

IITI DRISHTI CPS Foundation
4th Meeting of Hub Governing Body (HGB)

The 4th of the Hub Governing Body (HGB) of IITI DRISHTI CPS Foundation was held on March 29, 2023 (Wednesday) at 10:30-11:30 am; at Abhinandan Bhavan, IIT Indore, and virtually through Zoom meeting. The following members were present during the meeting:

1.	Prof. S. Joshi, Director (Officiating), IIT Indore	Chairman, Board of Directors, and Chairman, HGB
2	Prof. Bhupesh Kumar Lad, Professor, IIT Indore	Project Director and Member Secretary
3	Dr. Maitrayee Nanda, Ex-Secretary AR & DB, DRDO, Ministry of Defence, Government of India	Member, Hub Governing Body
4	Dr. Ekta Kapoor, Head of Scientific Division, DST	Member, Hub Governing Body
5	Mr. Amit Agarwal, Managing Director, Cyber Infrastructure (P) Ltd, Indore,	Member, Hub Governing Body
6	Prof. Arnab Bhattacharya, Professor, IIT Kanpur	Member, Hub Governing Body
7	Prof. A.K. Darpe, Professor, IIT Delhi,	Member, Hub Governing Body
8	Mr. Aditya Vyas	CEO, IITI DRISHTI CPS Foundation

Leave of absence was granted to the following Hub Governing Body (HGB) members and Special Invitees:

1. Dr. Anand Iyamperumal Palani, Dean R&D, IIT Indore and Member, Hub Governing Body
2. Dr. Manoj Kumar Member, Hub Governing Body
3. Prof. U.S. Dixit, IIT Guwahati -Member, Hub Governing Body
4. Prof. Asim Tewari Professor, IIT Bombay Member, Hub Governing Body

ITEM No. 1

Opening Remark by the Chairman, HGB

Prof. S. Joshi welcomed all members and special invitees to the 4th meeting of the Hub Governing Body (HGB).

ITEM No. 2

Research Project Proposals received by the hub and their review and grading as per the new DST guidelines

Mr. Aditya SG Vyas, CEO continued the meeting by briefing about the projects onboarded under various schemes of IITI DRISHTI CPS Foundation and the startups supported by the hub. The details of the projects and the startups are as follows: -

S.No.	Project Title	Team
1	Development of a Cyber-Physical System for Road and Infrastructure Monitoring and Maintenance	Vimal Bhatia, Professor, Dept. of Electrical Engineering, IIT Indore
2	Simuliware	Bhupesh Kumar Lad, Professor, IIT Indore

3	Portable diagnostic system: A digital solution for diabetic retinopathy (DR) in remote and rural areas	Sayantan Ghosh, Ph.D. Scholar, IIT Hyderabad
4	A Novel Orthogonal Measurement for Accurate Plant Disease Predictions Using in house Developed IoT Enabled System and Machine Learning	Pooja Garg, Ph.D. Scholar, Dhirubhai Ambani Institute of Information and Communication Technology (DAIICT), Gandhinagar
5	Design and Prototype of Deep Residual Learning based Channel Estimation of 5G and beyond 5G networks	Animesh Sharma, PG scholar, IIIT Delhi
6	Redefining User Experience of Smart Glasses for the Visually Impaired through Generative Design & and other strategies	Nirdesh Joshi, PG scholar, IIT Hyderabad
7	Design and Development of an autonomous electric agri-robot to perform small-scale farm operations	Thushara P J, PG scholar, Manipal Institute of Technology
8	Development of AI-empowered vision-based Driver Support System for Autonomous Vehicles	Oshin Rawlley, Ph.D. scholar, BITS Pilani
9	Design and development of Digital Twins with intelligent simulators for real-time shop-floor decision support	Jaideep Singh, Ph.D. scholar, IIT Bombay
10	KAWACH: An IoT & AI-Based Digital Bodyguard for The Farmers	Malayaj Kumar Anshu, UG Kalinga Institute of Industrial Technology
11	A web-based multiplayer game to teach concepts of MRP and JIT (Just in Time) to the students	Ishika Budhiraja, Jainil Shah, Bhupendra Singh, Shravan Roy, UG Indian Institute of Technology Indore
12	A Web-based game to mitigate the bullwhip effect and understand the concept of Supply Chain Management	Ishank Singhai, Mrityunjay Prasad, Tushar Juneja, UG Shiv Nadar Institute of Eminence, deemed to be a university
13	A cyber-physical system for low-energy HVAC solutions based on natural thermal cycles and adaptive thermal comfort for smart cities	Sumer Thakur, UG IIT Indore
14	Sniper Robotic Arm- EKLAVYA	Khushhal Mittal, Sharvil Joshi, UG Acropolis Institute of Technology and Research Indore
15	Response Learning App - Natural Language Processing and Virtual Reality-based Technologies in Educational Applications	Saurabh Saindhane, UG Indian Institute of Information Technology Tiruchirappalli
16	Development of in-situ V-A-T Data Monitoring for the WAAM TIG application	Shruti Jain, Anushka Gautam, UG IIT Indore
17	Smartphone-Based Autonomous Driving Module	Kshitij M Bhat, Bhavya Dalal, Raghuvamsi Bokka, Yeeshukant Singh, K Vishnu Vardhan, Jitendra Kumar Choudhary, UG IIT Indore
18	Space Weather Modelling and Visualisation Framework	Sarisha Das, UG IIT Indore
19	Developing a mobile application for rock mass characterization and detecting rock slope failures	Golla Amith, Pavan Gangarapu, UG IIT Indore
20	Real-time quality control tool for fresh-state concrete using a hydrostatic digital twin model	Parth Dwivedi, UG IIT Indore
21	'PARVAT' (prevention of accidents in hilly routes by virtue of automated technology)	Himanshu Khati, Benjamin Basumatary, UG, Indian Institute of Technology Indore
22	A digital twin based real-time traffic regulation system for risk management and failure prevention in bridges	Ayush, UG Indian Institute of Technology Indore
23	Remote Sensing Emission Measurement Device for On-Road Vehicles	Devendra Deshmukh, Professor, Dept. of Mechanical Engineering, IIT Indore
24	SWASTi-DT: A Digital Twin for monitoring Space Weather Effects on orbiting satellites.	Bhargav Vaidya, Professor, Dept. of AASE, IIT Indore

25	AI-guided portable system for adulteration and dilution detection in Basmati rice	Ankur Miglani, Assistant Professor, Dept. of ME, IIT Indore
26	Remote multimodal point-of-care health diagnostic and consultancy system	Arnav Bhavsar, Associate Professor, IIT Mandi
27	Development of a Low-Cost Digital Instrumentation System for Angular Position Measurement of a Rotating Shaft using Tunneling Magneto-Resistance Angle Sensor	Kishore Bhaskarrao Nandpurkar Associate Professor, Indian Institute of Technology (Indian School of Mines) Dhanbad
28	Assessment of road condition and repair cost estimation using a cyber-physical system	Guru Prakash Assistant Professor, Dept. of CE, IIT Indore
29	Hyperspectral Image analysis and Machine learning for germ detection and precision agricultural	Pawan Kamal Kishor Ajmera BITS Palani
30	Designing a remote-based Heart estimation system for face mask videos	Puneet Gupta IIT Indore
31	Simulation, Modelling, and Visualization of Reconfigurable Intelligent Surface-based Communication System	Saptarshi Ghosh IIT Indore
32	Ensuring Data Security in IoT Environments through Machine Learning Techniques	Abhishek Srivastava, Dept. of CS, IIT Indore
33	Car Collision Avoidance and Recording System (CCARS)- IoT with Optical and Radio Frequency Inputs	Siddharth Savyasachi Malu, Dept. of AASE, IIT Indore
34	Development of 3D holography-based digital twin technology for an induction motor for predictive maintenance	Anand Kumar S IIT Jammu
35	Microscopic Image-Based Vegetable/Fruit Quality Assessment	Shovan Barma Indian Institute of Information Technology Guwahati
36	Kayashtya Digital Technical Innovations Private Limited	Anjali Srivastava Founder & CEO MBA (finance) Mohit Kumar Co-founder & CTO MTech. in GIS
37	MLworkX Private Limited	Arpit Asthana (MD & CEO) Sourabh Semwal (CTO)
38	Cropper Technologies Private Limited	Priyan Shah- Founder & CEO Rishi Dixit- EVM; MBA in Mktg Dhruv Shah- CTO
39	Arficus Private Limited	Sandeep Sinha Founder & CEO Anurag Jain Co-founder & COO
40	GV Black DenTech Private Limited	Vinamra Jain Co-founder Sandeep P. Jogi Co-founder, AI Research Analyst
41	Techwarium India Private Limited	Romit Patil, Co-founder, CEO, Techwarium India Pvt. Ltd (earlier research staff at IITI) Hemant Marmat, Co-founder, Professor, Acropolis Institute of Technology and Research, Indore Bhupesh K Lad, Professor, IIT Indore, Co-founder
42	A2P Energy Solutions Private Limited	Sukhmeet Singh CEO & Founder Priyadeep Kaur, Co-found
43	Chenavision Enterprise Private Limited	Dushyant Bhati- Founder & CEO Vikas Pandey- CTO
44	Exergy Innovations Private Limited	Prabhjot Singh, Co-founder & CEO Nanak Singh, Co-founder & CFO
45	Malhari Projects Private Limited	Mihir Dixit, Founder Vaibhav Patel, Co-founder

The Hub Governing Body (HGB) committee member took the record of the same and suggested the following: -


1. The committee advised to support the incubated startups in securing their next round of funding, specifically for the purpose of business development.
2. It was suggested to emphasize a primary focus on translational research projects that have the potential to expedite the commercialization of products or technologies and work with a cohesive plan of action for all the projects and startups instead of focusing on them separately.

ITEM No.3

The meeting concluded with a vote of thanks to the Chair and HGB members.



Project Director and Member Secretary



Chairman