



# Indo-South Korea-Thailand

4th International Conference on

Nanoscience and Nanotechnology for Energy, Environment and Biomedical Applications (iNEEBA-2024)

8th & 9th November 2024

# **Organized by**

Vinayaka Mission's Kirupananda Variyar Arts and Science College

(A Constituent College of VMRF) Salem, Tamil Nadu, India



Full papers will be published in scopus indexed journals after peer review process

#### In collaboration with

Core-Facility Center for Photochemistry & Nanomaterials, Research Institute for Green Energy Convergence Technology (RIGET), Gyeongsang National University (GNU), South Korea

Department of Chemical Engineering Chulalongkorn University, Thailand

Conference presenters can also deliver their flash talks virtually (can prefer either online or offline mode)



VINAYAKA MISSION'S RESEARCH FOUNDATION





#### **VINAYAKA MISSION'S RESEARCH FOUNDATION**

Vinayaka Mission's Research Foundation (VMRF) was established under Section 3 of the University Grants Commission (UGC) Act, 1956, and was founded in 1981 by the Founder-Chancellor, Dr. A. Shanmugasundaram. The Union Ministry of Human Resources Development conferred University status on Vinayaka Mission's Research Foundation (VMRF) in 2001. Vinayaka Mission's Research Foundation Deemed to be University (VMRFDU) is a pioneering and vibrant university offering a multi-cultural



experience with an ambience marked by the perfect harmony of living in diversity. The university is committed to offering education in the most professional manner and one that ensures enormous growth potential to the students. One of the biggest universities in India, VMRF boasts of the most diversified education in terms of the number of faculties, ranging from medicine, paramedicine, engineering and technology to management – almost the entire gamut of academic disciplines. The University main campus in Salem is truly a scenic marvel surrounded by mountains and a hallmark of the city. VMRFDU has 13 colleges and 11 Schools in four locations in Salem, Chengalpet, Pondicherry & Karaikal. All the Programs offered by VMRF(DU) are approved by respective statutory authorities. VMRF(DU) is Accredited by NAAC with 'A' grade and ranked in NIRF and ARIIA.



# VINAYAKA MISSION'S KIRUPANANDA VARIYAR ARTS AND SCIENCE COLLEGE

Vinayaka Mission's Kirupananda Variyar Arts and Science College (VMKVASC), a Constituent College of Vinayaka Mission's Research Foundation Deemed to be University, Salem, serves the rural society by offering top quality education and inculcating the research and



development attitude among student community. VMKVASC was started in 1995. The Institution offers 12 Under Graduate Courses, 5 Post Graduate Courses and Ph.D. Programme. The Institution is ISO 21001:2018 Certified Institution and recognized as top performing nodal centre for Virtual lab. Also, a centre with well-equipped instruments like Ultra Performance Liquid Chromatography (UPLC), Gas Chromatography (GC), DC power supply, etc is established for Research and Development in order to



perform high quality research. In addition to the research, VMKVASC conducts several workshops, conferences at the national, and international levels, as well as training and awareness programmes on the latest developments.

#### **GYEONGSANG NATIONAL UNIVERSITY**

Gyeongsang National University (GNU) is the leading National University representing Gyeongnam in South Korea that creates a better future for mankind with the pioneering spirit of challenge and creativity.



GNU is recognized for its world-class research capabilities in the fields of Life Sciences, Aerospace, Mechanical Engineering, and Nano, Advanced Materials, and is implementing various national projects. It also provides a high level of education through a systematic curriculum and creative convergence classes. In particular, in the Department of Chemistry, "Graduate School for Molecular Material Chemistry" has been selected as a research platform in the 4th stage Brain Korea 21 (BK21) project that aims to support and develop creative and future-oriented professionals



who can promote regional development and the prestige of the country at the international level. By strengthening joint research inside and outside the project groups with domestic and excellent international researchers, GNU-Chem derives international level research results in the fields of eco-friendly nano-bio materials, medical diagnosis, catalysis, and optoelectronic materials. GNU Chem also aims to cultivate high-quality graduate students who will contribute to the development of national and regional science and technology. GNU is a global University that fosters outstanding talent through new ideas and innovative research, and as a National University that leads a regional innovation platform, Creating a promising future for everyone.

# **CORE-FACILITY CENTER FOR PHOTOCHEMISTRY**& NANOMATERIALS, GNU



Gyeongsang National University's (GNU) Core-Facility

Center specialized in photochemistry and nanomaterials is a leading research infrastructure facility. The primary focus of the Centre is to provide world-class and highly sophisticated analytical instruments for advanced nanomaterials researches. The GNU Core-Facility Centre, supported by the Ministry of Education, Government of Korea, strengthens the R&D capacity of research institutes, creates an efficient research-oriented ecosystem, promotes joint research among researchers in the future, and further strengthens basic science research capacity.

It also provides necessary solutions for all the research including pretreatment process, data collection, data analysis, serves as a mentor for systematic analysis and research for the users. The centre has created an independent space according to the characteristics of the equipment. There are more than 30 instruments related



to photochemistry and nanomaterials, including X-ray diffraction, X-ray photoelectron spectroscopy, Raman spectroscopy, BET surface area analyzer, TGA/DTA thermal analyzer, GC-mass, High-performance liquid chromatography, Field-emission scanning electron microscope equipped with energy-dispersive X-ray spectrometer, ultra-low temperature laser fluorescence analyzer, laser ablation systems, etc. Through the Core-Facility Center, we will create a technological synergy to cope with the fourth industrial revolution in the future and contribute to innovative research.

# DEPARTMENT OF CHEMICAL ENGINEERING, CHULALONGKORN UNIVERSITY

Chemical engineering discipline started at the Faculty of Engineering, Chulalongkorn University, as an Industrial Chemistry major under the administration of the department of Industrial Engineering in 1961. In the 1970s, to complement Thailand's vibrant agriculture-based economy, the Thai industrial sector strategically expanded into the petroleum and petrochemical industry. The Faculty had the foresight to formally set up the Department of Chemical Engineering in 1975: the

department would provide a complete and upto-date undergraduate curriculum and produce engineers qualified to meet many challenges of the upcoming industry. The department began to offer a Master's program in 1976 and, as one of its major milestones, the country's first Doctoral curriculum in 1989. The department's activities have continued to evolve, bringing many recognitions over the years. Our undergraduate curriculum was one of the firsts to be certified by the Thailand Accreditation Body for Engineering Education (TABEE) in 2017. The department has



been acclaimed as a premier department in less than 5 decades, being ranked by the QS World University Ranking in both 2019 and 2020 to be the top Chemical Engineering Department in Thailand, the Top 5 in ASEAN, and the Top 101-150 in the world.

### **THE CONFERENCE - INEEBA 2024**

The 4<sup>th</sup> International Conference on Nanoscience and Nanotechnology for Energy, Environment and Biomedical Applications (iNEEBA-2024) will be held during November 8-9, 2024. This conference includes keynote lectures from eminent scientists across the world, oral presentation and poster presentation of various aspects of Nanoscience and Nanotechnology. The goal of the confer



of various aspects of Nanoscience and Nanotechnology. The goal of the conference is to create a platform for materials scientists/physicists/chemists from academic institutions and industries around the world to present breakthroughs in their disciplines favorable to exchange ideas and scientific information. This conference will encompassing research advances across the field of agricultural science, inclusive of food science, plants / soil, animal science, human health and disease, and address the safe deployment of nanotechnology in these areas with a view to public perception and policy. Nanomaterials are essential in the production of safe food, its preparation from farm to plate, and their use as cutting-edge agricultural tools for sustainable development. Thus, the conference on nanomaterials will serve as a multidisciplinary venue for talks and deliberations. The iNEEBA 2024 invites abstracts and full-length manuscripts in the thematic areas of material science and biomaterials for oral/poster presentations and peer-reviewed publications.

#### **CONFERENCE THEMES**

- Advanced Materials
- Biomaterials
- Nanocomposites
- Polymers
- Thińfilms & Coatings
- Corrosion
- Energy storage materialsSmart & Intelligent materials
- Materials Transport Phenomenon
- Fuel Cells
- Batteries
- Super capacitors
- Modelling and simulations
- Magnetic nanoparticles
- Photovoltaics & Photocatalysis
- Biotechnology
- Biomedical devices
- Nanotechnology in Food & agriculture
- Health care
- Sonochemistry
- Ultrasound-assisted process
- Industrial Safety and other relevant áreas

#### ABSTRACT SUBMISSION

Abstract (not exceeding 250 words) can be submitted in a specified format available in the website. The last date for abstract submission is 25th Oct 2024

Abstract Template: https://bit.ly/3WvktPy

#### REGISTRATION FEES

Category	Till 15 <sup>th</sup> Oct 2024	After 15 <sup>th</sup> Oct 2024
Students (UG / PG)	INR 1200	INR 1500
Scientist/ Research Scholars/ Faculties	INR 1500	INR 2000
Industrialist	INR 2000	INR 2500
Foreign Delegate	USD 100	USD 120

<sup>\*</sup>Fee includes admission to all sessions, refreshments, and lunches.

### PAYMENT DETAILS

**Account Name** Principal, Vinayaka Mission's Kirupananda Variyar

Arts & Science College

999012328 Account Number IFSC Code IDIB000P221 Swift CODE **IDIBINBB** 2409 Branch Code

Indian Bank, Periyaseergapadi, Salem-636308 Bank, Branch & Address

#### **ORGANIZING COMMITTEE**

#### **CHIEF PATRONS**

- ▶ Dr. A.S. Ganesan, Chancellor, VMRF-DU
- ▶ Dato' Seri. Dr. S. Sharavanan, Pro-Chancellor, VMRF-DU
- ▶ Shri. N.V. Chandrasekar, Vice President, VMRF-DU

#### **PATRONS**

- ▶ Prof. Dr. P. K. Sudhir, Vice Chancellor, VMRF-DU
- ▶ Prof. Dr. J. Sabarinathan, Pro-Vice Chancellor, VMRF-DU

#### VMRFDU ADVISORY COMMITTEE

- ▶ Prof. Dr. A. Nagappan, Registrar, VMRF-DU
- ▶ Prof. Dr. K.Manivannan, Controller of Examinations, VMRF-DU
- ▶ Prof. Dr.P.Gnanasekar, Director, IIE and Industry Connect, VMRF-DU
- ▶ Prof. Dr. S.A.V. Satya Murty, Director, Research, VMRF-DU
- ▶ Prof. Dr. R.S.Shanmugasundaram, Director (SW), VMRF-DU
- ▶ Prof. Dr. B.Jaykar, Director, Clinical Trials, VMRFDU
- ▶ Prof. Dr. C. L. Prabavathy, CoE (Emeritus), VMRFDU
- ▶ Prof. Dr.B.Sridhar Reddy, Director, Ranking and Accreditation, VMRFDU
- ▶ Mrs.S.Santhana Lakshmi @ Shanthi, Director, Admissions, VMRF-DU
- ▶ Prof. Dr. A.Rajansamuel, Director, Academics, VMRFDU
- ▶ Mr. Ajay Kumar Sharma, Director, International Students' Cell, VMRFDU
- ▶ Prof.Dr. N. Thangadurai, Additional Director, Research, VMRFDU

#### CONVENERS

- ▶ Prof. Dr. V. Anbazhagan, Principal, VMKV Arts & Science College, Salem, India
- ▶ Prof. Dr. Myong Yong Choi, Director of Core-Facility Center for Photochemistry and Nanomaterials, GNU, South Korea
- Prof. Dr. Soorathep Kheawhom, Professor, Dept. of Chemical Engineering, Faculty of Engineering, Chulalongkorn University, Thailand

#### **CORE COMMITTEE**

- ▶ Dr. M. Jeyakanthan, VMKVASC
- ▶ Dr. R. Ganesamoorthy, VMKVASC
- ▶ Dr. C. Karthik Kumar, VMKVASC
- ▶ Prof. Dr. M. Prakash, VMKVASC
- ▶ Dr. E. Shinyjoy, VMKVASC
- ▶ Dr. S. Yogapriya, VMKVASC
- ▶ Prof. B. Dasapprakasan, VMKVASC
- ▶ Dr. J. Theerthagiri, GNU
- ▶ Dr. Ahreum Min, GNU
- ▶ Dr. Cheol Joo Moon, GNU
- ► Mr. Juhyeon Park, GNU
- ▶ Dr. G. Durai, CU
- ▶ Dr. M. Gopalakrishnan, CU

#### INTERNATIONAL ADVISORY COMMITTEE

- » Prof. Myong Yong Choi, Director of the Core Facility Center for Photochemistry & Nanomaterials and Professor of Chemistry, GNU, South Korea
- » Prof. Dr. Soorathep Kheawhom, Professor, of Chemical Engineering, Faculty of Engineering, Chulalongkorn University, Thailand
- » Professor Muthupandian Ashokkumar, Assistant Deputy Vice Chancellor International at the University of Melbourne & Professor of Physical Chemistry and Head of School of Chemistry, University of Melbourne, Australia
- » Prof. Anongnat Somwangthanaroj, Professor, Department of Chemical Engineering, Chulalongkorn University, Thailand
- » Prof. Pau-Loke show, Professor, of Chemical Engineering, Khalifa University, Abu Dhabi
- » Prof. Werner M Nau, Dean for Natural Science, Jacobs University, Bremen, Germany
- » Prof. Ravindranathan Thampi, SFI Airtricity Professor of Solar Energy, Engineering, University College Dublin, Ireland
- » Prof. Gilberto Maia, Professor, Universidade Federal De Mato Grossao do Sul, Brazil
- » Prof. Marlia Mohd Hanafiah, Professor, Universiti Kebangsaan Malaysia, Malaysia
- » Dr. Nagabhishek Sirpu Natesh, Researcher, University of Nebraska Medical Center, USA
- » Professor Peng Gao, Chinese Academy of Sciences Fujian Institute of Research on the Structure of Matter, Xiamen Institute on Research of Rare earth Materials, West Yangqiao road, 361021 Fuzhou, China

#### NATIONAL ADVISORY COMMITTEE

- » Dr. R. Vijay, Director, International Advanced Research Centre for Powder Metallurgy & New Materials (ARCI), Hyderabad, India
- » Prof. S. Anandan, Department of Chemistry, National Institute of Technology, Tiruchirappalli, India
- » Dr. T. S. Shyju, Scientist-D, Sathyabama Institute of Science and Technology, Chennai, India
- » Dr. Aruna Kumari M. L, Department of Chemistry, The Oxford College of Science, Bangalore, India
- » Dr. Rajamalli, Assistant Professor, Materials Research Centre, Indian Institute of Science, Bengaluru, India
- » Prof. R. Renganathan, Professor (Rtd), Bharathidasan University, Tiruchirappalli, India
- » Dr. M. Velusamy, Associate Professor, North Eastern Hill University, Meghalaya, India
- » Dr. Mani Karthik, Senior Scientist, ARCI-Hyderabad, India
- » Dr. S. Anandan, Scientist 'F', ARCI International Advanced Research Centre for Powder Metallurgy & New Materials, Hyderabad, India
- » Dr. V. Rajendiran, Associate Professor of Chemistry, Central University of Tamil Nadu, Thiruvarur, Tamil Nadu, India
- » Dr. Arun Prasad Murthy, Department of Chemistry, Vellore Institute of Technology (VIT), Vellore, India
- » Dr. Daniel Thanabalan, Assistant Professor, MVJ College of Engineering, Whitefield, Bengaluru, India
- » Dr. A. Kathiravan, SERB Research Scientist, Vel Tech Rangarajan Dr. Sagunthala R & D Institute of Science and Technology, Chennai, India.
- » Dr. M. Asha Jhonsi, Assistant Professor, B.S. Abdur Rahman Crescent Institute of Science and Technology, Chennai, India

- » Dr. A Pandikumar, Senior Scientist, CSIR Central Electrochemical Research Institute (CECRI)
- » Prof. Kaustubh R.S. Priolkar, Senior Professor of Physics, Goa University
- » Prof. Dr. S. Manivannan, Department of Physics, National Institute of Technology, Tiruchirappalli, India
- » Dr. M. Karunakaran, Associate Professor, Department of Physics, Alagappa Government Arts College, Karaikudi, India

### iNEEBA 2024 Awards: Best presentations will be selected for "CHANCELLOR AWARD" with cash prize

#### **KEYNOTE SPEAKERS**



**Prof. Dr. Myong Yong Choi** Director of Core-Facility Center for Photochemistry and Nanomaterials, GNU, South Korea.



Prof. Dr. Soorathep Kheawhom Professor of Chemical Engineering, Faculty of Engineering, Chulalongkorn University, Thailand.



Dr. R. Vijay, Director International Advanced Research Centre for Powder Metallurgy & New Materials (ARCI), Hyderabad, India



Prof. Dr. J. Theerthagiri Senior Scientist - Brain Pool Fellow, Core-Facility Center for Photochemistry and Nanomaterials, Department of Chemistry, GNU, South Korea.



Dr. Shankar Lal Garg FRSC, FWRA, Ex Principal, Holkar Science College, Indore and Editor, Research Journal of Biotechnology



Somwangthanaroj Associate Dean, Department of Chemical Engineering, Faculty of Engineering, Chulalongkorn University, Thailand.



Prof. Dr. S. Anandhan Professor, Department of Chemistry, NIT, Trichy.



Prof. Dr. Manaswee Suttipong Assistant Professor, Department of Chemical Technology, Faculty of Science, Chulalongkorn University, Thailand.



Prof. Dr. Manunya Okhawilai Scientist, Metallurgy and Materials Science Research Institute, Chulalongkorn University, Thailand.



Prof. Dr. Wanwisa Limphirat Scientist, Synchrotron Light Research Institute, Thailand.



Dr. S. Anandan Scientist 'F', International Advanced Research Centre for Powder Metallurgy & New Materials (ARCI), Hyderabad, India



Prof. Dr. Jitti Kasemchainan Research Professor, Department of Chemical Technology, Faculty of Science, Chulalongkorn University, Thailand.



Prof. Dr. K. Sakthipandi Professor Department of Physics, SRM Trichy Campus, Trichy.



Prof. Dr. A. Kathiravan **SERB Research Scientist** Vel Tech Rangarajan Dr. Sagunthala R & D Institute of Science & Technology Chennai.



Assistant Professor, Materials Research Centre, Indian Institute of Science, Bengaluru.



Dr. G. Murugadoss Scientist, Sathyabama Institute of Science and Technology Chennai, Tamil



Dr. J. Madhavan Professor, Department of Chemistry, Thiruvalluvar



Dr. M. Senthil Pandian Research Scientist, Department of Physics, SSN Research Centre University Vellore, Tamil Nadu SSN Institutions (Autonomous) Chennai, Tamil Nadu



Dr. Aruna Kumari Assistant Professor, Department of Chemistry, The Oxford College of Science, Bangalore, India

Website: www.ineebavmkvasc.com Email: ineebavmkvasc@vmu.edu.in Registration URL: https://forms.gle/P14MXaUimtqoq2gC6

#### For Registration





## **CONTACT US**

#### **General Enquiry**

**Dr. R. Ganesamoorthy & Dr.S. Yogapriya**VMKVASC, Salem, Tamilnadu, India
Mobile: 9600241292, 8248636668

#### **Technical Program**

**Dr. C. Karthik Kumar** VMKVASC, Salem, Tamilnadu, India Mobile: 9698475699 (Whatsapp Call only)

### **Registration & Abstract Submission**

Dr. M. Jeyakanthan & Dr. E. Shinyjoy VMKVASC, Salem, Tamilnadu, India Mobile: 8919778619, 6383186215

#### **Accommodation**

**Prof. Dr. M. Prakash** VMKVASC, Salem, Tamilnadu, India Mobile: 9962543005

Venue : Vinayaka Mission's Research Foundation (Deemed to be University), Salem, Tamilnadu.