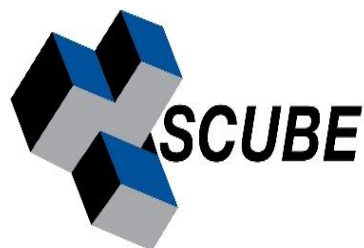


Virtual workshop on Computational and Analytical Softwares (CAS)

A report on workshop organized

in association with

SCUBE SCIENTIFICS SOLUTIONS



SUBMITTED BY

Dr.V.Kavitha
Convener

Department of Chemistry
Sathyabama Institute of Science and Technology
Jeppiaar Nagar, Rajiv Gandhi Salai
Sholinganallur, Chennai 600 119
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Ph: 044-24503145

08th Aug. 2021.

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**SCUBE**

Virtual Workshop on Computational and Analytical Software

Date: 4-6th August 2021
Time: 2.00-4.30 PM

Dr. MARIAZEENA JOHNSON
CHANCELLOR

Dr. MARIE JOHNSON
PRESIDENT

Ms.MARIA BERNADETTE TAMILARASI JOHNSON
VICE PRESIDENT

CONVENER: Dr.V.KAVITHA, PROFESSOR, CHEMISTRY DEPT
Co-CONVENER:Dr.J.KARTHIKEYAN, HEAD, CHEMISTRY DEPT

SCHEDULE



Dr. JYOTI SAINI,

SCUBE SCIENTIFICS

DATE: 4 & 5th August 2021;

TIME: 2.00-4.30 PM

TOPIC: Training on Gaussian 16 and Gauss view 6 softwares for DFT Calculations

4th August- Introduction to Gaussian 16; Drawing with Gausview; Creating Input and reading output file for Gaussian 16

5th August- Geometry Optimization; IR and Raman calculations; Studying molecular properties (Orbital analysis, solvation calculations)

Dr. CHARITRA GOUR,

SCUBE SCIENTIFICS

DATE: 6th August 2021;

TIME: 2.00-4.30 PM

TOPIC: Training on Mnova softwares for spectral data processing

6 August- Introduction to Mnova and Plugins; Processing of NIR/UV data, Predict the 1d and 2d NMR spectra, Structure elucidation



- Interested students/Faculty/ Research scholar can register through the link
<https://tinyurl.com/DCVWCAS>
- Registration Fee: Rs. 500
- Bank Details: Indian Bank, Sathyabama Institute of Science and Technology- Research
Account No; 6089858032 IFSC Code: IDIB000S201
- e-certificates On successful completion of the workshop



Zoom link will be provided to all registered participants

**For Further Details:
Dr. V. Kavitha
Professor, Chemistry Dept.
Phone: 9080541570**



DEPARTMENT OF CHEMISTRY

Virtual workshop on Computational and Analytical Softwares (CAS)

In association with

SCUBE SCIENTIFICS SOLUTIONS

Participants List

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1.	UPENDRANATH K	KUVEMPU UNIVERSITY	upendrarwl@gmail.com
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REPORT ON “VIRTUAL WORKSHOP ON COMPUTATIONAL AND ANALYTICAL SOFTWARES-CAS”

A 3- day virtual workshop on Computational and Analytical softwares was organized by Department of Chemistry, Sathyabama Institute of Science and Technology in association with SCUBE Scientifics Solutions from 4th August to 6th August 2021. The main objective of the workshop is to sensitize and create awareness on critical analysis of spectral data in particular Nuclear Magnetic Resonance (NMR spectra) together with Density Functional Theory using Gaussian software. Around 50 Chemistry postgraduates, research scholars and faculty across various colleges have participated in the programme. The workshop has commenced with an welcome address by **Dr. V.Kavitha**, Professor, Sathyabama Institute of Science and Technology and the convener of CAS. She has narrated the programme schedule and greeted the participants.

Day 1- 4th August 2021.

The workshop is focused on ‘Introduction to Gaussian and Gauss view’ and the resource of the event was **Dr. Jyoti Saini**, SCUBE Scientifics Solutions. She has given an insight into electronic structure theory, point symmetry and Basis set for DFT applications. An introduction to drawing of optimized chemical structures with point symmetry was highlighted in the workshop. She gave a detailed explanation on creation of input/output file and computing of energy values from the output file.

Day 2- 5th August 2021.

The lecture for the 2nd day workshop was delivered by **Dr. Jyoti Saini**, SCUBE Scientifics Solutions. She has explained on geometry optimization of chemical structures and prediction of Transition state for the Nucleophilic substitution reaction. She has described on the IR and Raman frequency calculation together with solvation energy for the optimized chemical compounds. The lecture was ended with questionnaire from the participants.

Day 3- 6th August 2021.

The lecture for the 3rd day workshop was outlined by **R.Charith Gaur**, SCUBE Scientifics Solutions. He has emphasized on the basis of NMR spectroscopy and gave a detailed lecture on the usage of MNova software for solving the 1D NMR spectra of Carbon-13(¹³C-NMR), Proton (¹H). The 2D NMR spectroscopy on COSY, NOSY and ROSY was explained using the software. The session was ended with questionnaire from the participants

The programme was concluded with a **vote of thanks** by **Dr. V.Kavitha**, Professor, Sathyabama Institute of Science and Technology and the convener of CAS.

SCREENSHOTS -CAS

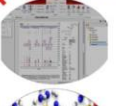
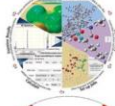

SATHYABAMA
 INSTITUTE OF SCIENCE AND TECHNOLOGY
 (DEEMED TO BE UNIVERSITY)


 DNV-GL
 QUALITY SYSTEM CERTIFICATION
 ISO 9001:2015

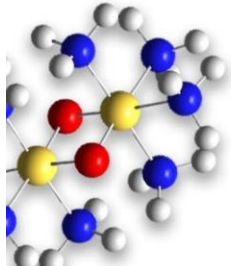
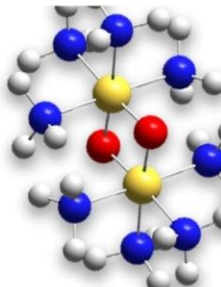
SCHOOL OF SCIENCE AND HUMANITIES
DEPARTMENT OF CHEMISTRY
in association

SCUBE
 Organizes

Virtual Workshop on Computational and Analytical Software
 Date: 4-6th August 2021
 Time: 2.00-4.30 PM

CHIEF PARTONS
Dr. MARIAZEENA JOHNSON **Dr. MARIE JOHNSON**
 CHANCELLOR PRESIDENT
Ms. MARIA BERNADETTE TAMILARASI JOHNSON
 VICE PRESIDENT
Dr. T. SASIPRABA, VICE CHANCELLOR
 CONVENER: **Dr. V. KAVITHA, PROFESSOR, CHEMISTRY DEPT**
 Co-CONVENER: **Dr. J. KARTHIKEYAN, HEAD, CHEMISTRY DEPT**

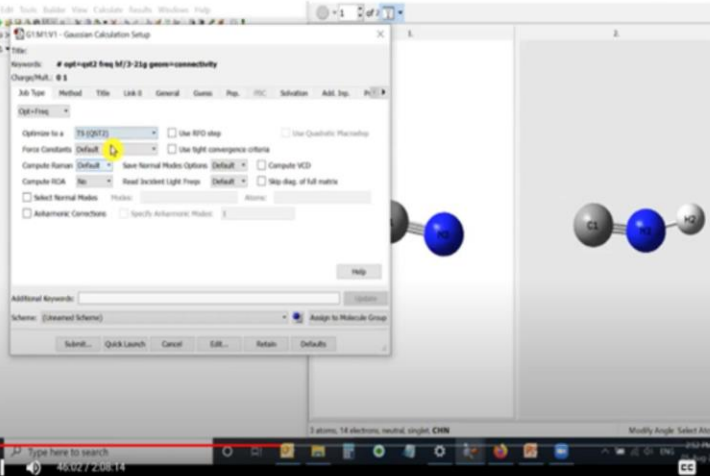



Gaussian 16 v. C.01

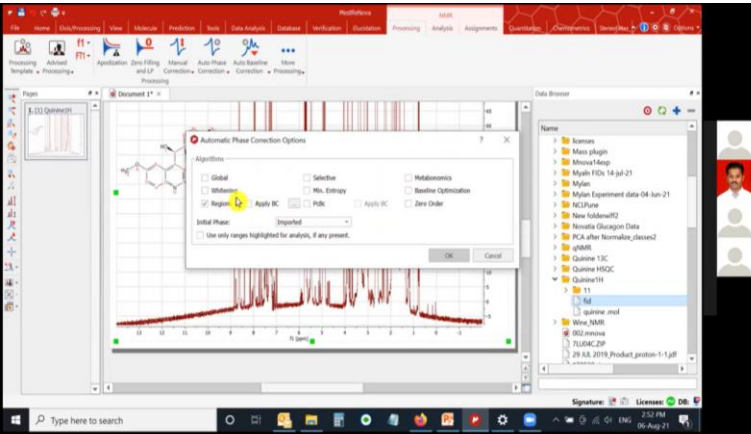


Gaussian 16 and GaussView 06
 Expanding the limits of Computational Chemistry

Speaker – Charitra Gour
 Technical Consultant
 Scube Scientific Software Solutions (P) Ltd., New Delhi



Collage of screenshots of Computational and Analytical softwares- 4th -6th August 2021.



Screenshot of Computational and Analytical softwares-4th-6th August 2021.

DEPARTMENT OF CHEMISTRY

Virtual workshop on Computational and Analytical Softwares (CAS)

In association with

SCUBE SCIENTIFICS SOLUTIONS

FEED BACK-CAS

S.No	e-mail Address	Name of the Participant	Lecture Series	Any other remarks
1	vinocathin@gmail.com	M.Vinolia	good	good
2	Knandhiniarcot25@gmail.com	Nandhini K	outstanding	NIL
3	hamsaguna@gmail.com	G.Hamsavalli	outstanding	Very informative
4	praveenapsr2002@gmail.com	B. Praveena	excellent	NIL
5	yzmkmi@gmail.com	Dr. Y. Zulykama	good	Excellent
6	geetha.j@rajalakshmi.edu.in	Mrs . Geetha chandrasekran	excellent	Voice is not clear
7	harihasini771@gmail.com	S. Mugeshini	excellent	No
8	jayabalaji14@gmail.com	Jayabalaji G	good	good
9	Knandhiniarcot25@gmail.com	Nandhini K	outstanding	No
10	rackshna27@gmail.com	Rackshnadevie S	satisfactory	The lecture was very useful
11	madhu.vasantha@gmail.com	Madhura TK	good	Overall the session was informative
12	upendrarwl@gmail.com	Upendranath K	outstanding	This workshop was very useful and given thought was excellent
13	shahilkirupavathy@velammal.edu.in	Dr. S. Shahil Kirupavathy	good	-
14	anjankumargc87@gmail.com	ANJAN KUMAR GC	excellent	No, we have good session all 3 days.
15	tkmadhura2019@gmail.com	Madhura T K	good	It was a good presentation
16	seemakhemalapure014@gmail.com	DR SEEMA S KHEMALAPURE	excellent	please share the video of workshop
17	hamsaguna@gmail.com	G. Hamsavalli	outstanding	Very informative
18	sudheerh24@gmail.com	Dr.Sudhir M.Hiremath	outstanding	Nice workshop

19	nrajeswari24phy@gmail.com	N. Rajeswari	good	Very useful
20	Meghahugar 99 @ gamil. Com	Megha GV	good	No
21	Chandrika.dak@gmail.com	D. Chandrika	excellent	Good

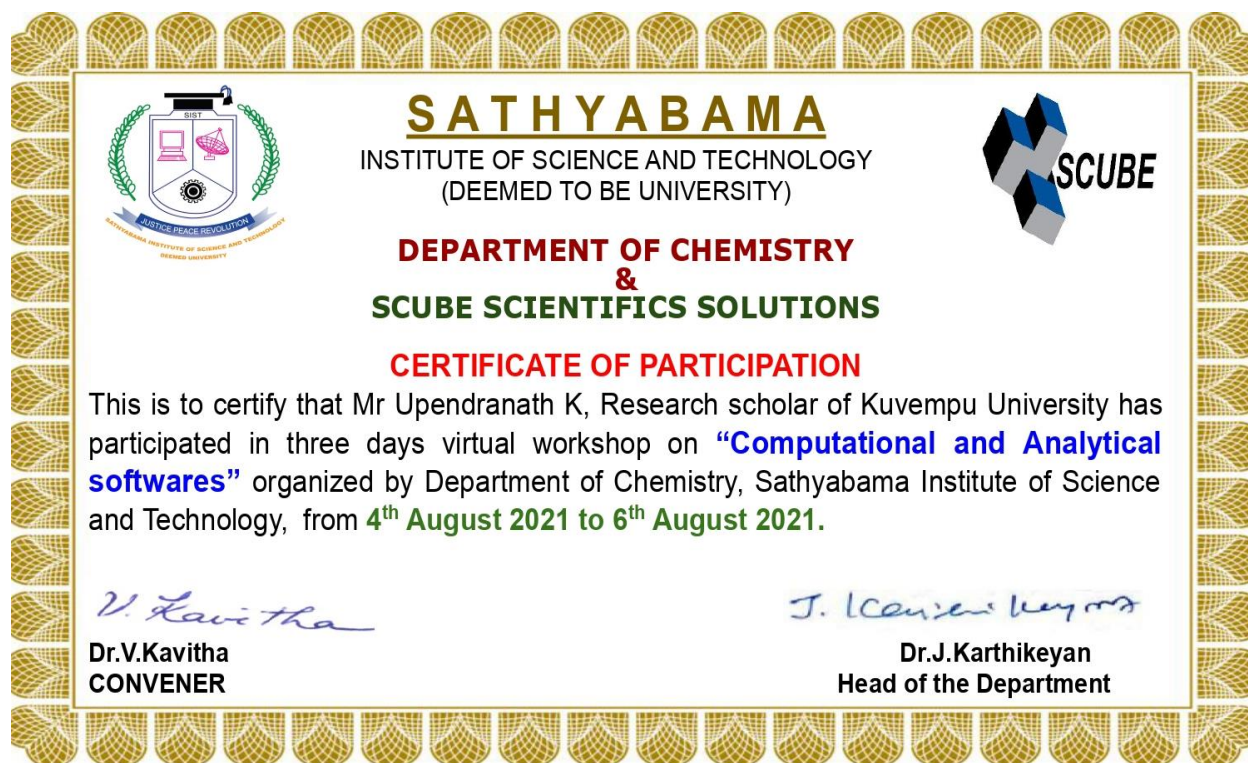
DEPARTMENT OF CHEMISTRY

Virtual workshop on Computational and Analytical Softwares (CAS)

In association with

SCUBE SCIENTIFICS SOLUTIONS

MODEL CERTIFICATE





WORKSHOP ON PARTICLE CHARACTERISATION TECHNIQUES (PCT-2022)

**(Particle Size Distribution, BET Surface Area, XRF, FT Raman,
NMR, FE-SEM, HR-TEM, Zeta Potential & Contact Angle Measurements)**

to be held from 30th May to 06th June, 2022



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.**

IMPORTANT INSTRUCTIONS TO THE PARTICIPANTS

1. My E-Class Registration is mandatory for every participant.
2. In My E-Class module wise recorded demo video versions of all the techniques will be provided.
3. The session wise zoom link will be provided to the participants in My E- Class platform.
4. The Tentative Schedule was given below for your reference
5. The state wise list of confirmed participants was given below for your reference
6. If any discrepancies and clarifications, please contact conveners over Phone/E-mail.



WORKSHOP ON PARTICLE CHARACTERISATION TECHNIQUES (PCT-2022)

(Particle Size Distribution, BET Surface Area, XRF, FT Raman,
NMR, FE-SEM, HR-TEM, Zeta Potential & Contact Angle Measurements)
to be held from 30th May to 06th June, 2022



THE TENTATIVE SCHEDULE FOR PCT - 2022

Date	Session	Name of the speaker	Topic
30-05-2022	09.00 to 10.00	INAUGURATION	
	10.00 to 11.00	Himansu Tyagi, GAD TLC, Gujarath	Registration Process for My E-Class
	11.00 to 13.00	Dr Goutam De, Emeritus Scientist (S. N. Bose National Centre for Basic Sciences, Kalcutta)	Inaugural Lecture
	03.00 to 05.00	Dr K Chennakesavulu, Associate Professor (Sathyabama)	Introduction to Instrumental Methods
31-05-2022	10.00 to 11.00	Dr. Ajithkumar, Asistant Professor (Sathyabama)	Introduction to Raman Spectroscopy and it's applications
	11.00 to 13.00	Dr G Narasimhaswamy, Retd. Scientist, CLRI	Solid State NMR of Materials
	03.00 to 04.00	Dr. G. Bhaskar Raju, Retd. Scientist CSIR-NML MC	Solid/Liquid Interface
	04.00 to 04.45	Mrs. Subha Sree Nag from Clarivatics & Abhijeeth Dervent Innovation	Usage of Web of Science - Clarivatic Analysis
01-06-2022	10.00 to 13.00	Dr. Anilkumar & Dr. Chandrashekhar N (Bruker Academy)	Basics of NMR & Demo of NMR equipment
	03.00 to 04.00	Dr. D K Sharma, MD Kunas Instruments	Particle Size Analysis
	04.00 to 05.00	Dr. Subhamjith Hazra, Scientist (Sathyabama)	Fluorescence Spectroscopy



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02-06-2022	10.00 to 14.00	Mr. G. Mallikarjuna Swamy, Manager (Verder Scientific)	PSD and BET Surface Area & LIVE DEMO
	03.30 to 05.00	Dr. Daniel Alouis, Manager (Carl Ziess)	FESEM Demo and Interpretation
03-06-2022	10.00 to 13.00	Dr. Ajita Kumari, Scientist (CSIR-NML MC)	BET Surface area Analysis & LIVE DEMO
	03.00 to 05.30	Dr Y Jaya Prakash Rao, Professor (Osmania University, Hyderabad)	Introduction to FTIR Spectroscopy & LIVE DEMO
04-06-2022	10.00 to 11.00	Dr. Sasikumar C, Associate Professor (MNIT, Bhopal)	XRD & XRF
	11.00 to 13.30	Dr. Krishna Kumar, Technical Officer (VELS University)	FESEM - Representation of Results and Interpretation
	03.00 to 05.30	Dr. Y Jaya Prakash Rao, Professor (Osmania University, Hyderabad)	Introduction to NMR Spectroscopy
06-06-2022	10.00 to 11.30	Dr. Sai Malldi, Head HR-TEM (IIT Hyderabad)	HRTEM
	11.30 to 12.00	Dr. K Chennakesavulu, Associate Professor (Sathyabama)	Calculation of Free Energy of Adsorption for Solid/Liquid Interface
	03.00 to 04.00	Dr. Bhaskar, Scientific Officer (IIT Madras)	Applications of NMR
	04.00 to 05.00	Validictory Session	



WORKSHOP ON PARTICLE CHARACTERISATION TECHNIQUES (PCT-2022)

(Particle Size Distribution, BET Surface Area, XRF, FT Raman,
NMR, FE-SEM, HR-TEM, Zeta Potential & Contact Angle Measurements)
to be held from 30th May to 06th June, 2022



LIST OF CONFIRMED PARTICIPANTS FOR PCT – 2022

S.No.	NAME OF THE PARTICIPANT	Department	Affiliation and Full address	STATE/UT	Category of Participant
1	Dr. ANUJA CHARPE	Civil Engineering	Assistant Professor, Civil Engineering Department, VR Siddhartha Engineering College.	ANDHRA PRADESH	Faculty /Scientist
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8	Dr. PANKAJ KALITA	Zoology	Eastern Karbi Anglong College, Sarihajan, Karbi Anglong, Assam	ASSAM	Faculty /Scientist
9	Dr. HIMANI MEDHI	Chemistry	Eastern Karbi Anglong College, Sarihajan, Karbi Anglong, Assam-782480	ASSAM	Faculty /Scientist
10	RUNA RAHMAN	Department of Botany	Department of Botany, North Gauhati College, College Nagar Guwahati 781031	ASSAM	Faculty /Scientist



WORKSHOP ON PARTICLE CHARACTERISATION TECHNIQUES (PCT-2022)

(Particle Size Distribution, BET Surface Area, XRF, FT Raman,
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15	Dr. MANORAMA	Chemistry	Guru Ghasidas Vishwavidyalaya, Bilaspur, Chhattisgarh	CHHATTISGARH	Faculty /Scientist
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36	GURUMURTHY B RAMAIAH	Textile Technology	Technical and Vocational Training Institute, Addis Ababa,Ethiopia	KARNATAKA	Faculty /Scientist



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41	ROMANA MARIYAM RASHEED	Civil Engineering	Assistant Professor, Department of Civil Engineering, TKM College of Engineering, Kollam-691005, Kerala, India	KERALA	Faculty /Scientist
42	ROMANA MARIYAM RASHEED	Civil Engineering	Assistant Professor, Department of Civil Engineering, TKM College of Engineering, Kollam-691005, Kerala, India	KERALA	Faculty /Scientist
61	Dr.. SHIVKANYA FULORIA	Faculty of Pharmacy	AIMST University, semeling campus, Bedong -08100	MALAYSIA	Faculty /Scientist
64	DEEPAK KUMAR SAHU	Mineral Processing Department	CSIR-IMMT, Acharya vihar, Khurda District, Bhubaneswar, Odisha, 751013	ODISHA	Faculty /Scientist
68	ANJU NIRWAN	Defence laboratory, Jodhpur	Defence Laboratory, Jodhpur	RAJASTHAN	Faculty /Scientist
70	P.MRUDULA	Center for nanobiotechnology	VIT,Vellore	TAMIL NADU	Faculty /Scientist
71	MADHURI W	Physics	VIT Vellore	TAMIL NADU	Faculty /Scientist
85	Dr. ASHVIN L KAREMORE	Sr. Research Engineer	Bharat Petroleum Corporation Ltd.	UTTAR PRADESH	Industry
86	MS. SAYANTI GHOSH	Manager (R&D)	Bharat Petroleum Corporation Ltd.	UTTAR PRADESH	Industry
87	Dr. BASKAR NATARAJAN	Manager (R&D)	Bharat Petroleum Corporation Ltd.	UTTAR PRADESH	Industry



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88	Dr. SUPRIYO MAJUMDER	Manager (R&D)	Bharat Petroleum Corporation Ltd.	UTTAR PRADESH	Industry
89	Dr.. RAJ KUMAR DAS	Manager (R&D)	Bharat Petroleum Corporation Ltd.	UTTAR PRADESH	Industry
90	Dr. JITENDRA KUMAR SATYARTHI	Manager (R&D)	Bharat Petroleum Corporation Ltd.	UTTAR PRADESH	Industry
91	DHARMENDRA PANDEY	Sr. Manager (R&D)	Bharat Petroleum Corporation Ltd.	UTTAR PRADESH	Industry
92	Dr. ARUNDHATHI RACHA	Sr. Manager (R&D)	Bharat Petroleum Corporation Ltd.	UTTAR PRADESH	Industry
11	MAHESH RAJMAL MAHAJAN	ENEGRY	IIT GUWAHATI	ASSAM	PG Student
66	RITA MEIRA COELHO	Physics	University of Aveiro	PORTUGAL	PG Student
5	SAI SANTOSHI TANGIRALA	Physics	GITAM University, Visakhapatnam	ANDHRA PRADESH	Research Scholar
6	MEERAVALI KARUMANCHI	Civil Engineering	Vignan's Foundation for Science, Technology, and Research (Deemed to be University), Vadlamudi, Guntur-522213, A.P, India	ANDHRA PRADESH	Research Scholar
7	K.BHARATHI DEVI	Mechanical engineering	JNTU Anantapur	ANDHRA PRADESH	Research Scholar
12	DEBOLINA GHOSH	Environment	Centre for Environment, IIT Guwahati Guwahati, Assam Pin 781039	ASSAM	Research Scholar



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13	CHAYANIKA DEVI	Life Science and Bioinformatics	Assam University, Diphu Campus, Diphu, Karbi Anglong, Assam, India	ASSAM	Research Scholar
14	ARCHANA KUMAR	University Department of Physics, T.M.B.U. , Bhagalpur.	Tilka Manjhi Bhagalpur University, Bhagalpur, Bihar-812007, India.	BIHAR	Research Scholar
20	BAMANIYA SANJAY KUMAR NATHU BHAI	Department of Chemistry	Bhakt Kavi Narsinh Maheta University Junagadh, Khadiya, Junagadh.	GUJARAT	Research Scholar
21	RANJIT DANDAPANI MOHILI	Chemistry	Pandit Deendayal Energy University, Raysan, Bhajipura, Gandhinagar	GUJARAT	Research Scholar
22	VARSHA PRAJAPAT	Department of Chemistry	Ganpat University, kherva, dist.Mehsana, Gujarat	GUJARAT	Research Scholar
23	VIPULKUMAR PRAJAPATI	Chemistry	Ganpat University, Ganpat Vidyanagar, Mehsana-Gozaria Highway, Kherva, Gujarat-384012	GUJARAT	Research Scholar
24	PAWAN KUMAR GUPTA	Analytical	Ganpat University, Mehsana, Gujarat	GUJARAT	Research Scholar
25	JITUBHAI H MORABIYA	Department of Chemistry	Affiliated with Bhakta Kavi Narsinh Mehta University - Junagadh (Gujarat)	GUJARAT	Research Scholar



WORKSHOP ON PARTICLE CHARACTERISATION TECHNIQUES (PCT-2022)

(Particle Size Distribution, BET Surface Area, XRF, FT Raman,
NMR, FE-SEM, HR-TEM, Zeta Potential & Contact Angle Measurements)
to be held from 30th May to 06th June, 2022



26	ISHITA KISHORCHANDRA RAVAL	Chemical engineering	A/148, Shree Krishnakunj Society-2, New V.I.P. Road, Near Jagdish Factory outlet, Vadodara	GUJARAT	Research Scholar
27	SHIWANI RANDHAWA	Biotechnology	CSIR-IHBT palampur, Himachal pradesh 176061	HIMACHAL PRADESH	Research Scholar
28	MOHINI VERMA	Biotechnology	CSIR- Institute of Himalayan Bioresource Technology, Palampur (H.P), 176061	HIMACHAL PRADESH	Research Scholar
29	TRILOK CHAND SAINI	Biotechnology	CSIR-INSTITUTE OF HIMALAYAN BIORESOURCE TECHNOLOGY Palampur himachal 176061	HIMACHAL PRADESH	Research Scholar
30	MANIK BATHLA	Nanobiology	CSIR-IHBT, Palampur	HIMACHAL PRADESH	Research Scholar
31	BAREERA KHAN	Biotechnology	Shoolini University of Biotechnology and Management Sciences, Bajhol, Solan, Himachal Pradesh, 173229	HIMACHAL PRADESH	Research Scholar
32	MODHU SAILAN BAGANI	Chemical Engineering	IIT Jammu, NH-44 , PO Nagrota, Jagti, Jammu and Kashmir 181221	JAMMU & KASHMIR	Research Scholar



WORKSHOP ON PARTICLE CHARACTERISATION TECHNIQUES (PCT-2022)

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33	SHAHNAZ ANJUM	Botany	Lovely Professional University, Phagwara-144411, Punjab	JAMMU & KASHMIR	Research Scholar
34	ANJANA YADAV	Physics	Department of Physics, Tilka Manjhi Bhagalpur University, Bhagalpur (812007)	JHARKHAND	Research Scholar
37	PARICHITA MISHRA	Ageing Research	Department of Ageing Research, Manipal School of Life Sciences, MAHE, 8QWQ+49F, Eshwar Nagar, Manipal, Udupi, Karnataka - 576104.	KARNATAKA	Research Scholar
38	PANKAJA K N	Physics	Research Assistant, Department of Physics, Reva University	KARNATAKA	Research Scholar
39	SUSHMA	Chemistry	vtu, belgaum Karnataka	KARNATAKA	Research Scholar
40	ELMA ELIZABA MATHEW	Physics and Electronics	Christ Deemed to be University, Bangalore	KARNATAKA	Research Scholar
43	NIMA A M	Department of Physics	Department of Physics, University of Kerala, Thiruvananthapuram, Kerala	KERALA	Research Scholar
44	MEERA C M	Civil Engineering	School of Engineering, Cochin University of Science and Technology, Kerala	KERALA	Research Scholar



WORKSHOP ON PARTICLE CHARACTERISATION TECHNIQUES (PCT-2022)

(Particle Size Distribution, BET Surface Area, XRF, FT Raman,
NMR, FE-SEM, HR-TEM, Zeta Potential & Contact Angle Measurements)
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45	KANCHAN KUSHWAHA	Chemistry	Devi Ahilya University Indore	MADHYA PRADESH	Research Scholar
46	PRAVINKUMAR B. NAGORE	Chemistry	Dr. Babasaheb Ambedkar Technological University, Lonere-Raigad, Maharashtra-402103.	MAHARASHTRA	Research Scholar
47	DIKSHA SURESH LINGAIT	Chemistry	Vishveshvaraeya National Institute of technology	MAHARASHTRA	Research Scholar
48	MANALI MANGESH BAGADE	Biological Sciences	CSIR- National Chemical Laboratory, Pune 411008	MAHARASHTRA	Research Scholar
49	RAJNIGANDHA ASHOK SHENDE	Biochemical Science	CSIR-NCL, Pashan road, Pune-411008	MAHARASHTRA	Research Scholar
50	KHETRE SUBHASH NAMDEV	Mechanical Engineering	NCER, Talegaon, Pune	MAHARASHTRA	Research Scholar
51	JITENDRA DATTATRAY SALUNKHE	school of life sciences KBC North Maharashtra University Jalgaon	Kavayitri Bahinabai Chaudhari North Maharashtra University Jalgaon, Maharashtra, india	MAHARASHTRA	Research Scholar
52	PRADNYA NIKAM	School of life sciences	Research student, school of life sciences KBCNMU, Jalgaon	MAHARASHTRA	Research Scholar
53	NARENDRA SUBHASH SALUNKHE	Department of Biochemistry	PhD Students, School of Life Sciences, KBC North Maharashtra University, Jalgaon	MAHARASHTRA	Research Scholar



WORKSHOP ON PARTICLE CHARACTERISATION TECHNIQUES (PCT-2022)

(Particle Size Distribution, BET Surface Area, XRF, FT Raman,
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54	ALIESHA MOUDGIL	Biochemical Sciences, CSIR-National Chemical Laboratory	Biochemical Sciences, CSIR-National Chemical Laboratory, Pashan, Dr Homi Bhabha Road, Pune 411008	MAHARASHTRA	Research Scholar
55	NEHA JAISWAL	Biochemical Sciences	CSIR	MAHARASHTRA	Research Scholar
56	MANISHA GOPAL VERMA	Chemistry Department	Visvesvaraya National institute of technology	MAHARASHTRA	Research Scholar
57	ALIESHA MOUDGIL	Biochemical Sciences, CSIR-National Chemical Laboratory	Biochemical Sciences, CSIR-National Chemical Laboratory, Pashan, Dr Homi Bhabha Road, Pune 411008	MAHARASHTRA	Research Scholar
58	NEHA JAISWAL	Biochemical Sciences	CSIR	MAHARASHTRA	Research Scholar
59	PRADNYA NIKAM	School of life sciences	Research student, school of life sciences KBCNMU, Jalgaon	MAHARASHTRA	Research Scholar
60	NARENDRA SUBHASH SALUNKHE	Department of Biochemistry	PhD Students, School of Life Sciences, KBC North Maharashtra University, Jalgaon	MAHARASHTRA	Research Scholar
62	PRIYA YADAV	Chemistry	Department of Chemistry, University of Delhi, New Delhi-110007	NCT OF DELHI	Research Scholar



WORKSHOP ON PARTICLE CHARACTERISATION TECHNIQUES (PCT-2022)

(Particle Size Distribution, BET Surface Area, XRF, FT Raman,
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to be held from 30th May to 06th June, 2022



63	DEEPSHIKHA YADAV	Physico-Mechanical Division	CSIR-National Physical Laboratory, Dr. K.S Krishnan Marg, New Delhi-110012	NCT OF DELHI	Research Scholar
65	DEEPTIAYEE PAL	Chemical Engineering	National Institute of Technology, Rourkela, District- Sundergarh, Pin- 769008 Odisha	ODISHA	Research Scholar
67	PALAK SONI	School of biochemistry and chemistry	Thapar Institute of engineering and technology, Patiala	PUNJAB	Research Scholar
69	PREKSHA PALSANIA	Environmental Sciences	Central University of Rajasthan, Bandar Sindri, NH-8, Kishangarh, Ajmer, Rajasthan-305817	RAJASTHAN	Research Scholar
72	RAMYA P	Chemistry	VIT,Vellore	TAMIL NADU	Research Scholar
73	RICHA GUPTA	Chemistry	For material characterization in my research work and 217, Clean energy lab, Dept. of chemistry, IIT Madras, Chennai.	TAMIL NADU	Research Scholar
74	KRATEEKA MADAN	Chemistry	IIT Madars, Lab no. 152 Department of Chemistry , IIT Madras. Chennai Tamil Nadu	TAMIL NADU	Research Scholar



WORKSHOP ON PARTICLE CHARACTERISATION TECHNIQUES (PCT-2022)

(Particle Size Distribution, BET Surface Area, XRF, FT Raman,
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75	JANAKI. S	Physics	St. Xavier's College, Palayamkottai.	TAMIL NADU	Research Scholar
76	R BHASKAR REDDY	Chemistry	Sathyabama University	TAMIL NADU	Research Scholar
77	L MARINI	Healthcare	Virginia Tech India Research and Education Forum, Maduravoyal Chennai - 600095	TAMIL NADU	Research Scholar
78	DINESH R	Healthcare Technologies Division	Virginia tech india research and education forum, Adayalampattu, Madurvoyal, Chennai-600095.	TAMIL NADU	Research Scholar
79	MOHAMMED ABBAS A	Chemistry	VIT, Vellore	TAMIL NADU	Research Scholar
80	P.SELLAM	Chemistry	Vellore Institute of Technology, vellore	TAMIL NADU	Research Scholar
81	T SUNIL BHAGAT	Civil Engineering	National Institute of Technology Warangal, Hanmakonda, Telangana - 506004	TELANGANA	Research Scholar
82	JAGADEESWARARAO MADDU	Mechanical engineering	University College of Engineering osmania University Hyderabad	TELANGANA	Research Scholar
83	B.HIMABINDU	Chemistry	Bits-Pilani, Hyderabad campus, Jawahar nagar, Shamirpet mandal, Hyderabad-500078	TELANGANA	Research Scholar



WORKSHOP ON PARTICLE CHARACTERISATION TECHNIQUES (PCT-2022)

(Particle Size Distribution, BET Surface Area, XRF, FT Raman,
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84	SANKARA NARAYANAN M	Civil Engineering	PhD Scholar, Hall 8, IIT Kanpur, Kalyanpur, Kanpur - 208016	UTTAR PRADESH	Research Scholar
85	AMIT KUMAR VERMA	CHEMISTRY	BANARAS HINDU UNIVERSITY (BHU) , VARANASI 221005	UTTAR PRADESH	Research Scholar
86	CHANDRA BHAN	Environmental Science	Department of Environmental Science, Babasaheb Bhimrao Ambedkar University, Lucknow, India, 226025	UTTAR PRADESH	Research Scholar
87	MONA	Electronics and Communication Engineering	Noida Institute of Engineering and Technology, Knowledge Park-2, Plot- 19, Greater Noida-201310	UTTAR PRADESH	Research Scholar
88	TANUJA SINGH	Physics	Shiv Nadar University, NH-91, Tehsil- Dadri, Greater Noida, Uttar Pradesh. Pin code :203207	UTTAR PRADESH	Research Scholar
89	SHAZIA HASAN	Chemistry	Aligarh Muslim University	UTTAR PRADESH	Research Scholar
90	SHALU RAWAT	Environmental Science	Deptt. of Environmental Science, Babasaheb Bhimrao Ambedkar University, Vidya Vihar, Rae Bareli	UTTAR PRADESH	Research Scholar



WORKSHOP ON PARTICLE CHARACTERISATION TECHNIQUES (PCT-2022)

(Particle Size Distribution, BET Surface Area, XRF, FT Raman,
NMR, FE-SEM, HR-TEM, Zeta Potential & Contact Angle Measurements)
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			Road, Lucknow, 226025		
91	RINKI AGGARWAL	AIARS	Amity University Noida sector 125	UTTAR PRADESH	Research Scholar
92	HARISH VERMA	Department of Physics	Indian Institute of Technology (Banaras Hindu University) Varanasi, U.P., India	UTTAR PRADESH	Research Scholar
93	ARPITA TRIPATHI	Physics	IIT BHU VARANASI UTTAR PRADESH	UTTAR PRADESH	Research Scholar
94	LATA VRMA	Department of Environmental science	Babasaheb Bhimrao Ambedkar University, Vidya vihar Raebareli road, Lucknow, (U.P.), INDIA PIN 226025	UTTAR PRADESH	Research Scholar
95	AKANSHA SRIVASTAVA	Civil Engineering(Geotechnical Engineering)	Indian Institute of Technology Kanpur, Kanpur 208016	UTTAR PRADESH	Research Scholar
96	MONALISA ADHIKARI	Polymer Science and Technology	Rajabazar Science College, 92, A.P.C. Road, Kolkata – 700009 West Bengal.	WEST BENGAL	Research Scholar



WORKSHOP ON PARTICLE CHARACTERISATION TECHNIQUES (PCT-2022)

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NMR, FE-SEM, HR-TEM, Zeta Potential & Contact Angle Measurements)
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97	ABHIJIT DAS	Biochemistry & Biophysics, University of Kalyani	Department of Biochemistry and Biophysics, University of Kalyani, Kalyani, Nadia	WEST BENGAL	Research Scholar
98	SHAKTI MISHRA	Metallurgical and Material Engineering	IIT Kharagpur	WEST BENGAL	Research Scholar
99	Sampreeth Gambheerrao	Biological E, Hyderabad	Biological E ltd, Hyderabad	TELANGANA	Industry
100	Mangesh.Kulkarni	Biological E, Hyderabad	Biological E ltd, Hyderabad	TELANGANA	Industry
101	Naveen.Yenugula	Biological E. Hyderabad	Biological E ltd Hyderabad	TELANGANA	Industry

ORGANIZING SECRETARY

Dr.T. Sasipraba

Vice Chancellor,
Sathyabama Institute of Science and Technology
(Deemed to be University).
Jeppiaar Nagar, Rajiv Gandhi Salai,
Chennai - 600 119, Tamilnadu, INDIA

Dr. T. V. Vijaya Kumar

Scientist In-Charge
CSIR-NML Madras Centre
CSIR Madras Complex
Taramani, Chennai – 600 113.

Conveners:

Dr. K. Chennakesavulu (Associate Professor, M: 09600187387)
Mrs. N. Vasumathi (Principal Scientist)
Dr. G. Ramanjaneya Reddy (Scientist, M: 09994228166)

Co-Conveners:

Mrs. Ajita Kumari (Scientist)
Dr. J. Karthikeyan (Associate Professor)
Dr. Y. Sasikumar (Assistant Professor, M : 09840271468)

Contact E-Mail:

wopct2022@gmail.com; [chennakesavulureddy.chemistry@
sathyabama.ac.in](mailto:chennakesavulureddy.chemistry@sathyabama.ac.in)

ONE WEEK ONLINE WORKSHOP ON “SPECTROSCOPY – TOWARDS ENLIGHTENMENT AND PROGRESSION” (STEP 2022)

Date: 20-27 July, 2022

Hosted By: Department of Chemistry, Sathyabama Institute of Science and Technology, Chennai – 119

Convener: Dr. S. Supriya, Dr. K. Govindaraju

Co-Convener: Dr. S. Gayathri

Programme Schedule

An Online workshop on “Spectroscopy – Towards Enlightenment and Progression ” (STEP 2022) was scheduled to conduct from 20-27th July 2022 for the undergraduates, post graduates, research scholars and teaching faculties of Sathyabama Institute of Science and Technology and various other arts and science colleges in and around Chennai and other states.

Participants

There were more than 30 registered participants along with several other participants who were interested to take part in the workshop on all days of the programme.

List of participants

S.No	Participant Name	Designation	Affiliation
1.	Ms. Kavya J	MSc Chemistry	Bharathiar University
2.	Ms.K.DHANALAKSHMI	Research Scholar	Madras Christian College
3.	Ms. Dr. ANJU. K	Assistant professor	Rajalakshmi Institute of Technology
4.	Mr. Dr. Tulasi Barik	Assistant Professor	UPL University of Sustainable Technology
5.	Ms. Fairlin Jenitha R	Ph.D Research Scholar	Ethiraj College for Women
6.	Mr. Dr.S.Sivakumar	Assistant Professor	Vel Tech Rangarajan Dr.Sagunthala R & D Institute of Science and Technology, Avadi, Chennai-600062.
7.	Ms. Dr. Vasanthi S	Associate professor and Head	Madras University
8.	Ms. R.SOWMIYAA SHRI	B.Tech	Satyabhama institute of science and technology
9.	Mr.Mohamed Ali M	Bachelor of science	Sathyabama institute of science and technology
10.	Mr. Samuel Paul Prasanna T	MSc, PhD(Pursuing)	Sathyabama Institute of Science and Technology
11.	Mr. Dr.D.Gavaskar	Assistant Professor	Deemed
12.	Mr. P.PRABU	ASSITANT PROFESSOR	Veltech rangarajan Dr sagunthala R&D institute of science and technology
13.	Ms. M.Kalpana	Research Scholar	Aarupadai Veedu Institute of Technology
14.	Ms. S.SRI DHANYA	UG STUDENT	SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY
15.	Ms. GRACE JESLIN. J	Under graduate	SATHIYAMA INSTITUTE OF SCIENCE AND TECHNOLOGY
16.	Mr. Dr.A.RONIBOSS	ASSISTANT PROFESSOR	VELTECH RANGARAJAN DR.SAGUNTHALA R&D Institute of Science and Technology
17.	Ms. Dr Gayathri J	Assistant professor	Veltech Rangarajan Dr Sagunthala R&D Institute of science and technology

18.	Ms. C.Dhanalakshmi	Assistant professor	Veltech Rangarajan Dr.Sagunthala R&D Institute of Science and technology
19.	Ms. Catherin E Jerusha	Post graduate	Women's christian college
20.	Ms. Dr.P.A.THENMOZHI	Assistant Professor	Rajalakshmi Institute of Technology
21.	Mr. Dr.N.Haridharan	Associate Professor	Vel Tech Rangarajan Dr sagunthala R &D institution of science and technology
22.	Ms. Dr.A.Swetha	Assistant Professor	Rajalakshmi Institute of Technology
23.	Ms. ESTHER JENIFER	Student	NIRMALA COLLEGE OF WOMEN

Title of the Event

Spectroscopy – Towards Enlightenment and Progression – STEP 2022

Type of the event

The programme was a WORKSHOP

List of Speakers

1. Dr. R. Kumaran, Assistant Professor, Department of Chemistry, DG Vaishnav College, Chennai
2. Mr. A. Gopalakrishnan, Assistant Professor, Department of Chemistry, DG Vaishnav College, Chennai
3. Dr. C. Vijayanand, Assistant Professor, Department of Chemistry, VIT Vellore
4. Dr. Cynthia Jemima Swarnavalli, Associate Professor and Head, Department of Chemistry, Women's Christian College.
5. Dr. Kaushik Chanda, Assistant Professor, Department of Chemistry, VIT Vellore.
6. Dr. M.M.Balamurali, Associate Professor, Department of Chemistry, VIT Chennai

Programme Report

On the First day of Step-2022, We had Dr. R. Kumaran as the speaker. He spoke on the topic “UV-Visible spectroscopy-history and fundamentals aspects”. The highlights of his speech are the explanation on the Fraunhofer lines, theories of light, theory of light, dual nature of electron resulting in electromagnetic property has given us an indepth knowledge on the existence, role and property of electrons as a natural entity which ultimately forms the basis for most of the spectroscopic methods. The saying “Experiments never deceive, it is our judgement and our understanding that sometimes deceives itself” conveys that strength of such natural entities. Lively examples of systems exhibiting Fluorescence was highly captivating.

On the Second day of the online workshop , we had Mr. A. Gopalakrishnan as the speaker. He shared his knowledge on the topic “Applications of UV-Visible spectroscopy-A Physical Chemist Approach”. In his session, there were discussions on the artist colour wheel, concept based on interaction of radiation with metals, transistions happening in materials for optical behaviour to name a few. His session was highly interesting, clear, interactive and inspiring.

On the Third day of the workshop we had Dr.C.Vijayanand. He delivered a talk on “Probing molecules in extreme environment (10k to 6000k) using IR Spectroscopy”. He explained the advanced techniques involved in IR spectroscopy which are highly useful in research fields. Explanation about the simulated rotational structure of benzene helped us understand the intricacies in recording IR spectra. We are able to understdnd how molecule molecule interaction in gas phase have a role to play in IR spectroscopy compared to condensed phase. Supersonic expansion, vander walls interaction existing in benzene dimer, eperimental setup involved has brought new insights from current research in IR spectroscopy and triggered new ideas to carry out IR analysis under extreme conditions. He had explained how symmetry of molecules can be classified based on group theory and how specific symmetry of a molecule can be identified with IR spectroscopy quoting few examples.

On the fourth day of the workshop, we had Dr. Cynthia Jemima Swarnavalli as the speaker. She spoke on the applications of IR spectroscopy. Discussions were mainly based on the determination of functional groups in molecules. She ellucidated the usefulness of IR spectroscopy in the identification of functional groups based on their region of absorption quoting several examples for each and every functional group.

On the fifth and sixth days we had Dr.Kaushik chanda as the speaker who gave an innovative and inspiring talk on NMR Spectroscopy and its applications. His speech dealt with topics such as relaxation processess, Chemical shift in different aromatic compounds etc, which provided deep insight into the understanding of the principle of NMR spectroscopy. Spectral study of some molecules provided knowledge on the interpretation of NMR signals. He shared his knowledge on C¹³ NMR, 1D and 2D study of complex molecules such as proteins and provided a

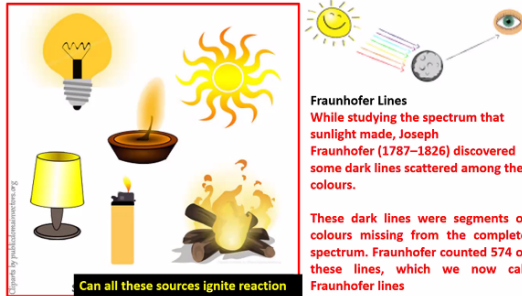
virtual projection of the various spectroscopy instruments available at VIT campuses which can be utilized for structure analysis.

On the Seventh and last day of the workshop we had Dr.M.M.Balamurali as the speaker who gave an inspiring talk on fluorescence spectroscopy. He gave a captivating talk on photophysical characterization in terms of chromophore, their light absorption, excitation and emissions occurring during energy level transitions. He clearly explained the energy levels transitions using Jablonski diagram.

Finally, the participants were thanked for their registration and kind attention throughout the conduct of the programme.

 Recording...

A light source is anything that makes light, whether natural and artificial.
Natural light sources include the Sun and stars.
Artificial light sources include lamp posts and televisions.



Dr.S.Gayathri

Dr.S.Gayathri

Dr. S. Supriya

Dr. S. Supriya

R. Kumaran

R. Kumaran

kumaran

kumaran

41130654 JYOS...

Participants (28)

Find a participant

DS Dr. S. Supriya (Host, me)

R. Kumaran (Co-host)

Dr. S. Gayathri (Co-host)

Курсовая

24/24

2P 213039012 Pavithra.E (BSC Che... ~~✖~~ ~~✖~~

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41130642_Snehanjali

41 41130654 JYOSYULA JAIMINI P...

Dr. Anju K

26 = 1

Invite

Mute All

10:10 AM
7/20/2022

You are viewing R. Kumaran's screen View Options

Recording...

PARTICLE THEORY EVIDENCES

- Light travels in straight lines
- Light can travel through vacuum
- According to Newton, light can't be a wave
- We can hear sound from behind an obstacle, but we don't see light - light shows no diffraction
- Can explain reflection, refraction, rectilinear propagation

Light as Particles and Waves

Particles and Waves Through Crossed Polarizers

Figure 7

Incident Waves (Unpolarized)

Polarizer 1 (Vertical)

Virtically Polarized Light Wave

Polarizer 2 (Horizontal)

Incident Particles

Polarizer Does Not Stop Particles

Particles Figure 1

Waves and Huygens Wavelets

Participants (29)

Find a participant

Dr. S. Supriya (Host, me)

R. Kumaran (Co-host)

Dr.S.Gayathri (Co-host)

kumaran

21S035004 sneha.s (Bsc. Chemi...)

21S039012 Pavithra.E (BSc che...)

21S135384 Y Chakradhar

21S135513 nirmal prince

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Dr. Anju. K

Dr. Y. Sasikumar

Durga S

Unmute Start Video Security Participants Chat Share Screen Reactions Apps More End

10:18 AM 7/20/2022

Zoom Meeting

Recording...

Our Contribution and Utilisation of Photophysical techniques

Characterized by solubility in water .
Absorb in the spectral range of 250-400 nm in the
Uv-visible range and emit around 440 nm.

Have unique spectral properties: Attributed to the
presence of functional groups, substituents,
chromophores with extended conjugation with long
chain or branching.

Efficient laser Dyes.
Highly sensitive to solvent polarity

**Guest molecule are
Hydrogen-Bonding solutes**

Urea derivatives
Guanidine hydrochloride
Amino acids
Cyclodextrins

Amide derivatives
Food Hydrocolloid (Gum Arabic)
Globular proteins
Simple Aldo and Keto sugars

Participants (28)

Find a participant

Dr. S. Supriya (Host, me)

R. Kumaran (Co-host)

Dr.S.Gayathri (Co-host)

21S035004 sneha.s (Bsc. Chemi...)

21S039012 Pavithra.E (BSc che...)

21S135513 nirmal prince

41130642_Snehanjali

41130654 JYOSYULA JAIMINI P...

Assistant Professor, Chemistry ...

C.Dhanalakshmi

Dr Gayathri J

Dr. Anju. K

Dr. Y. Sasikumar

Dr.N.Nalini Asst Prof Chemistry

Unmute Start Video Security Participants Chat Share Screen Reactions Apps More End

11:26 AM 7/20/2022

Recording...

is the study of interaction of emr with matter

UV-Visible Spectroscopy:

The diagram shows the electromagnetic spectrum with the following regions and values:

- RF: 10^{-3}
- Microwave: 1
- IR: 100
- Visible: 12500 to 25000 cm^{-1}
- UV: 10^5
- X-ray: 10^8
- gamma rays: 10^{10}

Electronic transition is indicated in the UV-Visible region.

Participants (23):

- Pranayaa G
- Dr. S. Supriya
- Dr. S. Gayathri
- Zoom user
- 215035004 sneha.s (B...
- 40030002-Anitha.C-b...

You are viewing Pranayaa G's screen

Recording...

Complementary colour

The Artist's Colour Wheel shows the following complementary color pairs and wavelength values:

- Red (R) and Green (G): 640 nm and 540 nm
- Orange (O) and Blue (B): 590 nm and 470 nm
- Yellow (Y) and Purple (V): 575 nm and 430 nm
- Green (G) and Red (R): 560 nm and 640 nm
- Blue (B) and Orange (O): 470 nm and 590 nm
- Purple (V) and Yellow (Y): 430 nm and 575 nm

Wavelength values: 750 Purple, 400 nm, 450, 470, 490, 500, 560, 575, 590, 640.

Participants (23):

- Catherin Jerusha
- Dr. Gayathri J
- Dr. P.A.Thenmozhi
- Fairlin Jenitha
- Kavya J
- M Kalpana
- P.PRABHU
- Pavithra.E
- R.sowmiyaa shri
- S.SRIDHANYA BSC.CHEMISTRY
- Samuel paulprasanna
- SIVAKUMAR
- Zoom user
- GRACE JESLIN. J -4003001



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited with Grade "A" by NAAC Approved by AICTE

DEPARTMENT OF CHEMISTRY

Organizes **ONE WEEK Online Workshop on**

"SPECTROSCOPY – TOWARDS ENLIGHTENMENT AND PROGRESSION" (STEP 2022)
20-27 July, 2022



Dr. R. Kumaran

Assistant Professor

D. G. Vaishnav College, Chennai

Topic: UV-Visible Spectroscopy - History and Fundamentals Aspects

Date/Time: 20-07-2022/10.00 - 12.00 pm (IST)



Mr. A. Gopalakrishnan

Assistant Professor

D. G. Vaishnav College, Chennai

Topic: Applications of UV-Visible Spectroscopy – A Physical Chemist Approach

Date/Time: 21-07-2022 / 10.00 - 12.00 pm (IST)



Dr. C. Vijayanand

Assistant Professor, Department of Chemistry

Vellore Institute of Technology, Vellore

Topic: Probing molecules in extreme environments (10K to 6000K) using IR spectroscopy

Date/Time: 22-07-2022/10.00 - 12.00 pm (IST)



Dr. Cynthia Jemima Swarnavalli

Associate Professor and Head

Department of Chemistry

Women's Christian College

Topic: IR Spectroscopy - Applications in Structure Analysis of Small Molecules and Nanostructures

Date/Time: 23-07-2022 / 10.00 - 12.00 pm (IST)



Dr. Kaushik Chanda

Assistant Professor, Department of Chemistry

Vellore Institute of Technology, Vellore

Topic: Nuclear Magnetic Resonance Spectroscopy and its Application in Drug Discovery

Date/Time: 25-07-2022; 26-07-2022/10.00-12.00pm(IST)



Dr. M.M. Balamurali

Associate Professor

Vellore Institute of Technology, Chennai

Topic: Besides and Beyond Fluorescence – An Evergreen Tool in Technology Developments

Date/Time: 27-07-2022 / 10.00 - 12.00 pm (IST)

CONVENERS

Dr. S. Supriya, Associate Professor, Department of Chemistry
Dr. K. Govindaraju, Scientist, Centre for Ocean Research
Sathyabama Institute of Science and Technology

Co-Convenor - Dr. S. Gayathri, Assistant Professor,
Department of Chemistry
Sathyabama Institute of Science and Technology

Registration Link : <https://forms.gle/ajYh7S5bri9nPY5c6>

Platform : ZOOM

Registration Fee : ₹ 300

E-Certificate for the registered participants

Account Name	"Dean(Publications & Conferences) Sathyabama University"
ACCOUNT NUMBER	891734627
IFSC NO.	IDIB 000T0 20
SWIFT Code	IDIBINBBTLT
Branch Code	098
Bank, Branch & Address	Indian Bank, Thousand Lights Branch, Chennai – 600 006.



SATHYABAMA

**Institute of Science and Technology
(DEEMED TO BE UNIVERSITY)**

Accredited "A" Grade by NAAC | 12B Status by UGC | Approved by AICTE

DEPARTMENT OF CHEMISTRY **CERTIFICATE OF PARTICIPATION**

This is to certify that Dr/Mr/Ms. S. SIVAKUMAR from Vel Tech Institute of Science and Technology participated in the seven days online workshop on "SPECTROSCOPY - TOWARDS ENLIGHTENMENT AND PROGRESSION" (STEP2022) organized by the Department of Chemistry, Sathyabama Institute of Science and Technology, Chennai from 20-27th July 2022.

A handwritten signature in blue ink, appearing to read 'S. Supriya'.

Dr. S. Supriya
Convener
Associate Professor

A handwritten signature in blue ink, appearing to read 'K. Govindaraju'.

Dr. K. Govindaraju
Convener
Scientist
Centre for Ocean Research

A handwritten signature in blue ink, appearing to read 'Rekha Chakravarthi'.

Dr. Rekha Chakravarthi
Programme Co-ordinator
Dean (Arts & Science)

A handwritten signature in blue ink, appearing to read 'J. Karthikeyan'.

Dr. J. Karthikeyan
Associate Professor & Head
Department of Chemistry

SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY

SCHOOL OF SCIENCE AND HUMANITIES

DEPARTMENT OF CHEMISTRY

REPORT ON WORKSHOP

TITLE OF THE EVENT: One-Week Virtual workshop on “Trends and Applications of Gas Chromatography – Mass Spectrometry (TAG-2022)”

DATE AND TIME: 11TH JULY 2022 – 16TH JULY 2022, 10.00 am – 12.00 Noon

TYPE OF THE EVENT: Workshop on Virtual Model

PROGRAMME BROCHURE:



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SCHOOL OF SCIENCE AND HUMANITIES
DEPARTMENT OF CHEMISTRY

Organizes
One Week Virtual Workshop on 'Trends & Applications of Gas Chromatography-Mass Spectrometry' (TAG-2022)
11-07-2022 To 16-07-2022



 Dr. Tanay Kundu Assistant Professor, Department of Chemistry SRM Institute of Science & Technology, Chennai Topic: Introduction to Gas Chromatography Date & Time: 11-07-2022 & 10.00 AM – 12.00 PM	 Dr. B. Rajkumar Professor Dept. of Chemistry, IIT Madras Topic: Kinetic Investigations using Gas Chromatography: Instrumentation & beyond Date & Time: 15-07-2022 & 10.00 AM – 12.00 PM
 Dr. K. Rajkumar Guest Faculty Department of Chemistry Central University of Tamilnadu, Tiruvannamalai Topic: Interface of GC with MS Date & Time: 12-07-2022 & 10.00 AM – 12.00 PM	 Mr. C. Kumar Scientist - B, Center for Ocean Research Jeppiaar Research Park, Sathyabama Institute of Science & Technology Topic: Virtual Hands on Training on GC-MS Date & Time: 13-07-2022 & 10.00 AM – 12.00 PM Topic: Instrument Operation & Demonstration Date & Time: 14-07-2022 & 10.00 AM – 12.00 PM

Data Interpretation of GC-MS by Dr. T. Krithiga & Quiz by Dr. Amrita Pal
Date: 16.07.2022 & 10.00 a.m. – 12.00 p.m.

CHIEF PATRONS

Dr. MARIAZEENA JOHNSON, CHANCELLOR
Mr. J. ARUL SELVAN, VICE PRESIDENT
Dr. MARIE JOHNSON, PRESIDENT
MS. MARIA BERNADETTE TAMILARASI, VICE PRESIDENT
MS. MARIA CATHERINE JAYAPRIYA, VICE PRESIDENT

PATRONS

Dr. T. SASIPRABA, VICE CHANCELLOR

Programme Co-ordinators
Dr. Rekha Chakravarthi
Dean (Arts & Science)
Dr. J. Karthikeyan
Head, Department of Chemistry

Conveners
Dr. T. Krithiga & Dr. S. Sunitha
Department of Chemistry

Co-Conveners
Dr. Y. Sasikumar & Dr. Amrita Pal
Department of Chemistry

Account Name: "Dean(Publications & Conferences)
Sathyabama University"
ACCOUNT NUMBER: 891734627
IFSC Code: IDIB000T020
Branch Code: 098
Branch & Address: Indian Bank, Thousand Lights Branch
Chennai – 600 006.

Registration Link:
<https://forms.gle/iaqAM1qJB4FjLHL9>
Registration fee: Rs 200/-
e-Certificate for all the Participants

PROGRAMME SCHEDULE:

The program schedule comprises of 3 days of invited talk given by Eminent speakers. The program also consists of 2 days of Virtual Hands-on Training on GC-MS and Instrument Operation & Demonstration. The last day session of the workshop was on the topic “Data interpretation of GC-MS” handled by the conveners and followed by a Quiz.

DAY 1:

Date & Time: 12-07-2022 & 10.00 AM – 12.00 PM

Speaker of the Day: Dr. Tanay Kundu, Assistant Professor, Department of Chemistry, SRM Institute of Science & Technology, Chennai

Topic: Introduction to Gas Chromatography

DAY 2:

Date & Time: 12-07-2022 & 10.00 AM – 12.00 PM

Speaker of the Day: Dr. K. Rajkumar, Guest Faculty, Department of Chemistry, Central University of Tamilnadu, Tiruvarur

Topic: Interface of GC with MS

DAY 3:

Date & Time: 13-07-2022 & 10.00 AM – 12.00 PM

Speaker of the Day: Mr. C. Kumar, Scientist - B, Center for Ocean Research Jeppiar Research Park, Sathyabama Institute of Science & Technology

Topic: Virtual Hands on Training on GC-MS

DAY 4:

Date & Time: 14-07-2022 & 10.00 AM – 12.00 PM

Speaker of the Day: Mr. C. Kumar, Scientist - B, Center for Ocean Research Jeppiar Research Park, Sathyabama Institute of Science & Technology

Topic: Instrument Operation & Demonstration

DAY 5:

Date & Time: 15-07-2022 & 10.00 AM – 12.00 PM

Speaker of the Day: Prof. B. Rajkumar, Dept. of Chemistry, IIT Madras

Topic: Kinetic Investigations using Gas Chromatography: Instrumentation & beyond

DAY 6:

Date & Time: 16-07-2022 & 10.00 AM – 12.00 PM

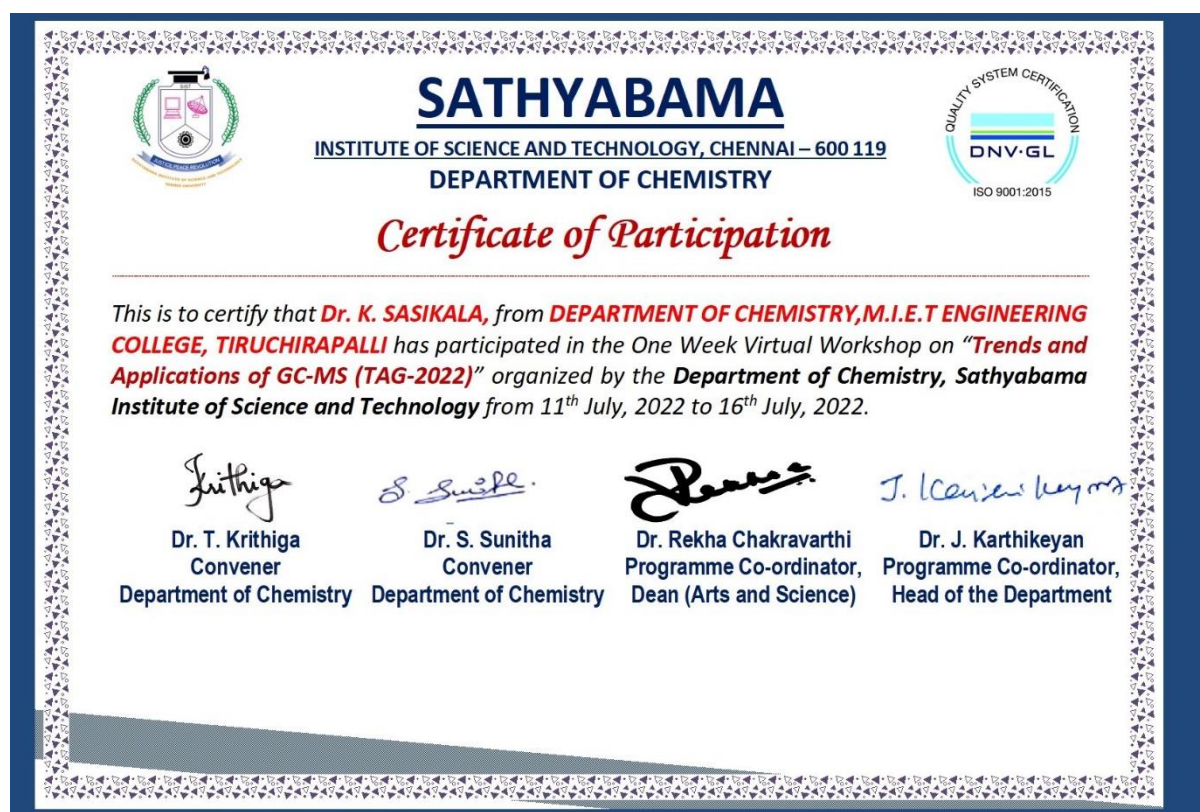
Speaker of the Day: Dr. T. Krithiga, Associate Professor, Department of Chemistry, Sathyabama Institute of Science and Technology

Topic: Data Interpretation of GC-MS by Dr. T. Krithiga & Quiz by Dr. Amrita Pal

SPEAKERS LIST:

1. Prof. B. Rajkumar, Dept. of Chemistry, IIT Madras
2. Dr. Tanay Kundu, Assistant Professor, Department of Chemistry, SRM Institute of Science & Technology, Chennai
3. Dr. K. Rajkumar, Guest Faculty, Department of Chemistry, Central University of Tamilnadu, Tiruvarur
4. Mr. C. Kumar, Scientist - B, Center for Ocean Research Jeppiar Research Park, Sathyabama Institute of Science & Technology
5. Dr. T. Krithiga, Associate Professor, Department of Chemistry, Sathyabama Institute of Science and Technology

CERTIFICATE MODEL:



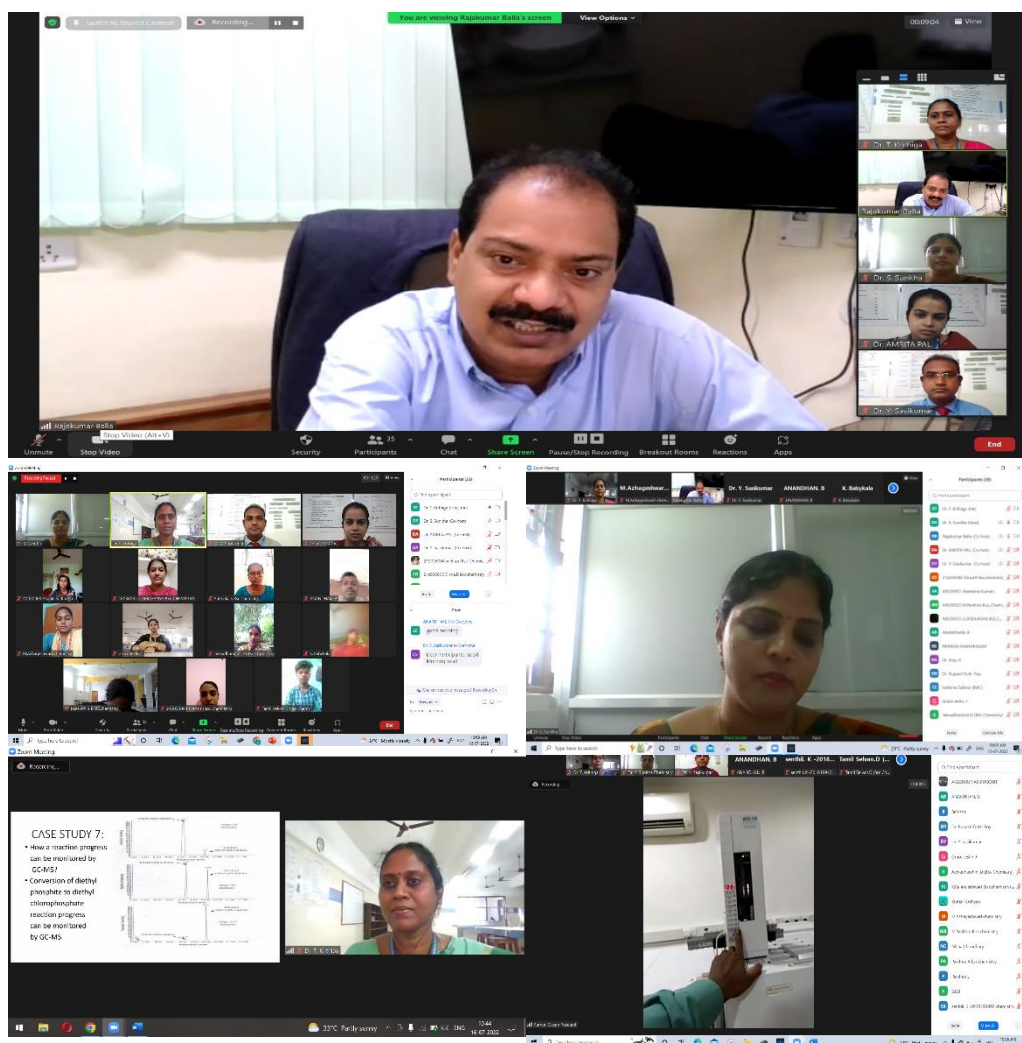
ACTIVITY REPORT:

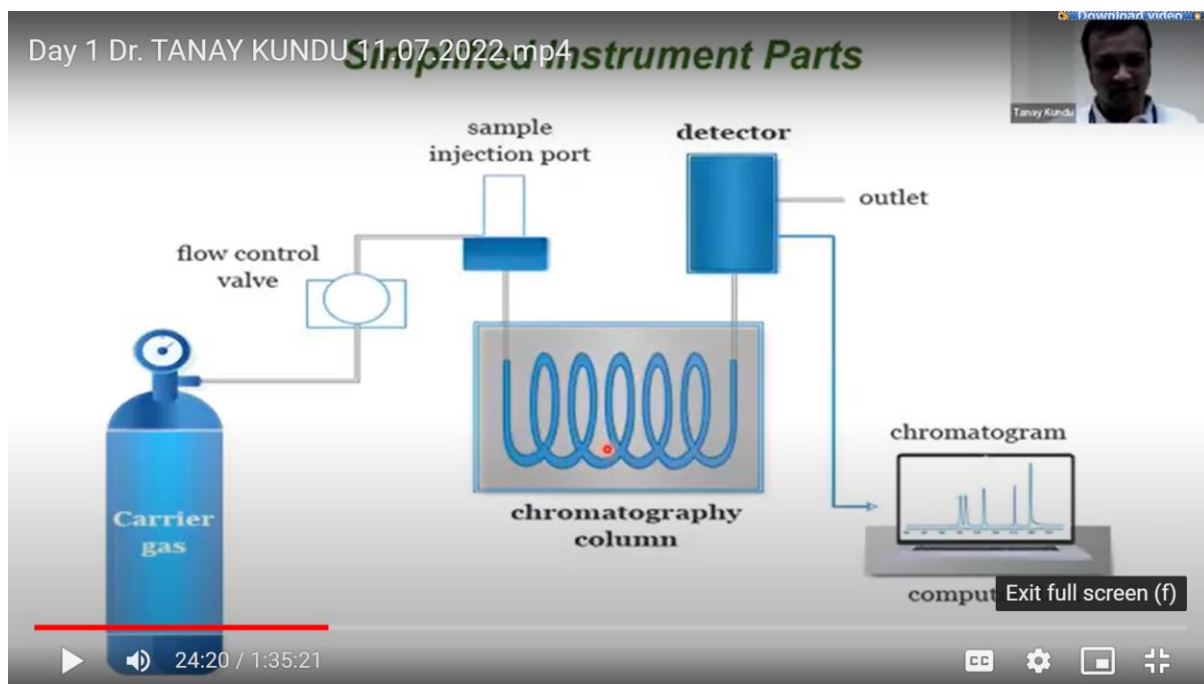
One-Week Virtual workshop on “Trends and Applications of Gas Chromatography – Mass Spectrometry (TAG-2022)” was conducted during 11th July 2022 – 16th July 2022 from 10.00 am – 11.30 am organized by Conveners - Dr. T. Krithiga & Dr. S. Sunitha and Co-conveners – Dr. Y. Sasikumar & Dr. Amrita Pal. The program schedule comprises of 3 days of invited talk given by Eminent speakers – Dr. Rajakumar Balla, Professor, IIT Madras, Dr. Tanay Kundu, Assistant Professor, VIT Chennai and Dr. K. Rajkumar, Central University of Tamilnadu, Thiruvavur. The program also consists of 2 days of Virtual Hands-on Training on GC-MS and Instrument Operation & Demonstration by Mr. Kumar, Scientist-B, Centre for Ocean Research, Col. Dr. Jeppiaar Research Park. The last day session of the workshop was on the topic “Data interpretation of GC-MS” handled by the conveners and followed by a Quiz.

The inaugural address was given by Dr. T. Krithiga, Convener, detailing the program schedule of the event. The Day 1 speech was given by Dr. Tanay Kundu working as Assistant Professor in the

Department of Chemistry, VIT Chennai. The talk was on the topic “Introduction to Gas Chromatography” which elaborately covered the basic concepts and types of the Gas Chromatography. The Day 2 talk was given by Dr. K. Rajkumar, Guest Faculty, Department of Chemistry, Central University of Tamilnadu, Tiruvarur on the topic “Interface of GC with MS” which detailed the integration of gas chromatography with Mass Spectrometry. The Day 3 and day 4 was handled by Mr. C. Kumar, Scientist - B, Center for Ocean Research Jeppiar Research Park, Sathyabama Institute of Science & Technology. It was a clear explanation on “Virtual Hands-on Training on GC-MS” followed by “Instrument Operation & Demonstration”. The Day Speech was given by Prof. B. Rajkumar, Dept. of Chemistry, IIT Madras on the topic “Kinetic Investigations using Gas Chromatography: Instrumentation & beyond”. The speaker has exquisitely conveyed the instrumentation, different detectors used in GC and kinetic studies carried out using Gas Chromatography. The Day 6 was an interactive session on Data Interpretation of GC-MS handled by Dr. T. Krithiga, Convener working as Associate Professor, Department of Chemistry, Sathyabama Institute of Science and Technology followed by a quiz conducted by Dr. Amrita Pal. The program ended with a Vote of Thanks by Dr. S. Sunitha, Convener.

PHOTOS:





Day 3 Mr. KUMAR 13.07.2022.mp4 - VLC media player

Media Playback Audio Video Subtitle Tools View Help

GCMS Fundamentals

For better understanding **GCMS-QP2010**

Mr. C. Kumar
Scientist – B
Mass Spectroscopy Lab
Centre for Ocean Research

55:57 - Sharing Started

1

11:44 1:31:56

35°C Partly sunny 01:25 11-08-2022

LIST OF PARTICIPANTS:

A total of 51 participants registered and benefitted from the workshop.

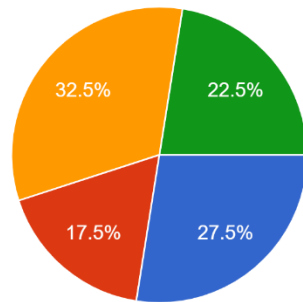
S.No	NAME OF PARTICIPANT
1	DIVYA.R
2	MUBASHERA S M
3	AMANDEEP SAROA

4	THANASEKARAN POUNRAJ
5	AKASHKUMAR PUROHIT
6	SENTHIL.K
7	KUMAR KASHYAP
8	N.VANITHA
9	ANJU. K
10	DR. A. SUDARSHAN REDDY
11	APARAJITHA N.C
12	SANDHIYA V
13	MAMTA CHAHAR
14	T.NALINI
15	NISHA CHOUDHARY
16	SHIBIN ERANHOTTU
17	SHEHIN SADAKA M C
18	DHAKSHNAMOORTHY .B
19	DR.K.SASIKALA
20	KALAIVANAN C
21	G.SELVALAKSHMI
22	S.SATHVIKA
23	M.AZHAGESHWARI
24	HEMA M
225	K.RAJARAJESHWARI
26	DR. S. JOHN SANTHOSH KUMAR
27	M POORNIMA
28	BALABHARATHI.P
29	KAVITHA T
30	S. KANIMOZHI
31	KISHORE NANDHAM
32	TAMIL SELVAN.D
33	PAVITHRA A
34	JEEVADHARSHINI.D
35	SNEHA.S
36	ABITHA V
37	RUPASRI DUTT ROY
38	PAVITHRA.E
39	ANANDHAN. B
40	SUMATHI T
41	FATHIMA ZAHERA A
42	SNEHA M
43	VINITHA. K
44	DEVA PRIYAM C
45	BENISHA P. V
46	SHALINI K
47	S.NANDHINI
48	DHIVYA. S
49	BABYKALA .K
50	SANTHIYA C K
51	BESHIGA SHANMUGAM

FEEDBACK:

DESIGNATION

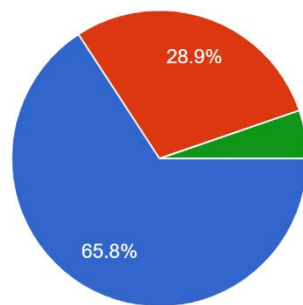
40 responses



- FACULTY
- RESEARCH SCHOLAR
- UG STUDENT
- PG STUDENT

How would you like Dr. TANAY KUNDU's Lecture?

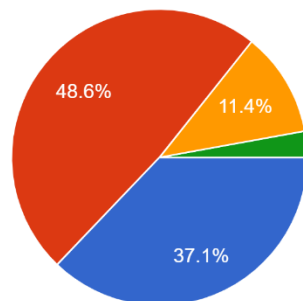
38 responses



- Excellent
- Very Good
- Good
- Satisfactory

How would you like Dr. K. RAJKUMAR's Lecture?

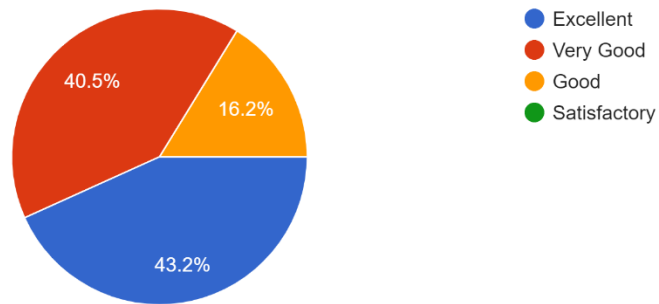
35 responses



- Excellent
- Very Good
- Good
- Satisfactory

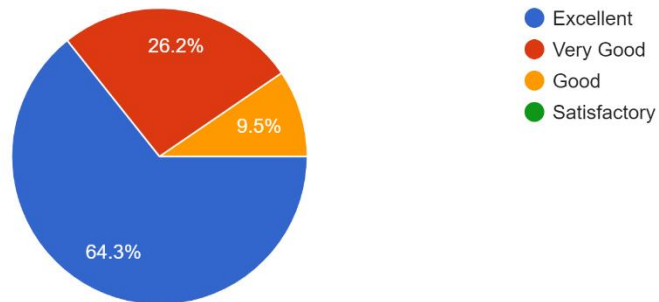
How would you like Dr. KUMAR CHANDRASEKAR's Lecture?

37 responses



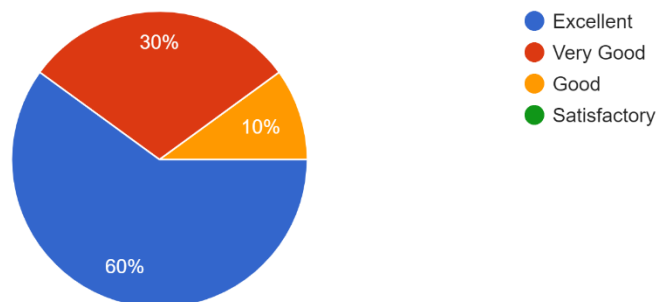
How would you like Dr. KUMAR CHANDRASEKAR's Lecture?

42 responses



How would you like Prof. RAJAKUMAR BALLA's Lecture?

40 responses



How would you like today's interactive session?

40 responses

