

RACBSF-2025



DAYANANDA SAGAR COLLEGE OF ENGINEERING

An Autonomous Institute Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade

INTERNATIONAL CONFERENCE

on

Recent Advances in Chemical and Biological Sciences for Sustainable Future (RACBSF-2025)

19th – 21st February 2025

Organized By

Department of Biotechnology
Department of Chemistry
Department of Chemical Engineering

Jointly with



भारतीय जीवाणुतत्त्ववेत्त संगठन
Association of Microbiologists of India



INSTITUTION'S
INNOVATION
COUNCIL
(Ministry of HRD Initiative)



Shavige Malleshwara Hills, Kumaraswamy Layout, Bengaluru - 560 111



RACBSF-2025



We welcome all to the International Conference on "RECENT ADVANCES IN CHEMICAL AND BIOLOGICAL SCIENCES FOR SUSTAINABLE FUTURE (RACBSF-2025) which will be held from February 19th-21st, 2025, jointly organized by the Departments of Biotechnology, Chemistry, and Chemical Engineering. It serves as a platform for experts from academia and industry to discuss advancements in chemical and biological sciences, focusing on sustainability. The event will feature keynote talks, panel discussions, and workshops addressing innovative research, sustainable production, smart manufacturing, and transformative mobility solutions. Attendees can exchange knowledge and network to drive innovation in engineering, chemistry, and sustainability practices.

About DSCE

Dayananda Sagar College of Engineering operates under the aegis of the Mahatma Gandhi Vidya Peetha Trust and is approved by the All-India Council for Technical Education (AICTE), Govt. of India, and affiliated with Visvesvaraya Technological University. It has the widest choice of engineering branches having 20 Undergraduate courses & 6 Post Graduate courses. In addition, it has 18 Research Centres in different branches of Engineering catering to research scholars for obtaining a Ph.D. under VTU. NBA accredits various courses. The Institute is spread over 23 acres of land with large infrastructure supported by laboratories with state-of-the-art, Equipment & Machines. The Central Library with modern facilities and the Digital Library provides the knowledge base for the students. The campus is WI-FI equipped with a large bandwidth internet facility. The faculty's research orientation is demonstrated by numerous sponsored R&D projects from esteemed organizations such as the Department of Science & Technology, Defense R&D organizations, Indian Space Research Organization, and AICTE. DSCE has earned NAAC with 'A' Grade and 12 UG programs are accredited with NBA, demonstrating a strong commitment to quality and relevance in technical education. According to the NIRF Ministry of Education Government of India, DSCE is placed in the 51-100 rank band in the Innovation Category, and DSCE is placed in the 201-300 rank band for top engineering colleges in India for the academic year 2024. Additionally, it secured an All India ranking of 103 and a Bangalore ranking of 9 in the India Today-MDRA 2024 Best College Surveys.

Department of Chemistry

Department of Chemistry was established in the year 1979 and is one of the oldest departments of DSCE. The department adopts the best pedagogical methods to maximize knowledge transfer and imparts interdisciplinary thinking by providing the students with educational and research opportunities between Chemistry and other fields of study. Currently, the department is offering BE courses for first-year students and elective courses for higher semesters. The department also offers a Ph.D. degree in various specializations of Chemistry. The department is well-equipped with state-of-the-art infrastructure which includes the VTU research centre, affiliated with Visvesvaraya Technological University, Belagavi. The department executed a few research projects funded by VGST and VTU. The department holds many publications in peer-reviewed international journals with a high impact factor. Department of Chemistry has an MOU for research and holds an institutional membership with the Electrochemical Society of India, IISc campus. All the faculty members are experienced, qualified doctorates, and are committed to research in various specializations. Apart from this, the Department of Chemistry regularly organizes invited talks, expert lectures, webinars, and Industry Institute interactions for the students and faculty members to motivate and update themselves with the latest emerging technologies.

Department of Biotechnology

Bachelor of Engineering in Biotechnology was introduced in 2006 followed by M.Sc. and Ph.D. in Allied Sciences in 2010. The Department, accredited by NBA-Tier 1, offers a unique blend of scientific expertise in applied biological sciences, computational biology, and biochemical engineering. The department has teaching and research programs comprising basic and applied aspects of modern biotechnology. The main objective is to provide academic training and research in interdisciplinary areas. In addition to regular academics imparted by the OBE (outcome-based education) approach, TLP (Teaching Learning Process) is executed by faculty to prepare learners for the future world through internships and projects. To date, Rs 3.00 crores have been received as R&D grants from DST, DBT, VGST, KSCST, etc. The department has a semi commercial Plant Tissue Culture Laboratory catering to the needs of farmers by providing quality planting materials. Faculty and students regularly publish in SCI and SCOPUS-indexed journals. The Association of Microbiologists of India (AMI), Bangalore Chapter, was reinitiated at Dayananda Sagar College of Engineering (DSCE) in 2013. AMI won "Best Unit Award in 2018 consecutively from 2021 to 2024. With the support of the life members, annual members, and with the patronage of the management of DSCE, various activities are conducted regularly for the benefit of students, faculty, and scientists.

Chemical Engineering

Department of Chemical Engineering is one of the old Departments in DSCE, started in year 1982 Department is accredited thrice by NBA, once for 5 years. Department is recognized research center under VTU to pursue M.Sc., (Engg by Res) and Ph.D. It has well established laboratories. Department has well qualified, experienced faculty. Department regularly gets ranks at University level. Research works are funded by external funding agencies. Student Projects are getting appreciation from external agencies like KSCST, IChE, AICTE. Faculty and students publish their research work in National & International Journals. Under UKIERI (United Kingdom-India Educational and Research Initiative, sponsored by British Council) a joint collaboration program on "Health and Safety" many faculty from Dundee College, Scotland visited department and delivered classes. Our faculty with industry experts from Shell, G.E, and government officials from Karnataka State Fire and Safety delivered lectures on the topics Electric Safety, Fire Safety, Behavioral Safety, MSDS, Chemical Safety, Food Safety and Bio Safety. Four of our faculty visited Dundee College, Scotland. It regularly conducts FDP, workshops, invited lectures, industry visits and other co and extracurricular activities. Under the aegis of the Chemical Engineering Association (ChEA), department organizes various technical activities such as paper presentation, quizzes, collage-making, debates, essays, and more etc. The department has been providing scholarships to needy students since 2011.



Call for Abstracts

Prospective authors are encouraged to contribute and shape the conference through submissions of their original, unpublished research abstracts. Essential title page information includes, Title (Times New Roman; font size 14; bold) Author names and affiliations along with the details of the corresponding Author's Email and abstract body must be in Times New Roman; font size; 12, word limit 150-250 with 5 keywords. The template for abstract submission can be downloaded on the conference website: <https://racbsf2025.dsce.edu.in/>

Conference Themes

- Functional Materials
- Advanced and Sustainable Materials
- Biomimetic Materials
- Alloys and Composites
- Green technology
- Surfaces, Interfaces and Catalysis
- Semiconductor Materials and its Applications
- Sustainable Energy Technologies
- Smart Materials and Its Applications
- Recycling and Environmental Technologies
- Materials for Energy Storage and Conversion
- Biosensors
- Biodegradable Materials
- Nanocomposite Materials
- Bioremediation Process
- Corrosion Science
- Fuel cells and Batteries



- Advances in Genetic Engineering and Synthetic Biology
- Biotechnological Innovations for Environmental Sustainability
- Industrial Biotechnology for Green Manufacturing
- Biotechnology in Agriculture and Food Security
- Therapeutic and Diagnostic Applications of Biotechnology
- Bioprocess Engineering and Fermentation Technologies
- Bioinformatics and Computational Biology in Biotechnology
- Advances in Stem Cell Research and Regenerative Medicine
- Marine and Microbial Biotechnology for Resource Utilization
- Ethical and Regulatory Challenges in Biotechnology Development
- Computational Modeling and its Applications
- Materials for display and Security Applications

Registration

Registration link:

<https://forms.gle/kC76AyBe6xMWBpYM9>



Register

Registration fee includes a conference kit, refreshments (Lunch and Tea), and access to all the sessions (19th -21st February 2025)

Registration Charges

Registration fee has to be paid online [NEFT/ IMPS]

Bank name : Bank of Baroda

Merchant Name: DSCE FUNCTION AND SEMINAR

A/C Number: 74370100017988

MICR Code: 560012113

IFSC Code: BARB0VJDASC [Fifth character is zero]

Branch: Dayananda Sagar College

UPI ID: dscs90350@barodampay



Scan & Pay

Category of Delegates	Early Bird Registration fee (INR) [15-01-2025]	Late Registration fee (INR) [25-01-2025]
UG/PG Students	1000	1500
Research Scholars/Faculty	1500	2000
Industry Delegates	3000	3500
Foreign Delegates	50 \$	60 \$

Advertisement in Souvenir

Back cover page	30000
Inside Full page	20000
Inside half page	10000

Sponsorships

Category	Fee (INR)	Free Delegates	Free Stall
Platinum	70000	7	3
Gold	50000	5	2
Silver	30000	3	1
Co-Sponsors	20000	2	1

IMPORTANT DATES

Submission of Abstract: 25th January 2025
 Notification of Acceptance: 5th February 2025
 Last Date for Registration: 10th February 2025
 Full paper submission: Will be Notified
 Acceptance of Full paper: Will be Notified

All the abstracts should be submitted to conference email id:
racbsf2025@gmail.com

PUBLICATION INFORMATION

Selected full papers will undergo plagiarism check and double-blind review. All accepted papers will be published in Scopus/Web of Science Indexed Journals. The approached special issues journals are:

- "Advanced Functional Nanocomposite Materials for Sensing Hazardous Molecules", "Discover electrochemistry", "Springer Nature" (* Special issue)
- "International Journal of Surface Engineering and Interdisciplinary Materials science" (IJSEIMS), IGI Global Scientific Publishing, Beijing, China. (* Special issue)

[*Approval is pending]

ORAL & POSTER PRESENTATIONS

Oral and Poster presentations are invited from UG/PG students, Research Scholars, Faculty Members, Industry and Foreign delegates addressing the conference theme. There will be "Best Oral/Poster Presentation Awards". The poster size should be: 33.1 x 46.8 inches. Templates for Oral/Poster presentations may be downloaded from the conference website.

Guidelines for the paper submission

Abstract: Approx. 150-250 words with maximum 5 keywords
 Font Style: Times New Roman
 Font Size: Heading 14 in bold & Text in 12
 Line Spacing: 1.5
 PPT shall be limited to 8 minutes duration

Conference Schedule

Day-1 (19.02.2025)

8.00- 9.00 am: Registration
 9.30- 10.00 am: Inauguration
 10.00- 11.45 am: Key Note Address-1
 12.00- 12.45 pm: Plenary Session -1
 2.00- 2.45 pm : Plenary Session -2
 2.50- 3.35 pm : Plenary Session -3
 3.35- 5.00 pm : Oral /Poster Presentation

Day-2 (20.02.2025)

10.00- 10.45 am : Key Note Address-2
 10.50-11.35 am : Plenary Session -4
 11.40- 1.00 pm : Oral /Poster Presentation
 2.00- 2.45 pm : Plenary Session -5
 2.50- 3.35 pm : Plenary Session -6
 3.35- 5.00 pm : Oral /Poster Presentation

Day-3 (21.02.2025)

10.00- 10.45 am : Key Note Address-3
 10.50- 11.35 am : Plenary Session -7
 11.40- 1.00 pm : Oral /Poster Presentation
 2.00- 2.45 pm : Valedictory Address
 2.50- 4.00 pm : Prizes & Certificates Distribution
 4.00 pm : National Anthem

Conference Speakers



Dr. K. V. Venkatesh
Professor
IIT, Bombay
Biochemical/Biomolecular
Engineering



Dr. Mathoto Thaoge
Professor
Tshwane University of
Technology (TUT), South Africa
Biotechnology/Food Technology



Dr. H. S. Muralidhara
President
INSEPPCON, USA



Dr. T. V. Ramachandra
Scientific Officer
IISc, Bengaluru
Energy & Wetlands Research



Prof. Yogendra Shastri
Professor
Department of Chemical
Engineering
IIT, Mumbai



Dr. Hariom Yadav
Director, USF Center for
Microbiome Research
University of Florida, USA
Neurosurgery and Brain Repair



Dr. P. Shanmugam
Chief Scientist & Head
Prof. of Chemistry
AcSIR, New Delhi

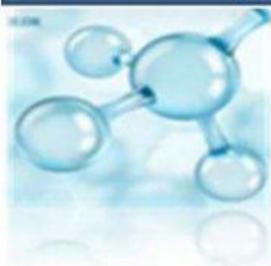


Dr. Tharamani C N
Associate Professor
IIT, Ropar
Fuel Cells & Sustainable Energy



Prof. Suryasarathi Bose
Professor
Materials Engineering
IISc, Bangalore





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Dr. Umesh B. Deshannavar

Director, Innovation, Research & partnership,
Warana University, Warananagar, Maharashtra

Dr Dinesh P Sankar Reddy

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Dr. Mahadevaraju G K, Asso. Prof. Chemical. Engg., DSCE
Dr. Prashantha K, Asso.Prof, Biotechnology, DSCE

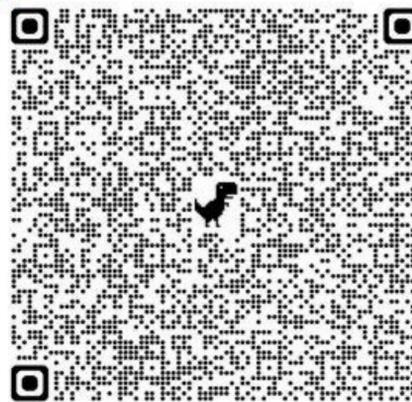
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Dr. Vinuta V K, Asst.Prof, Chemistry, DSCE
Dr. Swarnalata S, Asst.Prof, Chemistry, DSCE

ADDRESS FOR COMMUNICATION

Dr. P.Karuppasamy, Asst. Prof., Chemistry, DSCE
Contact No:+91-9715491302
Dr. Mahadevaraju G K, Asso. Prof. Chemical. Engg.,
DSCE
Contact No:+91-9845772214
Dr. Prashantha K, Asso.Prof., Biotechnology, DSCE
Contact No:+91-8105547886
Email:racbsf2025@gmail.com



VENUE

<https://maps.app.goo.gl/ipcYUKHYvtPYz2ro9>

