



Why IIIT-D for an Academic Career

It is well known that even the top academic Institutes in India, while imparting good education, have not succeeded in delivering quality research. Some of the reasons for this are complacency, lack of incentives, shortage of PhD students, insufficient focus on group building, etc. Clearly, to establish a research university in India that compares to the top schools in the world, old models cannot work and new approaches would have to be employed that address many of these issues.

IIIT Delhi (www.iiitd.ac.in) is a research-led institute with a clear goal of becoming a globally respected academic Institution in IT and allied areas. Being unencumbered by past, it has employed many measures to help it achieve its vision, making it one of the most vibrant and exciting academic environments in India and an ideal place for a young researcher who wishes to work in India and make an impact/difference.

This document is intended for prospective faculty, especially those studying or working abroad. It is to help answer some practical questions that arise when making a switch to a new, fledgling place such as IIIT-D from the multiple options that are available to the prospective faculty. For further information, please contact the Director, Pankaj Jalote, Jalote@iiitd.ac.in.

About IIIT-Delhi

- IIIT-Delhi is a state university created by an Act of the state of Delhi, which started operating in 2008. As created by an Act, it is not under UGC/AICTE or any other body and is fully empowered to give degrees. It is just like the IITs (which were created by an Act of central Govt) in its academic autonomy, except that it can operate only in Delhi, and the scope limited to IT and “allied areas”.
- Administratively, it is an autonomous, Board-run Institute (current Chairman: Kiran Karnik, ex-President Nasscom). The Board comprises four independent experts, two members from Delhi Govt, two Professor from the Institute, and the Director. The Board decides most policies, including the salary structure.
- It is supposed to become financially self-supporting after initial grants from Delhi Govt. This gives the Institute financial autonomy and it is this that allows it to give a salary which is better than the Govt (or IIT) salaries.

R&D Focus

- The Institute recognizes that for doing good research, strong groups have to be established. And it keeps this in view in its recruitment. E.g. if one faculty member joins in an area, then there is a concerted attempt to build the group by recruiting some more faculty in that area. In a short time, the Institute has already built strong research groups in Security, Biometrics, Mobile and Ubiquitous Computing, Information management and analytics, etc.



- The Institute has implemented the systems of yearly appraisal/feedback and tenure to prevent complacency from setting in. Complacency is undoubtedly the most common problem in Indian academics, and perhaps the main reason why many academicians fail to reach an international standing.
- Low teaching load of 3 per year, with 1 per semester in the first two years.
- Good initial R&D support – support for one international and one domestic conference for first five years for presenting papers; initiation research grant, book grant, membership of one professional body, etc
- High expectations in research – the Institute strongly encourages faculty to publish only in Tier I and II conferences (travel support is provided only for these), and international journals and Transactions
- A strong focus on the PhD program – it has instituted various policies to build a strong PhD program e.g. higher stipend for PhD scholars, international and domestic travel support, high degree of freedom and respect, opportunities to work with International faculty through the collaborative program, etc. As a result, it attracted 7 PhD students in 2009, the year the program was started, and 8 in 2010. It already has one of the larger PhD programs in the country!
- PhD students available to young faculty – unlike established places, junior faculty get to be supervisors of the PhD students. The Institute provides support for one PhD student for each faculty (for more, grants are easily available in India for good proposals.) As a result there are Assistant Professors who have upto three PhD students within one year of their joining. In most established Institutes in India, a young faculty member often gets his/her first PhD student after a few years (and a few never do).
- Support for Research grants from funding agencies. It seems there are more funds with supporting agencies (DST, DIT, AICTE, Naval Board, Indo-xx,...) than good proposals, and agencies are keen to get proposals from other than standard Institutes. IIIT-Delhi actively encourages its faculty to apply for grants and has built various incentives (e.g. part of the overhead to go back to the PI, liberal norms for using the funds, etc.). As a consequence, within a year, the faculty members have obtained research grants for over Rs 2 crores.

High Quality Education

High quality research and high quality education go hand in hand, particularly in technology – almost all the top research institutes in the world are also top places for education. IIIT-Delhi has taken some measures to ensure this. Some of them are:

- Innovations in the BTech (IT) Program. Many new concepts are employed: starting of CS courses from 1st semester, and doing Sciences later as application domains; finishing much of core CS by 2nd year, allowing specializations and long duration projects to be undertaken in last 2 years; concept of streams in CS areas as well as application areas in



last 4 semesters to allow limited specializations as well as interdisciplinary possibilities; independent study options; option to graduate with Honors; etc.

- Changes in MTech program. Have both thesis and non-thesis options (many established Institutes do not have both options), with-assistantship and without-assistantship options, possibility of having specialization and get a degree “MTech in CS with specialization in <sub-area>”
- Changes in PhD Program. Many of the changes were based on a survey done of UG students on what they will need to do PhD in India. Some changes include: Focusing on the area early to reduce the initial “area selection” time; leveraging technology (e.g. video conferencing) and building guidelines to reduce thesis defense time (in most institutes thesis review can take up to 1 year easily).

Compensation and Quality of Life

- Decent compensation. Over Rs 11 Lacs per year for a starting Asst. Prof. – this includes salary, dearness allowance, house rent allowance, etc,
- The Institute allows a faculty member to earn up to one third of the yearly salary from research grants – similar to the “summer salary from grants” concept of US
- It actively supports summer sabbaticals in R&D labs/companies, through which a faculty member can earn extra while also building linkages
- It has liberal consultancy norms (one day a week, and no Institute overhead for up to some initial amount – Institutes in India can take as overhead about half).
- Will have a modern campus at Okhla (close to Nehru Place), with a Metro station within ½ km, making it convenient for families to commute to other places.
- It will also have modern, good quality, and spacious accommodation (all faculty flats will be 3BR+study - meaning junior faculty get large flats) for those who opt for on campus housing instead of their HRA.
- Good city with excellent connectivity – Delhi is widely regarded as one of the best cities in India for living; it has an excellent air and train connectivity – its new airport terminal being bigger than that of the next four metros combined.

Exciting Environment

- In the near future it will have mostly young faculty, all aspiring to reach or exceed their potential – this provides a dynamic environment to grow.
- Being a new Institute, it gives opportunity to faculty to participate in creating/shaping a top class institute in India, curriculum of various programs, etc.



- The Institute is actively encouraging and building relationships with Universities across the world to ensure that it remains globally linked.
- These are exciting times in India – the Institute is positioning itself to ensure that it makes an impact on the developments taking place.

Areas of Interest and Desired Profile for Faculty

- Though its faculty positions are open to people from any country, most faculty are expected to be Indian citizens. The desired profile of a faculty member is: BTech/BE from a good Institute in India, PhD from a top Institution in India or a highly respected University abroad, a good research and publication track record, and a solid future potential.
- Besides the current areas of strength (Security, Biometrics, Mobile and Ubiquitous Computing, Information retrieval and data management, etc), some of the areas of interest are: Software Engineering, Networks, Digital Media, Computational biology and neuroscience, Machine learning, Healthcare informatics, Algorithms and Theory, VLSI and CAD, Energy systems and technologies, Biomedical electronics and systems, Computer Architecture, Embedded and control systems, and interdisciplinary areas involving IT. This list is only indicative.

Applying for a Faculty Position

- Send an email with your CV and names of at least three referees, to the Director – jalote@iiitd.ac.in. You may be requested for a research statement, a teaching statement, your transcripts, and copies of some of your best papers.
- Each candidate is expected to give a technical seminar. While it can be arranged through e-means, it is desirable if a prospective candidate visits the Institute during one of his/her visits to India. (IIIT-D will cover within-India travel.)