



INVITATION



WORKSHOP ON INTERPRETATION OF INSTRUMENTAL METHODS (WIIM-2020)

(UV-VIS, FTIR, BET Surface Area, Particle Size Distribution, Zeta Potential Measurement, Contact Angle Measurement, XRF and FESEM)

to be held on 6th - 8th January, 2020

organized by

DEPARTMENT OF CHEMISTRY

&

INTERNATIONAL RESEARCH CENTRE

SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY

(Deemed to be University)

&

in association with



CSIR - NATIONAL METALLURGICAL LABORATORY MADRAS CENTRE

**CSIR Madras Complex, Taramani
Chennai - 600 113**

WHO CAN BENEFIT...

Scientists, Faculty members, Post-doctoral fellows, Research scholars, Students from Science and Engineering branches (Mineral Processing / Metallurgy / Chemical / Civil / Polymer / Material Science / Organic / Analytical / Industrial / Physical / Surface Chemistry) and those working in industry (Quality Control and Research & Development) and wishing to improve their proficiency in handling and interpretation of data generated from analytical instruments

OUTLINE OF THE WORKSHOP

- Theory related to instrumental methods of analysis
- UV-Visible and FTIR spectroscopy demo experiments and interpretation of results
- Interpretation of BET- Adsorption isotherms, Pore Size Distribution curves
- Interpretation of Particle Size Distribution - Zeta Potential measurements
- Interpretation of Contact angle and Surface energy measurements
- XRF and it's significance
- Electron Microscopy and it's applications

ABOUT SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY

Sathyabama Institute of Science and Technology is a pioneer in Engineering Education and was established with the aim of providing quality higher education in the areas of Engineering, Science and Technology on par with international standards. It persistently seeks and adopts innovative methods to improve the quality of higher education. The university has been accredited by National Assessment and Accreditation Council (NAAC) and ISO 9001: 2008 Certification for Professional Quality Management Practices. The Institute offers 31 undergraduate programmes and 27 postgraduate programmes in diverse fields of education. State of the art Library, International Research Centre and an exclusive Research & Development Centre provide rich experience of learning and thereby fulfilling students' thirst for success. The University has undertaken various sponsored and collaborative research and development projects funded by national organizations such as Indian Space Research Organization (ISRO), Department of Science and Technology (DST), Indira Gandhi Centre for Atomic Research (IGCAR), Defence Research and Development Organization (DRDO), Department of Bio-Technology (DBT), Ministry of Environment and Forests (MoEF), Board of Research in Nuclear Sciences (BRNS) etc. The University holds great promise to expand the applications of space technology, benefiting the common man and enriching the quality of life. A step towards achieving this, the University is successfully conducting non formal education programmes through 18 Village Resources Centre (VRCs) all over the state of Tamil Nadu. The research activity is progressive and proactive with 265 funded projects worth of around Rs.63.5 Crores, which has been sanctioned by various national organizations.

ABOUT CSIR - NATIONAL METALLURGICAL LABORATORY

National Metallurgical Laboratory (NML) is a premier laboratory within the ambit of Council of Scientific and Industrial Research (CSIR) New Delhi, a statutory body under Government of India. CSIR - National Metallurgical Laboratory Madras Centre (CSIR - NMLMC) an extension Centre of CSIR NML, over the years has undertaken several R&D projects in the areas of mineral beneficiation, micro-structural characterization and failure analysis of various industrial components. The Centre has developed flowsheets for the beneficiation of ferrous and non-ferrous, industrial minerals which include limestone, feldspar, barite etc. In recent years, the Centre has made significant contributions to the development of column flotation technology for Indian mineral industry. Commercial flotation columns were commissioned for the beneficiation of sillimanite and barite. Over the years, the centre has developed expertise and state-of-the-art facilities to carry out materials characterization and metallurgical failure investigations for various engineering industries like power and automobile sector. The centre is actively working towards developing value added products from mineral/mine wastes and also provides services for characterization of tiles, paver blocks and natural building stones.

List of Advisory Committee

1. Dr. D. D. Sarma, Indian Institute of Science, Bangalore
2. Dr. T. Sasipraba, Sathyabama Institute of Science and Technology, Chennai
3. Dr. Goutam De, Institute of Nano Science & Technology Habitat Centre, Mohali
4. Dr. P. K. Das, Indian Institute of Science, Bangalore
5. Dr. G. Bhaskar Raju, (Retd.) Chief Scientist, CSIR – NML, Chennai
6. Dr. M. T. Karupiah, Ministry of Environment, Forests & Climate Change, Delhi
7. Dr. K. Ravichandran, University of Madras, Chennai
8. Dr. M.V. Shankar, Yogi Vemana University, Kadapa
9. Dr. A. K. Sahu, CSIR-CECRI, Chennai
10. Dr. M. Muthukumar, Central University of Kerala, Kasargod
11. Dr. K. Pandian, University of Madras, Chennai
12. Dr. B. S. Murty, IIT Hyderabad
13. Dr. D. S. Rao, CSIR-IMMT, Bhubaneswar
14. Dr. S. Sundar Manoharan, Sathyabama Institute of Science and Technology, Chennai
15. Dr. T. V. Vijaya Kumar, CSIR-NML, Chennai
16. Dr. T. Narasimhaswamy, CSIR-CLRI, Chennai
17. Dr. M. Murugananthan, PSG Tech, Coimbatore
18. Dr. C. Sasikumar, MNIT, Bhopal
19. Dr. V. Jayatheertha Rao, IICT, Hyderabad
20. Dr. J. Sreeramulu, SK University, Anantapur

Registration Fee Details:

| Category | Till | After |
|--|------------|------------|
| | 05/11/2019 | 05/11/2019 |
| PG Students | 2000/- | 3000/- |
| Research Scholars – JRF / SRF / RA / Project Assistants / Ph.D Students) | 3000/- | 4000/- |
| Faculty Members/Scientists/Post Doc. | 3000/- | 4000/- |
| Participants from industry | 4000/- | 5000/- |

Intimation to selected Participants: Selected participants will be intimated through E-mail or SMS. Mode of payment details will be provided to selected participants only.

Accommodation: On 'First-come-first-serve' basis and will be arranged free of cost in the university hostels for participants.

Organizing Secretary

Dr. T. SASIPRABA
Pro-Vice Chancellor
Sathyabama Institute of Science and
Technology (Deemed to be University)
Chennai - 600 119

CONVENERS

Dr. K. Chennakesavulu
Associate Professor
Dept. of Chemistry, SIST
Ph: 09600187387
Email: wiim2020@sathyabama.ac.in
kck@sathyabama.ac.in

Mrs. N. Vasumathi
Senior Scientist
CSIR-NML Madras Centre
Ph: +91 44 22542077
wiimsist2020@gmail.com

Organizing Secretary

Dr. T. V. VIJAYA KUMAR
Scientist-In-Charge
CSIR-NML Madras Centre
CSIR Madras Complex
Chennai - 600 113

CO-CONVENERS

Dr. G. Ramanjaneya Reddy
Scientist
International Research Centre, SIST
Ph: 09994228166
Email: wiimsist@sathyabama.ac.in
grr@sathyabama.ac.in

Ms. Ajita Kumari
Scientist
CSIR - NML Madras Centre
Ph: +91 44 22542077
wiimsbu2020@gmail.com
Dr. J. Karthikeyan
Associate Professor,
Dept. of Chemistry, SIST

WIIM-2020
6-8th, JANUARY, 2020
REGISTRATION FORM

1. Name :

2. Designation & Affiliation and address:
(Including e-mail and Mobile number)

3. Category of Participant: Research scholars/ Faculty members/ PG student

3. Fields of interests:

4. Your expectations from this work shop:

5. A short CV of applicant should be attached along with registration form and submit to the Email: wiimsist2020@gmail.com, wiimsbu2020@gmail.com

Contact Conveners:

Dr. K. Chennakesavulu (Ph: 09600187387)

Dr. G. Ramanjaneya Reddy (Ph: 09994228166)