. of Optoelectronic Materials, IMS, VAST

17:30-17:55 ***Photon Management in Next-Generation Photovoltaic Devices***

Associate Prof. TS. DR. Mohd Zamir Bin Pakhuruddin, Institute of Nano Optoelectronics Research and Technology (INOR) and School of Physics, USM

17:55-18:20 ***Synthesis of Multinary Quantum Dots and Enhancement of Photoluminescence Properties by Core/Shell Engineering***

Associate Prof. Taro Uematsu, Department of Applied Chemistry, Graduate School of Engineering, OU

Closing

18:20-18:30 ***Closing Remarks***

Prof. Tran Quoc Tien, Vice-Director of IMS, VAST

Prof. Zainovia Lockman, Director, Research Creativity &

Management Office, USM

Prof. Hiroshi Miyasaka, Vice-Director of INSD, OU