

STATE LEVEL SEMINAR ON ‘GREEN CHEMISTRY FOR SUSTAINABLE FUTURE’

A one-day seminar on ‘GREEN CHEMISTRY FOR SUSTAINABLE FUTURE’ organized by the departments of Chemistry and Bio-Chemistry (UG), St.Philomena’s College (Autonomous), Mysore was held at the college Auditorium on Saturday, 4th March, 2017. The seminar was conducted with an objective of creating a sense of responsibility among students towards environmental issues and inspiring them to take action to spread awareness on mitigating the imminent threats. It also aimed at increasing their knowledge on a range of renewable energy technologies such as batteries, fuel cells etc, their applications and economics of use with special reference to Green Chemistry.

Prof. Syed Akheel Ahmed, former Vice-Chancellor of Yenepoya University, Mangalore and former Dean, Faculty of Science and Technology, university of Mysore, inaugurated the seminar. Prof. Akheel was the key-note speaker. His presentation was a comprehensive overview on today’s environmental sustainability scenario, vis-à-vis the future and image of chemical industries and laboratories, definition and scope of Green Chemistry and the opportunities that exist for students and research scholars to be ahead of mapping their green chemistry, practice of implementation along with a few a case studies.



Prof. Syed Akheel Ahmed, former vice-chancellor, Yenepoya University, Mangalore is seen inaugurating the state level seminar on ‘Green chemistry for sustainable future’. Rev.Fr.Leslie Moras, Rector, Dr. Ruth Shantha kumari, Principal, Ms.Renita Ross, Fr.Bernard Prakash , Vice-Principal, Dr. Alphonsus D’Souza, HOD of Chemistry, Ms.Lydiya Vandana, HOD of Biochemistry are also seen. A section of the audience attending the seminar is also seen in the second photograph.

Addressing a packed Auditorium occupied by students, research scholars and faculty of chemistry and Bio-chemistry, Prof. Ahmed gave a broad explanation of the whole idea that swirls with ‘Green Chemistry’.

Pointing out that Green Chemistry is the design of chemical products and processes that reduce or eliminate the use or generation of hazardous substances; he said that Green Chemistry applies across the life cycle of a chemical product, including its design, manufacture, use and ultimate disposal.

Highlighting that the three components viz. chemistry, chemicals and chemists are the major causes of pollution, because of which the very existence of life on earth is endangered, Prof. Ahmed said that Green chemistry helps in keeping hazardous materials out of the environment in the first place. He added that with the advancement of Green Chemistry, a green path which can lead to meet the need of the contemporary threatening issues be overcome.

Emphasizing on the need to address the problem of pollution, Prof. opined that if a technology reduces or eliminates the hazardous chemicals used to clean up the environmental contaminants, the technology would certainly qualify as a 'Green Chemistry Technology'.

The presentation included a very lucid introduction to the 12 principles of Green Chemistry.

Prof. Ahmed's address was equally technically insightful and with several examples that can serve as instant 'tip-off' for the students and research scholars including the faculty in addressing some of their immediate environmental and effluent challenges.

Earlier, Dr.T.Ruth Shantha Kumari, Principal of the college, in her address, highlighted the importance of Green Chemistry in day-today's life. Rev.Fr.Leslie Moras, Rector of the college, who presided over the function, expressed his hope that this seminar would have a positive impact on the academic atmosphere and also widen the horizon of students. Dr. Alphonsus D'Souza, HOD of Chemistry, welcomed the guests, Ms Agnes S. D'Souza, Associate Professor, Dept. of Chemistry introduced the guest Prof. Syed Akheel Ahmed and Ms. Lydiya Vandana, HOD of Bio-Chemistry proposed a vote of thanks.

In the first session, Dr.A.S.Prakash, senior scientist, CECRI, Chennai, spoke on the subject 'Cleaner and Greener Technologies for energy storage'. He said that with the continued use of petrochemical and renewable resources which would last only a few decades ahead, the hunt is on for cheaper batteries which are able to store large amounts of energy and deliver it. Research is advancing in the direction of potentially cheap, energy packing batteries in a cleaner and in a greener way, he added.

Dr.Dattatri K. Nagesha, Head, Dept. of Pharmaceutics, JSS University, Mysuru made the second presentation with enough details about 'Green Chemistry for the synthesis of Nano-materials'. Through his power point presentation, Dr.Dattatri pointed out that the application of the 12 principles of Green Chemistry in nano particle synthesis is a relatively new emerging issue concerning the sustainability. This field has received great attention in recent years due to its capability to design alternate, safer, energy efficient and less toxic routes towards synthesis.

In the post-lunch session, Dr. Dattatri Nagesha spoke on 'Bio-Medical Applications of Green Chemistry'. This talk was about the design and fictionalization of nano-composite materials for biological and chemical applications. He said that Green Chemistry would play an important role in the advancement of Nano-Technology.

In the fourth and the last session of the day, Dr.A.S.Prakash spoke on the subject 'Sodium ion batteries for efficient energy storage'. Stressing on the need for using the latest and much advanced technology, Dr.Prakash said that Lithium-ion batteries are the standard power source for electronic equipments. But Lithium is neither economic nor available in plenty, making Li-ion batteries impractical for larger applications such as storing wind and solar power on a larger scale. But sodium-ion batteries are promising low cost alternatives for such storage, but the ones

made so far suffer from low energy density, short battery life and safety concerns. Yet, they are better substitutes than Li-ion, he said.



Technical session by Dr A S Prakash on ‘Cleaner and Greener Technologies for energy storage’ and the second Photograph shows Dr Dattatri Nagesh delivering his technical session on ‘Green Chemistry for the synthesis of Nano-materials’

The valedictory session was held at 4pm with both resource persons as the guests. Fr.Leslie Moras, Rector, presided over.

Mary Angelia Alfred and Pearl Saldanha, both students of final year B.Sc compeered the entire day’s proceedings. Miss Noelin Renita Ross, the organizing secretary proposed a vote of thanks.

The seminar was sponsored by University Grants Commission under the scheme ‘College of Excellence’