

Global Research and Cross-culture Workplace Journey

I. Biography



— Clay hand impression @IITH

The above picture pretty much sums up my journey at IIT Hyderabad, starting with representing the IITH Basketball team at Inter-IIT to being ELAN coordinator for extra circulars. Abandoning the popular affection towards western countries, I (R. Sai Chandra Teja, EE10M06) choose Japan as the destination for my PhD studies leveraging IIT Hyderabad's unique collaboration with Japanese universities and industries. I am humbled to be a pioneer batch scholar of The FRIENDSHIP (Future Researchers at the Indian Institute of Technology Hyderabad to Enhance Network Development with Scholarship) project to pursue PhD at Osaka University.

II. The tough decision

One of the tough decisions I have made was to resign from my first full-time job earned through Campus Placement at IITH. The factors I weighed to make the decision were through

self-evaluation and profile assessment by experts.

1) Self Evaluation

Being an Idea Hamster and having learned research methodology through proper guidance I was able to publish my master's thesis work in a top IEEE Conference. So, I evaluated myself thinking with a little more guidance and access to advanced research facilities I would be able to finish a PhD in 3 years.

2) Profile Assessment

Once I got the acceptance of PhD admission based on my research proposal seminar, I believe that the panel must have found my profile well poised for doctoral studies.

III. The Journey Begins as an international student

Keeping the above assessments in mind joined Osaka University as a PhD student resuming my master's thesis work. Little did I know that PhD is not just only about the research findings, but critical evaluation of the findings is also equally important. Japan labs have defined weekly meetings to update the progress, I tried to come up with different design ideas that would improve the performance of the circuit. I kept on brushing-up the ideas, but a year passed on with no results.

Our Advisor suggested all the PhD scholars work together so that research can be ramped up. Collaboration with two other seniors translated into good results for their projects but did not help much on mine. They were happy but I was frustrated having no good results. Searching for self-confidence I have applied to an apprenticeship program through Osaka university: the program allows you to be an interim Vice-president of the participating Japanese SMEs.

Continued...

Initially, they rejected my application citing no Japanese language skills but when I insisted on the apprenticeship experience, they considered my candidature. The program allowed us to be shadowing the President of the company whose routine starts with Morning briefings and sales meetings until lunch. After lunch we either have a field visit talking to employees on the line or talk to prospective customers. Some takeaways from tagging with the president were how effectively things were carried out with ease and a positive attitude. On the 3rd day, they had a disruption due to the negligence of a worker which affected the delivery of the product. The next day, instead of a blame-game, they put the entire day to come up with a mitigation plan to avoid this situation in the future without affecting the delivery. It was a great learning experience that while society usually waits for a mistake to bring you down to your knees, we need to focus on learning from the mistakes and devising a mitigation plan.

With this positive outlook, I returned to research. Attending a domestic conference and presenting my research, my perspective of searching for extra-ordinary results has changed after listening to other presentations. I learned that research is more about what value it adds to the current system performance. This boosted my confidence and I attended International Ideation conferences in Indonesia, India, and China. I started investigating the value added to the system by coming up with our logical figure of merits. Now we had the results, and I was expected to draft a manuscript. Drafting a manuscript for a reviewed journal is a different ballgame altogether requiring concise and effective representation of the findings. But I persisted. With my first article published and second paper under preparation, I found myself in hot water when I was attending a workshop in the United Kingdom. Now, I was in my final year and the scholarship term was about to finish. In a hurry, I submitted my second article and

received the acceptance just a week before my PhD final year progress meeting. It boosted the confidence to accelerate the third paper with some preliminary results.

While writing the thesis we received the review of the third paper which questioned the basis of the paper and requested clarifications on the assumptions in the modelling of the second article. Arguably, when everything was falling in the line, suddenly the entire thesis became questionable. The committee asked for a new publication as the basis of the third paper was weak and the second article needed clarification. So, we had to send an erratum of the second article clarifying the underlying assumptions to the reviewer.

IV. Entering a Cross Culture Workplace

Everyone was surprised about the fact of me getting a job without language skills and a degree. It was with a lot of doubts about my capabilities and with an urge to make the best of the opportunity I joined the R&D Center of a semiconductor MNC in Japan.

Real challenges began with 1.5 hr. one-way commute and long weekend travel to Osaka to continue my PhD experiments. In the rush of the everyday routine life during the commute journey I had an opportunity to take a pause and revisit my insecurities.

1) Self Evaluation

Without a PhD degree, I questioned my capabilities as a researcher and as a professional. With comments from Japanese supervisors about how intimidating working for an MNC could be with the overtime work culture and language barrier. With all the feedback, I had no confidence whether I would be able to handle and the work pressure and adapt to the cross-culture work environment. But one thing I had learned from sports is that participation is important than winning.

Continued...

2) Profile Assessment

Having attended 5-6 job interviews, realized the importance of language for an R&D position. The company which I joined luckily had 2 out of 3 interviews in English. The interview experience was freakishly encountering an English interviewer for the first time. By the end of the interview, I was wonderstruck with a straightforward plain-spoken interviewer who instilled confidence in me with honest feedback to face the other interviews. If an MNC recruitment panel believes I am eligible to work at the R&D, then there must be some skill in me that is relevant.

V. Mentor as a Blessing

After training joined the assigned department with the motivation to contribute in every possible way. There is a mentorship program at the company where all the newbies are assigned a mentor to take care of you and guide you in all the aspects of your job. With limited language capabilities, I was assigned to a project in a new domain with no prior expertise. If I have to describe my mentor then the adjectives: patient, detailed, helpful, and thoughtful would be on the top of my list. From effectively delegating, giving opportunities to taking responsibility with his support I started to sail my professional life believing that I can solve most of the problems. He is one of those role models whom we aspire to be and our go-to-person whenever we are in doubt.

VI. A Big Leap

One fine day I was approached by the PAN IIT Japan chapter, who were planning on an India-Japan convention. With work and ongoing PhD, I was contemplating in the beginning but one of the motivations to join the team was to contribute back to my alma mater. Apart from my home institute IITH, the number of collaborations of IITs with Japanese universities

has been minimal and therefore there is a huge potential. I started to utilize the commute time solely for the preparation of the PAN IIT academic meeting. With a clear goal approached all the IITs for potential collaboration and received a positive response for taking up this initiative. Finally, after 8 months of preparation on D-day of convention 5-IITs (Deans, Directors, Professors), and 1-Research Lab from India have participated to exchange research ideas and explore possible collaborations. The impact and understanding from the PAN IIT Convention initiated a dialogue between my company and IIT Hyderabad.

Drawing the parallels on the collaboration of Japanese corporations with elite American universities pitched an idea of collaboration with IITs to my company. To my surprise, most of the executives have no knowledge about ongoing research at the IITs. Thereupon the first step was to explain about IIT system and the highlights of the research breakthroughs. I achieved this by benchmarking the academia-industry collaborations between the Japanese companies and the IITs. Japanese corporations have a chain of command and all of them need to be convinced of the importance of collaboration with a particular institute and its impact on the organization.

So, a yearlong of efforts in conceptualizing, planning, and coordinating led to the signing of an MoU between my company and IIT Hyderabad. This was the first collaboration of the company with an institute in India. The journey provided an opportunity to interact with the company Executives which was altogether a different experience. It helped me in understanding the thought process of a corporate leader and their intentions behind the series of queries as he is assessing the value-added to the company.

Continued...

VII. Unexplored Territory

There is a huge potential untapped within the India-Japan space. With collective brainstorming and knowledge sharing especially the process we can make strides to make great collaborations.

Despite the presence of the big tech giants R&D centers in India, most of the Japanese industries have not explored or tapped upon the potential of the Indian market and its human resources. Japan is at the forefront of hardware development, such as robots and automobiles due to Japanese monozukuri (ものづくり, technological prowess, knowhow, and spirit of Japan's manufacturing practices). To lead the technology rave at a global stage Japanese firms, require a strong partner. Being the powerhouse of software development and the home of the youngest population, India is the best fit to be the synergic partner to Japan. Having global research and cross-culture workplace experience would like to extend my contribution in bridging the gaps and building strong partnerships between India and Japan in science & technology fields.

Acknowledgement

I take this opportunity to acknowledge everyone involved in this journey. I also would like to thank my parents, colleagues, and friends for having insightful discussions and letting me challenge myself and explore different ideas.



-2019 in Japan with Prof. B. S. Murty, Director, IITH and other friends



**Dr. R. Sai Chandra Teja,
M.Tech, Department of Electrical
Engineering, IITH (2011),
PhD, Osaka University,
Worked at Kioxia Corporation, Japan &
Founder & Director, CKM Vigil, India**