

# Chandigarh Region Innovation and Knowledge Cluster (CRIKC)

## Annual Report 2015-2016

The year saw further consolidation of core CRIKC activities, e.g., initiation of international collaborations, organizations of lectures, seminars, conferences as well as initiation of collaborative research projects etc. The free shuttle bus service connecting all the CRIKC institutions around Chandigarh continued its unhindered run successfully. In fact, these shuttle buses have become the preferred mode of conveyance during the organization of various seminars and conferences by various CRIKC institutions. During the year, the CRIKC also acquired a formal shape in the form of registered society headquartered in Panjab University, details in this regard are present on the website of CRIKC. Details of the salient activities carried under CRIKC are available at the website [crikc.puchd.ac.in](http://crikc.puchd.ac.in), a summary of the same is as follows.

- a) The first [CRIKC NanoScience Meeting](#) was held at INST on 17<sup>th</sup> April 2015 in the presence of Prof. Arun Grover, Vice Chancellor, Panjab University & Chairman, CRIKC. The CRIKC's mission to foster and sustain close academic alliances between institutions of higher education and research in the Chandigarh region a Nanoscience group has been created. The mission of the Nanoscience group is to bring together related researchers and scientists from all institutes in and around Chandigarh working in the field of nano science and technology under the same umbrella for effective exchange of ideas and establish sophisticated research facilities for multi-institutional use in the tri-city area and nearby places. The other objective is to organize joint conferences and seminars for effective interaction between the researchers from diverse backgrounds. Based on these discussions, Institute of Nano Science and Technology, Mohali organized "1<sup>st</sup> CRIKC Nanoscience Day" on 21<sup>st</sup> July, 2015 in Mohali.



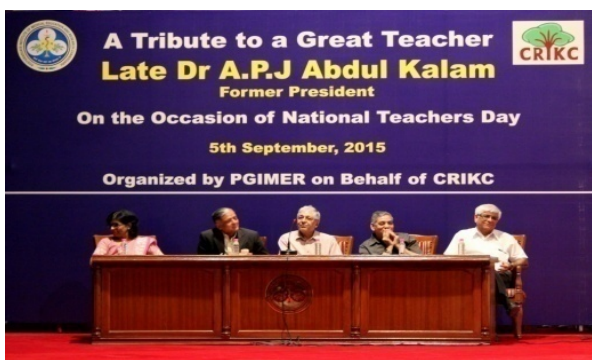
## **CRIKC Nanoscience Day** *First Annual Meeting of CRIKC Nanoscience Group*

**21<sup>ST</sup> JULY, 2015**

**INSTITUTE OF NANO SCIENCE AND TECHNOLOGY (INST)**

**An Autonomous Institution Supported by Department of Science and Technology, Govt. of India**

- b) PGIMER, on behalf of CRIKC institutions on September 05, 2015 organized a function to celebrate Teachers Day as [a tribute to the former Presidents of India](#), Dr APJ Abdul Kalam and Dr. Sarvepalli Radhakrishnan. PU Vice Chancellor (VC) and Chairperson of CRIKC, Prof Arun Kumar Grover, former PGI Director, Dr KK Talwar, Director PGI Dr. Yogesh Chawla, Dr. J.M. Dave from Swaminarayan Akshardham, Dean PGI Dr Savita Malhotra and Heads of CRIKC institutions addressed the function. Prof Grover said that Dr Kalam epitomized rare blend of spiritualism, scientific temperament, nationalism and human values. He made phenomenal contribution to India's missile program, which earned him the nick name of 'Missile Man of India'. Dr. Talwar described Dr Kalam as a great man and great human being. He recalled the Dr. Kalam's visit to PGI and his meeting with him.



- c) [XXXIII Annual Conference of Indian Academy of Neurosciences](#) on the theme 'Neuroscience Research from Mechanisms to Applications' from October 31 to November 2, 2015 was organized by Panjab University (PU), Chandigarh and PGIMER along with combined effort of all the CRIKC Institutes. Dr. Vinal Kumar Khanna (Secretary of the Academy), Dr. Pankaj Seth (General Secretary of the academy) and Dr. Subrata Sinha (President of the Academy) addressed the benefits of vibrant neuroscience discussions among the galaxy of Neuroscientist. Neurologist at the Department of Neurology, PGIMER, Chandigarh Dr. Vivek Lal presented thanks giving note to the Chief guest for his presence in the event.

- d) A MoU was signed between University of Birmingham (UoB) and Panjab University (PU) on behalf of CRIKC institutions in New Delhi on December 08, 2015. The MoU was aimed in promoting PU towards excellence in research, providing opportunities for exchange visits by faculty and students and, in particular, to strengthen PU efforts in fostering Industry academia interaction, area in which UoB is known for.



As a follow up of this effort on March 11, 2016, a MoU was signed between University of Nottingham (UoN) and Panjab University (PU) on behalf of CRIKC institutions covering all aspects of academic life.

- e) Nobel Laureate Sir. Venkatraman Ramakrishnan visited CRIKC Institutions. During his visit, he addressed INSPIRE camp (Class XI) at IISER, Mohali and talked about the Antibiotics and the Cell's Protein Factory on 4<sup>th</sup> Jan 2016. He also delivered a Public Lecture at IISER, Mohali on “One Hundred Years of Visualizing Molecules” on the same day. A Public Lecture at Panjab University Chandigarh was also delivered by him on the occasion of Inauguration of DST Inspire Internship Program @ PU "On Nobody's Word: Evidence and Modern Science” on 5<sup>th</sup> Jan 2016. He visited PGIMER, Chandigarh and Interacted with Faculty & Students and gave a lecture at INST-Mohali on “Use of Recent Developments in Electron Microscopy to Study RIBOSOME Structure” on 5<sup>th</sup> Jan 2016.



- f) 18<sup>th</sup> Chemical Research Society of India (CRSI) National Symposium in Chemistry was organised by Panjab University and Institute of Nano Science and Technology (INST) at PU from February 5 to 7, 2016. Around nine hundred national and international delegates participated in the symposium. Noted Scientist, Bharat Ratna Prof CNR Rao, Prof. J. Paul from University of Edinburgh (UK), Prof Devarajan Thirumalai from University of Maryland (USA) and Prof *Toshiaki Enoki* from Tokyo Institute of Technology, Tokyo (Japan) were the key speakers in the mega event. Many renowned scientists from abroad like Japan, USA, UK discussed the future progress and achievements of chemical Sciences on the second day of the symposium.





- g) International Conference of ‘NanoSciTech 2016’ was organized at Panjab University (PU) from 1<sup>st</sup> Feb 2016. The three day conference was organized on the theme of “Improving Quality of Life using Nanotechnology: Potential Role of Polymers”. The inaugural address was delivered by Prof N. Sathyamurthy, director IISER Mohali, and Prof A. K. Ganguli, Director INST Mohali and Prof Arun Kumar Grover, PU Vice Chancellor were the key delegates at the conference. The inaugural plenary lecture was delivered by Prof. A. K. Ganguli, where he emphasized on the anisotropic and core/shell nanostructures in water splitting, photocatalysis and photovoltaics. Prof. M. K Sachdeva (FAMU, USA) also delivered the talk on applications of nanocarriers as novel carriers for dermal drug delivery.



- h) One day Industry Academia Interaction Program (IAIP) was organized by Department of Chemistry on 27<sup>th</sup> Feb, 2016. Prof. Ian A. Cliffe, Vice President and head of Daiichi Sankyo India Pharma Pvt. Ltd was the key guest along with Dr. Yogesh Munot from Advinus Therapeutics Pvt. Ltd Pune and Sreeji Nair, IP professional from GeneriCo. Pharma, Bengaluru. Prof. Ian discussed various job opportunities available to chemistry students and how to prepare to achieve them. Dr. Deepak Salunke, from Department of Chemistry PU Chandigarh was the coordinator of the above event.



- i) Three days long [CHASCON](#) (February 29<sup>th</sup> – March 2<sup>nd</sup>, 2016) was organized by PU and CRIKC institutions on the theme of “Integrated Approaches in Advancement of Science”. As many as 1500 academicians, scientists and researchers from various institutions and industrial houses from Chandigarh region and various other parts participated. Prof. R. K. Kohli, Vice Chancellor, Central University of Punjab delivered the valedictory lecture. Prof Kohli motivated the students to adopt the sciences as a career.

- j) [First International Workshop](#) on “Amphiphilic Molecules and Self Assembly: Principles and Applications”- (22<sup>nd</sup> March, 2016 – 28<sup>th</sup> March, 2016) an event under Global Initiative of Academic Networks (GIAN), MHRD Govt. of India under the aegis of CRIKC was organized at the Department of SAIF/CIL, Panjab University. The course coordinator of GIAN and the Director of CIL, Prof S.K. Mehta welcomed the participants and elaborated upon the GIAN. He also mentioned that PU other proposals have also been approved under GIAN. The Foreign Guest Faculty, Prof Michael Gradzielski from Technical University Berlin, Germany, explained the students about the course of the workshop and the dynamic importance of amphiphiles in multidisciplinary fields. He thanked the organizers and Govt of India for such an opportunity. Vice Chancellor, Prof. Arun Kumar Grover encouraged the participants and mentioned GIAN to be an avatara of 1904 programme where foreign researchers used to share and exchange ideas with Indian researchers for the upliftment of Education in India. He thanked Smt. Smriti Zubin Irani –our HRD Minister for providing resources and initiating such programmes for tapping the scientific intellect in institutes of Higher Education in India.



- k) Interaction with Mr. Parimal Rai, Advisor to UT administrator was planned to give an overview of CRIKC activities at Chandigarh region on April 09, 2016. Total 27 members attended the meeting representing several institutions. Prof. A. K. Grover, Chairman CRIKC & Vice chancellor Panjab University (PU) outlined that CRIKC would endeavor to foster and sustain close academic alliances between institutions of higher education and research in the Chandigarh region, to facilitate innovation and knowledge creation and for achieving excellence in all academic spheres. The advisor to UT administrator, Mr. Parimal Rai appreciated the creation of CRIKC and encouraged promoting entrepreneurial activities. He mentioned that the students should be trained to become job creators than job seekers. Mr. Rai mentioned the role of UT administration in creating a triangle of academia, industry and financial aspects to realize innovative ideas of entrepreneurs. The meeting ended with a vote of thank and special appreciation for the advisor who showed keen interest to know about the CRIKC activities.



- l) A one day Industry-Academia interface at PU on 28<sup>th</sup> April, 2016 was organized. Dr. Girish Sahni, DG CSIR, Prof. A. K. Grover, VC PU Chandigarh, Prof. Sarit Kumar Das, Director IIT Ropar, Prof Rupinder Tewari and Prof A. K Puri discussed various benefits of industry academia collaboration and possibilities to enhance the output for the benefit of Chandigarh region institutes. Finally a copy of brochure was released by the present guest members.
- m) 11<sup>th</sup> May 2016, was celebrated as the *National Technology Day* to commemorate the success of the nuclear explosion (Operation Shakti) carried out on that day in 1998. In the accusation of the above event, various CRIKC institutes organized series of important events. A technology day public lecture was organized jointly by IISER Mohali and PEC Chandigarh on 12<sup>th</sup> May at IISER Mohali. The guest lecture was delivered by Prof. Indranil Manna J. C. Bose Fellow & Director, IIT Kanpur. On May 14, at PU campus a public lecture was delivered by Prof. N. Sathyamurthy describing the historical developments of IISER Mohali. On the same day a MoU was signed by PU and Future HiTech Batteries for future collaboration and research.
- n) A General Body Meeting of the CRIKC Members at PU was held on 18<sup>th</sup> June 2016. In order to promote the research & training activities related to higher education and to facilitate mutual sharing of available academic resources, CRIKC institutions have formed the CRIKC society. Panjab University (PU) Vice Chancellor Prof Arun Kumar Grover became the President of the CRIKC Society. Director PEC Dr. Manoj Arora was elected as the Vice President of the society. It was decided that Dr. Manmohan Gupta, Professor of Physics (retired) PU, Dr. S. K. Mehta, Director SAIF/CIL and Professor of Chemistry PU and Dr. Deepak B. Salunke, Assist. Prof. of Chemistry, PU Chandigarh respectively will be the Secretary, Joint Secretary and Treasurer of the Governing Body.



