

Collaborative PhD Program in Computer Science at IIT Delhi

About IIT Delhi

IIT Delhi is a research-led educational institute established by Delhi Government in 2008 through an Act. IIITD aims to be a leading Institute with global linkages. It has a set of distinguished faculty and plans to build research labs/centers in special areas of IT such as software engineering, data management, biometrics, security, mobile computing, etc.

The Collaborative PhD Program

As part of its PhD program, IIT Delhi has successfully started a “focused collaborative PhD program” with selected partner groups/institutes across the world. Key features of this program are:

- A PhD student is admitted into IIITD, from where he/she will get the degree. Interview for admission may be done jointly by IIITD and the partner group.
- The main supervisor of the PhD student will be from IIITD; a co-supervisor will be from the partner group.
- After completing the course work and starting the research, the student is likely to spend 3 months to 1 year with the co-supervisor at the partner group/institution.
- Most research results will be disseminated jointly including the scholar, supervisor, and co-supervisor.

This collaborative program not only provides the benefit of two supervisors to the student, but also broadens the exposure of the student by working in another group/institute for some time. Other salient points of the focused collaborative PhD program are:

- Being a focused program, it is expected that a student will be able to finish PhD in 4 yrs.
- Attractive compensation – the stipend in first year is Rs 20,000 per month; 2nd to 4th year it can be upto Rs 25,000 per month. While the student is at the partner group/organization, the partner will pay the stipend as per their norms.
- Institute will provide support to present papers in top national and International conferences.

Collaborations for 2010

This year the collaborative program focuses on five areas – Image Analysis and Biometrics, Software Engineering, Mobile and Ubiquitous Computing, Security and Privacy, and Information Management and Analytics. Within these areas, the partners and specific area of interest is given below. More partner organizations are likely to get added later.

COLLABORATING PARTNER	RESEARCH AREA
Image Analysis and Biometrics at IIT-Delhi (Dr. Richa Singh and Dr. Mayank Vatsa)	
Prof. Kevin Bowyer, University of Notre Dame USA (http://www.cse.nd.edu/~kwb/)	<ul style="list-style-type: none">• Face recognition in video• Iris recognition

Prof. Afzel Noore West Virginia University USA (http://www.csee.wvu.edu/~noore/)	<ul style="list-style-type: none"> • Face recognition • Fingerprint recognition
Prof. Arun Ross West Virginia University USA (http://www.csee.wvu.edu/~ross/)	<ul style="list-style-type: none"> • Multimodal biometrics • Iris recognition
Prof. Ajay Kumar The Hong Kong Polytechnic University, Hong Kong (http://www.comp.polyu.edu.hk/)	<ul style="list-style-type: none"> • Multimodal biometrics • Novel biometrics
Software Engineering at IIT-Delhi (Prof. Pankaj Jalote)	
Dr. Sriram Rajamani, Microsoft Research Bangalore (http://research.microsoft.com/en-us/groups/rse/default.aspx)	<ul style="list-style-type: none"> • Program checking through static and dynamic analysis • Combining empirical approaches with static and dynamic analysis • Utility computing / programming cloud services
Prof. Andreas Zeller, Software Engineering group, Saarland University, Germany (http://www.st.cs.uni-saarland.de/)	<ul style="list-style-type: none"> • Mining software repositories and other data for improving the software process
Dr. Charles Zhang, The Hong Kong University of Science and Technology, Hong Kong (http://www.cse.ust.hk/~charlesz)	<ul style="list-style-type: none"> • Program analysis and dynamic analysis of concurrent programs
Mobile and Ubiquitous Computing at IIT-Delhi (Dr Vinayak Naik, Dr Pushpendra Singh, Dr Amarjeet Singh)	
Prof. William J. Kaiser, University of California, Los Angeles (http://www.ee.ucla.edu/faculty-kaiser.htm)	<ul style="list-style-type: none"> • Wireless Health
Prof. Hugh Durrant Whyte, Sydney University (http://www.cas.edu.au/content.php/232.html?personid=24)	<ul style="list-style-type: none"> • Mobile Healthcare
Prof. Anish Arora, Ohio State University (http://www.cse.ohio-state.edu/~anish)	<ul style="list-style-type: none"> • Energy conservation using mobile phones
Prof. Patrick Olivier, Prof. Sugata Mitra, Prof. David Leat, Newcastle University, UK (http://homepages.cs.ncl.ac.uk/p.l.olivier ,	<ul style="list-style-type: none"> • Learning in Self-organised Learning Environments

http://www.ncl.ac.uk/ecls/staff/profile/sugata.mitra)	
Prof. Valerie Issarny, INRIA-Rocquencourt, France (https://www-roc.inria.fr/arles/members/issarny.html)	<ul style="list-style-type: none"> • Mobile Middleware
Security and Privacy at IIT-Delhi (Dr. Gaurav Gupta, Dr. Ponnurangam Kumaraguru, Dr. Shishir Nagaraja, Dr. Somitra Sanandhya)	
Prof. Anupam Joshi, University of Maryland Baltimore County, USA (http://www.cs.umbc.edu/~ajoshi/)	<ul style="list-style-type: none"> • Information sharing, Critical infrastructure protection
Dr. Sougata Mukherjea, IBM- India Research Labs, India (http://domino.research.ibm.com/comm/research_people.nsf/pages/smukherj.index.html)	<ul style="list-style-type: none"> • Security and privacy in social networking
Prof. Rajarajan Muthukrishnan, City University London, UK (http://www.staff.city.ac.uk/~raj/)	<ul style="list-style-type: none"> • Security in cloud computing
Prof. Raghav Rao, SUNY Buffalo, USA (http://mgt.buffalo.edu/faculty/academic/systems/faculty/mgmtrao)	<ul style="list-style-type: none"> • Security and privacy in e-health
SnT centre, University of Luxembourg, Luxembourg (http://wwwfr.uni.lu/interdisciplinary_centre_for_security_reliability_and_trust)	<ul style="list-style-type: none"> • Security
Information Management and Analytics Group (Dr. Anirban Mondal, Dr. Vikram Goyal, Dr. Ashish Sureka)	
Dr. Mukesh Mohania (IBM Indian Research Lab, New Delhi, India)	<ul style="list-style-type: none"> • Information Integration, Data Warehouse
Prof. Subhash Bhalla, Univ. of Aizu, Japan (http://web-ext.u-aizu.ac.jp/labs/sw-db/Bhalla.html)	<ul style="list-style-type: none"> • Distributed Client/Middleware/Service Oriented Computing, Mobile Database Management System

Eligibility and How to Apply

Please visit the website <http://www.iiitd.ac.in/phd2010.php> for more details. For any further information or queries, send an email to phd-admissions@iiitd.ac.in