



St. Philomena's College

Autonomous College of University of Mysore
Reaccredited by NAAC with 'A' Grade (3.58CGPA)
A College of Excellence (UGC)

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Report of Two Day National Conference on “Nuclear Energy in India – A Boon or Bane” held on 29th & 30th March 2016 at St. Philomena’s College



Shri.K.C. Guha, Project Director BARC Mysore is seen lighting the lamp to inaugurate the conference at St. Philomena’s College in city recently. From left - HOD of UG Chemistry Dr. Alphonsus D’Souza, Convenor Prof. Othbert Pinto, Rector Fr. Leslie Moras, INS President Sri. M.R. Srikanthan, Administrator Msgr. Dr. N. S. Marie Joseph, Former Director IGCAR Kapalkkam Dr. D.V. Gopinath, HOD of Biochemistry Mrs. Lydia Vandana & Principal Prof. M . Krishnegowda look on.

The UGC sponsored two day National Conference on “**Nuclear Energy in Indian – A Boon**” was held at St. Philomena’s College by the Department of Chemistry in

association with Indian Nuclear Society (INS), Mysore Chapter on 29th & 30th March 2016 in the college auditorium.

The Conference was aimed to spread the message to people to remove the misconceptions they have regarding Nuclear Energy and to bring awareness of its role on Health, Environment, Agriculture & Power.

The INS Mysore Chapter had arranged an exhibition on the application of Nuclear Energy. The exhibition was inaugurated by the College Administrator Msgr. Rev. Dr. N.S. Marie Joseph. The dignitaries went round the exhibition and were delighted to know the useful applications of the Nuclear Energy. The exhibition was kept open for the public and students. More than 1500 people visited the exhibition. Twelve volunteers from BARC Mysore explained to the visitors the various applications of Nuclear Energy that being implicated by BARC.

Rev. Fr. Leslie Moras, Rector welcomed the gathering and in his welcome address congratulated BARC and INS for taking the awareness of Nuclear Energy for peaceful purposes to the public by organizing conferences and exhibitions. He requested the participants to spread this message to the people whom they come across to remove the misconceptions the public have regarding the Nuclear Energy.

The conference was inaugurated by the Chief Guest Shri. K.C.Guha, Project Director, BARC, Mysore. Shri. K.C.Guha in his address enlightened the participants as to why India needs Nuclear Energy and how other countries have become super powers by making use of Nuclear Energy. He explained the participant that the Nuclear Energy is pollution free and environmental friendly as it does not leave any gases to the atmosphere where as thermal and hydro power plants pollute the environment and destroy the forestation. He concluded that the Nuclear Power Plant can supply uninterrupted electricity to the nation.

While delivering the keynote address Dr.D.V.Gopinath, Former Group Director, Health, Environmental and Biomedical Group, Indira Gandhi Centre for Atomic Research, Kalpakkam, Tamil Nadu, put forward the various aspects wherein the Nuclear Energy is preferred over the other sources because it is totally pollution free and the nuclear waste it leaves is insignificant wherein compared to the thermal plants and other sources of energy.

Msgr. Rev. Dr. N.S. Marie Joseph in his Presidential remark congratulated the Chemistry Department and the INS for organizing the conference and briefly explained how the energy crisis is overcome in developed countries by using Nuclear Energy and appreciated the steps taken by BARC to fill the energy gap by using nuclear energy and at the same time educating the people about its application by removing the misconceptions from the mind of the public by organizing symposia and exhibitions.

The Conference speakers highlighted various aspects of Nuclear Energy.

Dr. K. Devan, Head, Reactor Neutronics Division, IGCAR, Kalpakkam, Tamilnadu spoke on the topic “Basic Knowledge of Nuclear Power Plant” wherein he focused on the utilization of limited natural uranium and the abundant thorium. The basic nuclear physics and the reactor physics aspects required to understand the working principle of thermal and fast reactors are briefly highlighted.

Dr. T K Bera, Raja Ramanna Fellow and Former Project Director, BARC, Mysuru spoke on the topic, “Comparison of other sources of energy with Nuclear Energy” wherein he discussed on how fusion energy which is another form of nuclear energy acts as the primary energy source for the whole universe and how renewable sources and nuclear energy are going to play increasingly important roles in the energy mix of India in the years ahead.

Dr. Karunakara, Professor and Research Adviser, Mangalore University spoke on the topic, “Environmental status in Karnataka with respect to Nuclear installations sites” wherein he briefed about the extensive studies has been carried out on radiation levels, radionuclides distribution, and transfer of radionuclides through terrestrial, aquatic and atmospheric pathways in the environment of West Coast of India.

Dr. K.K Swain, Scientific Officer, Analytical Chemistry Division, BARC, Mumbai, spoke on the topic, “Nuclear Analytical Techniques and Forensic Science” wherein he discussed how Nuclear analytical techniques are suitable for measuring trace components in a wide variety of matrices including forensic sample and gunshot residues analysis.

Dr. S. Kannan, Head, Fuel Chemistry Division, BARC, Mumbai, spoke on the topic, “Challenges in Analysis of Nuclear Materials” wherein he focused on three fundamental principles behind the analytical chemistry of nuclear materials such as separation, quantification and applications using new techniques.

Dr. C.P.Kaushik, Chief Superintendent, Waste Management Division and Prof. in Chemistry, HBNI, on the topic, “Nuclear Waste Management” wherein he discussed on innovative extracts that has been developed, demonstrated and deployed for separation/recovery of useful isotopes present in the waste, radioactive liquid waste has thus become a useful by-product/science rather than a hazardous waste.

Dr. N. Ramamoorthy, Associate Director International collaboration and technical coordination, BARC, Mumbai, spoke on the topic, “Nuclear Medicines and Application”. He explained how the nuclear science and related technologies deliver considerable benefits to society, especially in the area of health care. He briefed about how Radionuclide therapy (RNT) helps to treat patients every year in India using radiopharmaceuticals.

Mr. Veeresh Kumar, Officer in Charge, Research & Development Division, BARC, Mysuru made a presentation regarding the job opportunities in the department of Atomic Energy and how to apply and what are the modalities. The Panel discussion session was chaired by Dr. D.V. Gopinath.

The conference concluded with valedictory function. Mrs. Lydia Vanadana Welcomed, Ms. Asha M S Coordinator read out the report of the conference, Dr. T. K. Bera former Director, BARC Mysuru, delivered the Valedictory Address, Prof. M. Krishnegowda gave his Presidential Address and Prof. Othbert Pinto proposed the Vote of Thanks.

Thirty research papers were presented in the conference. In the oral and poster presentation of research papers, Mr. P.S. Ganesh and Mr. N. B. Ashoka, Research Scholars, Dept of PG Studies and Research Industrial Chemistry, Kuvempu University, Shimoga won the first prize of Rs. 2000/- each respectively.

The conference programme was compered by Ms. Preetha D'Souza, Assistant Professor, PG Dept of Chemistry and Ms Angelina, Ms Srinidhi & Ms Supria of chemistry students. More than 300 participants attended the conference comprising of Research Scholars, Teachers and Students from different colleges in and outside Mysuru.

Coordinator

Convener