Dr. Sanjit Konar is an Associate Professor of Chemistry at IISER Bhopal. His research interests are Nanomagnets, MOF materials, polyoxometallates for catalysis, and nanoscopic molecular clusters and cages.

Dr. Shaikh M. Mobin is an Associate Professor at IIT Indore. His group focuses on single-source molecular precursors (SSMP) for the synthesis of functional nanomaterials.

Prof. Sujit K. Ghosh is a Professor of Chemistry at IISER Pune. His research efforts are focused in the areas of metal-organic frameworks, porous organic frameworks, and metal-organic polyhedra.

Prof. Jitendra K. Bera is a Professor of Chemistry at IIT Kanpur. His group focuses their efforts in organometallic catalysis for small-molecule activation. His group prepares various polynuclear metal constructs and study their catalytic activity.

Prof. Arijit Mukherjee is an Assistant Professor at BITS Pilani, Hyderabad Campus. His research interests are in the crystal engineering of organic solids, polymorphs, APIs, the design of functional materials among others.

Dr. Prathapa Siriyaa Jagannatha is a Product Manager and Application Scientist SC-XRD Bruker India Scientific Pvt. Ltd. His topic of interests is structure solution and data refinement.

Registration & Contact Details

- **Interested participants must register and only selected candidates would be invited for the workshop.**
- **For selected candidates Registration fees, local travel, Boarding and lodging will be covered by DST.**

Interested participants should register using the following link:

https://forms.gle/1DApgKYueBmgqAbL8

Registration Deadline: Aug. 12, 2022.

Shortlisted candidates will be intimated by email, latest by Aug. 16, 2022.

Eligibility criteria:

- Minimum qualification: Post-Graduate (Science) or B.Tech. (Technology).
- Professors/Scientists/Post-Doctoral Fellows/Ph.D. Fellows/Industry persons who are actively involved in R&D.
- Not more than 2 participants from an institute.

For more information:

Coordinator: **Dr. Manju S. L.**

Access: https://vit.ac.in/school-advanced-sciences-sas/one-week-workshop-x-ray-crystallography-and-determination-molecular

&

https://events.iitgn.ac.in/stuti/

Mail: dststuti.vit@vit.ac.in

Address: Department of Chemistry,
School of Advanced Sciences,
Vellore Institute of Technology,
Vellore, 632014, India.

Acknowledgements

सत्यमेव जयते
Department of Science & Technology
Govt. of India

Department of Science & Technology (DST) Funded Training Workshop Under STUTI

(Synergistic Training Program Utilizing the Scientific and Technological Infrastructure)

One Week Workshop on

X-Ray Crystallography and Determination of Molecular Structure

Aug. 22 – 28, 2022.

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Department of Chemistry,
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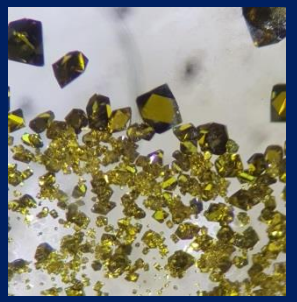

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Dr. Logesh Mathivathanan
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Contact details: dststuti.vit@vit.ac.in

About VIT: VIT was founded in 1984 as Vellore Engineering College by the Hon. Chancellor Dr. G. Viswanathan with the aim of providing quality higher education on par with international standards. It persistently seeks and adopts innovative methods to improve the quality of higher education on a consistent basis. National Assessment and Accreditation Council (NAAC) has re-accredited (IV Cycle) with a CGPA of 3.66 on a seven point scale at 'A++' Grade. VIT has been ranked 10th in Research, 12th in Engineering Category, 9th in University Category and 18th in Overall Category by the MHRD-NIRF Ranking 2022.

School of Advanced Sciences (SAS) is pledged to internationally acclaimed research and inventive instruction with a priority on disciplinary rigor and establish academic achievement. It comprises three academic departments spanning Chemistry, Physics & Mathematics. In QS world ranking by subject Chemistry Top 401-450, Mathematics Top-451-500 and THE ranking for Physical Sciences 601-800.

Programs Offered at VIT

The School offers M. Sc. Physics, RSC accredited M.Sc. Chemistry (Organic/Inorganic/Analytical/Pharma) M. Sc. (Data Science), M. Sc. Integrated Five Year Programs (Computational Statistics and Data Analytics, Chemistry, Physics and Mathematics) and Ph. D. programs.

Overview of STUTI and Objectives of the Workshop

DST welcomes all the participants for the workshop on Single Crystal X-Ray crystallography organised under STUTI. The STUTI program envisions hands-on-training and sensitization of the state-of-the-art equipment as well as towards sharing while ensuring transparent access to S&T facilities. Department of Science and Technology has identified IIT Gandhi Nagar (IITGN) as the Project Management Unit (PMU) and VIT as the coordinator for this workshop.

VIT Vellore is home to state-of-the-art instrumentation for SCXRD and the workshop will explore the theory and practice involved in various stages of molecular structure determination. Expert talks will provide our vision for the use of crystallography beyond simple structure determinations. We will highlight unusual problems faced in structure determination and provide solutions through expert lectures and hands-on training.

Contents of the workshop

Day 1 - Aug. 22, 2022
***Inaugural session*-Expert Talk by Dr. Sanjit Konar**
Hands-on Session: Introduction to single crystals and crystallization techniques – Dr. Arup Sinha and Dr. Logesh Mathivathanan

Day 2 - Aug. 23, 2022
Expert Talk by Dr. Shaikh M. Mobin and Dr. Arup Sinha
Hands on Session: Lab Visit, crystallization techniques -Dr. Asha Rani IV

Day 3 - Aug. 24, 2022
Expert Talk by Dr. Manish Kumar Mishra and Dr. Tamas Kumar Panda
Hands-on: Crystal screening and data collection - Dr. Palanisami N

Day 4 - Aug. 25, 2022
Expert Talk by Prof. Sujit Ghosh and Dr. Logesh Mathivathanan
Hand on: Crystal selection, mounting & centering- Ms. Sherin

Day 5 - Aug. 26, 2022
Expert Talk by Prof. Jitendra K. Bera and Dr. Prathapa Jagannadha
Hands on: Strategy optimizer & setting up a measurement Data reduction, scaling & structure solution - Dr. Manju S L

Day 6 - Aug. 27, 2022
Expert Talk by Dr. Arijit Mukherjee
Hands-on: Structure solution and refinement - Ms. Sherin Anto

Day 7 - Aug. 28, 2022
Interactive and Problem-solving session followed by closing remarks.

SCHEDULE

Day 1, 22/8/2022

08:30	Registration
09:00	Inaugural Session
10:45	Tea Break
11:00	Expert Talk 1
12:30	Lunch
14:00	Session II (Hands on)
16:30	Tea Break
16:45	Campus Visit

Day 2, 23/8/2022

09:00	Expert Talk 2
11:00	Break
11:30	Expert Talk 3
12:30	Lunch
14:00	Session II (Hands on)
16:30	Tea Break
16:00	Lab visit

Day 3, 24/8/2022

09:00	Expert Talk 4
11:00	Tea Break
11:30	Expert Talk 5
12:30	Lunch
14:00	Session IIA
15:30	Tea Break
16:00	Session IIB
17:00	Discussion

Day 4, 25/8/2022

09:00	Expert Talk 6
11:00	Tea Break
11:30	Expert Talk 7
12:30	Lunch
14:00	Session IIA
15:30	Tea Break
16:00	Session IIB
17:00	Discussion

Day 5, 26/8/2022

09:00	Expert Talk 8
11:00	Tea Break
11:30	Expert Talk 9
12:30	Lunch
14:00	Session IIA
15:30	Tea Break
16:00	Session IIB
17:00	Discussion

Networking Dinner on Day 5

Day 6, 27/8/2022

09:00	Expert Talk 10
11:00	Tea Break
11:30	Expert Talk 11
12:30	Lunch
14:00	Session IIA
15:30	Tea Break
16:00	Session IIB
17:00	Discussion

Day 7, 28/8/2022

09:00	Interactive session
11:15	Tea Break
11.30	Closing remarks