

Minutes of the Meeting of the Hub Governing Body (HGB) of TIH in IIIT Bangalore,

Date: 22nd Mar 2022

Time: 1400 hrs. to 1530 hrs.

Members present:

1. Prof Debabrata Das: Chairman
2. Prof Uday B Desai
3. Dr Ekta Kapoor
4. Dr Kumar Sivarajan
5. Mr. Samir Kumar
6. Prof Kiran Kuchi
7. Prof R Chandrashekar
8. Prof Jyotsna Bapat
9. Dr Milind Gandhe: CEO and Member Secretary

1. The Chairman congratulated Dr Ekta Kapoor for her new responsibility as the Head of FFT Division, DST and welcomed her to the HGB.
2. The Chairman informed the committee that on the morning of March 22nd, 2022, 3GPP had formally merged 5G and 5Gi standards as a part of the 5G 3GPP standard. The Chairman and other committee members congratulated Prof Kiran Kuchi for one of the main contributors in this effort.
3. The CEO updated the committee on the implementation status for the Financial Year FY21-22. Dr Ekta Kapoor expressed concern about low utilization of funds in the Financial Year. The CEO explained that the low utilization was due to Covid-19 related delays. Dr Kapoor requested the CEO to send a memo explaining the delays and providing justification for funding which could be placed in front of the MGB meeting on March 23rd, 2022.¹
4. CEO mentioned that development of a domestically owned patent pool would be one of the key objectives of the TIH. Prof. Desai and Mr. Samir Kumar stressed on the importance of a financially viable mechanism for maintaining the pool and adequately rewarding the patent holders. Dr. Kumar Sivarajan suggested that the IP generated during the projects funded by the TIH should be owned by the TIH, as this would enable financial viability of the TIH. He also recommended that the TIH should benchmark its IP policy against IP policies of other TIHs. Prof Desai suggested that the Hub should solicit inputs regarding the IP policy. The HGB advised the CEO to have a meeting with the CEOs or Project Directors of the TIHs at the old IITs to get inputs regarding their IP policy and submit the recommendations based on these inputs.
5. Prof. Desai suggested that the Hub should conduct a workshop associated with the COMSNETS Conference in order to enhance awareness about the Hub and as brand building.
6. Prof Desai and Kiran Kuchi also suggested the possibility of driving international cooperation through NSF.
7. The discussion on Selection of Proposals received under Category 2 ("Research and Development of 5G and beyond base station technologies") in response to the CFP that

¹ This memo has been sent on 22-3-2022 after the conclusion of the HGB meeting.

the Hub had published (on national newspaper and website). The Chairman requested Profs Kiran Kuchi and Jyotsna Bapat to excuse themselves from this discussion due to conflict of interest.

8. The CEO thanked Prof Shabbir Merchant (IIT Bombay), Dr Rajeev Shorey (IIT Delhi) and Mr. Satish Jamadagni (Reliance Jio) for their support to the Hub in reviewing the proposals received.
9. The HGB then invited Prof Kiran Kuchi to rejoin the meeting to present his proposal. On listening to Prof Kiran Kuchi's presentation, the HGB appreciated the need for indigenous development of an ORAN based massive MIMO Base Station.
 - a. Dr Kumar Sivarajan pointed to the fact that Gol had similar areas projects funded through multiple departments such as DoT and MEITY. He wanted to understand if there was an overlap between these projects. Prof Desai gave an overview of the different projects. Prof Kiran Kuchi explained the differences between the 5G Test Bed project and the current project presented to today's HGB committee and also mentioned that the previous 5G project started 2018 without proper specification inline of 5G's 3GPP standard. However, the current project would leverage IP from the 5G Test Bed project wherever possible. The HGB instructed the CEO to request the PIs / Co-PIs to submit a preamble document citing the large Gol project(s) in this area, and highlighting how the work done under this project would be different or would advance the work done under the other projects.²
 - b. The PIs have further submitted a written declaration to the IIITB COMET Foundation on 14th April, 2022 to the effect that there would be no overlap in personnel (other than the PIs / co-PIs) working on the project with any other projects funded by Gol.
 - c. Mr. Samir Kumar and Dr Kumar Sivarajan reiterated that the salaries proposed by Prof Kiran Kuchi, is reasonable and seems to be significantly lower than the corresponding salaries in the industry with respect to niche areas and recommended that the HGB approve these salaries. Dr Kumar Sivarajan suggested that it is better to has view from DST on salary. The Chairman pointed out that as per the Tripartite Agreement, the Hub had freedom to define its own salary structure. Chairman requested Dr Ekta Kapoor to review the agreement and advise the HGB on behalf of DST.
 - d. **The HGB unanimously approved funding for the project entitled "5G-Adv ORAN Massive MIMO Base Station" by Prof Kiran Kuchi (IITH) as PI and Prof. Jyotsna Bapat, Dr. Amrita Mishra, Dr. Nikhil Krishnan M, Dr. Prem Singh, Dr. Priyanka Das, Dr. Vinod Veera Reddy (all from IIITB), Dr. Ekant Sharma (IIT Roorkee), Dr. Rajarshi Mahapatra, Dr. Debanjan Das (both from IIIT Naya Raipur), Dr. G V V Sharma (IITH) and Dr. Sreejith T V (IIT Bhilai) as Co-PIs. The project will be sanctioned for compete duration as mentioned on the proposal. IIITB COMET Foundation would release funding (subject to availability of funds) for the project for the first year, as is the norm in DST funded projects. Further funding would be contingent on adequate progress on the project, based on review by the Project Monitoring and Review Committee (PMRC), every six months, as per DST norms.**

² Prof Kuchi and Prof Bapat have since submitted the preamble document to IIITB COMET Foundation on March 25th, 2022 stating the work that they have done on other Gol funded projects and confirming that there is no overlap in terms of work products between those projects and the proposal under discussion.

10. Next the HGB discussed the proposal by Prof Navin Kumar of the Bangalore Campus of Amrita School of Engineering, Amrita Vishwa Vidyapeetham. The CEO informed the HGB that the reviewers had felt that the proposal required modifications, and that subsequent to the feedback, Prof Navin had submitted some modifications to his proposal along with a presentation. The HGB noted that one of the responsibilities of the Hub was to support research in other universities and felt that this effort should be supported. **The HGB decided to fund the project entitled “AI Co-Design and Development of 5G Hardware and Software” with Prof Navin Kumar as PI for an amount of Rs. 25 lakhs for a period of one year.** Further funding would be determined based on review of the progress of the project by an expert committee. Prof Desai also instructed the CEO to encourage Prof Navin and his team to contribute to 3GPP standards.

At the end Chairman thanked the members and concluded the meeting.