



SMIT SIKKIM
MANIPAL
UNIVERSITY
SIKKIM MANIPAL INSTITUTE OF TECHNOLOGY



International Conference on Green Initiatives in Chemical Sciences for Sustainable Development (ICGICSSD – 2022)



On the occasion of
International Year of Basic Sciences for Sustainable
Development - 2022 (IYBSSD-2022)

18-19 November 2022

Organized

by

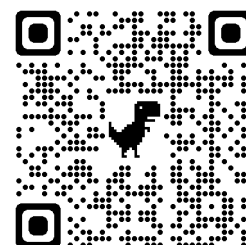
Department of Chemistry,
Sikkim Manipal Institute of Technology
Majitar, Rangpo, Sikkim – 737 136, India

In joint collaboration with

Association of Chemistry Teachers (ACT)

and

Indian National Science Academy (INSA), New Delhi



About the Conference

The United Nations (UN) General Assembly has adopted a resolution proclaiming year 2022 as International Year of Basic Sciences for Sustainable Development (**IYBSSD 2022**). In this resolution, UN General assembly invites all member states and organizations of the United Nations system and other global, regional and subregional organizations. as well as other relevant stakeholders to observe and raise awareness about the importance of basic sciences in sustainable development. Important stakeholders are academia, civil society, international and national non-governmental organizations (NGOs), individuals and private sectors.

In line of this proclamation, Department of Chemistry, Sikkim Manipal Institute of Technology (SMIT), Sikkim, India, in joint collaboration with Association of Chemistry Teachers (ACT) and Indian National Science Academy (INSA), New Delhi is going to organize an International Conference on “**Green initiatives in Chemical Sciences for Sustainable Development**” during **18 – 19 November 2022** at Sikkim Manipal Institute of Technology, Sikkim. The primary objective of the conference is to link basic science with the goals of Sustainable Development. This is a unique opportunity to convince all stakeholders in action that through a basic scientific understanding of nature, sustainable development goals can be achieved more effectively. It will be an opportunity for the scientists, academicians, industrialists and students from various fields of Chemistry to present their original research work and share their ideas. It will also provide scholars, and practitioners to build a network of like-minded individuals across the globe. A galaxy of world-renowned personalities as resource persons are going to deliver talks on various relevant topics.

Theme of the conference

This conference will cover a wide range of current research on green initiatives in Chemical Sciences for sustainable Developments. This interdisciplinary conference aims to update scientific and academic communities with the recent advancement in different fields of Chemical Sciences and Engineering.

Sub Theme

Sustainable Chemistry, Circular Chemistry, Synthetic and Natural Product Chemistry, Medicinal Chemistry, Applied and Physical Chemistry, Green Chemistry, Biochemistry, Biomaterials, Supramolecular Chemistry, Nanotechnology & Nanoscience, Material Science, Engineering Materials, Synthetic Catalyst, Polymer Chemistry, Environmental Science, Organometallics, Coordination Chemistry, Drug and Gene Delivery, Computational Chemistry, waste water treatment technologies, solid waste management, recycling of plastics, molecular biology, microbiology, biotechnology, air and water pollution control technologies and soil and water analysis. Any other topics relevant to the theme of conference are most welcome.



Target Audience

Chemistry educators and Scientists, Associations working for the cause of sustainable Chemistry, Research fellow and PG students of Chemistry, Chemists and Industry Professionals. It also includes faculty members, scientists and scholars from the field of Biochemistry, Biotechnology, Microbiology, Environmental Science, Environmental Chemistry, Environmental Engineering, Cellular and Molecular Biology.

Invitation

The Organizing Committee takes great pleasure in inviting you and your colleagues to participate in the Conference. The meeting provides scope to discuss recent developments and future directions in the field of chemistry and interdisciplinary science for sustainable development. We hope that the surroundings of Gangtok city will make your trip memorable apart from scientific activities.

Call for Papers

Research papers in the areas of conference themes are invited for oral presentation. Abstract should be limited to 500 words and sent to the Convener through email (icgicssd2022smit@gmail.com). The acceptance of the paper will be intimated in due course. The selected abstracts will be published in the proceedings.

Format of Abstract

Title of abstract (14 font, bold, centered), Presenting author (underlined), other authors, Department, Institute, Address. The one-page abstract should be in MS Word, Times New Roman, 12 font, single space on A4 size paper.

Mode of Presentation : Oral Presentation

Important dates

Last date for Submission of Abstract : **15th October 2022**

Notification for Acceptance of Abstract : **25th October 2022**

Last date of Registration : **30th October 2022**

- ◆ Participants will be given 6/10 minutes for the presentation.
- ◆ A committee of experts will evaluate all the papers. Selected papers will be published in the Proceedings / UGC approved journal.
- ◆ A Certificate of Presentation will be issued to the participants who present the paper.
- ◆ A Certificate of Participation will be issued to the participant who attends the Conference.
- ◆ Best 03 papers of the conference will be awarded.

Registration

- ♦ Registration can be done through the website of the conference (<https://icgicssd2022smit.wixsite.com/conference>)
- ♦ Abstract / Paper should be sent to: icgicssd2022smit@gmail.com
- ♦ **Registration Fee**

Conference Registration Fee	
Students	Rs. 1000
Scientists / Academia	Rs. 1800
Delegates from Industry	Rs. 2500
Accompanying Person	Rs. 1000

Payment can be made through SBI collect which is available in conference website.

Accommodation

Accommodation may be arranged on request in the institute hostels (double bed room with attached bath, Charge Rs. 600 per day) or hotels at Majitar (1 km) and Gangtok (35 km) (on actual payment basis). Details of hotels are available in the Conference website.

About Sikkim Manipal Institute of Technology (SMIT) / Host Institution

Sikkim Manipal University came into existence on 15 November 1992 due to the agreement signed between the Government of Sikkim and the Manipal Pai Foundation.

Sikkim Manipal Institute of Technology was established in 1997 as a constituent college of Sikkim Manipal University and is approved by AICTE. The first technological campus of Sikkim offers high-quality technical education and promotes the holistic growth of the students. A fully residential campus and endowed with natural beauty makes it ideal for students to emerge as potential nation builders.

SMIT ranked 6th top Engineering Colleges of Super Excellence: CSR-GHRDC, 2021; 1st – Top Engineering Colleges within the state of Sikkim: CSR-GHRDC, 2021; 13th Top Engineering Colleges ranked by Faculty, Research, Consultancy, EDP & other programmes: CSR-GHRDC, 2021; 15th Top Engineering Colleges ranked by Placements, USP, Social Responsibility, Networking & Industry Interface: CSR-GHRDC, 2021; ranked 2nd among top 3 region wise Engineering Private College (Eastern India), India Today Professional College Ranking, 2021; ranked 19th best Engineering Private College (Overall): India Today Professional College Ranking: 2021.

SMIT offers undergraduates, postgraduate and Ph.D. in various disciplines of engineering, science and management.

SMIT has its campus at Majitar, East-Sikkim, about 5 km from Rangpo (West Bengal Border). The institute's location is on the banks of river Teesta, surrounded by green hills, making it an ideal place for learning.

About Department

Department of Chemistry was established in 1997 along with SMIT. The department has moved forward with the opening of M.Sc. in Chemistry from 2003 onwards. The department focuses on exposing the students to the latest development in the field of Chemistry and is endowed with vibrant and dynamic faculty, well qualified to impart high-quality teaching.

The department has a well-equipped lab with sophisticated equipment (DST-FIST sponsored). Also, it has research projects with several Ph.D. scholars. Moreover, it has a Society of Chemical Sciences (SCS) comprising students and teachers. It organizes seminars, workshops, popular lectures in Science and Chemistry regularly. The department had successfully organized RTC – 2012 in January 2012, RTC – 2017 in February 2017, ICSPMIA – 2018 in October 2018 and NCCT – 2021 & ICRTC & CE – 2021 in December 2021.

Association of Chemistry Teachers

The Association of Chemistry Teachers (ACT) was launched in the year 2000 to serve as an apex national body of Chemistry educators to promote excellence in Chemistry education. The idea of formulating ACT was conceptualized by Homi Bhabha Centre for Science Education (HSCBE), TIFR, Mumbai.

The Association brings together on a common platform for higher secondary school teachers, college / university teachers / professors, scientists and researchers from industry for organizing subject related activities.

The activities are organized through the six zonal councils with headquarter of Mumbai.

The ACT newsletter is available online on the ACT website (<http://www.associationofchemistryteachers.org>).

Prof. Brijesh Pare, Madhav Science PG College, Ujjain, is the present President of ACT.

Prof. D. V. Prabhu, Wilson College, Mumbai is the Founder General Secretary-ACT since its inception.

The focal activities of ACT include

- ♦ The Association plays a pivotal role in organizing the National Standard Examination in Chemistry (NSEC) which is the first stage examination leading to participation in the International Chemistry Olympiad. It is indeed a matter of gratification and pride over the years that India's performance in the International Chemistry Olympiad has been consistently encouraging.
- ♦ ACT has been conducting a Concept Test in Chemistry (CONTECH), a competitive test at National level for undergraduate (UG) students in two phases is not only useful in testing conceptual understanding of students in Chemistry but is also helpful in generating students' interest in Chemistry.
- ♦ National Convention of Chemistry Teachers (NCCT), a regular 3-day Annual Convention of ACT comprises of award giving ceremony to outstanding teachers in different fields, talks by eminent person, demonstration of new interesting experiments, oral and poster presentation by teacher participants.

- ◆ Apart from many National & International conferences, seminars/webinars, regional symposia, workshops are also organised for the benefit of students and research scholars. Celebration of National Chemistry Day and National Science Day are the annual features of ACT.
- ◆ ACT has taken initiatives of organizing Research Convention in Chemistry as an annual feature from 2020.
- ◆ International webinar/seminar on "Women in Science (WinS)" has also been initiated by ACT from 2020 onwards.
- ◆ Web Workshop on “Designing Quality Multiple Choice Questions (DQQ)” for School / College / University teachers is also a new initiative of ACT from 2020 onwards.
- ◆ ACT in joint collaboration with Indian National Young Academy of Sciences (INYAS) has started "Web based Chemistry Orientation Workshop for Competitive Examinations (COWCE) for the benefit of MSc (Chemistry) students from 2021.
- ◆ Collaborative work of ACT with Tata Chemicals and Royal Society of Chemistry (London) are highly appreciated.
- ◆ The ACT Newsletter includes articles on Chemistry themes and chemistry related activities.

Indian National Science Academy (INSA)

The Indian National Science Academy was established in January 1935 with the object of promoting science in India and harnessing scientific knowledge for the cause of humanity and national welfare. The foundation of the Academy, earlier known as the National Institute of Sciences of India (NISI), was the outcome of joint endeavours of several organizations and individuals and the Indian Science Congress Association (ISCA) playing a leading role in this regard. The name of the National Institute of Sciences of India was changed to the Indian National Science Academy (INSA) in February 1970.

About Sikkim

Sikkim is a small but beautiful state situated in the Eastern Himalayas. “The land of orchids”, “The land of tranquillity” are the few ways in which Sikkim has been described. In fact, in all its manifestations, Sikkim has been projected as a Naturalist’s paradise. A tourist visiting Sikkim is all praises for the richness in nature, which has been the basic ingredient of tourism in Sikkim. It is here that Khanchendzonga-the third highest mountain in the world, stands tall. Blessed with snowcapped mountains, lakes, rivers and varieties of flora and fauna, Sikkim is on par with other ecological hotspots of the world.



Organizing Committee

Chief Patron	Prof. K. Ramnarayan, Pro-Chancellor, Sikkim Manipal University Dr. (Lt. General) Rajan S Grewal, Vice-Chancellor, Sikkim Manipal University
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Local Organizing Committee	Dr. Soumya Kanti Biswas, SMIT Dr. Joydeep Biswas, SMIT Prof. Prem Mohan Mishra, MLSM College, Darbhanga (ACT Zonal Vice President, East Zone) Dr. Subhash Prasad Singh, A N College, Patna, (ACT Zonal Secretary, East Zone) Dr. Amrit Krishna Mitra, Govt. General Degree College, Singur, West Bengal (ACT EC Member, East Zone) Dr. Suresh Kumar Arya, JNRM Govt. PG College, Port Blair, Andaman and Nicobar (ACT EC Member, East Zone)



National Organizing Committee	<p>Dr. Hemant Khanolkar, Fr. C. R. Engineering College, Mumbai (ACT- Treasurer)</p> <p>Prof. Raakhi Gupta, IIS University, Jaipur, (Secretary, ACT- Central Zone)</p> <p>Prof. Wasudeo Gurnule, K. N. Mahavidyalaya, Nagpur (Secretary, ACT- West Zone)</p> <p>Dr. Gitimoni Deka, Rangia College, Rangia, Assam (Secretary, ACT- North East Zone)</p> <p>Dr. Umesh Chandra Jain, A. H. Public School, Morena, (Secretary, ACT- North Zone)</p> <p>Dr. Mannam Krishnamurthy, V. E. M. Limited, Hyderabad (Secretary, ACT- South Zone)</p> <p>Dr. Amar Srivastav, DAV(PG) College, Kanpur (ACT EC Member- North Zone)</p> <p>Dr. Neera Sharma, Hindu College, Delhi, (ACT EC Member, North Zone)</p> <p>Prof. M. Swaminathan, Kalasalingam Academy of Research and Education, Krishnankoil, Tamilnadu (ACT EC Member, South Zone)</p> <p>Dr. P.V.S. Machiraju, Pragati Engineering College, AP, (ACT EC Member, South Zone)</p> <p>Prof. Dheeraj Mandloi, I. E. T.; D. A. University, Indore (ACT EC Member, Central Zone)</p> <p>Prof. Yogendra Kumar Kothari, Nanakhed, Ujjian (ACT EC Member, Central Zone)</p> <p>Prof. Anand Aswar, S. G. B. Amravati University, (ACT EC Member, West Zone)</p> <p>Dr. Sudesh Ghoderao, RNC Arts, JDB Commerce and NSL Science College, Nashi (ACT EC Member, West Zone)</p> <p>Dr. Dileep Kalita, Tinsukia, Assam (ACT EC Member, North East Zone)</p> <p>Md. Abdul Halim Shah, Dhanamanjuri University, DM College of Science, Imphal, Manipur (ACT EC Member, North East Zone)</p> <p>Mr. Amanjeet Singh, GMS, Hoshiarpur, Punjab (ACT EC Member, North Zone)</p> <p>Prof. A Sakthivel, Central University of Kerala, (ACT EC Member, South Zone)</p> <p>Dr. Anju Das Manikpuri, Azim Premji Institute of Learning and Development, Dhamtari, Raipur, Chhatisgarh (Co-opted Member of EC from Central Zone)</p> <p>Mrs. Swapna Narvekar, HBCSE (TIFR), Mumbai (Former Zonal Secretary, West Zone)</p> <p>Dr. Sanchay Jyoti Bora, Pandu College, Guwahati (ACT EC Member, North East Zone)</p> <p>Prof. Upasana Bora Sinha, Dept. of Chemistry, Nagaland University, Nagaland</p> <p>Dr. Rajesh Chakrabarty, Rajib Gandhi University, Arunachal Pradesh</p>
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National Advisory Committee	<p>Prof. N. Sathyamurthy, Jawarharlal Nehru Centre for Advanced Scientific Research, Jakkur, Bengaluru, Former Director, IISER Mohali (Former President-ACT)</p> <p>Prof. S. R. Gadre, University of Pune, Pune (Former President-ACT)</p> <p>Prof. P. K. Sai Prakash, formerly Osmania University, Hyderabad (Former President-ACT)</p> <p>Prof. Sudha Jain, formerly Lucknow University, Lucknow (Former President-ACT)</p> <p>Prof. S. D. Samant, ICT, Mumbai (Former President-ACT)</p> <p>Prof. D. C. Deka, Vice Chancellor, Madhabdev University, Lakhimpur, Assam (Former President-ACT)</p> <p>Prof. Ajeya Jha, SMIT, Sikkim</p> <p>Prof. Sanjay Dahal, Sikkim University, Sikkim</p> <p>Prof. Ghanashyam Bez, NEHU, Shillong</p> <p>Prof. Anil Saikia, IIT, Guwahati</p> <p>Prof. Manash Das Gupta, University of Science and Technology, Meghalaya.</p> <p>Dr. Utpal Bora, Tezpur University, Assam</p> <p>Prof. Amiya Kumar Panda, Vidya Sagar University.</p> <p>Prof. Manas Kanti Deb, Pandit Ravishankar Shukla University</p> <p>Prof. Pankaj Das, Dibrugarh University, Assam</p> <p>Dr. Swapnali Hazarika, Scientist, CSIR-NEIST, Assam</p> <p>Dr. Archana Moni Das, Scientist, CSIR-NEIST, Assam</p> <p>Prof. V. P. Singh, NCERT, New Delhi</p> <p>Prof. Shraddha Sinha, B B D Nat Institute of Tech. and Man, Lucknow</p> <p>Prof. Helen Kavitha, SRM Institute of Science and Technology, Ramapuram, Chennai</p> <p>Prof. Hemant Pande, Formerly Hislop College, Nagpur</p> <p>Prof. Nripendra N Talukdar, Pub Kamrup College, Kamrup, Assam.</p>
Website Coordinator	Dr. Joydeep Biswas, SMIT





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Website:

<https://icgicssd2022smit.wixsite.com/conference>