SEPTEMBER 13 Q&A

PUBLIC ACADEMIC INSTITUTE PANEL

Q. Good evening. What are the requirements in terms of number of publications and postdoctoral research, for recruitment into the 3rd generation IITs. More specifically in mechanical engineering stream. (asked by Sasidhar Potukuchi)

- A. Rochish Thaokar, IIT Bombay, here, very IIT specific in new IITs
- A. In IIT Bombay, older IITs more matured evaluation
- A. In IITB we look at applications holistically, scholarship is always a criteria, publications requirement very area specific
- A. But as I said, very IIT specific, even within an IIT very department specific, in chemical, its very scholarship based, the seminar and the Q/A during seminar (2 tier seminars) is very important, irrespective of publications
- A. Newer IITs, may unfortunately go by publication number, I think anything above 5+ should be considered healthy

Q. Is there any way to know which institutes are open for accepting Ramalingaswami/ Welcome trust fellows?

A. Write to the chair of the department/director of institute, these decisions are usually taken on case by case basis

Q. Does IIT-Tirupathi has any open faculty positions now- assistant prof vacancies in particular? (asked by Raji Rajesh Lenin)

- A. Yes, they have about 10-15 open positions
- A. At IIT Tirupati we will be advertising around November for a few Assistant Professor positions. We are still working on the which areas to advertise, as we have limited positions available.
- *Q.* '@Prof. Thaokar: is 5 only first author publications or first + co-author?

- A. In IITB, chemical, we really go by case-by-case basis, we circulate the publications to our faculty for evaluation, then call for seminar, till now most candidates have had around 7+ number, too high number in chemical engineering is seen negatively, we seek depth than breadth, a lot of emphasis on understanding than superficiality
- A. first author 5 will be very desirable, but we take into account the difficulty of the area, as I said, matured selection committees will look at candidates, in a wholistic way, not just by number of publications

Q. I use C. elegans as my model organism to study proteostasis and aging. To work with C. elegans, does the Institute/University need to have animal house facility?

A. No

Q. For shortlisted applicants residing outside India, would institutes be flexible when inviting them for campus-visits? For example can the visit be scheduled on December during the academic holidays? (asked by Sayan Goswami)

A. Yes in IIT Bombay, December is the only month with good weather in Mumbai

Q. '@Rochish Thakur, you said that IIT-B chemical engineering looks for scholarships while hiring faculty. However, there are not many fellowships or scholarships available for engineering in India. Can you tell me what the general scholarships are available for engineers in India that one can apply before applying for faculty positions? Thanks

A. By scholarship I meant depth and good understanding of subject, not a monetary scholarship.

Q. I am an immunologist doing basic mouse immunology research. I don't find many immunology labs or SPF mouse facility in India. I would like to know the prospects for immunological research in India. (asked by Karthik Chandiran)

A. In my opinion they are good. I know at least 9-10 institutes that have state-of-the-art animal facilities including SPF animals.
Even if your institute doesn't have such facility, you may be able to use facility at other institute (for example IISER Pune).

Q. Are there opportunities and formal procedures to give seminars in the Indian Institutes and Universities for trainees abroad?

A. Yes! You are more than welcome to give seminars in MAHE, Manipal

Q. Does IIT Bombay have equipments like SEM, TEM, XRD, XPS etc in the same facility? Or to use these facilities what are the possible collaboration institutes? (asked by Saumya Gulati)

A. Yes, Please visit CRNTS, SAIF, NANOELECTRONICS IRCC WEBSITES In IIT-B, apart from these central facilities, each lab (faculty) and department also have.

Q. What is the age limit for entry and intermediate fellows in your institute? (asked by Sai Srinivas Giridharan)

A.We do not strictly follow. Guidelines for Asst Prof is 35, but not strict

Q. What is the impact of grades in Masters when you are sorting candidates for the first round of interview? (asked by Suman Majumdar)

A. Not much

Q. When you prepare a proposal, how important is it to contact the institute before to know if they are looking for a specific aspect of reseacg to see if you can modulate your proposal to fit their needs? Or can this be done later, if and when you are called for an interview?

- A. If institutions are looking for hiring in a specific area, it will be advertised. Otherwise, they will have a rolling advertisement and hence you can submit a proposal on what you wish to do. During the detailed interaction you will have chance to elaborate further.
- A. It helps you understand the requirement of the university. It may help you identify department of your interest. You would have the freedom to submit the proposal independently. Three of my Ramalingaswamy fellows approached us to know if we are hiring fellows in a particular field.

Q. Postdocs in USA have almost no teaching experience. How do you deal with that? Can we showcase mentoring experience here? What is the format for teaching philosophy? (asked by Raji Rajesh Lenin)

A. No format as such, it is your outlook towards teaching. It is ok not to have prior experience.

Q. Those who are from research background, what do you expect from the candidate when it comes to teaching?

A. If it is an academic institute, candidates are expected to teach well. We identify the potential.

Q. Is the online teaching chalk-talk or ppt presentation? (asked by Sumanta Sarkar)

A. We expect how comfortable are you with ppt and annotation during delivery?

Q. For institutes that look at applicants who are good at teaching, does getting a letter from students they have mentored, help their case?

- A. It can help with a reasonable sized course which matches with requirements.
- A. Letters from students may not be required. If there are teaching evaluation reports, that will be helpful.

Q. How much weightage do undergraduate scores hold while considering an applicant in teaching institutions? Can decent number of publications make up for not having stellar undergrad scores in CV?

A. There should be consistent academic record including UG scores.

Q. I work in a hospital set up and in addition research activity doesn't leave a lot of time to engage in teaching activities (which might differ lab to lab). However, for e.g. I mentored undergrad research trainees from across the globe in my lab. Can I mention them and would it weigh? What else should teaching proposal include? (asked by Mamta Rai)

A. Certainly you should mention this. Teaching proposal should include your approach to UG teaching, your philosphy about teaching etc

Q. About track record, someone who has published very good in PhD but due to challenging projects not able to publish enough in postdoc, how will you judge the track record? (asked by Tofayel Ahmed)

A. It is gleaned from the area of research, e.g certain projects may require over 5 years to publish the first paper and the experts are able to judge the same.

Q. Actually, most of the US universities require grad students to teach including lab teaching and undergrad classes as well, does that help? (asked by Thiya Mukherjee)

A. It helps if you have teaching experience at any level.

Q. If someone has less than 5 publications, how can they still be in the competition in the first screening? Any suggestion regarding this? (Asked by Debarati Bandyopadhyay)

A. Depends on what is published and how it has advanced the knowledge in the field.

Q. How and at what phase would you like candidates to approach your institute with respect to returning young investigator fellowships like Wellcome-DBT, Ramaligaswami etc.? Are you open to sponsor candidates before formal job commitment?

- A. Yes, but we only sponsor the candidates whom we have shortlisted for further processing.
- A. Yes! Provided they meet our requirement. We are looking for expertise in the field of bioinformatics, cell and molecular biology, cancer genomics, cancer genomics,

Q. Are all the applicants responded back? (asked by Swarup Dey)

A. Yes, In IITB Chemical, for sure.

Q. How do you define a "STRONG" CV? Is it mostly publications? (asked by Sumanta Sarkar)

A. Yes, On Paper is what you see first, in IITB, ChE, we go through the papers to conclude about the candidate, in the first assessment, we have had several cases where the number of publications were a lot, but going through the papers, we realise the work is not upto the mark.

Q. For transparency - not just being informed but also what's going behind the scenes during evaluation - What was missing in their profile if they were not selected, etc.

A. Sometimes privately, we do answer this.

Q. Do you judge the candidates by their ages? (asked by Sumit Mukherjee)

A. Age is used to the advantage for the Institutes particularly by newer IITs.

Q. Generally how long does it take to shortlist the candidates? Meaning - how long should an applicant wait before moving on with other applications? (asked by Swarup Dey)

A. From 1 to 3 months

Q. While selecting candidates, how do you compare the following types and whether you prefer one over the other: 1. Candidates with in-depth expertise in a specific area 2. Candidates with experience in a large number of areas and not necessarily in-depth expertise. (assuming both have comparable number and quality of publications)

A. 1

Q. How much preliminary data is necessary to add to the initial proposal? Are the proposals based mainly on hypothesis (supported by published studies) also considered?

How many broad projects should be proposed? (asked by Chetna Soni)

- A. Hypothesis driven research project is important, preliminary data helps but is not mandatory. Its better to have one focused project and not too many (broad)
- A. Usually one may be sufficient, but one may prepare for two. More is not a good idea

Q. How do institutes evaluate candidate having interdisciplinary research background? (asked by Chandrashekhar Patil)

A. This is an advantage when it comes to IISERs!

Q. Talking about transparency: Say I have multiple manuscripts submitted and under review. For example I receive one with good reviewer comments and likely to be accepted. Would my application even be considered if I apply with such manuscripts (postdoctoral manuscripts)? (asked by Mamta Rai)

A. It is a discretion to be applied by the committee

Q. It is often told that the research proposal should just not be a logical extension of postdoc work and should contain independent ideas. However, I have also heard people don't trust you can do something that you haven't mastered on (meaning you don't have publications). Which one is true? (asked by Srjit Das)

- A. It helps to have a publication in the area of your proposal, however, if its very novel and you have backed it up with extensive literature support then it could also be appealing
- A. I think both are true. Need to have somewhat different proposal as well as to show the ability to carry out. Often, it is not so difficult to judge the second

Q. By transparency we mean is the selection process fair? Or people with contacts get in. Nevertheless, can we get some constructive feedback on the application?

- A. It is fair, however, it is difficult to provide feedback due to legal complications. In many cases, if you call the chair of the department you may get constructive feedback verbally but nobody will give in writing.
- Q. How much does the "impact factor" of the journal publications matter?
 - A. Does, but only to a limited extent. Peer review of the work is the best way to judge the quality.

Q. Is there a timeline by which institutes finish looking at applications? If there is a prolonged administrative delay, can some note be posted at least on the website? The main issue I guess is the lack of communication and prolonged waiting period without knowing the application status.

A. I agree. We should be more communicative.

Q. Can a candidate apply more than once to an institute - like the following academic year? Sometimes the candidates has an improved CV with more published papers with time.

A. Yes by all means after an year.

Q. Do you count IFs? I have heard that the search committee adds the IFs of 1st author publications and that is how candidates are shortlisted. Is that true in most of the institutes? (asked by Srijit Das)

A. May be in some institutes, but not all

Q. How do you judge the research proposals, do you look for these being different from what a candidate has done in his/her postdoctoral work? I am asking because a lot of times postdocs frame the proposals that they work on during their work and would like to continue along those lines when they start their own careers. Thanks! (asked by Shatadru Chakravarty)

A. Somewhat different. but it is a subjective judgement

Q. Why are there reservations for faculty recruitments? Does it mean that the institutes need to compromise with the quality to accommodate the candidates? (asked by Sumit Mukherjee)

A. These are not correlated. Reservations are due to government norms, and we have always received very high-quality applications even under the special recruitment drive.

Q. If a candidate is working and wants to work in a multidisciplinary field like materials science that may need facilities from both Chemistry and physics departments, do you offer joint departmental appointment in IISERs and IIT? (asked by Sumanta Sarkar)

A. Yes at IISER Pune this is very much possible and we have many faculty who have joint appointments

Q. In biological sciences, having 2-3 quality publications during postdoc would take at least 4-5 years. Under this condition, the 35 year age limit is many times impossible to stick to. So do you think this is setting impossible expectations?

A. IISERs do not strictly follow the age requirement

Q. Can you please discuss the accessibility of synchrotron or other similar high energy radiation facilities in India? Also, what about availability of funds/grants to access those facilities outside of India?

A. Its good question, for lack of time we could not ask this. But please ask them during the breakout session

Q. How strict is the 35 years age limit at IITs? (asked by Arnab Ghosh)

A. not very rigid, new IITs seem to be more particular, not older IITs

Q. Like here in USA, why institutes do not have an application portal where once you are not short listed will receive a response once the position filled? Does it is possible for IIT's or IISER etc. to have a only one recruitment portal so that candidates

will not require to register and apply freshly with all basic information all the time for each and every institutes. It will be nice to bring all of IISER/IIT branches under one umbrella.

A. This is a good suggestion but there are some practical issues that need to be deliberated.

Q. '@Prof Galande: 5 years of one postdoc versus 2.5+2.5 yrs two postdocs in connected but different fields. The first will come with higher number of publications but not the latter. How will you compare them? (asked by Tofayel Ahmed)

A. Depends on what kind of proposal the candidate has written. If the two short postdocs justify the approach then it will be good

Q. Personal contacts are considered important while applying to institutes. I have been told by young faculties in India. For fellows working outside for several years (6-10) such contacts are difficult to keep up with. Especially in fields that are not popular in Indian scenario. I would like panelists to throw some light. (asked by Mamta Rai)

A. Personal contacts may help, but not a must. Over 80% of the faculty we have recruited didn't have any personal contacts with anyone at the institute

Q. '@Prof. Pal: Does IISER Kolkata have plans to expand on cryo-EM area? If so, where to collect data for structural studies? (asked by Tofayel Ahmed)

A. Yes. We have made an application to get Cryo-EM. Hope we can build this in near future

Q. '@Dr. Sourav Pal, Is IISER Kolkata willing to be host institute for Ramanujan/ Ramalingaswami fellowships? (asked by Srijit Das)

A. Yes, is the short answer

Q. Does someone who has taken a career shift like entrepreneurship or industry and would like to return to Academic position? How will such candidate treated during screening and recruitment?

A. This is not a disadvantage, we have recruited 2 faculty who came from industry

Q. My PhD took 8 years, due to various reasons. Is there any cutoff for number of years of PhD done? (asked by Raji Rajesh Lenin)

A. No

Q. How is India looking towards making its own instruments? (asked by Saideep Singh)

A. It is highly encouraged and there is good potential to get grants.

Q. '@To all panelists: I am a protein biochemist by training working on post-translational modifications on eye proteins and would like to work on different system for example with viruses and their proteins in which I don't have any expertise. How much it matters during the hiring process if my research proposal is diverted from my field of expertise? (asked by Sheetal Uppal)

A. If you can provide a rationale and justify it well, it should not matter

Q. Does the selection process taken in to account the citations of candidates work rather than just the number of papers?

A. Citations are important but it is understood that papers in certain fields may not be well cited in initial years, citations may add up later.

Q. Age and Number of paper issue:

I did my undergrad from Bihar where normal tenure for undergrad was 5 - 7 years. This killed my important time, and now I'm above 39 yrs. Secondly, I worked on a rare bacteria (which is considered best fit for the Biofuels from agriculture waste) on which no-one could worked efficiently for last one century. I developed a system to work on these bacteria which took long time. Research is very much appreciated by everyone but it didn't yield many papers. I have total 5 papers (+ one under review). *Question - Is there a chance to get a faculty position opportunity in India at my age with only 5 papers? (asked by Piyush Lal)*

A. Yes, but you should prepare your application carefully and highlight all this without sounding like making an excuse due to the above reasons. Experts will be able to see through.

Q. How open an IISER and IIT is towards starting a new field that is not so traditional or no existing faculty fellow is working within a department? Or we have tailor our research statement in accordance with the available facility or research environment of the department? (asked by Sumanta Sarkar)

A. At IISER Pune we are very open to starting new fields.

Q. As part of the Faculty recruitment process, are there any systematic support/aid towards career of spouses, particularly if the spouse is also in research and looking for position? Often, the family situation of applicants dictates in applying for institutes, and the possibilities therewith.

A. Yes, at IISER Pune we have close to a dozen faculty whose spouses also got a job (after some time) at IISER Pune

Q. When a candidate's research is more towards physics side although s/he has a formal training in chemistry ...which department would the candidate apply for ? ...Thanks Prof. Pal for the previous answer (asked by Suman Majumdar)

A. Where the candidate will be more comfortable in teaching

Q. Is there any disadvantage/difficulty, if the candidate not done my PhD (and postdoc) in India? (The assumption here is that the candidate will not have much academic networking in India and less familiarity with how labs function). How do the recruiters take this factor into account?

A. No disadvantage or difficulty at all. About one third of our faculty have received their PhD abroad.

Q. Some institutes are not accepting Ramanujan Fellowships. Are your institutes accepting the Ramanujan fellowships? (asked by Deepika Jena)

A. Yes. At IISER-K, we do, but after review of the applications

Q. For people with greater than 6 years of industrial experience after Ph.D., would you consider them for associate professor positions or still look at assistant professor positions (in these cases the candidates' age is beyond the level required for assistant professor) (asked by Prakash Sista)

A. We have examples in mechanical engineering iit bombay, very department and institute specific I would say, no written rules here

Q. Is there tenure track system in general in Indian institutes like the US institutes? If so, how are the faculties evaluated for tenure track? (asked by Swarup Dey)

A. In IISc, Yes, although I am in IITB, we don't have it yet in IITB

Q. How important is impact factor of publications for facuilty positions in IITs and IISERs

A. Not important at IISER Pune. The significance of the work matters more

Q. Hello, what's the right way to contact the institute for Ramalingaswami Fellowship? Should I have a Research proposal ready and then contact the institute or first contact the institute with my CV and interests and discuss institute's requirements and design the proposal accordingly. Thank you. (asked by Kripa Sankar)

A. Yes, you should have a Research proposal ready and then contact the institute.

Q. Certain institutes are still insisting on visiting the place for even preliminary interviews, personal experience.

- A. It is difficult to hold this in the pandemic
- A. You are not expected to visit the institute. We may organize an interview on MS Teams or Zoom. The candidates if they insist to visit the school, we facilitate

Q. Can interview be on zoom or Skype? (asked by Chetan Joshi)

A. yes in IITB, at least in ChE, certainly, already had quite a few this lockdown

Q. '@Prof. Sourav Pal: Thank you for answering questions so patiently. My question was how many faculties in Biology are expected to be recruited in next 4-5 years at IISER-K? (asked by Ayantika Sengupta)

A. Difficult to say. We are asking more faculty positions from the Govt. I expect about 10 recruitments in next 5 years in biology

Q. Candidates with 1) New techniques but not so novel research proposal vs 2) novel research proposals using existing candidates. who has a better chance?

A. Both are important. This needs attention from the committee

Q. How do you look at research proposals that are in the same field of candidates' Ph.D. or postdoc work vs proposals in newer areas compared to the candidates' research experience? (asked by Prakash Sista)

A. Both the novelty and skills to implement the proposal are important

Q. '@Dr. Galande: At YIM2020 we were told that IISER-Pune did not have director in 2019 and so applications were not looked at. Is this true? If so, will the applicants wait or send another application as CV etc might have considerably changed now.

A. Its not true. The applications have been processed without any break.

Q. Why are the MSMEs, which are supposed to be the backbone of healthcare evidences in Europe not given enough thrust in India (asked by Rajiv Janardhanan)

A. Their financial position is often not good, its good if you have a solution, the MSMEs will tell you a lot of stuff, you have to filter and get at the problem, find solution in your lab without expecting much support from them, and only then they may be receptive for engagement

Q. '@Prof. Rochish Thakur: In terms of company-based RnD, why are international companies not setting up RnD headquarters in India but only marketing? What is India lacking in terms of attracting companies? (asked by Ayantika Sengupta)

A. The international R and Ds need time to prove themselves, often the meatier problems are held back by the parent headquarters, and more mundane problem posed to the Indian arm, unless you prove your worth, they wont give you the best problems, its very case specific, in some places, they do give good problems, in most they do not, the talent pool is certainly limited in India, at PhD level.

Q. Today is an era of interdisciplinary sciences. My question is how many of these elite centers have centers of excellence for developing indigenous and fruganomic healthcare tecchnologies to gather evidences at a community level (asked by Rajiv Janardhanan)

A. NIBMG addresses major health care questions using Kalyani cohort to closely monitor their wellness trajectories and understand the contribution of epigenomic changes.

Q. The faculty interviews are more or less like viva exam of textbook questions like MSc students. Why don't they interview candidates as a college rather than a student? it is very different in US, where no faculty interviews has been conducted on textbook questions.

A. We always go into more and more fundamental questions, but only in the research area of the candidate, going inwards from the talk itself.

Q. Is it because MSMEs are not getting enough sops and incentives from Govt both at state and central level to devote energy in the area of healthcare technologies (asked by Rajiv Janardhanan)

A. They often struggle to exist, having said that, its a mix bag, some doing very good, some striving to survive, I feel good talent pool is poor, but Rand D support from MSMEs is also poor due to poor vision, and trust in R and D

Q. For applicants, particularly from Europe, the opportunities for teaching at the post-doctoral stage is rather minimal, given the different system of Prof/group-leader at the University level. Does that put us at a disadvantage? On the other hand, we have lot more experience with mentorships of masters and PhDs, to the extent that we supervise and plan the whole work, albeit unofficially as only the professor's name can be on the thesis. Does that work in our favor, and how can we establish our capability in that regards? (asked by Ahmad Omar)

A. You should mention. Yes it works in your favor.

NOTE: Good Evening Respected Sirs We at Amity University Noida are using AI enabled platforms for facilitating early diagnosis of cancer and cardiovascular diseases. We have also initiated a programme entitled Masters in Healthcare Informatics. (by Rajiv Janardhanan)