



Poornaprajna Institute of Scientific Research

PROMOTED AND MANAGED BY ADMAR MUTT EDUCATION FOUNDATION (AMEF)
Recognized by Dept. of Scientific & Industrial Research (DSIR), Govt. of India & MAHE, Manipal

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Newsletter

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In the news

★ Dr. Sanjeev P. Maradur, Associate Professor and Head, Materials Science and Catalysis Division (MSCD), as PI, and Dr. Naresh Nalajala, Assistant Professor, MSCD, as Co-PI, received international industry-sponsored project from a European company.

★ Dr. Srikanth R., Associate Professor and Head, Theoretical Sciences Division, as PI, received research fund from Armaments Research Board (ARMREB), DRDO, Govt. of India.

★ Dr. Sanjeev P. Maradur, Associate Professor and Head, Materials Science and Catalysis Division (MSCD), as Co-PI, received a research grant under the ARG scheme from the Anusandhan National Research Foundation (ANRF). Govt. of India.

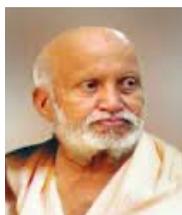
★ Three Govt. sponsored projects led by Dr. Sujit Sarkar, Dr. R. Srikanth and Dr. Naresh Nalajala have been successfully completed.

★ Three Best Oral Presentation awards were received by faculty/ Ph.D. Scholars at different national/international conferences.

★ PPISR published 26 research papers in highly reputed international journals in the year 2025.



H. H. Shree Eeshapriya Theertha Swamiji, Chairman



H. H. Shree Vibudhesha Theertha Swamiji, Founder (1928 - 2009)



H. H. Shree Vishwapriya Theertha Swamiji, Former Chairman

Vision

To promote and nurture excellence in the fundamental and applied sciences for the advancement of scientific knowledge and the benefit of mankind

From the Director's Desk



It is my great pleasure to present the 16th volume of the PPISR Newsletter, highlighting the activities and achievements of our institute during the year 2025. The year began with a significant milestone in my journey at PPISR: my appointment as Director (In-Charge) in January 2025, after 15 years of dedicated service to the institute. With this responsibility, I committed myself to bringing PPISR into the limelight, and I am proud to share the progress we have collectively achieved. Throughout the year, faculty members were encouraged to actively pursue funding opportunities from government and industry agencies, resulting in several successful grants with funds over a crore rupees. In 2025, the institute published 26 research papers in prestigious international journals.

Notably, Ms. Asha Devi, under the mentorship of Dr. Naresh Nalajala, was promoted to SRF through the DST-Inspire program, while Mr. Sanjoy Dutta, guided by Dr. R. Srikanth, advanced to SRF under a UGC fellowship.

Our doctoral students and faculty distinguished themselves by winning awards for best oral and poster presentations at national and international conferences. In addition, 9 MSc, BE, and BSc students from various universities carried out research projects at PPISR, collaborating with our faculty and contributing to co-authored publications.

To strengthen collaborations, we processed two MoUs with reputed organizations—SMCRI, Tamil Nadu, and PRAYOGA, Bengaluru—fostering scientific exchange and joint research. Several events enriched our academic calendar, including PPISR's Annual Day, National Science Day, Founder's Day, Chemistry Day, and the outreach program "Today's Science for Tomorrow's Scientists" for students of all five Poornaprajna Education Centers in Bengaluru.

Beyond our PhD program under MAHE Manipal, PPISR continues to nurture talent through certificate programs such as the Poornaprajna Post-Doctoral Fellow (PPDF), Senior Research Fellow (PSRF), and Junior Research Fellow (PJRF) initiatives. This year, we were delighted to welcome two eminent scientists, Dr. Shivakumar K. I. and Dr. Amrutha A. S., who returned from Japan to join our research institution. We have upgraded the institute fellowship to ₹25,000/- p.m. to attract good PhD scholars.

On the whole, 2025 was a year of challenges, productivity, and success. These achievements are a testament to the dedication and excellence of our faculty, students, and staff. I extend my heartfelt gratitude to H. H. Shree Eeshapriya Theertha Swamiji and the AMEF management for their unwavering support, encouragement, and guidance in helping us reach these milestones.

Dr. Ananda, Director (i/c), PPISR

Editorial



This issue of the PPISR Newsletter presents an overview of the institute's work during 2025, with emphasis on research activities, academic initiatives, and key milestones.

The pages that follow bring together research group highlights from the three divisions, research grants executed and secured during the year, publications, notable achievements of faculty and research scholars, and major activities conducted at the institute as well as outreach activities undertaken at other educational institutes.

In preparing this newsletter, I had the opportunity to review and appreciate the work presented here. As the editor, it is a pleasure to share this compilation with our readers, and I hope it serves as a useful record of the year.

Dr. Shivakumar K. I.





Dr. Sanjeev Maradur's research group continued its work on MOF-based catalysis for biomass valorization. The group developed a novel catalyst for the selective synthesis of di-formyl furan, with applications in fine and specialty chemicals and as a biopolymer monomer. Research on CO₂ conversion to value-added chemicals is ongoing. Ms. Chaitra M. received the Best Oral Presentation Award at CATSYMP-24 (February 2025).

Research Collaborations: Dr. Maradur continued active collaboration with Prof. B. R. Jagirdar (IISc, Bengaluru) on hybrid catalysts for reversible hydrogen storage in liquid organic hydrogen carriers (LOHCs). Ongoing collaborations with REVA University (Bengaluru), Amrita University (Kerala), and Manipal Institute of Applied Physics, MAHE Manipal resulted in multiple publications. Four MSc students completed internships under his guidance.

Project Grants: Dr. Maradur (PI), along with Dr. Naresh (Co-PI), secured an industry-sponsored project from a European company on catalysis and process development, commencing in February 2026. The group also received an ANRF (Govt. of India) ARG grant in December 2025 on hybrid catalysts for reversible hydrogen storage in LOHCs, with Prof. B. R. Jagirdar as PI and Dr. Maradur as Co-PI.

Publications: The group published eight research papers in 2025.

The key focus of **Dr. Naresh Nalajala's research group** "SHAPECAT" at PPISR is to unravel the structure-property relationships of shape-engineered nanohybrid materials. Further, the focus of SHAPECAT is to understand the sensing behavior of the shape-engineered nanohybrids towards different target gases (H₂, CO₂, CO, SO₂, NO₂ etc). Currently, SHAPECAT is pursuing the objective of design and development of rooftop photocatalyst panels for solar H₂ generation and value-added chemicals which is funded by SERB-SRG; the work is under progress on 1 m² photocatalyst panel reactor for large-scale H₂ generation. Ms. AshaDevi has secured the DST-Inspire Senior Research Fellowship (SRF). She has also won the best oral presentation award at a national conference organized by Ramaiah University, Bangalore for research work based on phase engineering of materials for H₂ production. The lead of SHAPECAT has made concerted efforts to secure funding from DST, MNRE, and ANRF to pursue novel scientific and technological advances in the synthesis of solar fuels and chemicals. Currently, SHAPECAT is leading with three Ph. D. students at PPISR.

Dr. Naga Suresh Enjamuri's research group, "CO₂BIOCAT," primarily focuses on innovative and sustainable catalytic processes for the conversion of carbon dioxide (CO₂), biogas, and biomass-derived compounds into value-added fuels and chemicals. Currently, the group is actively working on the conversion of bio-waste-derived carboxylic acids into Sustainable Aviation Fuels (SAFs). Three Master's students have been trained under the guidance of Dr. Naga Suresh as part of their M.Sc. internship project. Additionally, one Research Fellow has been trained, and one Ph.D. student is currently working under his supervision. Dr. Naga Suresh (Co-PI) successfully completed an industry-sponsored project with SABIC Research and Technology Pvt. Ltd., Bengaluru, achieving kilogram-scale product development and meeting most of the project objectives. This group is working extensively on the aviation fuel and several perfumery substances research and has submitted three competitive research proposals for government funding: (1) DST-CH₄ Call 2025, (2) ANRF-ARG 2025, and (3) PM-ECRG 2025.

Dr. Kilingar Shivakumar's Advanced Functional Materials (AFM) Lab, established in April 2025, works at the intersection of organic synthesis, supramolecular chemistry, and functional materials. The group focuses on molecular-level engineering of organic assemblies and porous frameworks to tailor and fine-tune their functional properties for applications in electronics, spintronics, and environmental remediation. The lab has welcomed a new Ph.D. scholar (DST-INSPIRE-SHE fellow) in September 2025 and successfully completed an M.Sc. internship project. In this short span, three research proposals have been submitted: two to ANRF, of which one is currently under evaluation, and one to UAS Dharwad. The proposal to UAS Dharwad has progressed through a rigorous multi-stage assessment and is now in the fifth and final round, with a physical presentation before the Selection and Investment Committee (SIC) forthcoming.

Research Highlights – Biological Sciences Division

The laboratory of **Dr. Ananda K** at PPISR advances research in microbial technology and biochemistry, with a strong focus on identifying natural inhibitors of carbohydrate-digesting enzymes (α -amylase, α -glucosidase, and aldose reductase) for food-based diabetes management. The group also investigates the role of excessive carbohydrate storage in lifestyle diseases and is conducting long-term studies on the health impact of added dietary sugars. In protein engineering, the lab developed a thermally stable mutant insulin that retains its hexameric form without zinc; a patent application for this innovation is under examination. In 2025, the group published three international journal articles, identified one patentable collaborative outcome, and inducted a new JRF for doctoral research on protein bioconjugation. Additional initiatives include cell and microbial preservation media, antimicrobial and anti-diabetic studies with MAHE Manipal, and exploration of endophytic fungi for plant pathogen control. All activities were achieved using existing facilities. The lab also contributed to training PhD, MSc, BSc, and school-level trainees, reinforcing PPISR's research and societal mission.



Dr. A. S. Amrutha's SMART Lab (*Smart Molecular Architectures for Responsive Technologies*) was established in May 2025. The lab focuses on the design and development of light-responsive smart molecules with applications in both biological and material systems. The central idea of the group is to use light as a non-invasive trigger to reversibly control biological functions and material properties with high spatial and temporal precision. Since it was set up, the lab has trained one internship student, and one doctoral research scholar has recently joined the group. At present, the research is directed towards the development of visible-light-responsive photoswitches for applications in photoresponsive liquid crystalline materials and molecular solar thermal energy storage systems. Within the first six months, three research proposals were submitted to funding agencies, including ANRF, DST, and DBT. These proposals aim to address key challenges in pharmacotherapy, such as side effects and antimicrobial resistance, by exploring photopharmacological solutions.

Research Highlights – Theoretical Sciences Division

Dr. R Srikanth's group works in the area of quantum information science, specifically quantum cryptography, open system effects and quantum foundations. The group focuses on concatenated and entanglement-assisted quantum codes, quantum error mitigation, quantum network correlations, steganography, simulation and finite-key analysis of quantum twin-field protocols and quantum imaging schemes. The group consists of three PhD scholars and a postdoc, with two internships taken over the last year. Currently, the postdoc is supported by an ANRF project, while one PhD student holds a NET fellowship and another is shortly to be supported by a DRDO project on quantum imaging recently sanctioned. The third PhD student also is expected to be put in another DRDO project on quantum twin-field cryptography, which has been technically approved, but awaits final sanction.



Dr. Sujit Sarkar's research group works in the area of theoretical and statistical physics, focusing on physics at the Planck scale, the Ising model, topological transitions on conformal manifolds in quantum Ising models with longer-range interactions, and time crystals. The group collaborates with the Department of Physics, The University of Burdwan (Government of West Bengal), and the S. N. Bose National Centre for Basic Sciences. The group currently includes Mr. Vaishnav Mallya (Project Student) and Dr. Vijay Pathak (Postdoctoral Researcher). During the year, the group published a research article in *Scientific Reports* (2025) on topological transitions in quantum Ising models. In addition, two manuscripts are under review in *Physical Review B* and one in the *Journal of the Physical Society of Japan*, with several other projects in advanced stages. Dr. Sarkar presented a talk at the Indian Statistical Physics meeting (April 2025) and participated in programs at the Raman Research Institute in May and December 2025.

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Publications (2025)

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26. Gayathri Gangadharan, Yashoda Malgar Puttaiahgowda, Sonali Gupta, Ananda Kulal. Antimicrobial and biodegradable PVA/rutin/CuO nanocomposite film for garlic preservation. *Scientific Reports*, 2025. 15(1) 33603. DOI: <https://doi.org/10.1038/s41598-025-18888-w>.

Key Highlights of 2025

- ❖ *Dr. Naga Suresh*, Assistant Professor position was confirmed on January 1, 2025, following his successful completion of the probation.
- ❖ *Dr. Ananda K*, Dean (Academic), PPISR was appointed as Director Incharge of PPISR by the President H H Shree Eeshapriya Theertha Swamiji and he has taken charge on January 7, 2025.
- ❖ *Mr. Mallikarjun M* attended “National Symposium on Current and Future Trends in Functional Genomics” conducted by The University of Trans-Disciplinary Health Sciences and Technology (TDU), Yelahanka, Bengaluru – on January 8 & 9, 2025.
- ❖ *Dr. Naresh Nalajala* delivered an invited talk “Hydrogen: A buzz molecule for sustainable future” at School of Chemical Sciences, St. Joseph University, Bangalore on 24 Jan, 2025.
- ❖ *Dr. Ananda K.* was appointed as an external subject expert and evaluated PhD synopsis of student from Life Sciences Division of Christ University, Bengaluru on February 5, 2025
- ❖ *Ms. Chaitra M*, a PhD student of Dr. Maradur, received the “Best Oral Presentation” award at the CSI's National conference CATSYMP-24 (Catalysis for Sustainable Chemicals, Materials & Energy – CSCME-2025) held at Thapar Institute of Engineering & Technology, Patiala from 24-26 February 2025 on “Enhancing activity of HAP catalyst by hydrothermal *in-situ* Zn incorporation for transformation of CO₂ to produce cyclic urea from diamine”
- ❖ *Mr. Harsha M.* and *Ms. Meghana*, PhD students of Dr. Maradur and Dr. Naresh, respectively, delivered oral presentations at the CSI National Conference, CATSYMP-24 (Catalysis for Sustainable Chemicals, Materials & Energy – CSCME 2025), held at Thapar Institute of Engineering & Technology, Patiala, from 24–26 February 2025.
- ❖ *Mr. Manjunath*, a PhD student of Dr. Naresh, presented his work on “Pilot-Scale Photocatalytic Reactor Studies for Efficient Hydrogen production: Bridging the Gap Between Lab-Scale and Industrial Applications at the “National Conference on the Chemical Sciences for a Sustainable Tomorrow: Synergy and Solutions (CSSTSS-2025)” organized by the Department of Chemistry, School of Chemical Sciences, St Joseph’s University, Bengaluru on 27-28 Feb 2025.
- ❖ *Mr. Sumit*, a PhD student of Dr. Maradur, gave an Oral presentation titled “Selective oxidation of HMF to DFF using MOF derived magnetic manganese oxide nanoparticle.” At the National Conference on Next-Generation and Emerging Materials held at St. Joseph’s University, Bengaluru during 27-28th February 2025.
- ❖ *Dr. Sarkar* presented his talk at the 10th Indian Statistical Physics Community Meeting, which was held from 23–25 April 2025 at the Ramanujan Lecture Hall, International Centre for Theoretical Sciences (ICTS) in Bengaluru, India.
- ❖ *Dr. Naresh* received recognition as a reviewer from the prestigious journal Wiley-Angewandte Chemie (IF:16)
- ❖ *Dr. Maradur (PI)* and *Dr. Nagasuresh (Co-PI)* submitted a research proposal to DST-CH4 call on 31 March 2025.
- ❖ All senior PhD students attended the Manipal Research Colloquium-2025 (MRC-2025).
- ❖ *Mr. Harsha M* attended a three-day conference for final-year PhD students at MAHE in Manipal, Karnataka, which took place from April 28-30, 2025.
- ❖ All students who are registered for PhD under MAHE Manipal attended the MAHE orientation program which was held in Manipal on April 29, 2025.
- ❖ Poornaprajna Institute of Scientific Research (PPISR), Bengaluru, in collaboration with the Research and Development Cell, Science Association of Poornaprajna College (PPC), Udupi, jointly organized a one-day symposium titled “Innovations at the Interface: A Symposium for Aspiring Scientists.” on April 28, 2025, at Poornaprajna College, Udupi. *Dr. Ananda K*, *Dr. Srikanth R*, *Dr. Sanjeev PM*, and *Dr. Naresh N*, presented talks on different topics. During this time *Dr. Shivakumar* and *Dr. Amrutha* were also invited to visit the PPC laboratories to explore potential collaborations.
- ❖ *Ms. Meghana* presented her research work (as a poster) at Manipal Research Colloquium (MRC) on 28 April, 2025.
- ❖ In 2025, *Dr. Shivakumar K. I.* and *Dr. Amrutha A. S.* received letters of recognition as PhD supervisors, and *Dr. Naga Suresh E.* received recognition as a PhD co-supervisor from MAHE, Manipal.

Key Highlights of 2025

- ❖ *Dr. Ananda* (Director I/C), *Dr. Maradur*, and *Dr. Naresh* visited the Prayoga Institute of Education Research, Bengaluru, to explore potential collaborations on 15 May 2025. *Dr. Maradur* presented an overview of PPISR.
- ❖ *Dr. Shivakumar* applied as an innovator to the XII Cohort of the KRISHIK-ABI programme of UAS Dharwad on May 30, 2025, and successfully progressed through all four stages, reaching the final stage of evaluation among 230 applicants. Only the top 12% of applicants advanced to this stage of funding.
- ❖ *Dr. Maradur* and *Dr. Naresh* visited New Delhi from June 9–11, 2025, for meetings with DST scientists, facilitated by *Dr. Shashi Kumar*, Scientist E, DSIR, New Delhi. During the visit, they met several scientists and discussed various projects for which PPISR scientists have submitted proposals.
- ❖ *Dr. Naresh Nalajala* (Mentor) submitted a research proposal to ANRF for NPDP along with *Dr. Mani* (PI), University of Thailand.
- ❖ *Dr. Sanjeev P. Maradur* (Co-PI), *Dr. Naresh* (PI as well as a Co-PI), *Dr. Naga Suresh* (PI) and *Dr. Shivakumar* (PI) submitted their proposals to ANRF-ARG call in July 2025.
- ❖ *Dr. Naga Suresh* presented his research work titled “Highly Active and Durable Ru-Promoted Ni/CeO₂ Catalysts for CO₂ Methanation Reaction” at the 3rd International Conference on Advances in Materials Science and Technology (ICAMST-2025) held at M. S. Ramaiah University of Applied Sciences, Bengaluru, during July 24–26, 2025 and received the “Best Oral Presentation Award.”
- ❖ *Dr. Shivakumar K.I.* was invited as a resource person for the 3rd International Conference on Advances in Materials Science and Technology (ICAMST-2025) held at M.S. Ramaiah University of Applied Sciences, Bengaluru, from 24-26 July 2025. He evaluated 20 posters as the judge.
- ❖ *Ms. AshaDevi*, a PhD student of *Dr. Naresh*, won the best oral presentation award for her presentation on phase engineering of materials for H₂ production at National Conference organized by Ramaiah University of Applied Sciences from July 24-26,
- ❖ *Dr. Naresh* (PI) submitted research proposal to MNRE with Prof. Gurumurthy Hegde (Co-PI), Christ University in September 2025.
- ❖ *Dr. Srikanth* served as a panelist in a discussion on “AI and Quantum Impact in Modern Living” at the International Conference on Frontiers of Unified Science and Exploration (INFUSE 2025), held at the School of Sciences, Jain University, on 17–18 September 2025.
- ❖ *Dr. Srikanth* delivered an invited talk on Quantum Key Distribution at the Qiskit Fall Fest 2025, supported by IBM, held at GITAM Bengaluru on 3–4 November 2025.
- ❖ *Dr. Srikanth* served as a panelist during the launch of the book “Quantum Effects in Biology” by Prof. Sisir Roy on Wednesday, 5 November 2025.
- ❖ *Dr. Ananda K.*, *Dr. R. Srikanth*, *Dr. Sanjeev P. Maradur*, *Dr. Naresh Nalajala*, and *Dr. Shivakumar K. I.* attended a strategic meeting with experts from Department of Biotechnology, NITI Aayog, and Department of Science and Technology on 15 November 2025 at Poornaprajna Public School, New Delhi.
- ❖ *Dr. Shivakumar K. I.* was invited by the PPEC Primary Section, Yelahanka, Bengaluru, to their Annual Exhibition “Edu-Vision” on 22 November 2025, where he delivered the chief-guest address and visited the student exhibits.
- ❖ *Mr. Sudhanva Shyam S.*, a student of *Dr. Shivakumar*, qualified the KSET-2025 examination held in November 2025.
- ❖ *Dr. Naga Suresh*, *Dr. Shivakumar*, and *Dr. Amrutha* have submitted their proposals for ANRF-ECRG call in Dec. 2025.
- ❖ Two students joined for Postdoctoral Fellow (PDFC) certificate courses under *Dr. P S Aithal* and *Dr. Ananda K.* and one student joined for Senior Research Fellow Certificate (SRFC) course under *Dr. Ananda K* in 2025.
- ❖ Three BSc students and one MSc student completed their internship under the guidance of *Dr. Ananda K* in the Biological Sciences Division in the year 2025

Government Sponsored Projects Executed in 2025

Dr. Sujit Sarkar carried out a DST-SERB-funded project (2023–2025) titled “Emergence of quantum criticality for Hermitian and non-Hermitian topological state of quantum matter”.

Dr. Srikanth executed a DST-SERB-funded project (2023–2025) titled “Qubit and higher-dimensional non-unital, non-invertible quantum dynamical maps: geometry and the relation to quantum non-Markovianity,”.

Dr. Naresh Nalajala has completed a DST-SERB Startup Research Grant (2023–2025) titled “Design and development of UV-visible light-active rooftop photocatalyst panels for green H₂ generation and value-added chemicals from sunlight harvesting,” where he served as Principal Investigator.

He is currently involved as Co-Principal Investigator in an ongoing BRNS-funded project (2024–2027) titled “Semiconductor oxide-crystalline framework hybrid gas sensors: advancing hydrogen detection across a wide dynamic range” .

New AMEF Board Members



Dr. A. P. Bhat



Shri G. V. Krishna

Dr. A. P. Bhat was appointed as the Honorary Secretary of the Admar Mutt Education Foundation (AMEF), and Shri G. V. Krishna, Chartered Accountant, has assumed charge as the Treasurer at the beginning of 2025.

Republic Day Celebration

The 76th Republic Day was observed on January 26, 2025, in a spirit of national pride and unity. The celebration was held in the presence of Dr. Ananda K., who had recently assumed charge as In-charge Director of the institute.

The programme witnessed active participation from faculty members and their family members, as well as staff and research scholars of the institute, reflecting a shared sense of patriotism and togetherness. As part of the celebration, sweets were distributed to all participants.



Director Charge Handover Ceremony

The Director charge handover ceremony was held on 07 January 2025 in the presence of the AMEF Management Committee. On this occasion, Dr. A. B. Halgeri formally demitted office upon his retirement. Subsequently, Dr. Ananda assumed charge as Director (i/c) of the Institute. The event marked a smooth administrative transition and the beginning of a new phase of leadership for PPISR.



PPISR Sports Day Celebrations

As part of the PPISR Sports Day celebrations, indoor and outdoor events—chess, table tennis, carrom, badminton, volleyball, cricket, and a 2.5 km run—were successfully conducted in March 2025.

Individual events: Vishwa Prakash (Badminton–Men’s Singles & Doubles, Carrom–Doubles: **I**); Manjunatha (Table Tennis–Men’s Singles: **I**; Badminton–Men’s Singles: **II**); Chaitra (Table Tennis–Women’s Singles: **I**; Badminton–Women’s Singles: **II**); Meghana (Badminton–Women’s Singles: **I**; Table Tennis–Women’s Singles: **II**); Dr. Sanjeev P. Maradur (Chess: **I**); Dr. Vijay Pathak (Chess: **II**); Vaishnav (Badminton–Men’s Doubles: **I**); Ruhit (Carrom–Doubles: **I**; Badminton–Men’s Doubles: **II**); Sumit & Dr. Ananda (Carrom–Doubles: **II**); Dr. Srikanth (Table Tennis–Men’s Singles: **II**); Shiv (Badminton–Men’s Doubles: **II**).



2.5 km run: Sanjoy (**I**), Shubhodeep (**II**), Dr. Naga Suresh (**III**).

Team events: Cricket—Harsha M (Captain) & team (**I**); Volleyball—Shubhodeep Gangopadhyay & team (**I**); Lagori—Sumit & team (**I**).

The “Sportsman of the Year” award was presented to Manjunatha Reddy for outstanding all-round performance. The event was smoothly organized by Dr. Naga Suresh.

International Yoga Day

The International Yoga Day was observed at PPISR on 21 June 2025 with a yoga session held at the Canteen Hall from 6:30 a.m. to 7:30 a.m. The program began with brief remarks on the importance of yoga for physical fitness and mental well-being, followed by an address by Dr. Ananda, Director (i/c) emphasizing the value of a healthy lifestyle. The session included warm-up exercises, simple asanas, and pranayama, making it suitable for beginners and participants of all age groups. Faculty, staff, and students participated in the session, which was coordinated by Dr. Shivakumar.



Activities in the Institute

One-Day Symposium at PPC Udupi

POORNAPRAJNA COLLEGE (AUTONOMOUS) UDUPI

NAAC Re-accredited "A+" (3.27 CGPA)
(Promoted & Managed by Udupi Shree Adamaru Mstha Education Council, Bengaluru)
Under the Guidance of Internal Quality Assurance Cell

Research & Development Cell, Science Association

in collaboration with

Poornaprajna Institute of Scientific Research (PPISR), Bengaluru



One Day Symposium on "Innovations at the Interface : A Symposium for Aspiring Scientists"
on 28-04-2025 at Audio Visual Unit, PPC Udupi

Poornaprajna Institute of Scientific Research, Bengaluru, in collaboration with the R&D Cell and Science Association of Poornaprajna College, organized the one-day symposium, "Innovations at the Interface: A Symposium for Aspiring Scientists" on 28 April 2025. Lectures were delivered by PPISR scientists Dr. Ananda K., Dr. R. Srikanth, Dr. Sanjeev P. Maradur, and Dr. Naresh Nalajala. Over 35 final-year B.Sc. students attended. PPISR faculty Dr. Shivakumar K. I. and Dr. Amrutha A. S. participated in lab visits and discussions. The evening interaction with members of AMEF further reinforced academic partnerships, mentoring opportunities, and plans for joint research proposals. The symposium offered students exposure to emerging research areas while also nurturing scientific curiosity through perspectives on landmark discoveries in science and an introduction to the basics of quantum complexity theory.

PPISR Founder's Day Conference

Founder's Day 2025 was celebrated at the Poornaprajna Institute of Scientific Research (PPISR), honoring its founder Sri Vibudhesha Teertha Swamiji, with blessings of Sri Vishwapriya Teertha Swamiji and Sri Eeshapriya Teertha Swamiji. The program was presided over by Dr. Ananda, with Prof. Nagaraja H. S. (PRAYOGA Institute of Education Research) as Chief Guest and Dr. Geetha Balakrishna (JAIN (Deemed-to-be University)) and Dr. K. S. Nagabhushana (PRAYOGA Institute of Education Research) as Guests of Honor. Invited talks were delivered by Dr. Geetha Balakrishna, Dr. K. S. Nagabhushana, Dr. Manukumara Manjappa (IISc), and Dr. Pooja Jha (GITAM University). The PPISR



Newsletter 2024–25 was released in the presence of Dr. A. B. Halgeri, and the Best PhD Student Presentation Award (2024–25) was presented to K. M. Rajashekar Vaibhava. The program included invocation by Ms. Meghana, welcome by Dr. Ananda, overview by Dr. Sanjeev P. Maradur, Sports-Day prize distribution by Dr. Nagasuresh Enjamuri, guest introduction by Dr. Amrutha, concluding remarks by Dr. Shivakumar, vote of thanks by Dr. Naresh and Dr. Vijay Pathak, and compering by Ms. Ashadevi.

Chemistry Day Celebrations

The institute observed National Chemistry Day on 7 August 2025, marking the birth anniversary of Acharya Prafulla Chandra Ray, a pioneer of modern chemistry in India. Dr. Deepak Kumar, Associate Professor, Department of Chemistry, Ramaiah University of Applied Sciences, Bengaluru, delivered the Chief Guest lecture titled "Nanoclusters as Superatoms and Their Applications in Catalysis: A DFT Perspective," highlighting theoretical insights into catalytic nanomaterials. The programme also featured a talk by Mr. Manjunath Reddy, research scholar at PPISR, on "From Drop to Drive: Powering the World with Electrolysis of Water," focusing on sustainable energy technologies. The event concluded with active interactions among participants, reinforcing the relevance of chemistry in addressing future challenges.



Best Oral Presentation Awards

- Ms. Chaitra M. won the Best Oral Presentation Award at the 24th National Symposium on Catalysis (CATSYMP-24), titled "Catalysis for Sustainable Chemicals, Materials & Energy" (CSCME-2025), held at Thapar Institute of Engineering & Technology, Patiala, from February 24–26, 2025.
- Dr. Naga Suresh received the "Best Oral Presentation Award" for his research work at the 3rd International Conference on Advances in Materials Science and Technology (ICAMST-2025) held at M. S. Ramaiah University of Applied Sciences, Bengaluru, during July 24–26, 2025.
- Ms. Ashadevi was awarded with "ACS Nanotechnology Best Oral Presentation Award" for work based on "Phase dependent photocatalytic H₂ production: Pd-TiO₂ system" at 3rd International Conference on Advances in Materials Science and Technology, held from 24–26th July, 2025, at M S Ramaiah University of Applied Sciences, Bengaluru.

Activities in the Institute

Independence Day Celebration

The 79th Independence Day was celebrated on August 15, 2025, with enthusiasm and patriotic spirit. The programme was conducted in the gracious presence of Prof. L. N. Sheshagiri, Chief Guest. Sri Raghavendra Rao, the engineer associated with the construction of the institute, and Sri Maiya joined the celebration as special guests. The event witnessed active participation from members of the institute and their families, with around 50 members in attendance. Sweets were distributed to all participants, followed by a musical feast of patriotic songs performed with guitar by Mr. Shubhodeep Gangopadhyay and his team.



Swamiji's Visit to PPISR

H. H. Shree Eeshapriya Theertha Swamiji visited PPISR on 08 September 2025. Swamiji interacted with the internship students, heard their views, and bestowed his blessings upon all. He expressed his happiness over the students gaining valuable learning experiences at the institute.

Ayudha Puja Celebrations

The institute celebrated Ayudha Puja on 26 September 2025. On the occasion, lab instruments and vehicles were worshipped, along with Goddess Saraswati. Sweets and refreshments were served. Dr. Anand B. Halgeri and Mr. Kishore, former Director and Administrative Officer, respectively, graced the event with their presence.



AMEF Board of Trustees Meeting

Admar Mutt Education Foundation Board of Trustees meeting was held on October 10, 2025. Trustee members discussed on different issues related to the PPISR. Dr. Ananda K. presented the overall highlights of PPISR research activities, and all the trustee members highly appreciated the achievement of PPISR and overall progress of all the research activities. H. H. Shree Eeshapriya Theertha Swamiji, Chairman, AMEF presided over the meeting.

Outreach Activity at Vihaan Public School



Vihaan Public School, Chapparakallu in association with PPISR conducted 4th Interschool Science Exhibition and Debate Competition

on 22 November 2025. PPISR was represented by Dr. Naresh Nalajala, Dr. Naga Suresh along with postdoctoral fellow Dr. Vijay Pathak, and research scholars. Students presented a wide range of innovative exhibits, leading to engaging scientific discussions. The debate competition was equally captivating, showcasing critical thinking, creativity, and enthusiastic participation from young learners.



Activities in the Institute

New Faculty Members



Dr. Shivakumar K. I.

Assistant Professor
PhD: CSIR-NCL, Pune

Postdoctoral: SERB-NPDF (IITG);
Polish Acad. of Sciences, Poland;
Hokkaido University, Japan

Research Interests: Functional
Organic Chemistry &
Supramolecular Chemistry



Dr. Amrutha A. S.

Assistant Professor

PhD: Hokkaido University, Japan
Postdoctoral: Hokkaido Univ.
Assist. Professor: Hokkaido Univ.

Research Interests:
Photoswitches,
Photopharmacology,
Chemical Biology, Liquid Crystals

New Research Scholars



Mr. Mallikarjun
Ranjanagi



Mr. Sudhanva
Shyam S.



Mr. Dheeraj
Acharya



Mr. Vijay Shidyal



Ms. Inchara K. V.

New Administrative Officer



Mr. Narayan Kulkarni

Tree Plantation Drive

On the occasion of the birth anniversary of former Prime Minister Sri Atal Bihari Vajpayee, local representatives visited the institute on 25 December 2025 and donated several tree saplings.

Construction of the Internal Campus Road

An internal road of nearly 1.6 km has been constructed along the campus perimeter wall. The facility is well utilized by residents for daily walking and jogging. The route offers a serene walk through the lush green

campus, surrounded by rich flora, with frequent sightings of squirrels and a variety of birds, including peacocks.



Outreach Activities for High School Students

To spark interest in basic sciences among young minds, PPISR has been conducting an outreach programme titled "Today's Science for Tomorrow's Scientists" for Poornaprajna School students since 2013. As part of the 2025 outreach activities, Class IX students from five Poornaprajna Schools in Bengaluru visited PPISR, with one school attending each day during the five-day programme held from 17–21 November 2025. In addition, five students from Vihaan School, Chapparakallu, participated on the first day of the programme.

The programme was coordinated by Dr. Srikanth R. and Dr. Vijay Pathak, and doctoral students from various research groups demonstrated a wide range of engaging experiments. The visiting students were also taken on guided laboratory

tours, during which they were introduced to the institute's research facilities and ongoing scientific activities. In total, nearly 475 students and 20 teachers participated in the programme. Overall, the outreach initiative received an overwhelmingly positive response.



Science Day Celebration



by the Director (i/c), and lighting of the lamp.

The inaugural address was delivered by Dr. Pasupuleti Visweswara Rao of REVA University on advancements in ethnopharmacology for metabolic diseases. Invited talks by Dr. Ganga Periyasamy from Bangalore University and Dr. Sijo Joseph from GITAM University covered high-throughput computational chemistry and hybrid quantum computing, respectively.

The event concluded with a vote of thanks, followed by lunch and a visit to the research laboratories.

The institute celebrated National Science Day on March 5, 2025, with a one-day seminar on "Science and Technology Advancements." The program began with a floral tribute to H. H. Shree Vibhudesha Teertha Swamiji, invocation, welcome address

Invited Talks

During 2025, PPISR organized invited lectures by distinguished external experts, along with talks by in-house speakers, including faculty members and Ph.D. scholars. Dr. Harishkumar Madhyastha, PhD, FBRS, FRSB., Faculty of Medicine, University of Miyazaki, Japan visited the institution. Prof. K. T. Varughese, Director of Conclavit Education and Patent Exam Trainer, shared his perspectives on innovation management in research institutes. Dr. Dhanya V., Faculty at Bengaluru City University presented her talk on “Development of Customized Materials for Adsorptive Removal of Uranium from Water”.



PPISR offers M.Sc. Internship training programme / Certificate Courses

Internship at PPISR

Seven MSc Chemistry students from Mangalore University completed their masters project under the guidance of faculty members at PPISR. Three BSc Biological Sciences students from Christ University and one MSc Biotechnology student from REVA University completed their projects in the Biological Sciences Division at PPISR.

Certificate Courses

The internship opportunities for B.E/B.Tech/M.Sc/M.Tech students are available throughout the year in chemistry, physics, and biology with residential facility. Contact: director@ppisr.res.in

PPISR introduces three new certificate courses for aspiring research scholars, research fellows and graduates in various domains of research available at PPISR.

- (1) Poornaprajna Junior Research Fellow Certificate (PJRFC)
- (2) Poornaprajna Senior Research Fellow Certificate (PSRFC)
- (3) Poornaprajna Post-Doctoral Fellow Certificate (PPDFC)

For any queries, contact: coordinator@ppisr.res.in or visit our website www.ppisr.res.in



Visitor's Views

Dr. HARISHKUMAR MADHYASTHA, Miyazaki University, Japan:

Excellent center for applied research and development. Lots of potential for linkage programme. I strongly recommend the center to become Poornaprajna Institute of Science Education and Research (PISER) in line with IISER.

Dr. M. S. SHASHI KUMAR, Scientist E, DSIR, Ministry of Science & Technology:

The institute was started with the visionary of puja Shree Vibhudesha Theertha Swamiji with excellent R&D infrastructure and manpower. Now it is our duty to take the vision of founder Swamiji to greater heights for nation building.

Dr. DEEPAK KUMAR, Associate Professor, Ramaiah University of Applied Sciences:

I have delivered an invited talk on the celebration of Chemistry Day. My talk was based on nanocatalysts and their applications. I really enjoyed the day spent at PPISR. The ecosystem and high-end equipments are good for future collaborations.

Dr. KRISHNAKUMAR M., Scientific Officer, Atomic Minerals Directorate for Exploration & Research:

It was one of its kind institute I visited in the country dedicated to pure science research. The faculty are very enthusiastic towards contribution to society at large. I welcome PPISR to collaborate with AMD/DAE for any suitable project and any analytical support if required. All the best.

Poornaprajna Analytical Center (PAC)

Instruments available for external users for sample analysis

Chemisorption instrument [TPD (NH_3/CO_2), H_2 -TPR, N_2O -Chemisorption, BEL]; Physisorption instrument (BET Surface area, porosity, BEL); FTIR Spectrophotometer (Bruker); Atomic Absorption Spectrophotometer (Perkin Elmer); UV-Vis Spectrophotometer (Perkin Elmer); Fluorescence Spectrophotometer (Agilent); Mechanical property testing (Grain crush strength; Attrition resistance).

Contact: Dr. Sanjeev P. Maradur; email: pac@ppisr.res.in; sanjeevpm@ppisr.res.in

For more information visit our website

<https://ppisr.res.in/content/poornaprajna-analytical-center>

