VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY
Vignana Jyothi Nagar, Pragathi Nagar, Nizampet (S.O.), Hyderabad TS 500 090 India
AICTE Approved; UGC Autonomous; JNTUH Affiliated; UGC "College with Potential for Excellence"; NAAC "A++" Grade
ISO 9001:2015 Certified; QS I.GAUGE "Diamond" Rated; NIRF 2020: 127th Rank Engineering (151–200 Band Overall)
NBA Accredited: CE, CSE, ECE, EEE, EIE, IT, ME; JNTUH-Recognised Research Centres: CE, CSE, ECE, EEE, ME
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DEPARTMENT OF HUMANITIES AND SCIENCES

Centre for Nanoscience & Technology

There is plenty of Room at the Bottom...

Prepared by
Dr. L. Srinivasa Rao
Coordinator, CNST
Assistant Professor of Physics
Department of H&S.

An Incredible Technology Today & Future

There is plenty of Room at the Bottom...

"You would be able to write the entire Encyclopedia Britannica on the head of a pin, with huge amounts of room to spare. You would be able to build miniature machines so small that they could manipulate at a nearly molecular scale. And you would be able to build things, atom by atom"

Nobel Laureate Richard Feynman - 1959

CONTENTS

Technical Advisory Members

1. Dr. Somnath Chanda Roy,
   Associate Professor, Department of Physics
   Environmental Nanotechnology Laboratory
   Indian Institute of Technology (IIT) Madras
   Chennai 600036, India.

2. Mangilal Agarwal, Ph.D.
   Director, Integrated Nanosystems Development Institute (INDI)
   Professor of Mechanical Engineering
   Purdue School of Engineering Technology
   Indiana University, USA.

3. Mr. Gadhadar Reddy
   CEO, NoPO Nanotechnologies India Pvt. Ltd.
   Benguluru, India.

4. Dr. D. Krishna Rao
   Scientific Officer
   TIFR Center for Interdisciplinary Sciences (TCIS)
   Hyderabad.

5. Dr. T. Venkatappa Rao
   Professor, Department of Physics
   NIT Warangal, Warangal.

6. Prof. Dibakar Das,
   School of Engineering Sciences and Technology,
   University of Hyderabad,
   Hyderabad.

7. Prof. K. Venkateswara Rao,
   Centre for Naonoscience and Technology,
   JNTUH, Hyderabad.

8. Dr. CH. Shilpa Chakra
   Professor of Nanotechnology & Head
   Center for Nano Science and Technology
   JNTUH, Hyderabad.

Research Laboratory in the Institute level

The Centre for Nanoscience is established on 14-06-2016 under the Department of Humanities and Sciences as an interdisciplinary platform of both academic and research activities. The centre has a well-established dedicated basic materials research laboratory.

VISION: To build a center with excellence in research with global standards and developments in Nanoscience and Technology.

MISSION: A true interdisciplinary center for research in Nanoscience for developing relevant technologies with commitment to social and ethical values & training manpower through undergraduate and graduate courses.

OBJECTIVES:

- To create sustained research activities in cutting edge Nanoscience and technology.
- To pursue sponsored projects funded by agencies like DST, CSIR, MHRD, MCI, AICTE, UGC &DRDO etc., thereby creating self-sustained maintenance.
- To develop partnerships with industry in developing technologies and set up consultancy and technical knowhow hubs.
- To train manpower by offering Ph.D, M.Tech, M.Sc, B.Tech., certificate and diploma courses.

Coordinator of the Centre:
Dr. L. Srinivasa Rao, *M.Sc., M.Phil., Ph.D, PGDTC, SET, LMRSI, LOSI*
Assistant Professor (Physics)
Department of Humanities and Sciences
Mobile: (+91) 9849803685 Email: srinivasarao_l@vnrvjiet.in

Core Group Members

S.No.	Name of the faculty	Designation	Department	Research Area
1	Dr. L. Srinivasa Rao Coordinator, CNST	Asst. Professor	Physics	Oxide glasses; Nano glass ceramics; ZnO nanocomposites, Biodgradable plastics
2	Dr. C. Thirmal	Asst. Professor	Physics	Piezo-electric nanopolymers; Nano-Ferroelectric memory device applications
3	Dr. T. Rajani	Asst. Professor	Physics	Nanoferrites and nanoferromagnetic materials
4	Dr. A.R. Balavardhan	Asst. Professor	Chemistry	Kegging-type PolyoxometalateSchiff Base metal complexes
5	Dr. Shuchi Tiwari	Asst. Professor	Chemistry	Bio-organic nanomaterials
6	Dr. T. Lakshmi Viveka	Asst. Professor	Chemistry	Molecular Modelling and biological evaluation
7	Dr. T. Jayashree	Professor	Mathematics	Classification and prediction models of Machine Learning for Engineering Applications
8	Dr. P. Aparna	Assoc. Professor	Mathematics	Analytical methods for Rotary Flows
9	Dr. N. Pothana	Assoc. Professor	Mathematics	Numerical and Analytical solutions of viscous flows using MATLAB
10	Dr. C. Kiran	Assoc. Professor	EIE	MEMS, Nanophotonics, Nano-bio-mimetic
11	Ms. S. Bharathi	Asst. Professor	EIE	MEMS, Biosensors.
12	Mr. Goutham	Asst. Professor	EIE	MEMS, Simulations, Nanophotonics
13	Dr. C.D. Naidu	Professor	ECE	Biodegradable plastics
14	Ms. D. Kanthi Sudha	Asst. Professor	ECE	Nano-electronics , MEMS, Simulation work
15	G. Shanthi	Asst. Professor	ECE	Nanoelectronics
16	R. Ravi Kumar	Asst. Professor	ECE	AIML- Simulations
17	Dr. B. Chennakesava Rao	Professor	ME	Nanocomposites
18	Dr. K. Aruna Prabha	Asst. Professor	ME	Nanocomposites and Simulations.
19	Dr. N. Kiran Kumar	Assoc. Professor	ME	Nanocomposites
20	Mr. T. Malyadhri	Professor	ME	Nanocomposites
21	Dr. S. Rakesh	Asst. Professor	CE	Building Materials

Infrastructure (as on 21-06-2023)

S. No.	Infrastructural Facility	Particulars	Yes/No/ Not required Full or sharing basis
1.	Water & Electricity	-Water facility with sink -Electric fittings with different plug points and tripping points	Yes
2.	Laboratory Space/ Furniture	-(P-201; 35 sq. meter) -Three tables -Three chairs	Yes
3.	Power Generator	- 240 volts generator	sharing basis
4.	Telecommunication including e-mail & intercom	-Intercom (4461) -Internet ports -3 (Broad band 100 kbps)	Yes
5.	Transportation	-Institute level	Yes
6.	Administrative/ Secretarial support	Support is from -Administrative office -Purchase office -Accounts office -Estate office etc.	Yes
7.	Information facilities like Internet/ Library	-Directly accessible digital library -Internet ports -3 (Broad band 100 kbps)	Yes
8.	Computational facilities	-Individual laptops -Desktop-1 -Laptop-1	Yes

Equipment and facilities (as on 21-06-2023)

S.No.	Equipment	Make/ Specifications	Date of Purchase	Qty	Unit Price	Total Price
1	Grey Agate Mortor& Pestle	Make: Ants Ceramics Pvt Ltd, Vasai (E), MH. ID-4.5" (113 mm)	21-06-2018	1	10,506.00	10,506.00
2	KE make High Temperature Muffle Furnace	Make: Krishna Enterprises, Hyderaad. Inner size: 100 mm W x 100 mm H x 250 mm D, Max. Temp: 1400^{o}C Accessories: Annealing furnace (600^{o}C)	13-07-2018	1	1,12,100.00	1,12,100.00
3	Magnetic Stirrer with Hot plate and Beeds	Make: Lalco Scientific Instruments(≈100^{o}C)	02-01-2019	1	4,800.00	4,800.00
4	Digital balance	Make: Scale-tec (Accuracy 1 mg Max. weight 100g)	10-12-2019	1	16,000.00	16,000.00
5	Magnetic Stirrer	Make: Remi 2ML	02-09-2020	1	6800.00	6800.00
6	Magnetic Stirrer	REMI-1ML	15-6-2020	2	13,600.00	27,200.00
7	Vacuum pump	UV Scientifics	15-6-2020	1	6,200.00	6,200.00
8	pH meter	ELICO LI 617	28-08-2020	1	13,055.00	13,055.00
9	Heating mantle-50 ml	BioTecNika	16-10-2020	1	1363.00	1363.00
10	Heating mantle-100 ml	BioTecNika	16-10-2020	1	1363.00	1363.00
11	Heating mantle-250 ml	BioTecNika	16-10-2020	1	1644.00	1644.00
12	Heating mantle-500 ml	BioTecNika	16-10-2020	1	1712.00	1712.00
13	Heating mantle-2000 ml	BioTecNika	16-10-2020	1	2466.00	2466.00
14	Nitrogen cylinder and trolley	UV Scientifics	02-12-2020	1	22,500.00	22,500.00
15	Sonicator	UV Scientifics; 2.5 lit	01-04-2021	1	13,900.00	13,900.00
16	Hydraulic Hot Press	Applied Hydraulics, Hyderabad.	08-04-2021	1	85,000	85,000
17	Hot air oven	UV Scientifics	01-01-2022	1	50,000	50,000
18	Spin coater	Apex Instruments 10000 rpm, model: spinNXG-p1	01-06-2022	1	1,50,000	1,50,000
Total (Rupees Five Lakhs Twenty Six Thousand Six Hundred and Nine Only)						**5,26,609/-**

Major outcomes

Academic and Research Outcomes are as follows:

- The Centre is established in 2016. The Centre is headed by Dr. L. Srinivasa Rao, Assistant Professor (Physics).
- Around 30 faculty members of various Departments such as H&S-Physics, H&S-Chemistry, H&S-Mathematics, ME, ECE, EIE, EEE, CE, etc. have been actively involving in conducting the both Academic and R&D activities at Institute level.
- The thrust Areas of Research are Nanocomposites, Nano-glass-ceramics, Nano-Polymer films, Dielectric & Piezo-electric materials, Bio-degradable plastics etc.
- The Centre was established in 2016 in Room no. P-201 through the SEED Grant of VNRVJIET worth of 4.5 Lakh.
- We have completed 7 funded research projects worth of Rs. 27.96 Lakh through the Department of H&S. (SERB-1; UGC-DAE-1, TEQIP-1; UBA-1; SEED-3 all are as PI).
- We have been working on 4 ongoing projects worth of Rs. 104.53 Lakh funded projects by various funding agencies in the H&S Department collaborating with other Higher Educational Institutes like HCU, NITW, UGC DAE CSR etc. (DST-SERB-1, UGC-DAE-1, DRDO-1 as PI; DRDO-1 as Co-PI)
- We have been working on one consultancy project worth of Rs. 10 Lakh given by DRDO, Hyderabad.
- We have procured a few sophisticated R&D apparatus worth of Rs. 12 Lakh by the funded projects.
- Organized an AICTE sponsored two week STTP-2020 worth of Rs. 1.92 Lakh.
- Organized an IEEE-preconference workshop-2017 and an IEEE-Nano Summer School-2022.
- We have conducted 6 guest lectures (once in a year) and a lecture series-2017.
- Around 100 UG and 10 PG students have been working for their internships, course projects, research papers per academic year.
- We have been offering elective courses for B. Tech. (ECE, EIE, EEE, ME) disciplines.
- Published 41 research papers indexed by Scopus, Web of Science, Google Scholar etc.
- Published 10 research papers in conference proceedings.
- Filed & published 8 patents.

Completed Research Projects **(Worth of Rs. 27.96 lakh)**

S. No	Faculty Name	Title of the Project	Year	Funding Agency	File. No with Date	Amount Sanctioned (Rs.)
1	PI: Dr. L. Srinivasa Rao, Asst. Prof. (Physics)	Establishment of Laboratory in Centre for Nanoscience and Technology	2017	VNRVJIET, Seed grant	17/VJ/1274	4,46,650
2	Principal Investigator: Dr. L. Srinivasa Rao, Asst. Professor (Physics)	Synthesis and Characterization of Bi_2O_3-B_2O_3-MnO Glasses Doped with Zirconium Oxide Nanoparticles Suitable for Magnetic Sensors and Luminescent Materials	2019	TEQIP-III, JNTUH	Procs No. JNTUH/ TEQIP-III/ CRS/2019/ Physics/ 06 Dated: 25-09-2019	2,50,000
3	PI: Dr. L. Srinivasa Rao, Assistant Professor (Physics) Co-Investigators: Dr. C.D. Naidu, Principal & Professor Dr. Shuchi Tiwari, Asst. Prof.(Chem.)	A Social impact project work on "Biodegradable plastics for sustainable use in daily life"	2018	VNRVJIET, Seed grant	File no. VNRVJIET/ Seed Grant/2018/ 01 Dated: 14-11-2018.	12,000
4	Principal Investigator: Dr. C. Thirmal Asst. Prof. (Physics)	Design and fabrication of an air filter through polymer technology - A Societal Impact Project	2018	VNRVJIET seed grant	VNRVJIET/CNST/H&S/2018-2019/136	22,337
5	PI: Dr. P. Padmavathi Asst. Prof. (Chem.)	MUSHROOM CULTIVATION	2019	Unnath Bharath Abhiyan	Unnath Bharath Abhiyan	1,,00,000
6	PI: Dr. Shuchi Tiwari Assistant Professor(Chem.)	Synthesis, Characterization and Potential Applications of Nano-dithiocarbamate complexes- UGCDAE	2018	UGC- DAE	UGC-DAE/2018/1	1,35,000
7	PI: Dr. A.R.Balavardhana Rao, Asst. Professor (Chemistry).	"Inorganic-Organic Hybrids based on Kegging-type PolyoxometalateSchiff Base metal complexes: Synthesis, Characterization and Proton Conducting studies."	2019	DST-SERB TARE		18,30,000
					TOTAL	**27,95,987**

Ongoing Research Projects **(Worth of Rs. 104.534 lakh)**

S. No	Faculty Name	Title of the Project	Date of Grant Received	Funding Agency	Amount Sanctioned (Rs.)	Status
1	Principal Investigator: Dr. L. Srinivasa Rao Assistant Professor (Physics)	"Development of ZrO_2 Nanoparticles doped- Bi_2O_3-B_2O_3: Cr_2O_3 glass-ceramic phosphors"	2022	UGC-DAE-CSR	7.7508 lakh	Ongoing
2	Principal Investigator: Dr. C. Thirmal Assistant Professor (Physics)	A hybrid and flexible magnetoelelectric trilayer structure for combined magnetic sensing and mechanical actuation applications	2020	DST-SERB TARE	18.3 lakh	Ongoing
3	Principal Investigators: Dr. C. Thirmal Asst. Prof. (Phys.) Dr. Lashmi Viveka	Process Optimization of IPMCs for optimal functionality and in-air operability	2020	DRDO, Hyderabad (Consultancy)	7.198 lakh	Ongoing
4	Principal Investigator: Dr. G. Ramesh Chandra, Professor (CSE) Co-PI: Dr. L. Srinivasa Rao, Asst. Prof. (Physics)	"Design and Development of Night Vision Imaging LIDAR and Laser 3-D Imaging System for Homeland Security & Surveillance applications in Defence"	2021	DRDO, New Delhi (ER&IPR)	71.286 lakh	Ongoing

Students' Internships (2020-21): Total- 17

Award List - Summer Internships-2020					
Batch Unique No.	**Name of the student**	**R. No.**	**Institute**	**Name of the Guide**	**Title**
1	Abhishek Chitla	18071A1014	VNRVJIET	Dr. L. Srinivasa Rao Asst. Professor (Physics)	Magnetic properties of zinc oxide based glasses doped with transition metal ions for sensor applications
2	Shiva Shankar Katika	18071A1025	VNRVJIET	Dr. L. Srinivasa Rao Asst. Professor (Physics	Magnetic properties of zinc oxide based glasses doped with transition metal ions for sensor applications
3	Sailaja Jarpala	176C1A0221	Medha Inst. Sci. & Tech. for Women, Khammam	Dr. L. Srinivasa Rao Asst. Professor (Physics	Magnetic properties of zinc oxide based glasses doped with transition metal ions for sensor applications
4	Gosula Shiva Kumar	18071A04E5	VNR VJIET	Dr. C. Thirmal Asst. Professor (Physics)	Electroactive polymers for sensing and actuation applications
5	Mohammed Ayaz Naick	17071A0146	VNR VJIET	Dr. C. Thirmal Asst. Professor (Physics)	Fiber reinforced polymers in construction
6	Keri Abhishek	17071A0150	VNR VJIET	Dr. C. Thirmal Asst. Professor (Physics)	Fiber reinforced polymers in construction
7	Harlaiyya Nagesh Ambarayya	2017IEN16	Central University of Karnataka	Dr. Shuchi Tiwari Asst. Professor (Chemistry)	Recycling and reuse of solid and building waste in construction
8	Gollu Vijay Raj	18071A1017	VNR VJIET	Dr. Shuchi Tiwari Asst. Professor (Chemistry)	Usage of rain water
9	Sharvani Bompally	18075A0427	VNR VJIET	Dr. T. Rajani Asst. Professor	Conducting Nanocomposites

				(Physics)	for Electronics Applications
10	B. Sai Charan	17071A0368	VNR VJIET	Dr. B. Ashok Asst. Professor (Physics)	Optical properties of lithium borate glasses co-doped with transition metal ions for Li-ion battery applications
11	Mohammad Mussadiq	17071A1098	VNR VJIET	Mr. Pavan Kumar Asst. Professor (Physics)	Materials for solar energy applications
12	Shaik Sameer	18071A0249	VNR VJIET	Dr. K.S. Rudramamba Asst. Professor (Physics)	Materials for energy and sustainable development
13	Mankala Vinay Rao	18E51A0325	HITAM, Hyd.	Dr. K.S. Rudramamba Asst. Professor (Physics)	Materials for energy and sustainable development
14	Md. Abdul Rab	18071A0591	VNR VJIET	Dr. K.S. Rudramamba Asst. Professor (Physics)	Materials for energy and sustainable development
15	Yerram Shivani	18071A1060	VNR VJIET	Dr. M. Sumithra Asst. Professor (Physics)	Synthesis and characterization of Silver nanoparticles
16	Krishna Chandgadkar	121318042022	St Francis College for Women, Hyderabad.	Dr. G. Suresh Asst. Professor (Physics)	Piezoelectricity & nanogenerator applications of Polyvinylidene fluoride (PVDF) and Poly lactic acid (PLA): A review
17	Keerthi Sai Praneeth	18075A0431	VNR VJIET	Dr. N.V. Suresh Kumar Asst. Professor (Physics)	Theory of Raman effect and Surface enhanced Raman scattering (SERS) of molecules tagged with nanoclusters

Summer internships/Mini projects 2021-22

Total No. of Students Awarded = 66

S.No.	Guide	Topic	Name of the Student	Roll No	Course (B.Tech./M.Tech.)
1	Dr.T.Jayashree Professor of Mathematics HOD, H&S jayashree_t@vnrvjiet.in	Classification and prediction models of Machine Learning for Engineering Applications	Varshitha Gaddipati	19071A12B7	B.Tech. (IT)
			Gnyanesh Bangaru	19071A1283	B.Tech. (IT)
			N. Yaswant Venkat	19071A12C0	B.Tech. (IT)
			Neelima Gundu	19071A1284	B.Tech. (IT)
2	Dr.N.Pothanna Associate Professor of Mathematics pothanna_n@vnrvjiet.in	Numerical and Analytical solutions of viscous flows using MATLAB	Ganji Nithish Reddy	18071A0381	B.Tech. (ME)
			Sathish Mahoor	18071A0397	B.Tech. (ME)
			Tammali Saikrishna	18071A0358	B.Tech. (ME)
			Kaveti Upender	18071A0389	B.Tech. (ME)
3	Mr.D.Swarnakar Asst. Professor of Mathematics swarnakar_d@vnrvjiet.in	Numerical study of Multi-parameter problems using MATLAB code	C Venkata Sri Harsha	18071A0311	B.Tech. (ME)
			Lade Srikanth	18071A0395	B.Tech. (ME)
			Chintamreddy Venkata Revathi	19071A0408	B.Tech. (ECE)
4	Mrs.T.Kusuma Asst. Professor of Mathematics kusuma_t@vnrvjiet.in	Clustering models in Machine Learning for Engineering Applications	D. Manaswini	18071A0473	B.Tech. (ECE)
			P. Venkata Yashaswini	18071A04A6	B.Tech. (ECE)
			B V N Sai Manish Kumar	18071A04C7	B.Tech. (ECE)
			Gannavarapu Sri Aditya	18071A0475	B.Tech. (ECE)
5	Dr.B.Ashok Asst. Professor of Physics ashok_b@vnrvjiet.in	AC conductivity characterization of lithium borate glasses doped with manganese ions	Gollapally Surya Teja	18071A0383	B.Tech. (ME)
			Pulagam Anusha	19075A0304	B.Tech. (ME)
6	Mr.P.Pavan Kumar	Physical, Optical and Electrical Properties of	Annapureddy Sai Kirtana	19071A0367	B.Tech. (ME)

	Asst. Professor of Physics pavankumar_p@vnrvjiet.in	Glasses for Engineering Applications	R.Lakshmi Akanksha	19071A03A7	B.Tech. (ME)
7	Dr.T.Rajani Asst. Professor of Physics rajini_t@vnrvjiet.in	Nano ferrite composites for Energy applications	N. Shashidhar Reddy	18071A03A8	B.Tech. (ME)
			Rapelly Rahul	18071A03A3	B.Tech. (ME)
			Darsi David Raju	18071A0375	B.Tech. (ME)
8	Dr.K.S.Rudramamba Asst. Professor of Physics rudramamba_ks@vnrvjiet.in	High dielectric polymer based nano composites for energy storage applications	D. Shiva Kumar Reddy	19075A0302	B.Tech. (ME)
			M Keerthi	18071A0330	B.Tech. (ME)
			S. Dharma Sai	19075A0305	B.Tech.
9	Dr.L.Srinivasa Rao Asst. Professor of Physics srinivasarao_l@vnrvjiet.in	Bioactive Glasses for Medical Applications	Haarika Jogu	18071A0324	B.Tech. (ME)
			Dundy Naga Pavan Teja Gorijala	19071A0380	B.Tech. (ME)
10	Dr.L.Srinivasa Rao Asst. Professor of Physics srinivasarao_l@vnrvjiet.in	Synthesis and Characterization of Bio-degradable plastics for daily use	P. Srujana	18071A0343	B.Tech. (ME)
			K. Haripriya	18071A0328	B.Tech. (ME)
11	Dr. C.Thirmal Asst. Professor of Physics thirmal_ch@vnrvjiet.in	Piezoelectric materials for soft robotic actuators	J.Ruchitha	19075A0308	B.Tech. (ME)
			Tankasala Spurthi	18071A03B1	B.Tech. (ME)
			Chippa Harini	18071A0373	B.Tech. (ME)
			D.Likhitha	19075A0307	B.Tech. (ME)
12	Dr. NV Suresh Kumar Asst. Professor of Physics sureshkumar_nv@vnrvjiet.in	Quantum mechanical methods for quantum computing	Guda Madhavi	18071A0476	B.Tech. (ECE)
			Gosula Shiva Kumar	18071A04E5	B.Tech. (ECE)
13	Dr. G.V. Rao Asst. Professor of Physics venkateswararao_g@vnrvjiet.in	Usage of genetic algorithms and networks in nanocluster particle analysis-1	Sathvika Manchala	19071A03A9	B.Tech. (ME)
			Ch.Madan	19071A0378	B.Tech. (ME)

14	Dr. G.V. Rao Asst. Professor of Physics venkateswararao_g@vnrvjiet.in	Usage of genetic algorithms and networks in nanocluster particle analysis-2	Katari Teja Venkata Srihari Varma	18071A0387	B.Tech. (ME)
			B. Chandra Kiran	18071A0369	B.Tech. (ME)
			Siddula Shiva Pradeep	18071A03A9	B.Tech. (ME)
15	Dr. D. Venkata Sai Asst. Professor of Physics venkatasai_d@vnrvjiet.in	Understand and explore various mechanisms in liquid crystal based applications	P. Sharanya	19071A03A1	B.Tech. (ME)
			Annam Sai Nikhil	18071A0364	B.Tech. (ME)
			Sathvika Sriramaneni	19071A03B4	B.Tech. (ME)
16	Dr. B. Srinivas Asst. Professor of Physics srinivas_b@vnrvjiet.in	Mechanical properties of glasses	Renuka Bolisetti	19071A0372	B.Tech. (ME)
		Mechanical properties of glasses	Nithesh Reddy Chamala	19071A0375	B.Tech. (ME)
17	Dr. S.D. Ramarao Asst. Professor of Physics dasaradharamarao_s@vnrvjiet.in	Structural and optical studies on direct and indirect band gap semiconductors: Applicability towards energy	Pavan Teja Bodapati	18071A0372	B.Tech. (ME)
			Hareesh.D	18071A0379	B.Tech. (ME)
			Javvaji Anisha	18071A04E7	B.Tech. (ECE)
			Vodnala Sudeshna	19075A0306	B.Tech. (ME)
18	Dr.K.Madhavi Asst. Professor of Chemistry madhavik@vnrvjiet.in	Nanomembranes to remove water pollutants	Challa Tejashree	18071A0309	B.Tech. (ME)
			Gurram Pavan	18071A0385	B.Tech. (ME)
			Nikitha Rapolu	18071A0350	B.Tech. (ME)
			Sai Nareen Purimetla	18071A0351	B.Tech. (ME)
19	Dr.P.Padmavathi Asst. Professor of Chemistry padmavathi_p@vnrvjiet.in	Nanomembranes to remove air pollutants	Cigiri Dharmi Kanth	18071A0374	B.Tech. (ME)
			Rahitya Kolla	18071A0392	B.Tech. (ME)
			Yenumula Lakshmikanth	18071A03C0	B.Tech. (ME)
			Lingala Keshav Reddy	19071A0391	B.Tech. (ME)
20	Dr.N.Mamatha Asst. Professor of Chemistry mamatha_n@vnrvjiet.in	Organic polymer materials for energy storage devices.	C.Murali Krishna	19071A0376	B.Tech. (ME)
			P.Karthik	18071A0347	B.Tech. (ME)

21	Dr. Shuchi Tiwari Asst. Professor of Chemistry shuchi_t@vnrvjiet.in	Development the novel low cost and sustainable 3d printable polymer composite material with NTPC fly ash and recycled PET	Tirupati Sai Neeraj	18071A03B5	B.Tech. (ME)
			K.Vinay Kumar	18071A0327	B.Tech. (ME)
			K. Susheel Kumar Yadav	18071A0386	B.Tech. (ME)
			Metpalli Naidhruv	19071A0397	B.Tech. (ME)
22	Dr. Shuchi Tiwari Asst. Professor of Chemistry shuchi_t@vnrvjiet.in	Measuring Happiness Through Artificial Intelligence and understanding with Machine Learning Approach	G.Vijaya Sai Pravallika	18071A0319	B.Tech. (ME)
			Oliver John Bollam	18071A0468	B.Tech. (ECE)
			S.Bindu Bhargavi	19071A03B2	B.Tech. (ME)

Students' Internships Published (2020-21): Total- 02

1. **Mr. Ch. Sai Phani Kumar**, II-M.Tech. (AMS) has been appointed as a **Student Intern** (Rs. 2500/- pm) for TEQIP-III sponsored project under **the guidance of Dr. L. Srinivasa Rao**, PI. (21st January, 2020). He has published his work in Ceramics International (Elsevier). Mr. Kumar has completed his Masters successfully in January, 2021.

VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY

Vignana Jyothi Nagar, Pragathi Nagar, Nizampet (S.O.), Hyderabad TS 500 090 India

AICTE Approved; UGC Autonomous; JNTUH Affiliated; UGC "College with Potential for Excellence"; NAAC "A++" Grade

ISO 9001:2015 Certified; QS I.GAUGE "Diamond" Rated; NIRF 2020: 127th Rank Engineering (151–200 Band Overall)

NBA Accredited: CE, CSE, ECE, EEE, EIE, IT, ME; JNTUH-Recognised Research Centres: CE, CSE, ECE, EEE, ME

Estd. 1995

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INTERNSHIP CERTIFICATE

This is to Certify that Mr.Ch.Sai Phani Kumar, (Roll No 18071D3306) Student of II M.Tech (Advanced Manufacturing Systems), Department of Mechanical Engineering has undergone the Internship JNTUH TEQIP - III project from 16th December 2019 to 31st January 2021 and carried out the project entitled *"Synthesis and Characterization of Bi2O3-B2O3-MnO Glasses Doped with Zirconium Oxide Nanoparticles Suitable for Magnetic Sensors and Luminescent Materials"* under the guidance of Dr. L. Srinivasa Rao, Assistant Professor in Physics, Department of Humanities and Sciences, VNRVJIET. He has Successfully Completed the Internship.

Dr. B.V.R. Ravi Kumar
Professor MED & Head CDC

Dr. C.D. Naidu
Principal

2. **B. Sai Charan** (17071A0368) II-B.Tech.(Mechanical) of VNRVJIET has published his work entitled "Optical properties of lithium borate glasses co-doped with transition metal ions for Li-ion battery applications" under the guidance of **Dr. B. Ashok**, Asst. Professor (Physics)

AICTE-Sponsored 2-Week Online Short Term Training Programme on

"Design and Structural Evolution of Advanced Functional Materials Suitable for Engineering Applications"

February 15–20, 2021 (spell-1)

& March 01–06, 2021(spell-2)

Sanctioned Grant-in-aid (Plan) under AQIS 2019-20 during the financial year 2020-21 by AICTE, Govt. of India.

COORDINATORS:

Dr. Chakravarthula Kiran, Assoc.Professor, Dept. of EIE

Dr. L. Srinivasa Rao, Asst. Professor (Physics), Dept. of H&S

Abstract: Materials are important to mankind because of the benefits that can be derived from the manipulation of their electrical, thermal, optical, magnetic, and mechanical properties. Functional materials constitute various classes of materials such as ceramics, metals, polymers, and organic materials which, owing to certain material properties, have functions of their own – such as ferroelectricity, piezoelectricity, energy storage, magnetism, etc. As biological systems; we human beings are also empowered through various functional materials that make our skin, bones, or blood. Engineering applications can also leverage distinct advantages through the use of the appropriate materials. Advancement in technology has enabled us to probe into more functional materials than ever, using new techniques to prepare and characterise them so as to enable engineering applications in various domains and cross-domain areas. This 6-day Short-Term Training Programme is intended to introduce the material science as well as engineering techniques involved in synthesis and characterisation of various classes of material.

Objectives:

1. To meet the challenges in design and synthesis of the Engineering materials by efficient methods that they include safety, eco-friendly, low cost etc.
2. To build a platform for young faculty members to develop their scientific knowledge of techniques used in characterization of materials.
3. To educate the faculty members by hands on experience through laboratory facilities like sophisticated equipment and analytical tools.
4. To motivate the faculty members to pursue research in the field of Advanced Functional Materials.

Expected Outcomes:

After completion of STTP, the faculty members may able to:

1. Understand the safe, eco-friendly and low-cost process of design and synthesis of the materials

2. Characterize the materials by UV-Visible spectra and FTIR spectra
3. Use sophisticated equipment like Magnetic stirrer, High temperature muffle furnace, Annealing Chamber, UV-visible spectrometer and FTIR spectrometer
4. Establish individual research career by the participants in Advanced Functional Materials

Programme Objectives

- To meet the challenges in design and synthesis of the engineering materials by efficient methods that ensure safety, eco-friendly, and low cost
- To build a platform for participants in their early career stage to develop their scientific knowledge of techniques used in characterization of materials.
- To educate the participants through practical experimentation using like sophisticated equipment and analytical tools
- To motivate the faculty members and researchers to pursue research in the field of Advanced Functional Materials.

Expected Outcomes

After completion of STTP, the participants may be able to:

- Understand the safe, eco-friendly, and low-cost process of design and synthesis of the materials
- Characterize the materials by UV-Visible spectra and FTIR spectra
- Use sophisticated equipment like magnetic stirrer, high temperature muffle furnace, annealing chamber, UV-visible spectrometer and FTIR spectrometer
- Establish individual research career by the participants in Advanced Functional Materials

Contents

Piezoelectric Materials, Polymers, Nanocomposites, Bioplastics, Glasses and Glass Ceramics, ZnO-based Nanomaterials, Lasers and Photonics Materials, Materials for Nanoelectronics and MEMS, Biomaterials, Thin Film Materials, Dielectrics, Energy Harvesting Materials, Building Materials, 3-D Printing Materials

Material Characterisation Techniques, NMR Spectroscopy, Molecular Spectroscopy

Sessions will be conducted 11:00 a.m.–12:00 noon and 3:00–4:00 p.m. every day. Inaugural starts 10:30 a.m.

About VNRVJIET

Vallurupalli Nageswara Rao Vignana Jyothi Institute of Engineering and Technology (VNRVJIET) was established by the Vignana Jyothi Society, a not-for-profit organization, in the year 1995. Education determines a society's growth and development. With a motto to provide value-based higher education on par with international standards, the Philosophy of Vignana Jyothi unravels education as a process of "Presencing" that provides, both individually and collectively, to one's deepest capacity to sense and experience the knowledge. This process, along with a conscientious will to put Success and Happiness first leading to a better future has put VNRVJIET at the forefront of academic excellence. The Institute is approved by AICTE and is affiliated to JNTU-H. It offers 13 UG programmes, 13 PG programmes, and Ph.D. programmes under NDF scheme of AICTE – the only Institute in the Telangana State to get this recognition! – thus imparting quality education to over 6000 students.

Other Highlights and Accomplishments:

- QS I.GAUGE "Diamond" Rated
- QS I.GAUGE "E-LEAD" Certified (The only institution in Telangana State)
- ISO 9001:2015 Certified
- Accredited by NAAC with A++ grade (CGPA: 3.73/4.0)
- "Platinum" rating in AICTE-CII Survey
- Host Institute for MSME Business Incubator (BI)
- Mentoring Institute under AICTE "Margadarshan" Scheme
- Mentoring Institute under UGC "Paramarsh" Scheme
- "AA" Rating: NPTEL Online Courses (1st in Telangana State)
- In-house Incubator, "VJ Hub", with 12 incubatees
- Among Top 10 colleges at State level in ARIIA
- Recognised by UGC as "College with Potential for Excellence" (CPE)
- NIRF: 127th rank (Engineering), 151–200 Rank Band overall
- Autonomous status under UGC until the Academic Year 2027–'28
- 5 Research Centres recognized by JNTU-H
- 7 out of 13 UG programmes accredited by NBA
- Nodal Resource Centre for Spoken Tutorials (IIT-B)

VNRVJIET is located at Bachupally Village, Medchal District, about 8 km from Miyapur junction along the Inner Ring Road and about 6 km from JNTU College of Engineering via Pragathi Nagar.

AICTE-Sponsored 2-Week Online
Short Term Training Programme on

Design and Structural Evolution of Advanced Functional Materials

Suitable for Engineering Applications

Feb. 15–20 & Mar. 01–06, 2021

Organized by

DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING
and
CENTRE FOR NANO SCIENCE AND TECHNOLOGY (CNST)

Estd. 1995

VALLURUPALLI NAGESWARA RAO VIGNANA JYOTHI INSTITUTE OF ENGINEERING & TECHNOLOGY
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About Dept. of EIE

The Department of Electronics and Instrumentation Engineering (EIE) was established in 1999 and started the B.Tech. (EIE) programme with the Academic Year 1999–2000 with an intake of 60 students, which was later enhanced to 120 students from the Academic Year 2011–'12. The programme is accredited by NBA, latest in the year 2019.The Department launched the M.Tech. (E&I) programme during the Academic Year 2010–'11. The Department is naturally multidisciplinary and thus has a wide spectrum of faculties among its teaching workforce of 27 members including 3 Professors, 6 Associate Professors, and 18 Assistant Professors. The Department is also guided by the Professional Body Instrument Society of India (ISOI), which also has a Student Chapter at the Institute. The Department has faculties in multiple domains including Sensors, Analytical Instrumentation, Embedded Systems, Biomedical Engineering, Robotics, Automation, Control Engineering, Signal Processing, Image Processing, Machine Learning, Internet of Things, PLC & SCADA, and more.

About CNST

Established in 2016, the Centre for Nanoscience and Technology (CNST) is one of pioneer centres of research at VNRVJIET and comprises of about 10 faculty members from various engineering and science streams. The multidisciplinary research areas at the Centre include Metal-Oxide Nanoparticles, Nano-polymers, Dielectrics, Piezo-electrics, Nano-ferrites, Nano-glass Ceramics, ZnO-based nanocomposites, Biodegradable materials, Biomimetics, RF MEMS (Antennas, T/R Modules, Switches), Nano-biotechnology, and more. The Centre facilitates internships and course projects for the UG/ PG students as well as R&D activities of the faculty members in the areas of Nanoscience and Nanotechnology. At this time, four research projects—funded by DST, UGC-DAE and JNTUH (TEQIP-III)—are in progress at CNST, while two projects funded in-house have been completed. Twenty-five research papers were published based on work at CNST in various reputed journals. The Centre has collaboration with premier institutes like UoH, NIT-W, UNT (USA), *etc.*

Important Dates:

Last day for receiving applications: February 13, 2021
Intimation to Selected Candidates: February 14, 2021

Resource Persons

- Dr K Venkateswara Rao, Centre for Nanotechnology, JNTUH
- Dr N Veeraiah, Acharya Nagarjuna University
- Dr Siva Rama Krishna Vanjari, IIT-Hyderabad
- Dr D Krishna Rao, TIFR
- Dr T Venkatappa Rao, NIT-Warangal
- Dr R Rakesh Kumar, NIT-Warangal
- Dr Tapan Kumar Sau, IIIT-Hyderabad
- Mr Gadhadar Chengalaraya, NoPo Technologies Pvt Ltd
- Dr K C James Raju, University of Hyderabad
- Dr Dibakar Das, University of Hyderabad
- Dr Anantha Sunil Maligi, BMS College of Engineering
- Dr R Balaji Rao, GITAM University
- Dr Y Shivraj Narayan, VNRVJIET
- Dr Chakravarthula Kiran, VNRVJIET
- Dr N Kiran Kumar, VNRVJIET
- Dr L Srinivasa Rao, VNRVJIET
- Dr Shuchi Tiwari, VNRVJIET
- Dr Ch Thirmal Reddy, VNRVJIET
- Dr N V Suresh Kumar, VNRVJIET
- Dr A R Balavardhan Rao, VNRVJIET
- Dr S Rakesh, VNRVJIET
- Mr B Goutam, VNRVJIET
- Ms L Dharma Teja, VNRVJIET

Who should attend?

All teachers, supporting technical and administrative staff in areas of technical education in AICTE approved institutions are eligible to participate.
Research scholars, students of PG and Ph.D. programmes, manufacturers and others working in the Materials industry may also register.

Participation Benefits

There is **NO** registration fee for this programme sponsored by AICTE.
Participants who attend the programme and qualify in the test conducted at the end of the programme will receive a combined certificate from the AICTE and VNRVJIET.

The People

Advisory Committee:

- **Dr. D.N. Rao**, President, Vignana Jyothi
- **Mr. K. Harishchandra Prasad**, General Secretary, Vignana Jyothi
- **Mr. K. Durga Prasad**, Joint Secretary, Vignana Jyothi
- **Prof. Sandhya Kode**, Director for Advancement & Dean-Education Technologies and Learning Science
- **Dr. B. Chennakesava Rao**, Director for Advancement & Dean-Administration, VNRVJIET
- **Dr. A. Subhananda Rao**, Dean-Research, VNRVJIET
- **Dr. K Anuradha**, Dean-Academics, VNRVJIET

Project Monitoring Committee:

Chairperson:

- **Dr. C.D. Naidu**, Principal, VNRVJIET

Member Secretary:

- **Dr. Chakravarthula Kiran**, Assoc. Professor-EIE

Members:

- **Prof. R. Manjula Sri**, Professor & Head-EIE
- **Prof. T. Jayashree**, Professor (Math.) & Head-H&S

Subject Expert:

- **Dr. L. Srinivasa Rao**, Asst. Prof. (Phys.), Dept. of H&S

Coordinators:

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Co-coordinators:

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Registration Link and QR Code:

https://tinyurl.com/vnrvjiet-eiecnst-sttp2021

SCHEDULE FOR SPELL-1: FEBRUARY 15–20, 2021

*** Inaugural: 15.02.2021 @ 10.30 - 11.00 a.m.**

Date	Session-1: 11.00 a.m.–12.10 p.m.	Session-2: 3.00 p.m.–4.10 p.m.
15-02-2021	***Keynote Address: Nanostructures for Sensing*** **Prof. K. Venkateswara Rao** Centre for Nanotechnology, JNTUH, Hyderabad	***Piezo-electrics: Fabrication & Applications*** **Dr. C. Thirmal** Assistant Professor-Physics Centre for Nanoscience and Technology, VNRVJIET, Hyderabad
16-02-2021	***High Entropy Alloys: Fundamentals & Applications*** **Prof. R. Balaji Rao** Department of Physics GITAM University, Hyderabad	***Nanotechnology: Historical Perspective and the Road to Future*** **Mr. B. Goutam** Assistant Professor, Department of EIE VNRVJIET, Hyderabad
17-02-2021	***Design and Applications of ZnMgO Nano-composites and ZrO_2 Nano Glass-ceramics*** **Dr. L. Srinivasa Rao** Assistant Professor-Physics Centre for Nanoscience and Technology, VNRVJIET, Hyderabad	***Development of Composite Materials for Advanced Engineering Materials*** **Dr. N. Kiran Kumar** Associate Professor, Department of ME, VNRVJIET, Hyderabad
18-02-2021	***Instrumentation and Applications of NMR Spectroscopy*** **Dr. D. Krishna Rao** Scientific Officer TIFR, Hyderabad	***Development of Novel Magnetoelectric (ME) Composite for Magnetic Field Sensing Applications*** **Prof. Dibakar Das** School of Engineering Sciences & Technology, University of Hyderabad, Hyderabad
19-02-2021	***Glasses and Glass Ceramics*** **Dr. N. Veeraiah** UGC-BSR Fellow, Department of Physics, Acharya Nagarjuna University, Guntur	**Self- Assessment test**
20-02-2021	***Evaluation of Carbon Nanotube Multi-Functional Materials*** **Mr. Gadhadar Chengalaraya** CEO, NoPo Technologies Pvt. Ltd., Bengaluru	**Assessment Test**

All participants must meet the following requirements:

- Desktop/Laptop PC with good and reliable Internet connectivity.
- Functional Webcam as well as a Headset or Microphone & Speakers are mandatory. However, using the microphone and/or webcam is allowed only when participants are advised to do so.
- Please comply with the instructions in the following page.

Mode of Delivery:

- Live web session through Google Meet; Link will be shared session-wise in the WhatsApp group, 30 minutes before each session. Participants are advised to join 10 minutes in advance.

SCHEDULE FOR SPELL-2: MARCH 1–6, 2021

Date	Session-1 (11.00 – 12.10 pm) (1 hour talk; 10 minutes discussion and feedback)	Session-2 (3.00–4.10 pm) (1 hour talk; 10 minutes discussion and feedback)
01-03-2021	*Developing inorganic nanomaterials* **Dr. Tapan Kumar Sau** Professor IIIT, Hyderabad. Email: tapan.sau@iiit.ac.in	*Thin films technology: From an Engineering perspective* **Dr. Anantha Sunil Maligi** Asst. Professor, BMS College of Engineering, Bangalore. Phone: 9480773444 Email: sunil.ece@bmsce.ac.in
02-03-2021	*Processing of Electroceramics in Bulk and Thin Films* **Dr. K C James Raju** Professor, School of Physics HCU, Hyderabad. Phone: 9441917858 Email: kcjrsp@yahoo.com	*Synthesis of Functional Polymers* **Dr. Shuchi Tiwari** Asst. Professor, Centre for Nanoscience and Technology, VNRVJIET, Hyd. Phone: 8090687800 Email: shuchi_t@vnrvjiet.in
03-03-2021	*Biomaterials* **Dr. C. Kiran,** Assoc. Professor (EIE) VNRVJIET, Hyderabad. Phone: 9030751024 Email: kiran_c@vnrvjiet.in	*Materials for 3D Printing* **Dr. Y. Shivraj Narayan** Professor (ME), VNRVJIET, Hyd. Phone: 9849272656 Email: shivrajyeole@vnrvjiet.in
04-03-2021	*Materials for energy harvesting* **Dr. R. Rakesh Kumar** Asst. Professor, Dept. Physics, NIT Warangal. Phone: 9676220574 Email: rakeshr@nitw.ac.in	*Density functional theory for modeling and computatioon* **Dr. N.V. Suresh Kumar** Asst. Professor (Physics), VNRVJIET. Phone: 9491551054 Email: balavardhanarao_ar@vnrvjiet.in
05-03-2021	*"Device Self-heating Effects in sub-deca-nanometer Logic Transistors".* **Dr. Kaushik Nayak** Asst. Professor, Department of EEE IIT Hydearabad. Phone: 9493436940 Email: knayak@ee.iith.ac.in	*Semiconducting materials for MOSFET and VLSI System design (2.00-3.00 pm)* **Dr. S. Rajendra Prasad,** Professor, Dept.of ECE, VNRVJIET, Hyderabad. Phone: 9949905788 Email: rajendraprasad_s@vnrvjiet.in *Building Materials* **Dr. S. Rakesh Kumar** Asst. Professor, Dept. of Civil Engg. VNRVJIET, Hyderabad. Phone: 8555847697 Email: rakesh_s@vnrvjiet.in (Followed by **Self-Assessment Test**).
06-03-2021	*Current Research on Biodegradable Materials* **Dr. T. Venkatappa Rao,** Associate Professor, Department of Physics, NIT Warangal. Phone: 9248667047 Email: tvraokmm@yahoo.co.in (Followed by **Valedictory function)**	**Final Assessment Test.**

AICTE-sponsored, 2-week Online Short-Term Training Programme on "Design and Structural Evolution of Advanced Functional Materials Suitable for Engineering Applications"

Report (Spell-1)

AICTE-sponsored, 2-week Online Short-Term Training Programme on "Design and Structural Evolution of Advanced Functional Materials Suitable for Engineering Applications" was jointly organized by Department of Electronics and Instrumentation Engineering (EIE) And Centre for Nano Science and Technology (CNST) during 15–20th, February 2021 (spell-1).

The online training programme was attended by over 80 faculty members and researchers around the country. Dr. K. Venkateshwara Rao, Professor of Nanotechnology has attended the inaugural function as its Chief Guest and delivered keynote address.

Impact of the programme: During the Spell-1, the resource persons have trained the participants in the following topics:

1. Nanostructures for Sensing
2. Evaluation of Carbon Nanotube Multi-Functional Materials
3. Design and Applications of ZnMgO Nano-composites and ZrO_2 Nano Glass-ceramics
4. Nanotechnology: Historical Perspective and the Road to Future
5. Piezo electrics: Fabrication & Applications
6. Development of Composite Materials for Advanced Engineering Materials
7. Development of Novel Magnetoelectric (ME) Composite for Magnetic Field Sensing Applications
8. High Entropy Alloys: Fundamentals & Applications
9. Instrumentation and Applications of NMR Spectroscopy
10. Positron Annihilation Spectroscopy for Evaluation of Nano-dimensional defects in the materials.

Moreover, the participants have been tested by conducting objective type of the self-assessment test and assessment test in the online mode.

After completion of STTP (Spell-1), the participants may be able to:

1. Understand the safe, eco-friendly and low-cost process of design and synthesis of the materials.
2. Characterize the materials by NMR Spectroscopy and Positron Annihilation Spectroscopy.
3. Realize the applications of the Functional materials.

AICTE-sponsored, 2-week Online Short-Term Training Programme on "Design and Structural Evolution of Advanced Functional Materials Suitable for Engineering Applications"

Report (Spell-2)

AICTE-sponsored, 2-week Online Short-Term Training Programme on "Design and Structural Evolution of Advanced Functional Materials Suitable for Engineering Applications" was jointly organized by Department of Electronics and Instrumentation Engineering (EIE) And Centre for Nano Science and Technology (CNST) during 01st–06th, March 2021 (spell-2).

The online training programme was attended by over 80 faculty members and researchers around the country. Dr. T. Venkatappa Rao, Associate Professor of Physics, NIT Warangal has attended the valedictory function as its Chief Guest and conveyed the importance of advanced functional materials.

Impact of the programme: During the Spell-2, the resource persons have trained the participants in 12 sessions in the following topics:

1. Developing inorganic nanomaterials
2. Thin films technology: From an Engineering perspective
3. Processing of Electroceramics in Bulk and Thin Films
4. Synthesis of Functional Polymers
5. Biomaterials for Engineering Applications
6. Materials for 3D Printing
7. Materials for energy harvesting
8. Density functional theory for modelling and computation
9. Device Self-heating Effects in sub-deca-nanometer Logic Transistors
10. Semiconducting materials for MOSFET and VLSI System design
11. Building Materials (Foam concrete)
12. Current Research on Biodegradable Materials

Moreover, the participants have been tested by conducting objective type of the self-assessment test and assessment test in the online mode. 41 delegates have been participated and qualified the test.

After completion of STTP (Spell-2), the participants may be able to:

1. Understand the safe, eco-friendly and low-cost process of designing and synthesizing the materials such as Inorganic Nanomaterials, Functional Polymers, Materials for 3D-printing, Bio-degradable Materials etc.
2. Comprehend the Thin films technology, Semiconductor design, Modelling of materials structures etc.
3. Realize the Engineering Applications of the Advanced Functional Materials.

Seminar discusses nanoscale tech

A two-week Short-Term Training Programme (STTP) on 'Design and Structural Evolution of Functional Materials suitable for Engineering Applications' started at VNR Vignana Jyothi Institute of Engineering and Technology (VNRVJIET). Sponsored by the All India Council for Technical Education (AICTE) and conducted by the Department of Electronics and Instrumentation Engineering (EIE) and Centre for Nano Science and Technology (CNST), the online training programme was attended by over 80 faculty members and researchers around the country.

Associate Professor-EIE, Dr Kiran Chakravarthula acted as its coordinator along with Dr L Srinivasa Rao, Assistant Professor-Physics. Professor of Nanotechnology at the JNTU-H's Centre for Nanotechnology, Prof K Venkateswara Rao, attended the inaugural event as its Chief Guest and delivered keynote address.

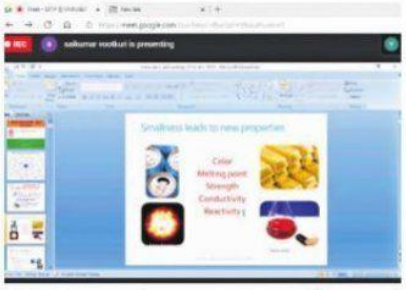
In his keynote address, chief guest Prof K Venkateswara Rao discussed the changes in material properties that occur at nanoscale and how such changes can be exploited to create various functional materials for engineering applications. It was a virtual event.

18/02/2021 New Indian Express

మెటీరియల్స్‌పై షార్ట్‌టర్మ్ శిక్షణ కార్యక్రమం

శిక్ష ణ కార్యక్రమంలో ప్రసంగిస్తున్న ప్రిన్సిపల్ నాయుడు

కుత్బుల్లాపూర్, ఫిబ్రవరి 15 (ప్రభ న్యూస్) : ప్రగతినగర్‌లోని వీఎర్‌ఆర్ విజ్ఞానజ్యోతి ఇన్‌స్టిట్యూట్ ఆఫ్ ఇంజనీరింగ్ అండ్ టెక్నాలజీలో ఇంజనీరింగ్ అనువర్తనాల కోసం అధునాతన ప్రయోజనాత్మక పదార్థాల నిర్మాణ పరిణామం, రూపొందించే విధానాలపై ఆన్‌లైన్ శిక్షణా కార్యక్రమం ప్రారంభమైంది. ఏఐసీటీఇ ప్రాయోజితమైన ఈ రెండు వారాల శిక్షణా కార్యక్రమంలో వివిధ రాష్ట్రాల నుంచి సుమారు 80 మంది అధ్యాపకులు, పరిశోధనా విద్యార్థులు పాల్గొన్నారు. ఈ కార్యక్రమానికి ఎలెక్ట్రానిక్స్ అండ్ ఇన్‌స్ట్రుమెంటేషన్ ఇంజనీరింగ్ విభాగంలో అసోసియేట్ ప్రొఫెసర్ డాక్టర్ చక్రవర్తుల కిరణ్ ప్రధాన సమన్వయకర్తగా వ్యవహరించగా, కళాశాలలోని సెంటర్ ఫర్ నానోసైన్స్ అండ్ టెక్నాలజీ సమన్వయకర్త, భౌతికశాస్త్రంలో సహాయాచార్యులు డాక్టర్ ఎల్. శ్రీనివాసరావు కూడా సమన్వయకర్తగా ఉన్నారు. ఈ కార్యక్రమ ప్రారంభంలో జెఎన్‌టియు హైదరాబాద్‌లోని సెంటర్ ఫర్ నానో టెక్నాలజీలో నానో టైక్నాలజీ అచార్యులు డాక్టర్ కె. వెంకటేశ్వరరావు ముఖ్యఅతిథిగా కీలకోపన్యాసంచేశారు. డాక్టర్ వెంకటేశ్వరరావు మాట్లాడుతూ పదార్థశాస్త్రంలో నానో టెక్నాలజీ వలన జరుగుతున్న మార్పులను ప్రస్తావిస్తూ నానో మెటీరియల్స్ ఉపయోగపడే వివిధ రంగాలను, ఆయా రంగాల్లో నానో టెక్నాలజీ ద్వారా వస్తున్న మార్పులను ప్రస్తావించారు. ఈ సందర్భంగా నానో టెక్నాలజీ అవశ్యకతని చెబుతూ అతిసూక్ష్మస్థాయి పరిమాణాల్లో పదార్థ లక్షణాల్లో వచ్చే మార్పులను వివిధ అవసరాలకు అనుగుణంగా ఎలా వాడోకోవచ్చో ఆయన వివరించారు. ప్రారంభ కార్యక్రమంలో డాక్టర్ కిరణ్ స్వాగతోపన్యాసం చేయగా, కళాశాల ప్రధానాధ్యాపకులు డాక్టర్ సిడి నాయుడు, సంచాలకులు డాక్టర్ బి. చెన్నకేశవరావు, ఈఐఈ విభాగానికి నేతృత్వం వహిస్తున్న ఆచార్యులు డాక్టర్ ఆర్. మంజుల శ్రీ, హెచ్ అండ్‌ఎస్ విభాగానికి నేతృత్వం వహిస్తున్న ఆచార్యులు డాక్టర్ టి.జయశ్రీ, కార్యక్రమ సమన్వయకర్త డాక్టర్ శ్రీనివాసరావు ప్రసంగించారు.

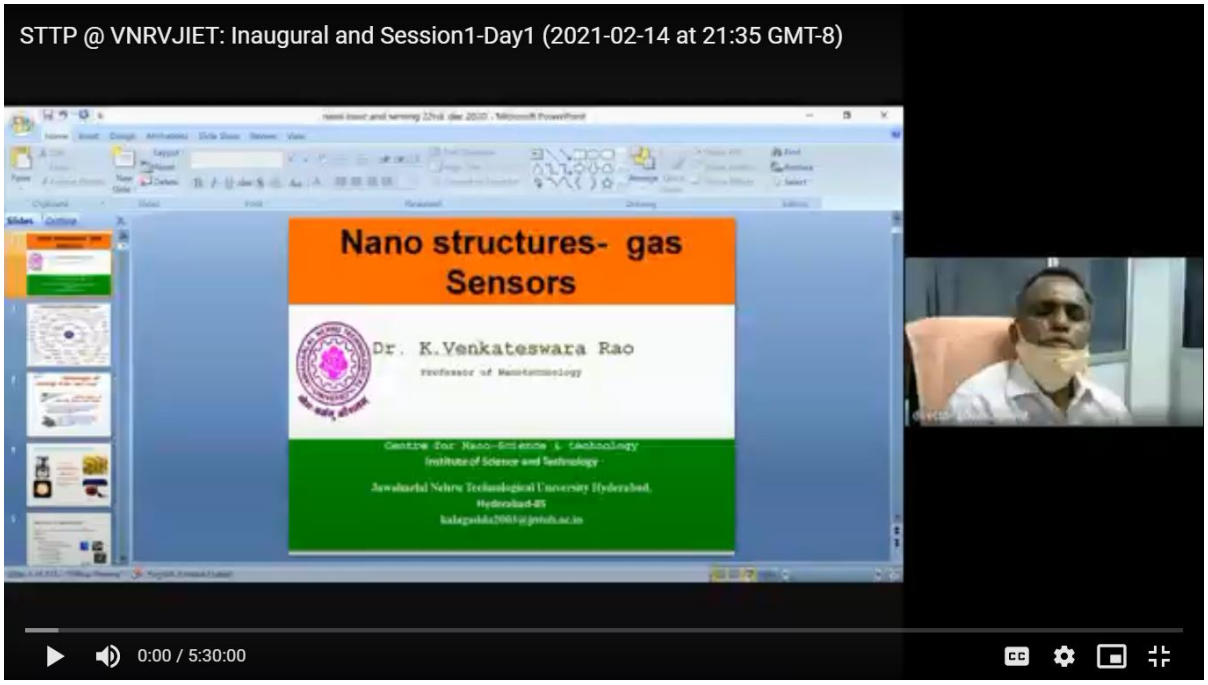


కీనోట్ ప్రెసెంటేషన్

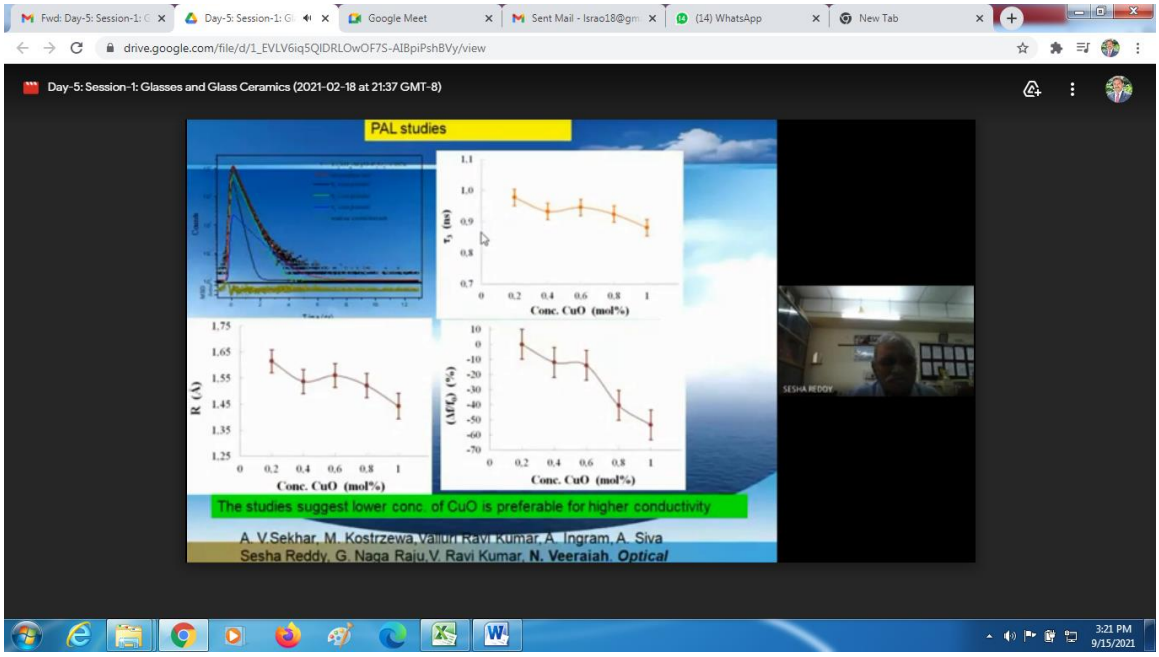
epaper.prabhanews.com

హైదరాబాద్ ఆంధ్రప్రభ Tue, 16 February 2021
https://epaper.prabhanews.com/c/58475099

15/02/2021 Local News Paper daily- Andhraprabha



15/02/2021 Inauguration & key note address by Prof. K. Venkateswara Rao, JNTUH, Hyd.



Spell-1: Day-5 (19-02-2021):

Talk on "Positron annihilation in Materials" by Prof. N. Veeraiah, ANU, Guntur.

Other Significant Activities of the Centre

1. AICTE has sanctioned Rs. 1.92 lakh for conducting STTP through Centre for Nanoscience and Technology (4th September, 2020). Program coordinators: Dr. L. Srinivasa Rao and Dr. C. Kiran.
   (Ref no. 34-66//418/FDC/STTP/Policy-1/2019-20)

2. Eighteen (18) students have registered for **Online Summer Internships-2020**. The students are not only from VNRVJIET (Hyderabad), but also from other institutes like Central University of Karnataka (Gulbarga), St Francis College for Women (Hyderabad), Medha Institute of Science and Technology (Khammam), HITAM (Hyderabad) and CMRCET (Hyderabad).

3. Dr. L. Srinivasa Rao and Dr. Shuchi Tiwari have attended and presented papers in a **National conference** on "Advances in Chemical Engineering and Science (ACES) 2020" which is scheduled to be held during February 28th–29th, 2020 at Indian Institute of Science Education and Research (IISER) Bhopal, Madhya Pradesh, India.

Paper presentation by Dr. L. S. Rao;

Dr. Rao & Dr. Shuchi with Dr. Shankar Chakra (Convener)

4. Dr. C. Thirmal has sent a poster to "Advances in chemical engineering and science-2020" held at ISER, Bhopal, during 28th -29th Feb 2020 and it is presented by Dr. L. Srinivasa Rao.

5. Dr. C. Thirmal and Dr. N. V. Suresh Kumar have organized a **two day Webinar** on *"Multifunctional Materials"* during 15th & 16th July, 2020 with an External resource person (Prof. James Raju, Department of Physics, HCU) and four internal resource persons (Dr. L. Srinivasa Rao, Dr. C.

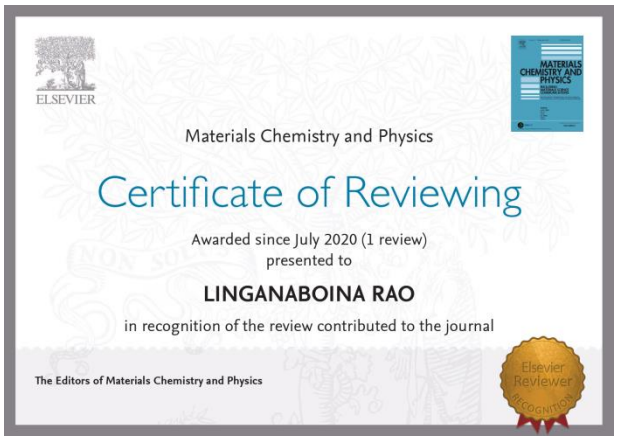
Thirmal, Dr. B. Suresh and Dr. N.V. Suresh Kumar). About 100 faculty members from various Engineering colleges have attended it.

6. Dr. L. Srinivasa Rao has completed 6 week online course entitled " Physical Basics of Quantum Computing" offered by Saint Petersburg State University through Coursera during 22-06-2020 to 29-07-2020. Quantum Computing. And, completed 4-week online course on "Introduction to Artificial Intelligence (AI)" during 15th August 2020 to 12th September 2020 by IBM (offered through Coursera).

7. Dr. C. Thirmal has completed online FDP on QUANTUM COMPUTING jointly organized byEICT Academies- MNIT Jaipur, NIT Patna and Microsoft-India, from 24thto 29th August 2020.

8. Dr. C. Thirmal has reviewed a paper in August 2020 in "Journal of The Institution of Engineers (India): Series E" Publisher: Springer

9. Dr. L. Srinivasa Rao has received Reviewer reorganization award from two Elsevier journals namely, Materials Chemistry Physics and Journal of Non-crystalline solids.



10. Dr. L. Srinivasa Rao has delivered **Invited talk** in one week Faculty Development Program on "Nano Hybrid Composite Materials Characterization & Applications" organized by Department of Mechanical Engineering, VNRVJJIET from 24th to 28th August 2020.

Paper Publications (as on 21-06-2023)

Papers Published in Peear Reviewed Indexed Journals: 28

S.No.	Faculty Name, Designation & Department	List of Authors in the order that appears on the paper	Full title of the paper	Journal name	Volume, Issue, Page No.	Month/ Year of publication	ISSN / ISBN No.	No. of citations	Impact Factor	Indexed in Web of Science /Google Scholar/ Scopus
1	Dr. L. Srinivasa Rao, Asst. Professor (Physics) H&S	**L. Srinivasa Rao**	AC conductivity and polarization phenomenon of $Li_2O–MoO_3–B_2O_3:V_2O_5$ glasses	Journal of Alloys and Compounds **(Elsevier)**	Volume 787, Pages : 1280-1289.	30th May, 2019	ISSN : 0925 - 8388	17	4.65	Scopus, SCI, WOS, Scimago and Google Scholar
2	Dr. L. Srinivasa Rao, Asst. Professor (Physics), H&S	P. Venkateswara Rao, G. Naga Raju, P. Syam Prasad, T. Satyanarayana, **L. Srinivasa Rao**, F. Goumeidane, M. Iezid, W. Marltan, G. S. Baskaran, N. Veeraiah	Role of molybdenum ions in lead zinc phosphate glass system by means of dielectric studies	Materials Science -Poland **(Sciendo)**	Volume 36: Issue 4. Pages : 623–629.	1st Feb, 2019	ISSN : 2083 - 1331	2	1.01	Scopus, SCI, WOS, Scimago and Google Scholar
3	Dr. L. Srinivasa Rao, Asst. Professor (Physics), H&S	**L. Srinivasa Rao,** V. Ravi Kumar, P. Naresh, P. V. Rao, N. Veeraiah	Optical absorption and photoluminescence properties of vanadium ions in 'lithium-tungsten-borate' oxide glasses	Materials Today: Proceedings **(Elsevier)**	Volume 5, Issue 13, Part 1, 2018, Pages 26290-26297	19th December, 2018	ISSN : 2214 - 7853	10	1.09	Scopus, SCI, WOS, Scimago and Google Scholar
4	Dr. L. Srinivasa Rao, Asst. Professor (Physics), H&S	**L. Srinivasa Rao**, T. Venkatappa Rao, Sd.	Structural and optical properties of zinc magnesium oxide nanoparticles	Materials Chemistry and Physics **(Elsevier)**	Volume 203, Pages 133-140	1st January, 2018.	ISSN : 0254 - 0584	41	3.408	Scopus, SCI, WOS, Scimago and Google Scholar

S.No.	Faculty Name, Designation & Department	List of Authors in the order that appears on the paper	Full title of the paper	Journal name	Volume, Issue, Page No.	Month/ Year of publication	ISSN / ISBN No.	No. of citations	Impact Factor	Indexed in Web of Science /Google Scholar/ Scopus
		Naheed , P. V. Rao	synthesized by chemical co-precipitation							
5	Dr. L. Srinivasa Rao, Asst. Professor (Physics), H&S	**L.Srinivasa Rao**, P.Venkateswara Rao, M.V.N.Vasu Deva Sharma, N. Veeraiah	J-O parameters versus photoluminescence characteristics of $40Li_2O$-4 MO (MO Nb_2O_5, MoO_3 and WO_3)-$55B_2O_3$:$1Nd_2O_3$ glass systems	Optik **(Elsevier)**	Vol. 142, Pages 674–681.	August,, 2017	ISSN : 0030 - 4026	16	2.187	Scopus, SCI, WOS, Scimago and Google Scholar
6	Dr. C. Thirmal Assistant Professor, H&S (Physics)	P. P. Biswas, **C. Thirmal**, S. Pal, and P. Murugavel	Dipole pinning effect on photovoltaic characteristics of ferroelectric BiFeO3 films	*Journal of Applied Physics*	*123 (2), 024101*	January 2018	ISSN - 0021 - 8979	12	2.1	SCOPUS &Web of Science/
7	Dr. C. Thirmal Assistant Professor, H&S (Physics)	Shradhanjali Sahoo, TR Ravindran , V Srihari, KK Pandey, Sharat Chandra, **C Thirmal**, P Murugavel	Pressure induced phase transformations in diisopropylammonium bromide	*Journal of Solid State Chemistry*	*Volume 274, Pages 182-187*	June 2019	ISSN : 0022 - 4596	7	2.2	SCOPUS &Web of Science
8	Dr. C. Thirmal Assistant Professor, H&S (Physics)	PP Biswas, **C. Thirmal,** S Pal, M Miryala, M Murakami , P Murugavel	The composition and poling-dependent photovoltaic studies in ferroelectric $(Bi_{1-x}Sr_x)(Fe_{1-x}Ti_x)O_3$ thin films	*Journal of Materials Science: Materials in Electronics,*	*Volume:* 31, 1515-1523	January 2020	ISSN - 0957 4522	6	2.1	SCOPUS &Web of Science

S.No.	Faculty Name, Designation & Department	List of Authors in the order that appears on the paper	Full title of the paper	Journal name	Volume, Issue, Page No.	Month/ Year of publication	ISSN / ISBN No.	No. of citations	Impact Factor	Indexed in Web of Science /Google Scholar/ Scopus
9	Dr. L. Srinivasa Rao, Asst. Professor (Physics), H&S	P. Naresh, A. Chitti Babu, L. Srinivasa Rao, G. Nagaraju	"Effect of TiO_2 modifier oxide on a B_2O_3 glass system"	*Journal on Physical Sciences* **(i-manager)**	1(1), 1-7 (2019)	2019	peer reviewed	-	N/A	SCOPUS &Web of Science
10	Dr. L. Srinivasa Rao, Asst. Professor (Physics), H&S Dr. C. Thirmal Assistant Professor, H&S (Physics)	L. Srinivasa Rao, C. Thirmal, P. Raghavendra Rao	"Dielectric Dispersion, Linear and Nonlinear Optical Properties of $Li_2O–WO_3–B_2O_3$: V_2O_5 Glasses"	*J. Advanced Dielectrics* ***(World Scientific)***	Vol. 10, No. 3 (2020) 2050006 (8 pages)	2020	ISSN:2010-135X (online): 2010-1368	11	0.99	SCOPUS &Web of Science
11	Dr. L. Srinivasa Rao, Asst. Professor (Physics), H&S	L. Srinivasa Rao, Ch. Sai Phani Kumar, K. Aruna Prabha, C.D. Naidu, P. R. Rao	"Effect of ZnO nanoparticles on structure and magnetic properties of Li_2O-B_2O_3: TiO_2 glasses"	*AIP conference proceedings* ***(AIP Publishers)***	2269, 030101 (2020)	2020	ISSN: 0094-243XE; (online): 1551-7616	2	0.4	SCOPUS &Web of Science
12	Dr. L. Srinivasa Rao, Asst. Professor (Physics), H&S	Ch. Sai Phani Kumar, L. Srinivasa Rao, K. Aruna Prabha, P.R. Rao	"Effect of zirconium oxide nanoparticles on physical and structural properties of bismuth borate manganese oxide glasses"	*Ceramics International* ***(Elsevier)***	Vol. 46 (18), Part A, 2020, Pages 28292-28299	2020	ISSN: 0272-8842	4	3.83	SCI, SCOPUS &Web of Science

S.No.	Faculty Name, Designation & Department	List of Authors in the order that appears on the paper	Full title of the paper	Journal name	Volume, Issue, Page No.	Month/ Year of publication	ISSN / ISBN No.	No. of citations	Impact Factor	Indexed in Web of Science /Google Scholar/ Scopus
13	Dr. L. Srinivasa Rao, Asst. Professor (Physics), H&S Dr. C. Thirmal Assistant Professor, H&S (Physics)	L. Srinivasa Rao, P.R. Rao, C. Thirmal, M.V.R. Rao	"Lithium–Molybdenum–Borate Glasses Doped with Cu^{2+} ions as Solid Electrolytes"	*Journal of The Institution of Engineers (India): Series E* ***(Springer)***	https://doi.org/10.1007/s40034-020-00193-y	January, 2021	ISSN : 2250-2483; (online): 2250-2491	3	0.88	SCOPUS &Web of Science
14	Dr. C. Thirmal Assistant Professor, H&S (Physics) Dr. L. Srinivasa Rao, Asst. Professor (Physics), H&S	C. Thirmal, L. Srinivasa Rao, AB Swain, SK Srivastav	"The Effect of Fluorine Doping on Structural and Dielectric Properties of Molecular Ferroelectric Diisopropylammonium Bromide"	*Journal of The Institution of Engineers (India): Series E* ***(Springer)***	https://doi.org/10.1007/s40034-020-00191-0	February, 2021	ISSN : 2250-2483; (online): 2250-2491	1	0.88	SCOPUS &Web of Science
15	Dr. L. Srinivasa Rao, Asst. Professor (Physics), H&S Dr. Shuchi Tiwari, Asst. Professor (Chemistry), H&S	L. Srinivasa Rao, C.D. Naidu, Shuchi Tiwari	"Investigation on synthesis, structure and degradability of starch based bioplastics"	*Materials Today: Proceedings* ***(Elsevier)***	https://doi.org/10.1016/j.matpr.2021.01.917	March, 2021	ISSN: 2214-7853	7	Cite Score : 1.3	SCOPUS
16	Dr. L. Srinivasa Rao, Asst. Professor (Physics), H&S	R.N.A. Prasad, L. Srinivasa Rao, T. Anil Babu, K. Neeraja, N. Krishna Mohan	"Structural and photoluminescence characteristics of PbO-M_2O_3(M_2O_3 = Al_2O_3, Sb_2O_3 and Bi_2O_3)-WO_3-B_2O_3: Sm_2O_3 glasses suitable for	*Optik - International Journal for Light and Electron Optics* ***(Elsevier)***	Vol. 244, Pages 1-12	July 2021	ISSN: 0030-4026	5	2.44	SCI, SCOPUS &Web of Science

S.No.	Faculty Name, Designation & Department	List of Authors in the order that appears on the paper	Full title of the paper	Journal name	Volume, Issue, Page No.	Month/ Year of publication	ISSN / ISBN No.	No. of citations	Impact Factor	Indexed in Web of Science /Google Scholar/ Scopus
			orange-red lasers"							
17	Dr. L. Srinivasa Rao, Asst. Professor (Physics), H&S	N. Jayaram babu, L. Srinivasa Rao, T.V. Rao R. Rakesh Kumar	"Study of optical and structural properties of natural bamboo fiber powder prepared by ball milling method"	*The European Physical Journal Plus* ***(Springer)***	2021 **136**: 989	October 2021	ISSN: 2190-5444	1	3.91	SCI, SCOPUS &Web of Science
18	Dr.N.V. Suresh Kumar, Asst. Professor (Physics), H&S Dr. L. Srinivasa Rao, Asst. Professor (Physics), H&S	N.V. Suresh Kumar, L. Srinivasa Rao	Theoretical insights into interaction energy, IR intensity and Raman activity enhancements of H_2O adsorbed on Mg containing Zn_3O_3 nanoclusters	*Computational and Theoretical Chemistry* ***(Elsevier)***	1212 (2022) 113708	April, 2022	2210-271X ISSN	2	1.926	SCI, SCOPUS &Web of Science
19	L. Srinivasa Rao, Assistant Professor, H&S (Physics)	**L. Srinivasa Rao**, Shamima Hussain, A. Navalika, K. Aruna Prabha, N.V. Suresh Kumar, B. Chennakesava Rao	Effect of ZnO nanoparticles on structure and magnetic properties of Bi_2O_3-B_2O_3: Cr_2O_3 glasses	Current Research in Green and Sustainable Chemistry ***(Elsevier)***	https://doi.org/10.1016/j.matpr.2023.04.480	10 May, 2023	Online ISSN: 2214-7853	2	Cite Score: 2.3	SCOPUS, Google Scholar etc.
20	L. Srinivasa Rao, Assistant Professor, H&S (Physics)	A. Akshaykranth, N. Jayaram babu, Ashish	Novel nanocomposite polylactic acid films with Curcumin-ZnO:	Current Research in Green and Sustai	Vol. 5 Article no. 100332 Page	1 August 2022	ISSN : 2666-0865	4	Cite Score: 1.7	SCOPU, SCImago, Google Schol

S.No.	Faculty Name, Designation & Department	List of Authors in the order that appears on the paper	Full title of the paper	Journal name	Volume, Issue, Page No.	Month/ Year of publication	ISSN / ISBN No.	No. of citations	Impact Factor	Indexed in Web of Science /Google Scholar/ Scopus
		kumar, T. Venkatappa Rao, R. Rakesh Kumar, L. Srinivasa Rao	structural, thermal, optical and antibacterial properties	nable Chemistry ***(Elsevier)***	s 1-8 https://doi.org/10.1016/j.crgsc.2022.100332					ar etc.
21	L. Srinivasa Rao, Assistant Professor, H&S (Physics)	A. Akshaykranth, N. Jayarambabu, T. Venkatappa Rao, R. Rakesh Kumar, L. Srinivasa Rao	Antibacterial activity study of ZnO incorporated biodegradable poly (lactic acid) films for food packaging applications	Polymer Bulletin ***(Springer)***	https://doi.org/10.1007/s00289-022-04126-0 (1-16)	11 February, 2022	Electronic: 1436-2449. Print ISSN 0170-0839	4	2.87	SCI, SCOPUS, Web of Science, Scimago, Google Scholar etc.
22	Dr. C. Thirmal, Assistant Professor, H&S (Physics)	C. Thirmal, S.D. Ramarao, L. Srinivasa Rao, V.R.K. Murthy	Study of structural, dielectric and AC conductivity properties of $SrMoO_4$	Materials Research Bulletin ***(Elsevier)***	Volume 146, 111618	February 2022	Print: 0025-5408 Online: 1873-4227	7	5.6	SCI, WOS, SCOPUS,
23	Dr. C. Thirmal, Assistant Professor, H&S (Physics)	C. Thirmal, P. Nikhil Mohan, G. Suresh, K.C. James Raju, T. Vishwam	Improved dielectric and AC conductivity properties of P(VDF-TrFE)-Nafion blends for high-temperature flexible capacitor	Current Applied Physics ***(Elsevier)***	Volume 44, Pages 63-70	December 2022	Online: 1878-1675 Print: 1567-173	-	2.856	SCI, WOS, SCOPUS,

S.No.	Faculty Name, Designation & Department	List of Authors in the order that appears on the paper	Full title of the paper	Journal name	Volume, Issue, Page No.	Month/ Year of publication	ISSN / ISBN No.	No. of citations	Impact Factor	Indexed in Web of Science /Google Scholar/ Scopus
			applications				9			
24	Dr. C. Thirmal, Assistant Professor, H&S (Physics)	S.D. Ramarao, C. Thirmal, V.R.K. Murthy	Isostructural phase transition (IPT) in $CaMoO_4$ with Scheelite structure	Ceramics International ***(Elsevier)***	Volume 48, Issue 11, Pages 14987-14992	1 June 2022	ISSN: 0272-8842	-	3.83	SCI, WOS, SCOPUS,
25	Dr. C. Thirmal, Assistant Professor, H&S (Physics)	C. Thirmal, P. Nikhil Mohan, G. Suresh, T. Lakshmi Viveka, K.C. James Raju, T. Vishwam	Investigation of dielectric properties of P(VDF-Trfe)-Nafion blended solutions in the microwave frequency region	*Materials Today: Proceedings* ***(Elsevier)***	https://doi.org/10.1016/j.matpr.2023.04.138	17 April 2023	ISSN: 2214-7853	-	Cite Score: 1.3	SCOPUS
26	Dr. C. Thirmal, Assistant Professor, H&S (Physics)	T. Vishwam, V. Manjula, T. Vamshi Prasad, C. Thirmal, V.R K. Murthy	Dielectric characterization studies of hydrogen-bonded polar liquids in nonpolar medium using cavity perturbation technique	*Materials Today: Proceedings* ***(Elsevier)***	https://doi.org/10.1016/j.matpr.2023.03.697	5 April 2023	ISSN: 2214-7853	-	Cite Score: 1.3	SCOPUS

S.No.	Faculty Name, Designation & Department	List of Authors in the order that appears on the paper	Full title of the paper	Journal name	Volume, Issue, Page No.	Month/ Year of publication	ISSN / ISBN No.	No. of citations	Impact Factor	Indexed in Web of Science /Google Scholar/ Scopus
27	Dr. G. Suresh, Assistant Professor, H&S (Physics)	G. Suresh, C. Thirmal, P. Nikhil Mohan, D.N. Prasad, K.C. James Raju, T. Vishwam	Dielectric characterization of P(VDF-TrFE)-CuO nanocomposite solutions in the microwave frequency range using open-ended coaxial probe technique	*Materials Today: Proceedings* ***(Elsevier)***	https://doi.org/10.1016/j.matpr.2023.04.321	3 May 2023	ISSN: 2214-7853	-	Cite Score: 1.3	SCOPUS
28	K. Aruna Prabha, Assistant Professor, ME	K. Aruna Prabha, Ch. Naveen Reddy, L. Srinivasa Rao, S. Sreekesh Reddy, G. Yeshwanth Kumar	Structural and thermal analysis on high-pressure steam turbine blade to determine the optimum material for its manufacturing	*Materials Today: Proceedings* ***(Elsevier)***	https://doi.org/10.1016/j.matpr.2023.05.309	26 May 2023	ISSN: 2214-7853	-	Cite Score: 1.3	SCOPUS

Patents Filed/Published/Sanctioned: 08

S.No.	Name of the Faculty	Application No.	Title	Status
1	Dr. Ch. Thirmal Asst. Professor (Physics)	201641006148	"Fabrication of eco-friendly organic ferroelectric diisopropylammonium bromide films"	Granted-337402 (05/06/2020)
2	Dr. L. Srinivasa Rao Asst. Professor (Physics)	202141008364	"Development of bismuth borate glasses co-doped with small concentrations of manganese oxide and zirconium oxide nanoparticles suitable for luminescent materials"	Published (05/03/2021) & Under Examination
3	Dr. Ashok Bhogi Asst. Professor (Physics) Dr. B. Srinivas Asst. Professor (Physics)	202221003745	"Method for the synthesis of mixed metal nanoscale composites using low cost precursors"	Published 18/02/2022
4	Dr. K.S. Rudramamba Asst. Professor (Physics)	202241027437	"A Series Capacitive Compensation Technique with Design Based Iterative Algorithm for Mitigation of Ferranti Effect in EHV and UHV Power Transmission Systems"	Published 27/05/2022
5	Dr. E. Prasad Asst. Professor (Mathematics)	202241026851	"Two-temperature magneto-thermoelasticity for heat conductivity"	Published 20/05/2022
6	Dr. E. Prasad Asst. Professor (Mathematics)	202241028401	"Mathematical modeling and Internet of things based Patient health monitoring system"	Published 27/05/2022
7	Dr. R. Srilatha Asst. Professor (Mathematics)	202241031513	"An Approach for Solving Differential Equations and Variational Problems Based on Python Elvet NN System"	Published 10/06/2022
8	Dr. N.Pothanna Associate Professor (Mathematics)	202241037470	"Efficient image smoothing and parallel structure design using five directional partial derivatives"	Published 22/07/2022

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