



SRM

INSTITUTE OF SCIENCE & TECHNOLOGY
Deemed to be University u/s 3 of UGC Act, 1956

Horizon

Quarterly Newsletter

Volume 2, Issue 1

(January to March 2023)



School of Basic Sciences
College of Engineering and Technology
SRM Institute of Science and Technology
Kattankulathur - 603 203, Chengalpattu District
Tamil Nadu, India

....Our Ranking....

 NAAC A++	  Category 1 with 12B Status	 NIRF (2022) Ranked 19 th University	 QS (2023) World Ranking one among 41 Indian Universities	 THE WORLD UNIVERSITY RANKINGS (2023) World Ranking one among 75 Indian Universities	 ARIIA ANALYTICAL RANKING OF INSTITUTIONS ON INNOVATION ACHIEVEMENTS (2021) Ranked 4 th	 SHANGHAI RANKING (2023) World Ranking one among 14 Indian Universities
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Message from the Dean Sciences



Dr. D. John Thiruvadigal

Professor and Dean Sciences
School of Applied Sciences
College of Engineering and Technology
SRM Institute of Science and Technology
Kattankulathur 603 203

It gives me immense pleasure to share with you all the second issue of the newsletter “Horizon”. The issue highlights the accomplishments and activities of School of Basic Sciences during January to March 2023. My hearty congratulations to the faculty, research scholars and students for their valuable contribution in uplifting the reputation of their respective departments. I am sure that the new facilities, MoUs etc., which are being added to the departments, will help in further strengthening research and networking with the global scientific community. The overall figures and statistics of the publications are encouraging and I anticipate all the faculty members to keep up the spirit that will enhance not only the individual career but also the school’s growth.

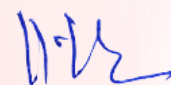
The faculty and student’s corner of the newsletter provides a platform for the enthusiastic individuals to write about the advanced areas of research, the scientific breakthroughs, different pedagogies etc.,

I take this opportunity to welcome the newly recruited faculty of research track to the school of basic sciences. I certainly feel that the new faculty will take the onus in strengthening the research ecosystem of the departments.

My heartfelt thanks to the editorial team of Horizon, for bringing out the newsletter in a fine- looking form.

Cover page of this issue:

The theme of this issue of “Horizon” portrays the test vehicle for the characterization of crew escape system that validates the various subsystems for the “Gaganyaan” Mission of Indian Space Research Organization (**ISRO**), Govt of India. (Pic courtesy: **isro.gov.in**)



(D. John Thiruvadigal)

Message from the HoD, Chemistry



Dr. M. Arthanareeswari

Professor and Head (Admin.)

Department of Chemistry

College of Engineering and Technology

SRM Institute of Science and Technology

Kattankulathur 603 203

It's our pleasure to summarize our teaching and research accomplishments for the past three months after our launch of "Horizon".

It is heartening to share that our Undergraduate student secured the 549 rank in the Joint Admission test for Masters (JAM). We congratulate the student to fulfill her dreams to pursue higher studies in elite institute. Two master students got their funding for their research projects by TNSCST, by Tamil Nadu Government. It is indeed happy to note that our Ph.D. scholar qualified in GATE 2023. Another Ph.D. scholar received short-term research internship to Taiwan through TEEP program.

Our annual flagship event, 7th edition of ICRAMC 2023 was successfully organized through physical mode, inviting eminent academicians/scientists all over the world. As an offshoot, an international MoU was signed between SRMIST and University of Montpellier, France. Untiring efforts of our faculty members, lead to more than 70 publications including up to 5 nature indexed journals with a highest impact factor of 24.83. This constant efforts from our department enabled us to uplift our QS world university subject ranking (Chemistry) from **601-630** to **501-550** in **2023**. Chemistry at SRMIST ranked **9th Position** among Indian Universities and **2nd** under the Private Institutes.

Message from the HoD, Mathematics



Dr. V. Subburayan

Associate Professor and Head In-Charge
Department of Mathematics
College of Engineering and Technology
SRM Institute of Science and Technology
Kattankulathur 603 203

As a part of School of Basic Sciences, the Department of Mathematics is elated in the release of the Second Volume of our newsletter "Horizon". It is indeed a proud moment to share the achievements of all our students, faculty and alumni. The account of all the events conducted in the Department showcase the diverse nature of research professionals available in the Department and various training given to the students with the guidance of the administrators. Congratulations to all the students and alumni who have qualified various exams and got recruited. I express my sincere gratitude to the members of the department for their dedication and contribution.

Message from the HoD, Physics & Nanotechnology



Dr. A. Karthigeyan

Professor and Head In-Charge
Department of Physics
and Nanotechnology
College of Engineering and Technology
SRM Institute of Science and Technology

It gives me immense pleasure to acknowledge and appreciate individual and collective contributions and recognitions towards achieving desired goals of the university including rankings. Our focus on providing highest standards of academic and research excellence require more and consistent efforts by integrating expertise from academia and industry in our scheme of things. Let us put our best efforts in the coming days to reach the milestones of the department by bridging the gaps.

Editorial Team

Dr. D. John Thiruvadigal
Dean Sciences

Prof. M. Arthanareeswari
Head,
Department of Chemistry

Prof. V. Subburayan
Head,
Department of Mathematics

Prof. A. Karthigeyan
Head,
Department of Physics
and Nanotechnology

Dr. K. Ananthanarayanan
Research Associate Professor
Department of Chemistry

Dr. K. K. R. Datta
Research Associate Professor
Department of Chemistry

Dr. A. Anuradha
Assistant Professor
Department of Mathematics

Dr. E. Suresh
Assistant Professor
Department of Mathematics

Dr. T.V. Lakshmi Kumar
Research Associate Professor
Department of Physics
and Nanotechnology

Dr. S. Venkataprasad Bhat
Research Professor
Department of Physics
and Nanotechnology

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From the Editors Desk

Dear Readers,

Greetings!

We take pleasure in announcing the release of the second issue of HORIZON, the quarterly newsletter of school of basic sciences that showcases the activities and achievements of our students and faculty members in the last three months (January 2023 – March 2023).

The issue spotlights the breadth and depth of the contribution of students and faculty members towards teaching, research and consultancy which makes the school of basic sciences special. The issue also highlights the numerous accomplishments by the members of the school in research article publication, acquiring grants and fellowship, patenting and alumni activities.

We invite all the readers' inputs for the betterment of the newsletter. Please write to us at dean.sciences.ktr@srmist.edu.in

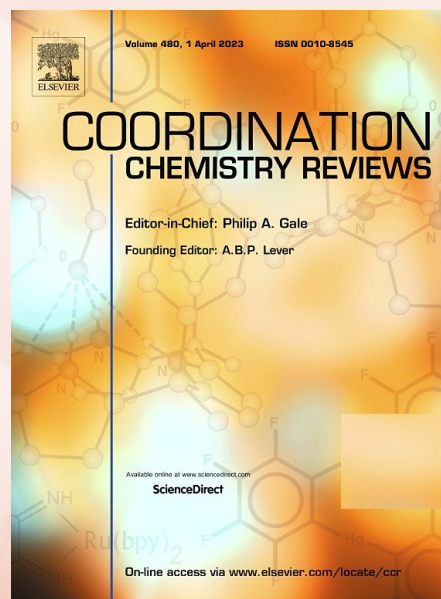
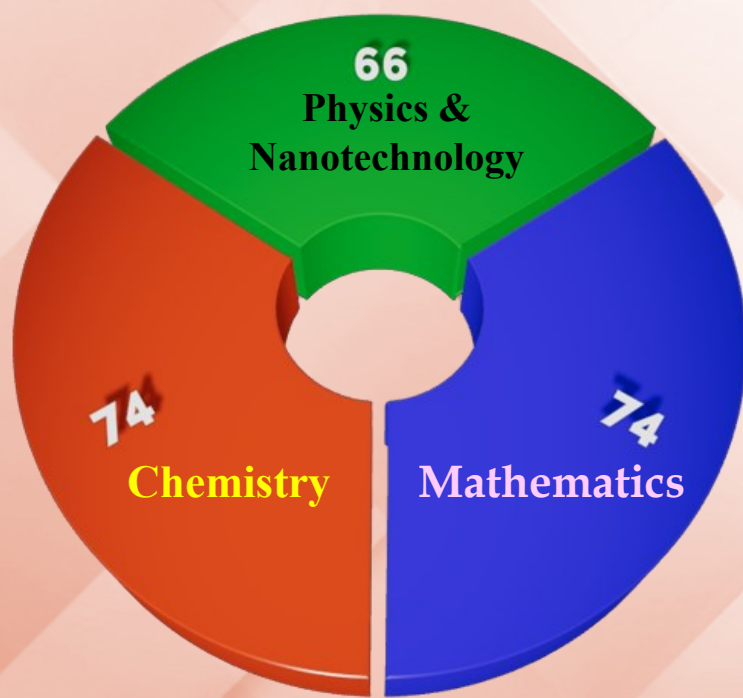
Please enjoy reading our newsletter as we look forward to what this year will bring !!

Highlights

School of Basic Sciences

Key Metrics	July to December 2022	January to March 2023
Total No. of publications (SCI/Scopus)	472	214
Highest Impact Factor Journal Publication	24.833	24.833
No of projects sanctioned	18	5
Total grant outlay	277.93 Lakhs	174.07 Lakhs
No of patents filed / granted	6	2
No of book chapters	8	10
MoUs (International / National)	3	1
Number of Ph.D's completed	28	21

Total number of research publications:
(January to March 2023)



Coordination Chemistry Reviews
(Impact factor : 24.833)

Academics - Chemistry

QS world ranking **501 - 550** by subject

Asian university ranking **351 - 400**, 9th position among Indian universities and
2nd under the private institutes.

7th International Conference on Recent Advances in Material Chemistry (**ICRAMC- 2023**)

16-18, February 2023



This conference is one of the most comprehensive materials related conferences to take place in India in 2023. The three-day conference is organized in association with Alternative Energies and Atomic Energy Commission (CEA), France and University Gustave Eiffel, France. This conference is partly sponsored by DST- SERB and CSIR, Govt. of India. ICRAMC-2023 provided an excellent platform for the world's Material Scientists to share the latest developments

in the area of Materials Chemistry. The conference programme encompasses the following cutting edge research topics related to materials chemistry, including Advanced Energy Materials, Drug Delivery systems, Functional Materials, Composite and Hybrid Materials, Surface Coatings, Bio-materials and Bio-devices etc.

The inaugural function was held on 16th Feb. 2023 at Dr. T.P. Ganesan Auditorium, Mini Hall 1, SRMIST, Kattankulathur. The Chief Guest **Dr. K. J. Sreeram**, Director, CSIR-Central Leather Research Institute, Chennai, India inaugurated the conference, along with the Guest of Honor **Prof. Jerzy Duszyński**, Former President-Polish Academy of Sciences (PAS), Poland and **Prof. C. Muthamizhchelvan**, Honourable Vice-Chancellor, SRMIST presided over the conference and released the proceedings. **Dr. D. John Thiruvadigal**, Dean of Sciences felicitated the Invited Speakers. **Dr. M. Arthanareeswari**, Convenor ICRAMC 2023 welcomed the delegates.

Ms. Pavithra Suresh, Ph.D. scholar received short-term research internship to Taiwan through Taiwan Experience Education Program.

Grants received from **Tamil Nadu State Council for Science and Technology (TNSCST) - Student Project.**

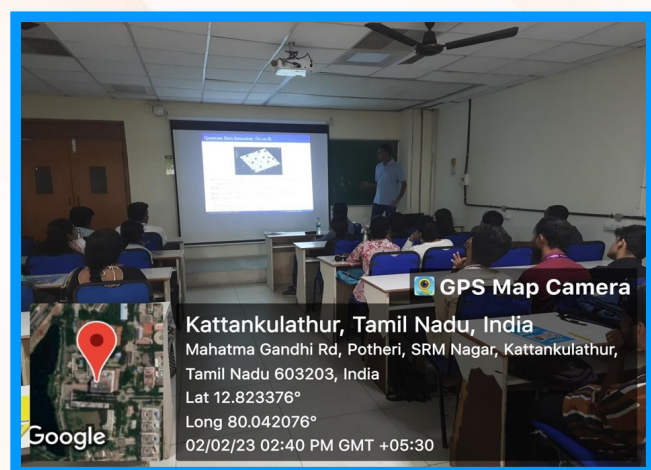
Dr. P. Gopinath Assistant Professor, Department of Chemistry.	Synthesis, photophysical, bioimaging properties and applications of 3-hydroxy - 2 acyl-benzothiophene derivatives.	Monishaa N	Rs 7500/-
Dr. Abhijit Saha, Assistant Professor, Department of Chemistry.	Development of antifouling materials to get rid from bacterial adhesion on surface.	Hamlyn Jefferson D. Vasanthan S.	Rs 7500/-



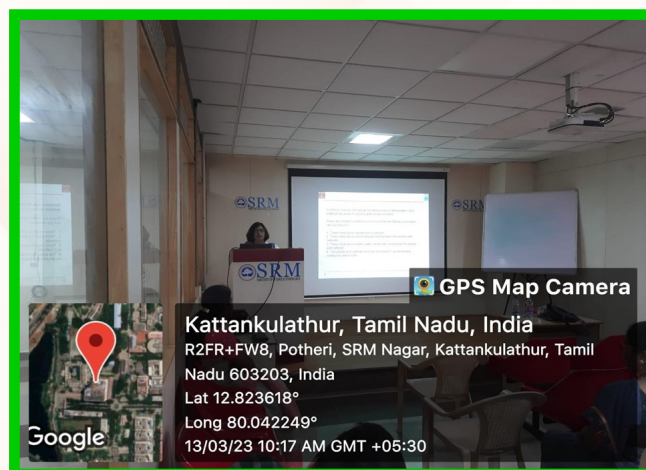
Dr. Chitiphon Chuaicham, Special Assistant Professor, Kyushu University, Japan presents his talk on Interpolation of energy and environmental issues via photocatalysis.



A section of the audience during the Chemistry Association Seminar held on 2.3.2023.



Prof. Madhav Ranganathan, Department of Chemistry Indian Institute of Technology Kanpur delivers a talk on 02.02.2023, Modeling Semiconductor Nanostructure Self-Assembly.



Ms. Maushumi Kakoti Talukdar, General Manager (Chemistry) Head-Material and Corrosion Section, Institute of Engineering and Ocean Technology (IEOT), ONGC delivers a talk on Principles of Corrosion and Corrosion in the Oil and Gas Industry.



Prof. N. Sathyamurthy Founder and Former Director of IISER Mohali, Adjunct Professor, JNCASR Bangalore delivers a talk on Chemistry in Early Universe on 09.01.2023

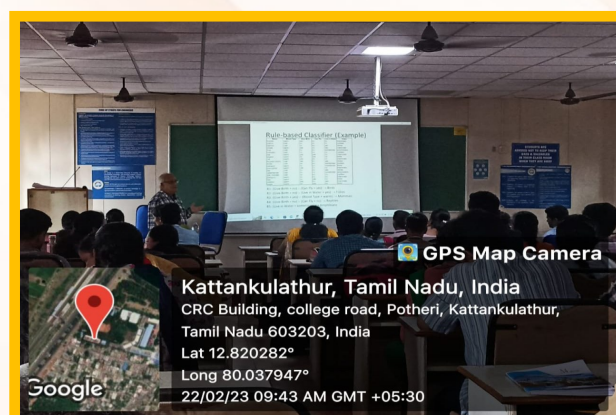
Academics - Mathematics



3rd International workshop on Numerical & Analytical Techniques in Engineering Problems (IWNATEP-2023) – Jan 30 – Feb 1, 2023.



Engineering Mathematics Festival (EMF) – Feb 10, 2023.



Faculty Development Program For Skill Development on "Role of Mathematics in Machine Learning" – Feb 20 – 24, 2023.



4th International Conference on Mathematical Techniques and Applications (ICMTA-2023) – March 22-24, 2023.



Research Colloquium (Feb 23)
Dr. R. Venkatesh, Assistant Professor, Department of Mathematics, IISc, Bangalore.
Date : 23-02-23, Venue : CRC403.



My India Project – II BSc Students Visited Kolathur and Chettipunyam Villages



Research Colloquium (Jan 23) – Dr. Pratibhamoy Das, IIT Assistant Professor, Department of Mathematics, IIT Patna. Date : 27-01-2023, 3-4PM. Venue : MB41.

Academics - Physics and Nanotechnology



Indo-German Workshop on Developments in Established and Emerging Photovoltaic Technologies (DEEPT-2023)

Faculty co-ordinators :

Prof. P. Malar, & Prof. S. Venkataprasad Bhat,
Department of Physics and Nanotechnology,
Dr. K. Ananthanarayanan, Department of Chemistry.



7th International Conference on Nanoscience and Nanotechnology (27th to 29th March 2023) . Eminent Scientist Prof. Chennupati Jagadish AC , President, Australian Academy of Sciences, Australian National University delivering the inaugural address in ICONN 2023.

Convener : Prof. D. John Thiruvadigal



Interaction of M. Sc Atmospheric Science students with Dr. Ramanan, Former Director, CWC, IMD Chennai



The National Workshop on Boundary Layer Exchange Processes and Climate Change (NoBLExclim- 2023, 23-24 March)

Convener: Dr. Sanjay Kumar Mehta



Guest lecture talk :

Faculty coordinator : Dr. Kiran Mangalampalli



Outreach activities : Daily weather in Tamil in Muthucharam Community Radio

Faculty coordinators: Dr. T.V. Lakshmi Kumar
Dr. A. Naga Rajesh

Research—Chemistry

Number of Journal publications : **74**

Average Impact Factor : **5.373**

Highest Impact Factor Journal published : **24.833**

Highest impact factor paper: Akhtaruzzaman, Samim Khan, Basudeb Dutta, Tamil Selvan Kannan, **Goutam Kumar Kole**, and Mohammad Hedayetullah Mir. Cocrystals for photochemical solid-state reactions: An account on crystal engineering perspective, Coordination Chemistry Reviews, 483, 2023, 215095. (**Impact factor = 24.833**).

Nature indexed Publications (5):

Sundaramoorthy Marimuthu, Ayyavu Shankara and **Govindhan Maduraiveeran**. FeCoP nanosheets on NiO nanoparticles as electrocatalysts: tuning and stabilizing active sites for water splitting, Chemical Communications, 59, 2023, 2600-2603. (**Impact Factor = 6.065**)

Anjan Bedi, Gal Schwartz, Uri Hananel, Amit Manor Armon, Israa Shioukhi, Gil Markovich, and Ori Gidron. The effect of axial and helical chirality on circularly polarized luminescence: lessons learned from tethered twistacenes, Chemical Communications, 59, 2023, 2011-2014. (**Impact Factor = 6.065**)

Yang Gao, Abigail Jennifer G, **Elumalai Varathan**, and Georg Schreckenbach. Understanding the Coordination Chemistry of AmIII/CmIII in the DOTA Cavity: Insights from Energetics and Electronic Structure Theory. Inorganic Chemistry, 62(7), 2023, 3229–3237. (**Impact Factor = 5.436**)

Preeyanghaa Mani, Chitiphon Chuaicham, Sulakshana Shenoy, **Bernaardshaw Neppolian**, K. Sasaki, and **Karthikeyan Sekar**. All-alike hollow nanotubes of g-C₃N₄ Converting Photons into Fuel by Splitting Water, Chemical Communications, 2023. (Accepted) (**Impact Factor = 6.065**)

Ganghao Liang, **Tumpa Sadhukhan**, Samya Banerjee, Dongsheng Tang, Hanchen Zhang, Minhui Cui, Nicolás Montesdeoca, Johannes Karges, Haihua Xiao. Reduction of Platinum (IV) Prodrug Hemoglobin Nanoparticles with Deeply-Penetrating Ultrasound Radiation for Tumor-Targeted Therapeutically Enhanced Anticancer Therapy, Angewandte Chemie, 2023, (**Impact Factor = 16.823**)

Number of Book chapters published: **5**

Patents - Published : **2**

Shilpi Sengupta and **Manab Kundu**, A Process for the preparation of a polymer electrolyte film and a supercapacitor therefrom. (Indian Patent - Application No.202241077229 A).

Palash Sanphui, Fayaz Tachar, and Kandiyil Soopy, Ripretinib Polymorph, its solvates and a process for their preparation. (Indian Patent - Application No.202341008510 A).

Total number of Ph.D. awarded: **10**

Awards / recognitions / honors received:

Mr. Sayak Nag, Ph.D. Research Scholar, has qualified Graduate Aptitude Test in Engineering (GATE) with all India rank of 3645.

Mr. Ajithkumar Arumugam	: Best poster award - ICRAMC -2023, SRMIST
Mr. Silambarasan R	: Best poster award - ICRAMC 2023 SRMIST
Mr. Deepak M	: Best poster award - CrystEngComm and IISER TVM
Ms.H.Leelavathi	: Best poster award - SIMATS School of Engineering, Saveetha University, Chennai
Ms. Vidya S Menon	: Best Poster award - Springer - Nature, ICONN - 2023
Ms. Vidya S Menon	: Best poster award - Indo - German workshop, DEEPT - 2023
Mr. Ajithkumar Arumugam	: Gold Medal - Research Day 2023, SRMSIT
Ms. Stesho Crystallin Lazuli	: Silver Medal - Researchday 2023, SRMSIT
Mr. T. K. S. Fayaz	: Silver Medal - Researchday 2023, SRMSIT
Ms. Esther Rubavathy	: Best poster award - DPRC 2023, SRMSIT
Mr. Jithin Rafi	: Best poster award - DPRC 2023, SRMSIT
Ms. Stesho Crystalin Lazuli A R	: Best poster award - DPRC 2023, SRMSIT
Ms. Aswathy Rajan	: Best poster award - DPRC 2023, SRMSIT
Mr. S. Sivagnanam	: Best poster award - DPRC 2023, SRMSIT
Ms. Gowri Chandran C V	: Best poster award - DPRC 2023, SRMSIT
Ms. Pavithra D	: Best poster award - DPRC 2023, SRMSIT
Mr. Ajithkumar	: Best poster award - DPRC 2023, SRMSIT
Mr. ANANTHAN A	: Best poster award - DPRC 2023, SRMSIT
Mr. Muthukumar G	: Best poster award - DPRC 2023, SRMSIT
Ms. Sreevidya U	: Best poster award - DPRC 2023, SRMSIT
Ms. S. Ragasudha	: Savitribai Jyotirao Phule Fellowship For Single Girl Child
Ms. V. Monisha	: Savitribai Jyotirao Phule Fellowship For Single Girl Child



Ms. Khyati Sharma (RA2031011010015),
III BSc Chemistry has secured all India rank
of 549 in IIT JAM 2023.

Research—Mathematics

Number of Journal publications : **74**

Average Impact Factor : **3.51**

Highest Impact Factor Journal published : **9.922**

Highest impact factor papers :

Sumanta Shagolshem, **B. Bira**, D. Zeidan, Optimal subalgebras and conservation laws with exact solutions for biological population model, Chaos, Solitons and Fractals, Vol. 166, 2023, 112985.

(Impact factor = **9.922**).

2. Sivashankar, M., **Sabarinathan, S.**, Nisar, K. S., Ravichandran, C., and Kumar, B. V. S., “Some properties and stability of Helmholtz model involved with nonlinear fractional difference equations and its relevance with quadcopter”, Chaos, Solitons and Fractals, vol. 168, 2023.

(Impact factor = **9.922**).

Nature indexed Publications (1):

Ragulkumar, E., Palani, G., **Sambath, P.** et al. Dissipative MHD free convective nanofluid flow past a vertical cone under radiative chemical reaction with mass flux. Sci Rep 13, 2878 (2023).

(Impact Factor = **4.996**)

Total number of Ph.D. Completed: **6**

Guest Editors / Topical Editors for journals :

Dr. Harekrushna Behera, Editor, Structural Stability and Dynamics: Theory and Applications, MDPI.

Awards/ recognitions / honors received:

Dr. Prakash Kar, Young Scientist Award, “International Eminent Awards on Engineering, Science and Medicine”, INSO 2022.

Dr. R. Varadharajan, received Certificate of Appreciation, Coordinator for the Event – Association of Indian Universities – Anveshan : Student Research Convention 2023, Project Selection Expo – 23-01-23.

Dr. K. Ganesan, received Certificate of Appreciation, Evaluator for the Event – Association of Indian Universities – Anveshan : Student Research Convention 2023, Project Selection Expo – 23-01-23.

Dr. N. Parvathi, received Certificate of Appreciation, Evaluator for the Event – Association of Indian Universities – Anveshan : Student Research Convention 2023, Project Selection Expo – 23-01-23.

Dr. Ritesh Kumar Dubey delivered an Invited Talk in National Conference on Differential Equations – 2023, at IIT Patna.

Research Projects :

Total number of new grants received : 2

Total outlay of the abovementioned projects : **41.07 lakhs** INR

Sl. No.	Name of the PI	Title of the project	Agency/ Sanction File No.	Grant Amount (in lakhs)	Period of support
1	Dr. Ritesh Kumar Dubey	High order polynomial approximation and deep learning applications in scientific engineering	DST – SERB – Core Research Grant	20.07	2023-2026
2	Dr. Harekrushna Behera	Mathematical Modeling for the extraction of renewable wave structures	DST – SERB – Core Research Grant	21.00	2023-2026

Research Day Awards:

Gold Medal : Ms. Nikita Naik, Ph.D. Scholar.

Gold Medal : Mr. Vivek Sivaramakrishnan, III B.Sc., Mathematics.

Silver Medal : Ms. Jenita Mary, Ph.D. Scholar.



Mr. A. Ponmaheshkumar, Research Scholar, has secured 178 rank under CSIR-UGC National Eligibility fellowship scheme.



Mr. Adarsh Kumar, II B.Sc., Mathematics, has been Recruited by Indian Coastal Guard.

Research—Physics and Nanotechnology

Research / Publications :

Number of Journal publications : 66

Average Impact Factor : 5.7

Highest Impact Factor Journal published : 19.92

Highest impact factor papers:

Satheesh, P. P., Jang, H.-S., Pandit, B., **Chandramohan, S.**, Heo, K., 2D Rhenium Dichalcogenides: From Fundamental Properties to Recent Advances in Photodetector Technology. Adv. Funct. Mater. 2023, 2212167. <https://doi.org/10.1002/adfm.202212167>, (**Impact Factor = 19.92**)

Nature Indexed journal publications (1):

Satheesh, P. P., Jang, H.-S., Pandit, B., **Chandramohan, S.**, Heo, K., 2D Rhenium Dichalcogenides: From Fundamental Properties to Recent Advances in Photodetector Technology. Adv. Funct. Mater. 2023, 2212167. <https://doi.org/10.1002/adfm.202212167>, (**Impact Factor = 19.92**)

Number of Book chapters published: 5

Research Projects :

Total number of new grants received : 3

Total lay out of the abovementioned projects : 133 lakhs INR

Sl. No.	Name of the PI	Title of the project	Agency/ Sanction File No.	Grant Amount (in lakhs)	Period of support
1	Dr.Arijit Sen Dr. Jaivardhan Sinha (Co - PI)	Machine-learning assisted first-principles modeling and experimental exploration of magneto-electronic transport phenomena in framework-based low-dimensional molecular magnetic systems towards realistic nano- spintronics	DST-SERB, CRG	35.38	2023-2026
2	Dr.E.Senthilkumar Dr. Chandra Mohan (Co - PI)	Quantum light emitting diodes based on atomically thin vertically aligned Van der Waals Heterostructures	DST-SERB, CRG	51.88	2023-2026
3	Dr.Debabrata Sarkar	Insight of the Piezophototronic effect on noncentrosymmetric Polar layered Bismuth Oxyhalide for photocatalytic Hydrogen production	DST-SERB, CRG	45.74	2023-2026

New facilities added :

Electrochemical work station (Funding Source : SRG – SERB) – Dr. A.V. Radhamani

Electrospinning (Funding Source : SRG – SERB) – Dr. A.V. Radhamani

Digital Sourcemeter (Funding Source : SRG – SERB) – Dr. A.V. Radhamani

Rheometer (Funding Source : SRG – SERB) – Dr. S. Anbumozhi Angayarkanni

Glove Box (Funding Source : SRG – SERB) – Dr. K. Arul Varman

Disdrometer (Funding Source : ISTRAC, ISRO) – Dr. A. Naga Rajesh

Number of Ph.Ds completed : 5

Memorandum Of Understanding :

Dr. P. Malar : The Indian Nanoelectronics Users Program (INUP) – Idea to Innovation (i2i) between Indian Institute of Technology Madras and SRM IST

Guest Editors / Topical Editors for journals :

Dr. Sandeep Kumar Lakhera – Chemosphere

Dr. S. Chandra Mohan – Surfaces and Interfaces

Dr.J. Archana - Journal of Materials Science: Materials in Electronics & Surfaces and Interfaces

Dr. Kamalabharathi - Surfaces and Interfaces

Value added courses:

1. A Hands-On Introduction to Thin Film Fabrication Technologies by Dr. Kamala Bharathi and Dr. S. Chandramohan.

2. Ocean and Climate Change – Dr. Sanjay Kumar Mehta

Awards/ recognitions / honors received:

Dr. Abhay Sagade	: Friedrich Wilhelm Bessel Research Award
Dr. J. Archana	: The best researcher award, SRMIST SRM – ICONN Young researcher award – SRM IST
Dr. V. Eswaraiyah	: SRM – ICONN Innovation award, SRM IST
Dr. Justin Jesuraj	: Visiting scientist - Korea University - Sejong campus
Kannan MR	: ACCMS Best Poster Award : ICONN 2023
John Donald Raj J	: Best Oral Presentation : ICONN 2023
Abimannan S	: Research day award, SRMIST
Jeena George	: Best Poster Award, (MDS-MSEB), Best Project Award—AIU, SRMIST Best Oral Presentation Award— ICONN 2023
Mr. Pawan Odugu Kumar	: Ph.D. Position in South Korea
Ms. Brahmari & Ms. Sneha Mondal	: Savitribai Jyotirao Phule Fellowship For Single Girl Child
Ms. S .Tharani	: Best paper award in ICPAP 2023, Department of Physics, WCC, Chennai
Ms. S.Induja	: Third prize for the poster presentation, iCOLD 2023, DIAT, DRDO, Pune
Mr. Mohamed Amsath Haseef	: Best oral presentation award at the 5th IWAFFN 2023, Nanomaterials, Anna University, Chennai.
R. Jagadish, Arpita Mukherjee,	
P. Baskaran, Dharmalingam	: Best poster awards : ICONN 2023
Thulluri Sandhya, Jayachandran M,	
Bhavasree S	: Qualified GATE 2023
Bhiogade Achal Aravind	: Best Project Award—AIU Anveshan SRMIST
X. Thatheyus Peter	: selected for Taiwan Experience Education Program (TEEP) @AsiaPlus Internship program at National Taipei University of Technology (Taipei Tech).
Pooja Sarangan, P. Praveen,	
Vijayakumar B, Binesh Mohan,	
Sruthy subash, D. Simon Patrick,	: DPRC Poster awards.
Gayathri Palanichamy,	
Vijayakumar murugan,	
Prakash Govindaraj	

Faculty Corner

DISCOVERY OF NEUTRINOS FROM PARTICLE COLLIDERS



Particle colliders are highly advanced and exciting scientific tools that create energetic particles by smashing subatomic particles together. These colliders have proven to be essential in studying the nature and behavior of subatomic particles, providing crucial insights into the fundamental understanding of our universe.

Recently, a significant breakthrough has been achieved in the domain of particle physics concerning neutrinos. During the electroweak session of the Rencontres de Moriond held from 18-25 March 2023, the Forward Search Experiment (FASER) collaboration announced its first observation of collider neutrinos. The FASER is a unique particle detector designed and built by a group of physicists and engineers, and it is located along the Large Hadron Collider (LHC) at CERN. It is capable of detecting neutrinos produced by CERN's LHC. Given that neutrinos typically pass through matter without interacting, making them challenging to detect.

According to the FASER collaboration's announcement, they have detected neutrinos originating from a novel source - particle colliders. These colliders involve the collision of two beams of particles at remarkably high energy. The outcome of their study exhibits a statistical significance of nearly 16 sigma, surpassing the established threshold for particle physics discovery at 5 sigma. Previous investigations have explored neutrinos originating from various sources such as space, Earth and nuclear reactors; however, this detection of collider neutrinos can introduce novel prospects for research in the field of particle physics.

A yet unexplored field in physics that can benefit from the observations is the examination of high-energy neutrinos originating from astrophysical sources. In fact, the process of producing these neutrinos at LHC and its energy level are akin to those produced through cosmic-ray collisions with the atmosphere. These atmospheric neutrinos serve as a source of interference for detecting astrophysical ones, which FASER and (Scattering and Neutrino Detector) SND@LHC's measurements can precisely determine. Consequently, this allows for accurate observations of astrophysical neutrinos to take place. FASER has an additional principal aim apart from neutrinos, which is to facilitate the detection of the constituents of dark matter.



By
Dr. Rohit Dhir,
Research Associate Professor,
Department of Physics and Nanotechnology,
SRMIST, Kattankulathur.

Alumni Connect

SRM
INSTITUTE OF SCIENCE & TECHNOLOGY
KATTANKULATHUR

π - Day Celebration

SRM Institute of Science and Technology
Department of Mathematics &
Directorate of Alumni Affairs Invites You For

ALUMNI TALK

Talk Title Applications of Mathematics

Date: 14th March - 2023 | **Time:** 2:00 - 3:00 p.m. IST

Dr. M. Mageswari
Assistant Professor
Department of Mathematics
Government College of Engineering
Bargur 635104

For Google Webinar Click here

Organising Committee:

Dr. A. Rathinam,
Director of Alumni affairs

Dr. Subburayan V.,
HOD-Mathematics

Alumni Coordinators:

Dr. C. Abirami **Dr. G. Ramesh** **Dr. A. Anuradha**

π -Day

Dept. of Physics and Nanotechnology, SRMIST

Invites you for
Alumni Webinar

By
Dr. Kunal J Tiwari
Senior Researcher
Solar Energy Materials &
Systems Laboratory
Catalonia Institute for Energy
Research (IREC)
Barcelona, Spain
Alumni -
(PhD. Physics) 2018

Title of the talk: "Ph.D.: Something more than publishing papers..."

Date: 10- Mar-2023, **Time:** 2.30 to 3.30 pm IST

Alumni Coordinator:
Dr. P. Malar
Dr. Jaivardhan Sinha
Dr. T. Sahoo

Zoom Webinar link:
Meeting ID: 942 0001 1047
Passcode: 884012

DEPARTMENT OF CHEMISTRY SRMIST-KTR

PRESENTS

ALUMNI TALK SERIES-8

MARCH 18, 2023 | 10 AM - 11 AM IST | VIRTUAL MODE

GLOBAL OPTIONS AND CHALLENGES FOR CHEMISTS - AN INSIDERS PROSPECT

DR. SAKTHIVEL KUMARAVEL. M.SC., PH.D.
REGULATORY AFFAIRS,
BESMED HEALTH BUSINESS CROP.,
NEW TAIPEI, TAIWAN

M.SC. CHEMISTRY (2014-2016) BATCH

Dr. J. Arockia Selvi
ALUMNI COORDINATOR
DEPARTMENT OF CHEMISTRY
SRMIST-KTR

Zoom
<https://zoom.us/j/962601302797>
pwd=d1VNNGVXZUtQdksvd0IORUQ5RDhOQT09

Meeting ID: 962 6013 0279
Passcode: 531297

Invitation

Department of Chemistry
SRM Institute of Science and Technology, Kattankulathur

Cordially Invites you to

ALUMN' TALK SERIES-7

Virtual mode

DATE: 04.02.2023
TIME: 10.00-11.00AM (IST)

How to apply and attend interviews for Ph.D. and Post Doctor positions?

<https://zoom.us/j/99981981680?pwd=Q5s3YjdhZ2NWTlRlYk9NR0RvYVh1Z09>

Meeting ID: 999 8198 1680
Passcode: 623523

Dr. J. Arockia Selvi, Assoc. Prof.,
Alumni Coordinator
Department of Chemistry, SRM IST-KTR

SRM Institute of Science and Technology
Department of Mathematics & Directorate of Alumni Affairs

invites you to

Placement Training Workshop

Organizing Committee

Dr. A. Rathinam
Director of Alumni Affairs

Dr. V. Subburayan
HOD of Mathematics

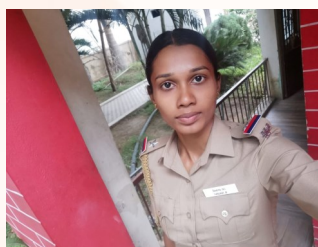
Dr. C. Abirami
Dr. G. Ramesh
Dr. A. Anuradha
Alumni Coordinators

March, 2023
6
2.30 PM - 3.30 PM

MB41, 3rd Floor, Main Block

Mr. Anirudh Kaushik
System Engineer, Infosys

B.Sc., Mathematics [2016-19]
M.Sc., Mathematics [2019-21]



Department of Mathematics congratulates Ms. Ragavi B [B.Sc., Mathematics - 2015-18], for being appointed as Sub-Inspector of Police, Central Crime Branch, Chennai in March 2023.

Notifications & Announcements

Open Classroom Online Lecture Series in Atmospheric and Climate Sciences

Lectures on Cloud Physics



Prof. P. Pradeep Kumar
Savitribai Phule Pune University, India

01 Apr 2023 : Processes of cloud formation
08 Apr 2023 : Microphysics of clouds
17 Apr 2023 : Precipitation mechanisms
24 Apr 2023 : Atmospheric Electricity

Register here for the module at
<https://forms.gle/unwgcALSXLZar5A7>
to receive the online meeting details
(Please ignore if already registered)

All the lectures start by 03.00pm IST (09.30am UTC)



Jointly organized by
South Asian Meteorological
Association (SAMA) &
SRM Institute of Science
and Technology (SRM IST)



For more details, please contact : sama03aug@gmail.com