



**CRIKC**



# CHANDIGARH REGION INNOVATION AND KNOWLEDGE CLUSTER (CRIKC)

Since 2013

<http://crikc.puchd.ac.in>



Panjab University



PGIMER, Chandigarh



PEC, Chandigarh



IISER, Mohali



IIT Ropar



IMTECH, Chandigarh



NIPER, Mohali



CSIO, Chandigarh



INST, Mohali



ISB, Chandigarh



NABI, Mohali



CIAB, Chandigarh



NITTTR, Chandigarh



TBRL, Chandigarh



SASE, Chandigarh



GMCH, Chandigarh



CCET, Chandigarh



PSCST, Chandigarh



CDAC, Mohali



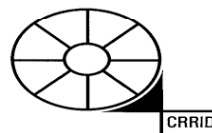
DIHAR, Chandigarh



SCL, Mohali



IDC, Mohali



CRRID, Chandigarh



Rayat-Bahra, Mohali



Chitkara University



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<b>Panjab University (PU)</b> Sector 14, Chandigarh 160014, India	<b>Postgraduate Institute of Medical Education &amp; Research (PGIMER)</b> Sector-12, Chandigarh - 160 012, India
<b>Punjab Engineering College (PEC) University of Technology</b> Sector -12, Chandigarh- 160012, India	<b>Indian Institute of Science Education &amp; Research (IISER Mohali)</b> Knowledge city, Sector 81, SAS Nagar, Manauli-140306, India
<b>National Institute of Technical Teachers Training &amp; Research (NITTTR)</b> Near Blind Institute, Sector 26, Chandigarh-160019, India.	<b>CSIR-Central Scientific Instruments Organization (CSIR-CSIO)</b> Sector 30C, Chandigarh-160030, India
<b>National Institute of Pharmaceutical Education and Research (NIPER)</b> Sector 67, S.A.S. Nagar, Mohali-160062, Punjab, India	<b>Institute of Microbial Technology (IMTECH)</b> Sector 39A, Chandigarh – 160036, India
<b>Indian Institute of Technology Ropar (IIT Ropar)</b> Nangal Road, Rupnagar, Punjab – 140001, India.	<b>Government Medical College &amp; Hospital (GMCH)</b> Sector 32, Chandigarh-160030, India
<b>Institute of Nano Science and Technology (INST)</b> Habitat Centre, Phase- 10, Sector- 64, Mohali, Punjab – 160062	<b>Terminal Ballistics Research Laboratory (TBRL)</b> Defense Research and Development Organization (DRDO), Chandigarh
<b>National Agri-Food Biotechnology Institute (NABI)</b> C-127, S.A.S. Nagar, Phase 8, Mohali-160071, Punjab, India.	<b>Indian School of Business (ISB)</b> Knowledge City, Sector 81, SAS Nagar, Mohali, Punjab – 140306, India.
<b>Snow &amp; Avalanche Study Establishment (SASE)</b> Defense Research and Development Organization (DRDO), Chandigarh	<b>Center of Innovative and Applied Bioprocessing (CIAB)</b> SAS Nagar, Mohali-160071, Punjab, India
<b>Chandigarh College Of Engineering &amp; Technology (CCET)</b> Sector-26 , Chandigarh 160019, India.	<b>Defense Institute of High Altitude Research (DIHAR)</b> Defense Research and Development Organization (DRDO), Chandigarh
<b>Semi-Conductor Laboratory (SCL)</b> Sector 72, S.A.S. Nagar, Mohali - 160 071, Punjab, India	<b>Institute of Development and Communication (IDC)</b> Sector 38-A, Chandigarh - 160014, India.
<b>Centre for Development of Advanced Computing (C-DAC)</b> A-34, Industrial Area, Phase VIII, Mohali, Chandigarh - 160 071, India.	<b>Punjab State Council for Science &amp; Technology (PSCST)</b> MGSIPA Complex, Adjacent Sacred Heart School, Sector-26 Chandigarh
<b>Centre for Research in Rural and Industrial Development (CRRID)</b> Sector 19-A, Madhya Marg, Chandigarh - 160 019, India	<b>Rayat-Bahra University</b> V.P.O. Sahauran, Tehsil Kharar, Distt. Mohali-140104, Punjab, INDIA.
<b>Chitkara University</b> Chandigarh-Patiala National Highway (NH-64), Punjab - 140 401, India	



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## **Chairman CRIKC**

**Prof. Arun K. Grover**

Vice Chancellor Panjab University

## **co-Chairman**

**Prof. Manoj K. Arora**

Director PEC

## **Coordinators**

**Prof. M. M. Gupta**

Dept. of Physics, Panjab University

**Prof. S. K. Mehta**

Professor of Chemistry & Director  
SAIF/CIL Panjab University

## **ABOUT CHANDIGARH REGION INNOVATION AND KNOWLEDGE CLUSTER**

CRIKC represents a Cluster of Chandigarh Region Institutions to Promote & Sustain Excellence in Research. Its Mission Statement is to foster academic alliances between institutions of higher education & research in this region, to facilitate innovation & knowledge creation, achieving excellence in all academic spheres without compromising the autonomy of participating institutions. It aims to carry out joint & collaborative research projects, to initiate joint teaching/training programs, to encourage pooling of research facilities, to promote & sustain the following themes for excellence in research: Biomedical Sciences, Applications of Nanoscience & Nanotechnology, Theoretical Studies, Policy Planning for better comprehension of GOI programs & societal needs.



## EVOLUTION, CONCEPT & MOTIVATION

**21<sup>st</sup> century** - Innovation and Knowledge creation are the key drivers of development. The competitiveness of any country is getting judged by its knowledge resource generation

**To accelerate development of India**, it is imperative that high impetus be given to policies and actions which stimulate innovations, address contemporary issues tuned specifically to ameliorate the problems being faced by our country

**Science, Technology and Innovative (STI) Policy** of GOI refers to clusters/hubs as tools for innovation and knowledge creation

**The idea of forming Knowledge Cluster/hub** is also enshrined in the report entitled 'Corporate Participation in Higher Education' submitted to the GOI in April 2012

**National Knowledge Network (NKN)** of GOI facilitates networking for promotion of excellence in educational and research institutions

**Chandigarh provides an ideal location** for nucleating a knowledge cluster as large number of well established Higher Education & Research institutions are located within a radius of 10 Kms

**Most of these institutions are renowned nationally and internationally** for their contributions towards higher education and research with continuously increasing list(s) of eminent alumni



## CHANDIGARH REGION INSTITUTIONS

- **Educational:** PU, PEC, IISER, NIPER, ISB, NITTTR
- **R&D Lab:** CSIR-CSIO, CSIR-IMTECH, DST-INST, DBT-NABI, CIAB, DRDO-TBRL, SASE, DIHAR, ISRO-SCL
- **Medical:** PGIMER, GMCH
- **Engineering:** CCET, IIT-Ropar
- **Industry:** Baddi (H.P.), CII (North) HQ at Chandigarh.

### CHANDIGARH REGION IS RICH IN INTELLECTUAL RESOURCES:

Over 50 Fellows (INSA, NASI, IASc, NAE) along with several Bhatnagar Laureates, J. C. Bose Fellows, Inspire Faculty, UGC-FRPs, Ramanujan and Ramalingaswami Fellows and more than 500 active scientists

Chandigarh Science Congress (CHASCON), National/International Conferences/WKSP/Seminars are frequently organized by CRIKC Institutions

Chandigarh apart from being well planned is also well connected by Road and Air

CRIKC would endeavor to foster and sustain close academic alliances between these diverse institutions of higher education and research in the Chandigarh region, to facilitate innovation and knowledge creation and for achieving excellence in all academic spheres without compromising in any manner the autonomy of any of the participating institution





## **CRIKC ACTIVITIES:** **GOALS ACHIEVED AND FUTURE PLANS**

### **Key CRIKC Activities (2013-2016)**

- **Creation of CRIKC website with a directory of active Scientists in the Chandigarh region.**
- **Free shuttle service connecting CRIKC institutions for Scholars and Faculty.**
- **Sharing of library resources and seamless access to the laboratory facilities.**  
**Infrastructure in many CRIKC institutions is ICT ready for knowledge sharing through digital media at Teaching and Learning, Research & Development levels.**
- **Each institute is acting like a virtual learning centers to the population of city.**
- **Framing of common syllabi and sharing of academic resources.**
- **Lecture notifications amongst different institutions and holding of colloquia and lectures by eminent personalities.**
- **Holding joint Seminars, Conferences, Technology/Science day, Annual Chandigarh Science Congress, jointly hosting national and international events.**
- **Several GOI programs: GIAN, RUSA, etc. being jointly implemented.**
- **CRIKC as a single window for outside agencies for promotion of academic/research activities.**
- **Initiation of Industry-Academia interaction.**



## **CRIKC ACTIVITIES:** **GOALS ACHIEVED AND FUTURE PLANS**

### **Target activities of CRIKC:**

- **Joint PhD programs including common Pre-PhD courses**
- **Strengthening of entrepreneurship and startup ecosystem through a Industry-Academia Interaction**
- **Creation of Research Based Sub-Clusters (Medical, Industrial, Nano-technology, Physical Sciences, Chemical Sciences, etc.)**
- **Setting up of Centre for Theoretical Studies and Policy Planning**
- **Initiation of multidisciplinary research programs for societal benefits (Smart city, Solid waste management, etc.)**
- **Create/provide facilities to attract faculty members from abroad to spend sabbatical leave period in CRIKC institutions.**
- **Creation of infrastructure for international students, inspire fellows and GIAN participants, etc. as an integrated facility to support all CRIKC institutions so as to internationalize the innovation, research and development at Chandigarh region.**
- **New and innovative schemes to attract talent, in particular, Inspire Faculty and Post Doctoral Fellows to choose CRIKC institutions as hosts to initiate new programs.**

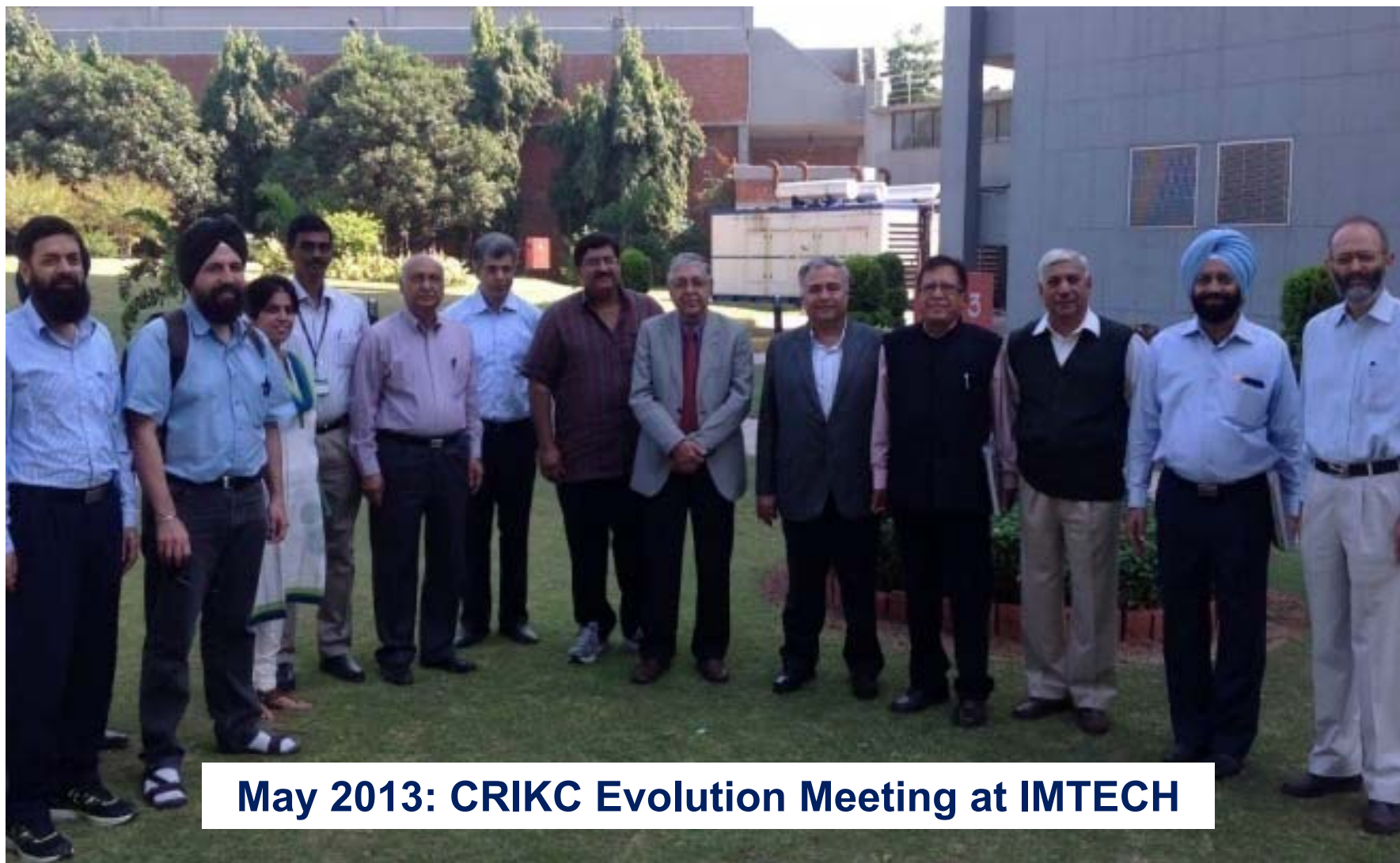




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**May 2013: CRIKC Evolution Meeting at IMTECH**



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**Feb. 19, 2015: CRIKC Buses Flagged off from PU Campus**



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**July 21, 2015: CRIKC Nanoscience Day at INST**



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## **A Tribute to a Great Teacher** **Late Dr A.P.J Abdul Kalam**

**Former President**

**On the Occasion of National Teachers Day**

**5th September, 2015**

**Organized by PGIMER on Behalf of CRIKC**

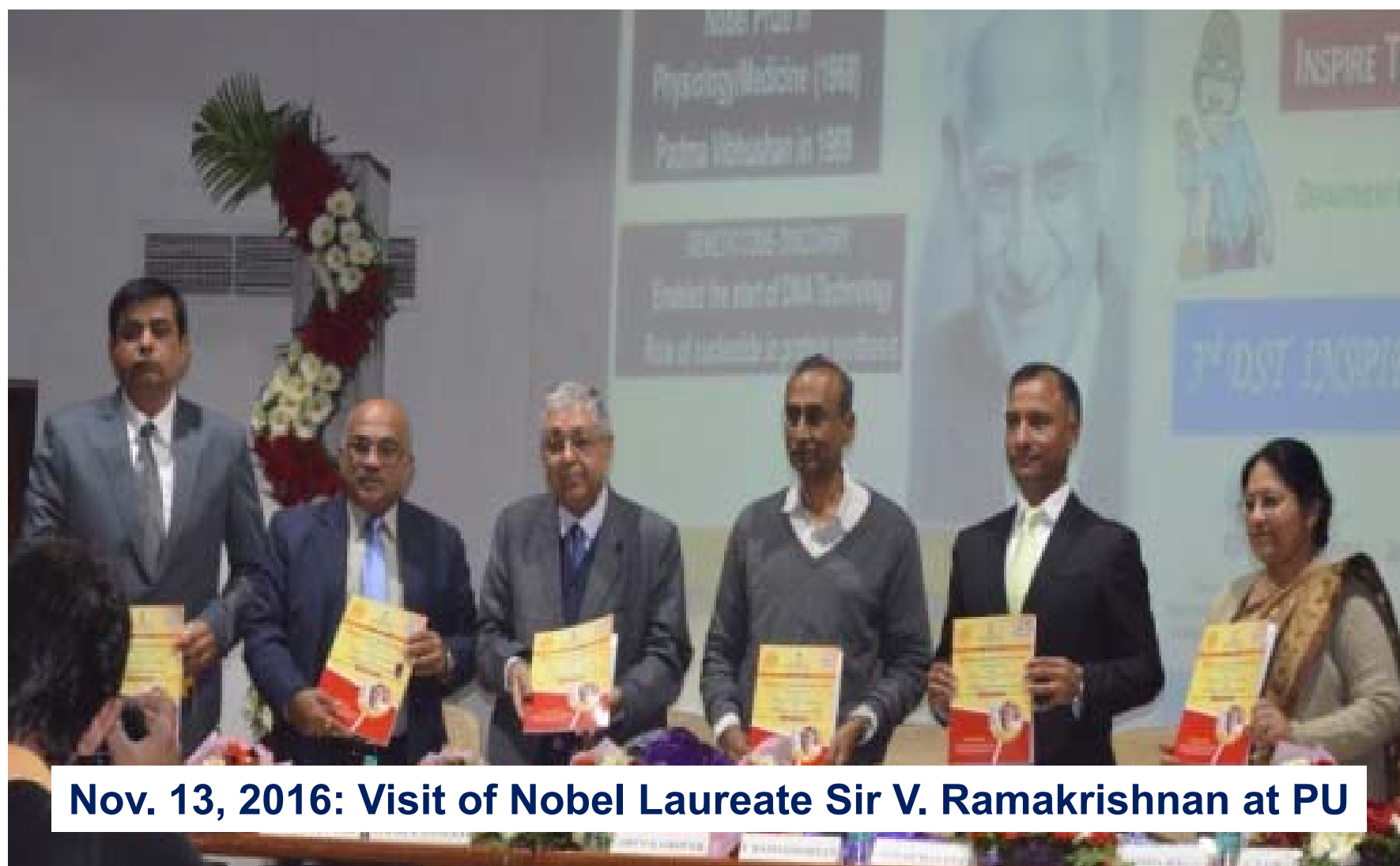




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**Nov. 13, 2016: Visit of Nobel Laureate Sir V. Ramakrishnan at PU**





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**March 22-28, 2016: 1<sup>st</sup> GIAN Workshop at PU Chandigarh**



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**August 30, 2014: Visit to Nottingham, UK**





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**March 12, 2015: PU & UoN signed MoU at New Delhi**



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**Australia-India Scientific Research Foundation at IISER Mohali**



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**April 09, 2016: Mr. Parimal Rai interaction with CRIKC at IMTECH**





# CRIKC General Body Meeting to Finalize Rules and Regulations of CRIKC Society

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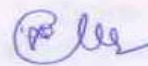


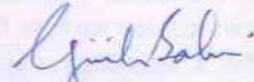
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(Prof. Arun K. Grover)  
Vice Chancellor  
P.U., Chandigarh

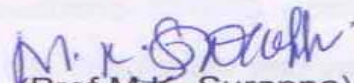
  
(Prof. Y.K. Chawla)  
Director, PGIMER


  
(Dr. Girish Sahni)  
Director, IMTECH

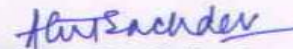
  
(Prof. N. Sathyamurthy)  
Director, IISER


  
(Prof. K.K. Bhutani)  
Director, NIPER

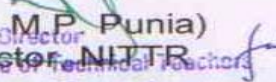
(Dr. Rajesh Chakrabarti)  
Executive Director, ISB

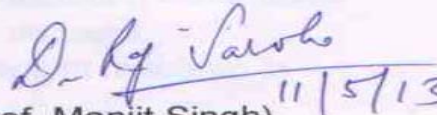
  
(Prof. M.K. Surappa)  
Director, IIT Ropar

  
(Prof. Manoj Datta)  
Director, PEC Institute of  
Technology

  
(Prof. Atul Sachdev)  
Director Principal, GMCH

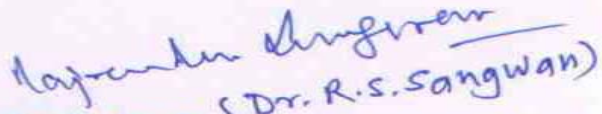
  
(Dr. Rakesh Tuli)  
Executive Director, NABI

  
(Prof. M.P. Punia)  
Director, NITRR  
National Institute of Technical Teachers  
Training and Research  
Sector-26, Chandigarh-160 019

  
(Prof. Manjit Singh)  
Director, TBRL

(Prof. Ashok Ganguli)  
Solid State and Nano material Research  
Lab

(Prof. Girish Sahni)  
Director, CSIO

  
(Dr. R.S. Sangwan)  
मुख्य अधिशासी अधिकारी  
Chief Executive Officer  
जैव प्रसंस्करण यूनिट, मोहाली  
Bio Processing Unit, Mohali





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**August 12, 2016: Visit of Prof. Hardev Singh from Haydn Green  
Institute of Innovation and Entrepreneurship**





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**July 27, 2016: A Visit of Australian High Commissioner to know  
about CRIKC activities**





# CRIKC National Technology Day

<http://crikc.puchd.ac.in>

## Institution Building: The Case of IISERs



**Prof. N. Sathyamurthy, Founder Director**  
Indian Institute of Science Education & Research (IISER), Mohali



## USEFUL LINKS about CRIKC Activities

1. <http://crikc.puchd.ac.in/>
2. <http://cpr.puchd.ac.in/>
3. <http://www.inst.ac.in/CRIKC.php>
4. <http://pec.ac.in/~pecac/new/pec-signatory-to-innovation-knowledge-cluster-crikc-11th-may-2013/>
5. <http://www.tribuneindia.com/news/chandigarh/education/crikc-institutions-urged-to-focus-on-entrepreneurship/220346.html>
6. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4117101/>
7. <http://www.dailypost.in/regions/chandigarh/49966-crikc-institutions-described-as-an-impressive-arrangement>
8. <http://europepmc.org/articles/PMC4627195/>
9. <http://www.dailypioneer.com/state-editions/chandigarh/ut-adviser-asks-crikc-institutions-to-focus-on-imparting-entrepreneurship-skills.html>
10. <http://punjabnewsexpress.com/punjab/news/crikc-is-an-impressive-arrangement-says-australian-dy-high-commissioner-44477.aspx>
11. [http://www.dfg.de/en/dfg\\_profile/head\\_office/dfg\\_abroad/india/reports/2015/151006\\_dwih\\_chandigarh/index.html](http://www.dfg.de/en/dfg_profile/head_office/dfg_abroad/india/reports/2015/151006_dwih_chandigarh/index.html)
12. <http://www.birmingham.ac.uk/International/global-engagement/india/latest-news-and-events.aspx>