

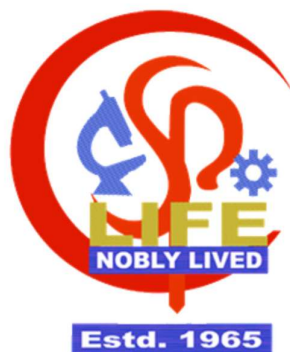
DEPARTMENT REPORT 2025 - 2026

DEPARTMENT OF CHEMISTRY (SF)

ST. PAUL'S COLLEGE, KALAMASSERY

NAAC ACCREDITED WITH 'A' GRADE

AFFILIATED TO MAHATMA GANDHI UNIVERSITY, KOTTAYAM



CONTENTS		
Sl.No	Title	Pages
1	International Seminar on Advances in Applied & Chemical Science	3 – 5
2	World Environment Day Celebration	6 – 7
3	Educational Visit to the Quantum Century Exhibition	8 – 9
4	Mangrove Afforestation Programme at Nayarambalam	10 – 11
5	Science Exhibition Programme	12 - 14
6	Training Programme at the Regional Chemical Examiner's Laboratory	15 - 16
7	Student Achievements and Excellence	17 - 18

1. International Seminar on “Advances in Applied & Chemical Science (AACS 2025)”

On 28 July 2025, the Department of Chemistry (Aided & SF), St. Paul's College, Kalamassery, in collaboration with the Department of Chemistry, Sacred Heart College, Thevara, organized the International Seminar on "Advances in Applied & Chemical Science (AACS 2025)." centered on the theme "Sustainable Approach to a Greener Future," the event served as a platform to discuss emerging trends and sustainable innovations in applied and chemical sciences.

The seminar brought together renowned academicians and researchers to share their expertise with students and faculty. Dr. Ram Mohan, Professor of Chemistry, Illinois Wesleyan University, USA, highlighted the significance of green chemistry and sustainable practices in addressing contemporary environmental challenges. Dr. Sebastian Nybin Remello, Assistant Professor, Department of Applied Chemistry, CUSAT, delivered an engaging lecture on recent advances in artificial photosynthesis and its potential for sustainable energy production.

The interactive sessions fostered meaningful discussions on environmental sustainability, encouraging participants to adopt innovative scientific approaches for a cleaner and greener future. The seminar concluded with an enriching exchange of ideas, leaving the attendees with a deeper understanding of sustainable developments in chemical sciences.

ST. PAUL'S COLLEGE, KALAMASSERY
 Archdiocese of Verapoly
 Affiliated to Mahatma Gandhi University, Kottayam
 Reaccredited with NAAC W Grade & ISO 9001:2015 Certified by TUV Rheinland

DEPARTMENT OF CHEMISTRY
 (AIDED & SF)
Organizes

International Seminar
 Advances in Applied & Chemical Science AACCS 2025
**SUSTAINABLE APPROACH TO
 A GREENER FUTURE**

28 JULY, 2025 | 09:00 AM

In association with

SH SACRED HEART COLLEGE
 DEPARTMENT OF CHEMISTRY
 SACRED HEART COLLEGE, THEVARA



About the College

St. Paul's College, affiliated to Mahatma Gandhi University and Regulated by UGC is a prestigious arts and science college which functions under the Archdiocese of Verapoly. The college envisions to create a new enlightened generation which is socially committed, academically proficient, digitally updated and spiritually refined, so as to enable them to face the challenging need of the changing times. The College started functioning from 15th July 1965. The college offers both Undergraduate and Postgraduate courses in various disciplines.

The Department of Chemistry, came into existence in 1965. The Chemistry Department became a fully-fledged department with the beginning of a degree course in Chemistry in the year 1999. Post graduate course in Pure Chemistry started in 2003.

About the Seminar

International Seminar Series 'Advances in Applied and Chemical Science AACCS' aim to bring together experts, researchers, academicians and industry professionals to delve into the latest advancements, research and innovations in the realm of material science and sustainability.

"Sustainable Approach to a Greener Future" emphasizes the responsible use of natural resources to meet present needs without compromising the well-being of future generations. It promotes eco-friendly technologies, renewable energy, and waste reduction to protect our environment. Adopting sustainable practices across industries and communities is crucial for building a resilient and environmentally conscious world.

SPEAKERS



Dr. RAM MOHAN
 Professor, Department of Chemistry
 Illinois Wesleyan University, USA

TOPIC I: Introduction to Green Chemistry: Some Toxic Molecules

TOPIC II: Better Living Through Green Chemistry (Case Studies)



Dr. SEBASTIAN NYBIN REMELLO
 Assistant Professor, Department of Applied Chemistry, CUSAT

TOPIC I: Molecular Systems in Artificial Photosynthesis: The Two Electron Approach

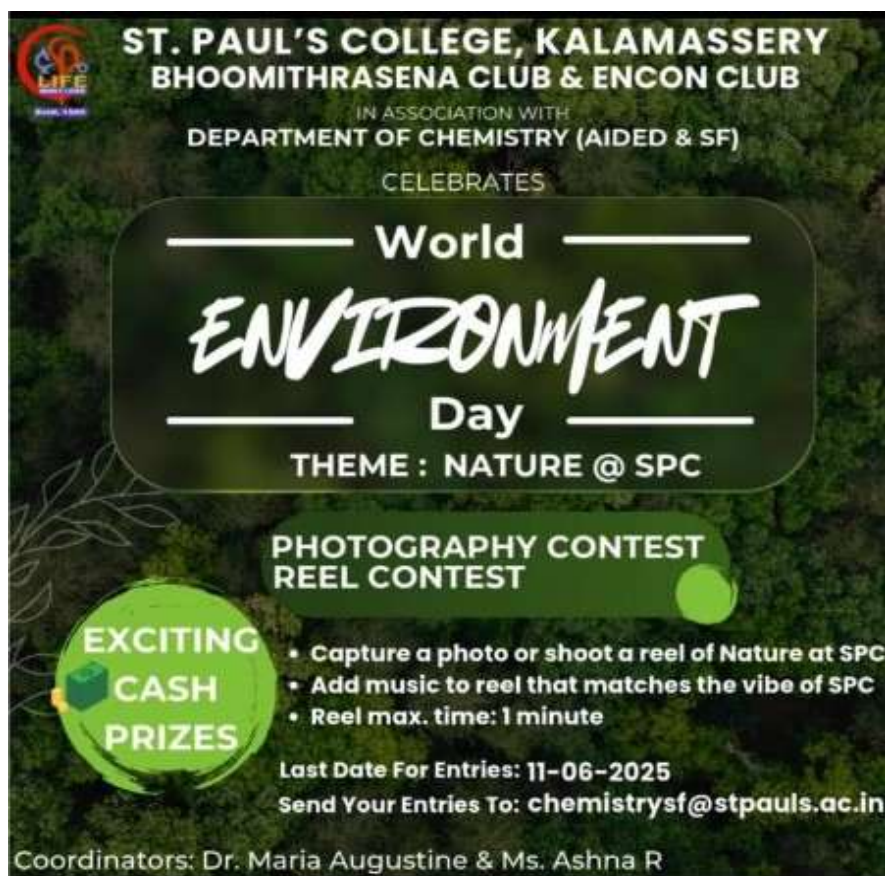


2. World Environment Day Celebration – “Nature @ SPC” Reel Competition

To commemorate World Environment Day, the Department of Chemistry (Aided & SF), in association with the Bhoomithrasena Club and ENCON Club, conducted the “Nature @ SPC” Reel Competition. The event was designed to inspire students to connect with nature by capturing the beauty and biodiversity of the St. Paul's College campus through creative short reels.

Students enthusiastically participated by producing visually engaging reels that highlighted different aspects of the campus environment. Their entries showcased originality, technical creativity, and an appreciation for the importance of conserving natural resources.

Based on the creativity, content, and overall presentation of the submissions, A. L. Latheeb of III B.A. English (SF) emerged as the winner. The competition not only celebrated the spirit of World Environment Day but also encouraged environmental responsibility, artistic expression, and active student involvement in promoting sustainability.





3. Educational Visit to the Quantum Century Exhibition

To enhance experiential learning, the Department of Chemistry (Aided and SF), St. Paul's College, Kalamassery, organized an educational visit to the Quantum Century Exhibition Pavilion for M.Sc. Chemistry students. Conducted as part of the global celebration of 100 Years of Quantum Science, the visit provided students with an opportunity to explore the fascinating world of quantum science through interactive and immersive learning experiences.

The exhibition presented the evolution of quantum science from its foundational principles to its cutting-edge applications. Through interactive models, virtual reality, holograms, simulations, laser demonstrations, and scientific exhibits, students gained a deeper understanding of concepts such as wave-particle duality, blackbody radiation, the photoelectric effect, atomic spectra, quantum chemistry, nanotechnology, quantum biology, quantum entanglement, teleportation, and quantum computing. Exhibits on atomic and nuclear physics, cloud chamber experiments, 3D atomic models, fluorescence, phosphorescence, and the periodic table further enriched their learning experience. The exhibition also highlighted the significant contributions of Indian scientists to the advancement of quantum science.

Among the key attractions were live laser and holography demonstrations, virtual tours of internationally renowned research laboratories, and engaging sessions on semiconductors, transistors, solar cells, and emerging quantum technologies. These exhibits offered students valuable insights into the practical applications of quantum science in contemporary research and technology.

The visit successfully bridged the gap between classroom learning and real-world scientific developments. It stimulated scientific curiosity, strengthened conceptual understanding, and inspired students to appreciate the growing impact of quantum science on modern society and future technological innovations.



4. Mangrove Afforestation Programme at Nayarambalam

With the objective of fostering environmental stewardship and promoting sustainable ecological practices, the Department of Chemistry (Aided and SF), St. Paul's College, Kalamassery, in association with Plan@earth, an NGO committed to environmental conservation, organized a Mangrove Afforestation Programme at Nayarambalam on 14 August 2025.

The programme involved the active participation of students and faculty members, who planted mangrove saplings as part of a coastal ecosystem restoration initiative. During the programme, participants were introduced to the ecological importance of mangrove forests and their role in preserving biodiversity, protecting coastlines from erosion, enhancing carbon sequestration, and reducing the adverse effects of climate change.

More than a tree-planting activity, the programme served as an experiential learning opportunity, enabling participants to understand the significance of habitat restoration and sustainable environmental practices. The initiative successfully instilled a sense of environmental responsibility among students while encouraging them to become active contributors to conservation efforts and sustainable development.



5. Science Exhibition Programme – Academic Extension and Outreach

With the vision of extending scientific knowledge beyond the college campus and fostering community engagement, the Department of Chemistry, St. Paul's College, Kalamassery, organized a Science Exhibition Programme as part of its Academic Extension and Outreach Activities, recognized as one of the department's best practices. The programme was conducted on 27 February 2026 at HMT School, Kalamassery, with the active participation of faculty members and the first-year M.Sc. Chemistry students (2025–2027 batch).

The outreach initiative aimed to simplify chemistry concepts through experimental learning and inspire school students to develop an interest in science. A team of postgraduate students designed and demonstrated a series of simple yet effective experiments based on selected topics from the Class VIII Chemistry curriculum. Divided into five groups, they explained the scientific principles behind each experiment using interactive demonstrations and student-friendly language. Around 60 Class X students attended and actively participated in the programme.

The programme created a vibrant learning environment where school students were encouraged to observe, question, and interact with the presenters. The live demonstrations, followed by an open doubt-clearing session, helped participants relate theoretical concepts to practical applications, making the learning process more engaging and meaningful.

The initiative was highly appreciated by the Principal and faculty members of HMT School, who commended the clarity, enthusiasm, and scientific aptitude displayed by the postgraduate students. The programme not only enriched the learning experience of the school students but also provided the M.Sc. students with valuable exposure to science communication, public engagement, and experiential teaching.

By combining academic knowledge with social outreach, the Science Exhibition Programme effectively promoted scientific awareness among young learners while nurturing communication skills, confidence, and a sense of social responsibility among postgraduate students. The success of the programme reaffirmed the department's commitment to experiential learning, community outreach, and the popularization of science.





6. Training Programme at the Regional Chemical Examiner's Laboratory, Kakkannad

As part of its efforts to provide experiential learning and industry exposure, the Department of Chemistry, St. Paul's College, Kalamassery, facilitated a two-day training programme for the Second Year M.Sc. Chemistry (2024–2026 Batch) at the Regional Chemical Examiner's Laboratory, Kakkannad, on 22 and 23 January 2026. The programme was organized in collaboration with the Chemical Examiner's Laboratory Department, Government of Kerala, a forensic science laboratory functioning under the Home Department.

The training offered students an opportunity to understand the role of analytical chemistry in forensic investigations. Experts from the laboratory familiarized the participants with the workflow involved in the chemical examination of material evidence received from courts, police, excise, and forest departments. Students were introduced to a range of sophisticated analytical instruments and modern techniques employed for the qualitative and quantitative analysis of forensic samples, including narcotic drugs and other chemical substances.

Through demonstrations and expert interactions, participants gained valuable insights into laboratory protocols, analytical procedures, and the practical applications of instrumental methods in forensic science. The sessions also emphasized the importance of accuracy, precision, and ethical practices in chemical analysis.

The programme significantly enriched the students' practical knowledge by exposing them to real-world laboratory operations beyond the classroom. It strengthened their understanding of instrumental analysis, enhanced their analytical skills, and broadened their awareness of the diverse applications and career opportunities in forensic and chemical sciences.



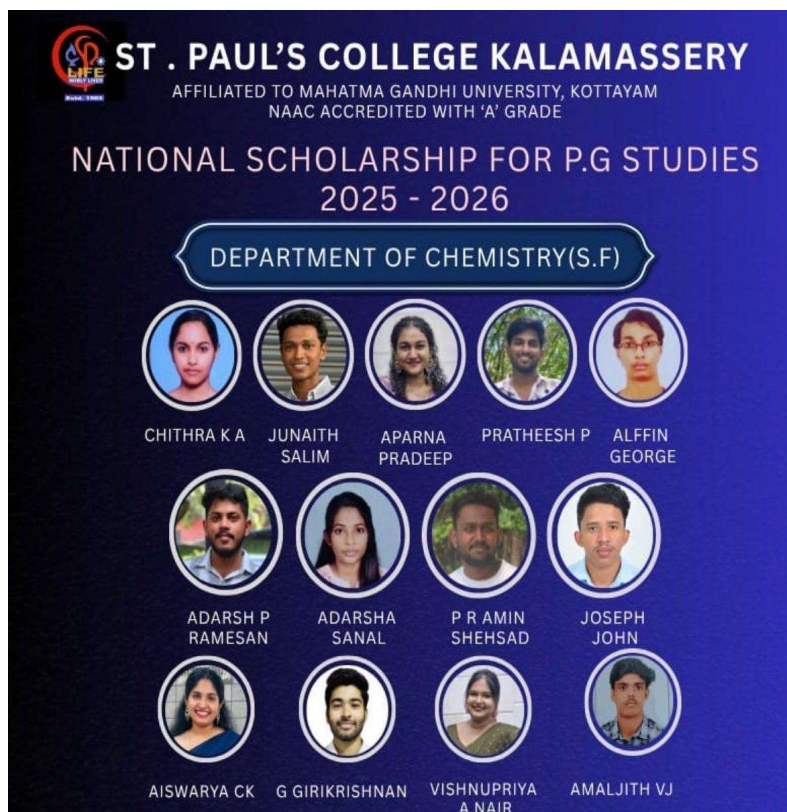
7. Student Achievements and Excellence

The Department of Chemistry SF, St. Paul's College, Kalamassery, has cultivated an academic environment that encourages students to excel in diverse fields. Along with maintaining high academic standards, the department motivates students to participate actively in cultural, sports, and extension activities, enabling their overall growth and development.

The achievements of the department's students are a testament to its holistic approach to education, which emphasizes academic excellence, creativity, social responsibility, and character building. Their continued success reflects the department's commitment to producing well-rounded graduates capable of making meaningful contributions to both the academic community and society at large.

Students who brought honour to the Department

Academic Excellence



Cultural Excellence

Mr. G. Girikrishnan - I M.Sc. Chemistry won Second Prize in Light Music and A grade for Duffmuttu in MG University Kalotsavam



Ms. Chithra K.A - I M.Sc Chemistry won Second Prize in spot dance organized by dance club, St. Paul's College

