

Report of International Conference on “Current Trends in Chemical Sciences for Sustainable Living” (4- 5th April 2024)

Department of Chemistry under the aegis of IQAC, Shyam Lal College organised a two-day International Conference on “Current Trends in Chemical Sciences for Sustainable Living” on 4- 5th April 2024, under the leadership of Principal Professor Rabi Narayan Kar. The event aimed to explore the advances in the field of chemistry for sustainable living and shed light on its relevance as well as significance for shaping India's future.

The inaugural ceremony of the conference commenced with a ceremonial lamp lighting followed by the enchanting Saraswati Vandana, setting a reverent and auspicious tone for the proceedings by invoking wisdom and knowledge. Attendees were inspired by the spiritual call, highlighting the importance of learning in academic pursuits which was followed by the University Anthem, “Kulgeet.

The commencement of the conference was gracefully initiated by Dr. Reeta Sharma, who provided the opening remarks for the two-day event ahead with delightful insight on sustainability and importance of young researchers in academic domain.

A remarkable assembly of students, faculty, and researchers was then warmly welcomed and addressed by Professor Rabi Narayan Kar, Principal of Shyam Lal College, he beautifully told us about sustainability and letting us know about the Japanese word “Mottainai” a regret over waste and a commitment to making most of our resources.



A notable event of abstract book release took place, marking a significant moment in the conference. The session was then graced by the esteemed presence of dignitaries, each contributing their invaluable insights.

Firstly, Professor SK Awasthi, Head of the Department of Chemistry, University of Delhi, illuminated the gathering with his expertise on chemistry and beautifully talked about sustainable development importance and basic etiquette we need to take to make this world a better place.



Dr. Balram Pani, Dean of the College at the University of Delhi, couldn't attend a inaugural ceremony due to emergent meeting but he has sent his best wishes for all.

Lastly, Professor Shantanu Bhattacharya, Director of CSIR-CSIO in Chandigarh, enriched the session with his ground breaking work on the semiconductor and battery printing on paper.

We all were also inspired by his words as he told us to keep working and keep doing research and work till the end.

In the last, Inaugural session proceeded with Dr. Premlata Meena, expressing sincere appreciation for the contributions and participation of everyone involved.

On the first day, we hosted two plenary sessions along with one technical session.

The **first session** was chaired by Prof. Harsha Kharakwal (Director, AIP and P, Amity University) along with coordinator Dr. Premlata Meena.



A plenary lecture was delivered by Prof. Rajeev Gupta (CEO, Institute of Eminence, Delhi University). He talked about his work on sustainable catalyst using visible light and photo oxidation of different materials and even photo degradation of dyes and drugs.

Thereafter, a special lecture was delivered by Prof. SK Awasthi (HOD, Chemistry Department, University of Delhi). he shared his research on antimalarial activity of Tetraoxane drug and it's need and importance in malaria disease. He has made us understand about the real-life applications of chemistry in our daily life and how it's advancing the healthcare domain.

We then heard, from Prof. Vinod Kumar Vashistha (Assistant Professor, Department of Chemistry, Lucknow University) on his work on enantiomers and their importance in drugs and his work on approach for chiral compounds.

The second plenary session was chaired by Prof. Amit Kumar (Dyal Singh College, Delhi University) along with coordinator Dr. Richa Tyagi.

An invited lecture was delivered by Dr. Geeta (Professor and Head, BITS Campus, Dubai) on effect of microplastics into the environment its adsorption by water and ageing gets even worse and toxic.



We then had a plenary lecture by Prof. Harsha Kharakwal (Director, AIP and P, Amity University, Noida) and we were honoured to hear about her work on biopolymers and how they are developing sustainable biopolymers for everyday use like plant mulching films, pens and other materials.

Next invited lecture was delivered by Dr. Ritika Gautam (Assistant Prof, Department of Chemistry, IIT Kanpur.) she elaborated on antibiotics and how antibiotics resistance is a big threat to humankind and how they are tackling with it.

An invited lecture by Prof. Dr. Anshuman Mishra (Group Leader, Translational Research & Sustainable Health care Management, Institute of Advanced Materials, IAAM, Sweden) could not be delivered due to some technical glitches, but we hope to hear him soon some other day.

After this session, our technical sessions of Oral Presenters of conference theme started. For these parallel sessions we had Chairpersons: Prof. Kalawati Saini, Miranda House Prof. Renu Parashar, Hansraj College & Prof. Ruby Mishra, Deshbandhu College & Dr. Sanjay Kumar, Shyam Lal College, University of Delhi, along with coordinators Dr. Ankit Mittal, Dr. Radhika Gupta and Dr. Padma Dechan.

DAY-2

On the Second day of Conference, we had two plenary sessions. The first session was chaired by Prof. Pravita Kumar, Aurbindo College, with coordinator Dr. Radhika Gupta. In

this session a keynote lecture was delivered by Prof Nand Kishore, IIT Bombay, mentioned about the Importance of Identifying Molecular Functionalities: Rational Drug design and delivery System.

The next plenary lecture was delivered by Prof. N Bhojak (Professor, MGS University, Bikaner). He shed light on green catalytical converter, green methods, extraction and synthesis of green ceramics.

After that we had an Invited Lecture by Prof. Toshifumi Dohi, (Professor, Ritsumeikan University, Shiga, Japan) on metal free coupling and activation strategy of aromatic ring gave us more insights. Lecture was interesting and novel for the audience.

The next technical session was chaired by Prof. Rita Kakkar, Retd. Department of Chemistry., University of Delhi along with coordinator Dr. Yukti Monga

In this session, we had an invited lecture by Dr. Ravinder Kaur, (Principal Scientist, IARI, Delhi), on Jalopchar- Environment friendly waste water treatment technology which is quite relevant in present scenario. T

As a next invited lecture, we had the privilege to hear from Prof. AK Bhagi from Dyal Singh College, University of Delhi, where he comprehended about the matter history and how matters are made into something useful and how nanotechnology has assisted to a greater extent.



This session was continued by an Invited Lecture from Dr. K. Shiva Kumar, (Associate Professor, Central University of Kerala) in which he talked about Discovery of Novel Sequential one pot synthetic methodologies for Sustainable future.

Next session was poster presentation session which run in parallel sessions. The Chairpersons for the same were Prof. A. K. Bhagi, Prof. Arkaja Goswami, SLC, Dr. Reeta Sharma, SLC, & Dr. Anil Kumar, K. R. Manglam along with coordinators Dr. Kavita Yadav, Dr. Rakesh Pant, Dr. M Raghvendra and Dr. Ompal Singh Yadav.

In the last technical session, we had Invited Lecture by Prof. Deepak Pant, (Central University, Himachal Pradesh) in which he explained about toxicity and detoxification in chemistry that's an concerning topic in the chemistry and hearing about the application for the same has been really insightful. This session was chaired by Prof. Ashu Gupta and coordinator for the same was Dr. Kanika Solanki.

Moving further, we had a Keynote Lecture by our Valedictory Session Chief Guest Prof. D. S. Rawat. It was a wonderful experience to listen to him. It was so insightful to hear about his story and his discovery of medicine that can solve the problem of Parkinson's disease. He also shed light on other newly synthesized drugs and their applications for betterment of humanity.

During this two-day international conference, we received 145 number of registrations. We are extremely happy to share that even graduate students participate in this conference along with researchers, faculty members and international delegates.

We are proud to share that we received a total of 35 posters and 76 number of oral presentations, each oral and poster presentation was detailed and well explained.

Valedictory session

The valedictory ceremony was graced by Chief Guest Prof. D. S. Rawat, Guest of Honor Prof. Raj Kishore Sharma, Special Guest Prof. A. K. Bhagi and Principal SLC Prof. Rabi Narayan Kar. After welcoming of the guests, we had privilege to listen to our honourable guests. In his address, Prof. Bhagi mentioned how entrepreneurship is essential for developing a sustainable future. Afterwards, Prof. Sharma delivered his words of wisdom by focusing on sustainability and chemical trends. The chief guest, Prof. Rawat then addressed the participants and shared his views about sustainability and environmental preservation as well as remediation. Thereafter, a detailed report of the conference was presented by Co-Convenor Dr. Richa Tyagi. During this event, we received an overwhelming response from the participants. A few of them also shared their experiences on the stage where they mentioned how a great networking platform was built by the conference. The students really enjoyed all the talks and specially the poster presentation session where they got introduced with new cutting-edge research which was highly motivating for them to opt a scientific career. Principal Sir also congratulated the Chemistry Department for the great success of the conference and for choosing "sustainability" as the event title. Thereafter, the awards for best oral and poster presentations were also announced. At the last, Co-Convenor Dr. Richa Tyagi delivered the final vote of thanks.

