

Indian Science Technology and Engineering facilities Map (I-STEM)

Invites application for

Partial financial support for creating skilled manpower(Format-4)

Format for requesting support for accessing and using facilities through the I-STEM web portal.

(i) Profile:

a.	Name of the Training Coordinator	: Dr.K. Saminathan Assistant professor Department of Chemistry Kongunadu Arts and Science College (College of Excellence - UGC) G. N.Mills Post Coimbatore- 641 029 Tamil Nadu
b.	Name of the R&D facility	: Sophisticated Instrument Facilities Department of Chemistry
c.	Name of the Department	: Chemistry
d.	Name of the Institution	: Kongunadu Arts and Science College (Autonomous) College of Excellence (UGC) G.N.Mills Post, Coimbatore - 641029, Tamil Nadu, INDIA

Details of training

Name of R&D Equipment	1. Fourier transform infrared spectroscopy – attenuated total reflectance (FTIR-ATR) 2. Atomic Absorption Spectroscopy (AAS)
Duration and Hours of Usage of Tools/day	: 14 days-5 hours/day
Duration of Theoretical Training	: 2hour/day
No. of trainer Involved	: 5 persons
No. of Manpower to be trained per training	: 25 persons
Details of the Training module/Course Content	: Yes
No. of Training in a Year	: Two

Details of the Budget (in Rs):

Training Cost	: 1,60,000/-
Consumables	: 40,000/-
TA/Hospitality for Trainers	: 45,000/-
Study Materials and Contingency	: 10,000/-
Refreshment	: 25,000/-
Contingency	: 10,000/-

Day	Tentative Theory and Practical Class Training workshop on Analytical Instruments - FT-IR and AAS				
	HOUR 1	HOUR 2	HOUR 3	HOUR 4	HOUR 5
1	Analytical Instruments Introduction		FTIR Demonstration		
2	Spectroscopy General Introduction		AAS Demonstration		
3	Atomic Adsorption Spectroscopy Introduction		Atomic Adsorption Spectroscopy Sample Preparation		
4	Atomic Adsorption Spectroscopy types and Application		Atomic Adsorption Spectroscopy Sample Analysis		
5	Preparation of Instrument - Lamp selection, Concentration range, BDL		Trouble Shooting Regular Maintenance – AAS Open view of AAS		
6	Trouble shooting, DO'S and DONOT'S in AAS		Safety Procedures and Maintenance – AAS, Compressor, Cylinder		
7	Infrared Spectroscopy Introduction		FT- IR Sample preparation and Analysis		
8	FT- Infrared Spectroscopy types and Application		IR –Spectra Interpretation – I		
9	Trouble shooting, DO'S and DONOT'S in FT-IR		IR –Spectra Interpretation - II		
10	Regular Maintenance – FT-IR		Govt. Certification Process for Analytical Lab – NABL , GLP		
11	Practical Problems -AAS		Inter Lab sample Analysis and Checking		
12	Practical Problems -FT-IR		Practical Examination – FT-IR		
13	Lab Record and Documentations		Practical Examination – AAS		
14	Institute analytical Facility visit		Valedictory, Feedback and Suggestion		

Trainer & Specialist

S. no.	Charge	Name and Designation	Expertise/Specialization
1.	Trainer	Dr. C. VEDI, Ph.D., Assistant Professor Department of Chemistry V. O. Chidambaram College Thoothukudi, 628008 Tamil Nadu, India.	FT-IR Spectroscopy
2.		Dr. D. THIRUMALAI, Ph.D., Assistant Professor Department of Chemistry Thiruvalluvar University Vellore-632 115. Tamil Nadu, India.	Spectroscopy
3.		Mr. J. SEIKO, Scientist (Textile Chemistry) Central Sheep and Wool Research Institute (CSWRI) Indian Council of Agricultural Research (ICAR), Govt. India Avikanagar, Rajasthan-304501, India.	Materials characterization
4.		Mr. Shamkumar K V Asst. Advisory Officer UPASI Tea Research Foundation Regional Centre, Vandiperyar - 685533 Kerala	Analytical Instruments
5.		Dr. V. Sangeetha, Assistant professor and HOD, Department of Chemistry, Kongunadu Arts and Science College	Synthetic organic spectroscopy
6.		Dr. M. S. Siva Ram Kumar, Assistant professor, Department of Chemistry, Kongunadu Arts and Science College	Solid state and crystallography
7.		Dr. R. Manimekalai, Assistant professor, Department of Chemistry, Kongunadu Arts and Science College	Coordination chemistry
8.		Dr. R. Velmurugan, Assistant professor, Department of Chemistry, Kongunadu Arts and Science College	Organic chemistry
9.		Dr. K. Saminathan, Assistant professor, Department of Chemistry, Kongunadu Arts and Science College	Physical chemistry

10.	On-call	Dr. E. Jeyanthi, Assistant professor, Department of Chemistry, Kongunadu Arts and Science College	Organometallic chemistry
11.		Dr. K. Krishnaveni, Assistant professor, Department of Chemistry, Kongunadu Arts and Science College	Phytochemistry
12.		Dr. K. Chandraprakash, Assistant professor, Department of Chemistry, Kongunadu Arts and Science College	Natural products isolation
13.	Instrument Expert	Er. Padmanaba Kumar Retired technician of Perkin Elmer	25 years in analytical instruments installation and service with different MNC.
14.		Er. Palani Customer Support Engineer	FTIR Specialist - 5 years analytical instruments installation and service.
15.	Technical	Mr.R. Kandeegan	FT-IR Operator
16.	Assistant	Mr. K. Manojkumar	AAS OPERATOR