

**MINUTES OF THE MEETING OF MEMBERS OF HUB GOVERNING BOARD OF NMICPS TECHNOLOGY INNOVATION HUB ON AUTONOMOUS NAVIGATION (TIHAN) FOUNDATION HELD ON MONDAY, 3<sup>RD</sup> JULY 2023 AT #201 BLOCK-A, BOARD ROOM, IIT HYDERABAD, KANDI CAMPUS, SANGAREDDY, TELANGANA, INDIA-502284 AT 11.00 AM.**

Time of commencement of the Meeting: 11.00 AM

Time of conclusion of the Meeting: 12.30 PM

**1. ATTENDANCE**

Sr. No.	Name	Designation	Mode of Attendance Physical/Electronic mode
<b>Members:</b>			
1.	Prof. B S Murty	Chairman	Physically
2.	Prof. P Rajalakshmi	Project Director	Physically
3.	Dr. Ekta Kapoor	Mission Director, NM-ICPS, DST	Physically
4.	Prof. Surya Kumar S	Academic Member	Physically
5.	Prof. Bheemarjuna Reddy Tamma	Academic Member	Physically
6.	Mr. Samir Kumar	Industry Member	Through VC from Bengaluru
7.	Dr. Gopichand Katragadda	Industry Member	Through VC from Bengaluru
<b>Invitees:</b>			
8.	Dr. Naga Praveen Babu Mannam	Hub Technical Officer	Physically
9.	Mr. Srinivasa Girish Ramachandrani	Hub Executive Officer	Physically
10.	CA Saurabh	Internal Auditor	Physically
11.	CA Soniya Dashottar	Statutory Auditor	Physically
12.	CS Jayata Agarwal	Practising Company Secretary	Through VC from Jaipur

**2. ELECTION OF THE CHAIRMAN:**

As per article 27 of Articles of Association of the company, the Director of IIT Hyderabad (Host Institute) is deemed to be the chairman of NMICPS TiHAN Foundation, and as per Mission communications, Chairman of Host Institute will be Chairman of the HGB. Thus, **Prof. B. S. Murty** was elected as the chairman of the meeting and occupied the chair.

### 3. QUORUM:

At 11.00 AM, the Chairman welcomed the Members present physically and through video conferencing. Thereafter, the Chairman announced that the requisite quorum was present and called the Meeting to order. The Chairman extended a warm and hearty welcome to all members at the Hub Governing Board Company Meeting (HGB).

### 4. LEAVE OF ABSENCE:

Leave of absence was granted to Mr. Krishna Bodanapu, Dr. Kumar N. Sivarajan, and Prof. Chandrashekhar Sharma for not attending the meeting due to unavoidable circumstances and had requested the same.

Mr. Rohit (Integrated Finance Division, DST) could not join online due to some technical issue. Therefore, leave of absence was granted to him also.

### 5. CONFIRMATION OF MINUTES OF THE MEETING OF MEMBERS OF HGB HELD ON 15<sup>TH</sup> DECEMBER 2022:

Minutes of the Hub Governing Board meeting held on 15<sup>th</sup> December 2022 duly initialed by the Chairman was placed before the Board and approved. Prof. P Rajalakshmi explained the activities and decisions taken in the previous meeting to all the members.

### 6. TIHAN TARGETS AND ACCOMPLISHMENTS SO FAR:

Prof. P Rajalakshmi explained the Research and Technology that Nurtures the R&D portfolio of the hub and promotes commercially viable translational research. She explained the increase in CPS Research Base Hub projects - 25 collaborative R&D projects. Periodic project reviews have been done through an expert project review committee. 14 collaborative R&D projects (6 R&D Women Scientists and 8 R&D Collaborators) are selected, and under administrative process is ongoing for project execution. She informed the board about the **Technology Development:** No of Technologies (IP, Licensing, Patent Etc.) – 18 (3 copyrights, 11 patents, Software IPs- 3, and 1 Trademark), Technology Products - 55, Publications, PR and other Intellectual activities - 160, Increase in CPS Research Base – 96. **Entrepreneurship Development:** Technology Business Incubator (TBI) - 3, Start-ups & Spin-off companies – 25, GCC - Grand Challenges & Competitions - 6, Promotion and Acceleration of Young and Aspiring technology entrepreneurs (PRAYAS) - 2, CPS-Entrepreneur in Residence (EIR) – 11, Dedicated Innovation Accelerator (DIAL) - 1, CPS-Seed Support System (CPS-SSS) - 0, Job Creation – 507. **Human Resource Development:** Graduate Fellowships – 194, Post Graduate Fellowships – 66, Doctoral Fellowships – 56, Faculty Fellowships – 10, Chair Professors – 3, Skill Development - 3027, Postdoctoral Fellowships – 16. **International Collaborations:** International Collaborations - 17.

On Entrepreneurship, she said start-up funding had attracted private funding like CSR, VCs, and equity-based Incubation activities. She further informed about the technology commercialization, promotional outreach, and Accelerator programs for early-stage start-ups. For Technology Business Incubator, the collaboration between TiHAN & iTIC for the Technology Business Incubation cell of IIT Hyderabad for support for Entrepreneurship activities like startups, GCC, PRAYAS, EIR, DIAL, and CPS-Seed Support System is working successfully.

On Industry relations, Prof. Rajalakshmi informed the board about the joint R&D initiatives on cost sharing basis, consultancy projects with both govt. and private entities. To date, TiHAN has made collaborations with 34 Industries. Suzuki Motors Corporation sent vehicles from Japan for RnD on ADAS for Indian Scenario and testing in the TiHAN testbed, and for this research and development, Data collection and algorithm developments are going on. She also Informed Collaboration between TTL, DYSL, NATRAX, and LTTS.

She further informed the board that external funds received Rs. 1 Crore from Suzuki Motor Corporation for ADAS testing and validating their vehicles in Testbed. Funds received Rs. 13.57 Lakhs from the DRDO-DYSL project for Indoor navigation of UAVs. The Autonomous Campus shuttle vehicle will experiment with trials at Naval Dockyard, Visakhapatnam.

## **7. BUDGET DISCUSSION:**

Prof. Rajalakshmi presented the fund utilization received from DST to date. She informed the board that the first Instalment amount of Rs. 20.25 Crores was received from DST and utilized for the purpose. The second Instalment of Rs. 27.18 Crores is Spent, 3<sup>rd</sup> Installment of Rs. 44 Crores from DST on 31.05.2023 approved, Credit Limit – Rs. 44 Crores spent – 7.46 Crores (as of date) Total Spent: 52.46 Crores of total Receipt Rs. 91.43 Crores.

## **8. SUGGESTIONS FROM THE MEMBERS, DISCUSSION, AND ACTION PLAN:**

The Chairman invited all the Industry Representatives for their Opinions and Suggestion.

Prof. B S Murty suggested conducting the Skill Development Certificate Program for 3 or 6 months and the M. Tech Smart Mobility online program. And informed IIT Hyderabad has Ranked 3 in NIRF Innovation Centre. Prof. B S Murty will send TiHAN Newsletter and Technology Developed information to all Industry Partners.

Dr. Gopichand Katragadda asked about the funding of TiHAN R&D Collaborators. Prof. P Rajalakshmi informed him and the board that TiHAN had received 91.43 Crores from the DST side as of date and TiHAN is funding collaborators in research of autonomous navigation, which

is one of the mandates. He also expressed interest in the data collection of the driver monitoring system.

Mr. Samir Kumar suggested spending effort in creating a list of industries, as many startups are also working on autonomous navigation. Sending the letters to Industries as well as VCs. So let us broad base it from just large companies. He raised a query regarding International Collaboration, to which Prof. P Rajalakshmi informed about collaborations with National and International agencies.

Dr. Ekta Kapoor- Mission Director DST, informed the board about the parameters of job creation and that the idea is to include startups, and the number of people who will be connected to the hub for projects will be counted as Job Creation. She suggested that all the Hubs organize workshops with all stakeholders. We can call HGB members so that everybody is on board. Everybody knows the salient features of technology products that can be commercialized. Dr. Ekta Kapoor also mentioned about a new Reserve Bank of India (RBI) account for a new payment process.

Dr. Ekta Kapoor also recommended having quarterly HGB meetings. The board decided to fix the date for the next meeting at the conclusion of every meeting. Thus, it was proposed and decided to have the next HGB Meeting on 13<sup>th</sup> October 2023.

#### **VOTE OF THANKS:**

Chairman announced the summary of the discussion, recommendations, and decisions taken in the meeting. Before the conclusion of the Meeting, Chairman made the roll call after the meeting and ensured the presence of a quorum throughout the meeting.

With the agenda item being transacted, the chairman thanked the members for making it convenient to attend the meeting and thanked them for their active participation. Thereafter, the chairman declared the meeting as concluded.

#### **Signatures:**

.....  
**Prof. B. S. Murty**  
**Chairman of HGB**

.....  
**Prof. Rajalakshmi**  
**Project Director/Member Secretary**