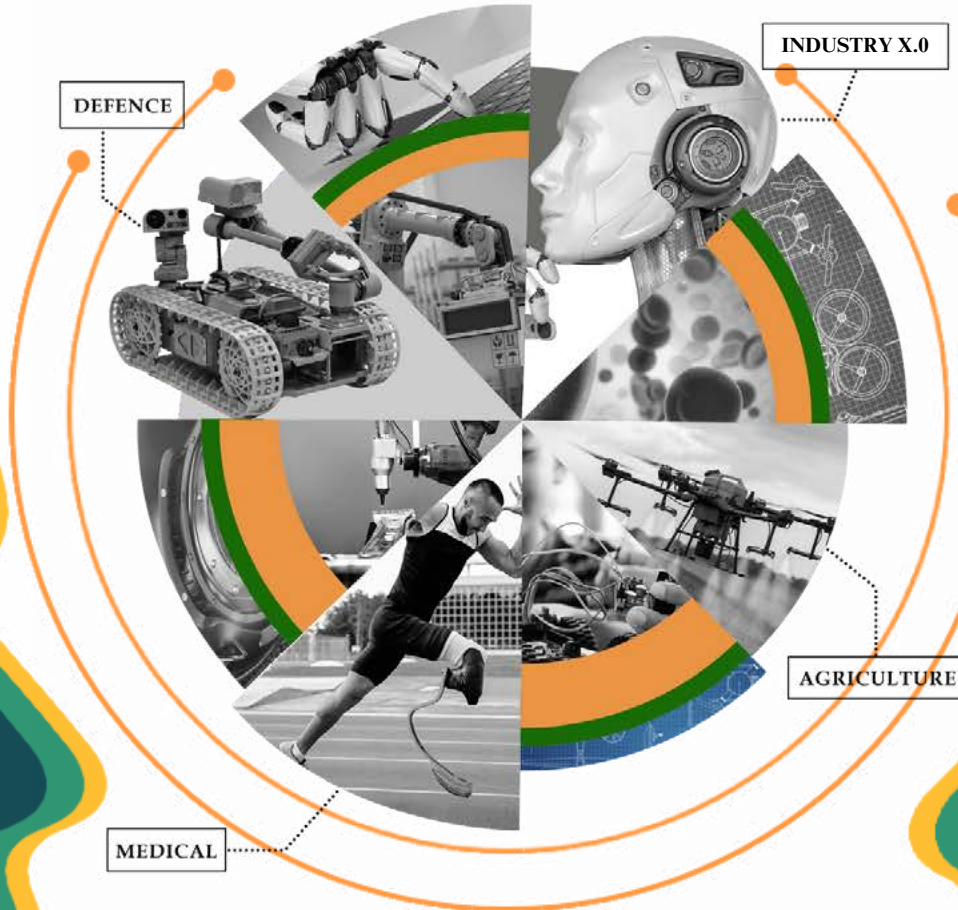


The IHFC Story

I-Hub Foundation for Cobotics (TIH, IIT Delhi)



Bringing together Academia, Industry and Government to promote product oriented research & development incubate/accelerate startups, empower innovators, and prepare youth for future innovation

Who are we?

IHFC, the Technology Innovation Hub of IITD was established in 2020 by Department of Science & Technology (DST), Ministry of Science and Technology, Govt. of India under National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS). This brings together 3 major pillars of success, Academia, Government, and Industry.



VISION:

"To become the most coveted initiative in India which empowers to develop and nurture ideas offering world class solutions."

IHFC will help ascertain the right kind of training, guidance, and necessary resources required by all the bright individuals to create a seamless collaboration between industry, research, and academia, ensuring fast-track development and turning ideas into reality.

MISSION:

To empower growth through collaboration and build a community of innovation leaders.

To create and offer an ecosystem for all, by coordinating and integrating, knowledge generation, academia support, technology and product development, innovation and commercialization to support projects for a quick turnaround in the field of Cobotics.

What do we do?



Propel innovation across India by serving as a dynamic launchpad for R&D for product development.



Incubate and accelerate startups, guiding them towards developing products and solutions that contribute to the vision of an Atmanirbhar Bharat.



Torch bearers for developing an unique STEM driven curriculum across different educational boards and provide essential skills and training empowering youth in STEM in area of Robotics and Cobotics .



Foster international collaborations across the world to drive forward the future of Innovation in India.



Developing state of the art infrastructure such as Drone Technology Park (DTP) and Medical Cobotics Centre (MCC) for R&D and development of indigenised products and solutions for India.

How do we do it?

1

R&D through Grand Projects in collaboration with various Educational Institutions in India and across the world

IHFC focuses on collaborative research and development in cutting-edge technologies such as AI, robotics, healthcare, drone applications, industrial automation, and intelligent sensing and secure communication. Under R&D, we are currently working on 7 Grand Projects comprising 40 individual projects in domains such as Rehabilitation Robotics, Healthcare Robotics, Human-Robot Interaction (HRI), Industry X.O, Nanorobotics, Intelligent Sensing & Secure Communication (ISSC), and Drone Applications. These projects, spread across India, foster both national and international collaboration, pushing the boundaries of technology, innovation, and commercialization. We are actively engaging with industries to commercialize these projects ($TRL \geq 4$) and address their challenges, thereby bridging the gap between industry and academia.

Additionally, we have successfully completed 12 out of 35 joint R&D projects under the DST-NSF (National Science Foundation, USA) Joint Research and Development program.



2

Research Entrepreneurship and Development for You (READY)

Through this program, IHFC offers pre-seed incubation and internships to engineering graduates. Focused on collaborative robotics, it pairs participants with top experts to drive innovation. IHFC provides financial support and mentorship for impactful work in cobotics and also assists in creating future entrepreneurs from this program.

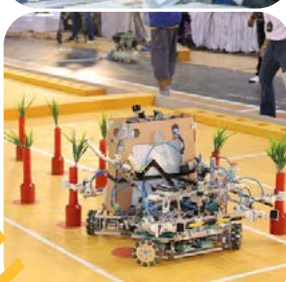


Tele Operation Tele Observance (TOTO): a teleported telepresence robot developed by READY student part of our start up eco system today

3

Empowering the Youth from School to Entrepreneurial Journey

IHFC supports STEM education and cognitive development through Academic Leadership and Immersive Learning Programme, shaping the future of education in Robotics, AI, and ML. This is a collaboration with Delhi School Board of Education and SoSe schools. IHFC is Knowledge Partner to events like DD Robocon and organizing immersive learning competitions at school and college level; like Delhi Robotics League and Delhi Hackathon and soon to be conducted Interschool robotics challenge for CISCE and Robotics for Good international competition for ITU UN body.



4. Supporting and Accelerating Startups: IHFC actively nurtures the collaborative startup ecosystem by incubating and supporting startups at different stages of development, from seed to expansion, fostering the creation of indigenous products for India's grand vision.

5. International Collaborations: IHFC fosters global exposure through impactful international collaborations. Our partnerships with the National Science Foundation (NSF), and SIT and Universities in Japan, with more in the pipeline demonstrate our dedication to driving innovation globally.



6a) State of art facility: Drone Technology Park (DTP) at IIT Delhi Sonipat campus is a premier hub for drone enthusiasts, providing state-of-the-art facility for testing and flying drones. For start-up to create Drones of the future and use the centre for R&D for young students to work on their Drone projects. Regular workshops and trainings are held in Drone Technology for training and upskilling.



6b) State of art facility: Medical Robotics Centre (MRC) is a collaborative initiative between IHFC (Technology Innovation Hub of IIT Delhi), and iHub Anubhuti (Technology Innovation Hub of IIIT Delhi) fostering excellence in medical technology through education, training, and startup support. A CoE for R&D projects and Start-ups to provide long term sustainable healthcare solutions which are indigenized.



Few Important Milestones

2020



NMICPS

IIT Delhi

IHFC

TIH Established by DST, GOI under: NMICPS

Tripartite agreement between IHFC, DST & IITD

March



June



IHFC 2 Years Anniversary

December



MOU signed with DBSOSE

January



Launch of Cobotics news IHFC Annual Newsletter

June



IHFC 1 Year Anniversary

September



Bootcamp Launched in Delhi Schools (IHFC Knowledge Partner)

2021



2022



Research Entrepreneurship and Development for You (READY) Program



2023

January



Robokancha DRL bootcamp held in DBSOSE Schools (IHFC Knowledge Partner)

July



Drone training workshop held at Drone Technology Park by IHFC in collaboration with Jet Aerospace

August



Rehabilitation Robotics Conference

September



MCC Inauguration

October



MOU with DOE, SoSE

November



TIPS 3.0

December



TIH Collaborative Meet

2024

January



National Quantum Mission Convergence India 2024

February



Delhi Hackathon

March



Medical Robotics Centre (MRC) Workshop

April



Tryst Event



Denmark Delegation at IHFC



JET Aerospace Training



AI Day for Startup



DTP Inauguration at IITD Sonapat



Successful Seminar on India-Japan Science & Technology Partnership



DD Robocon

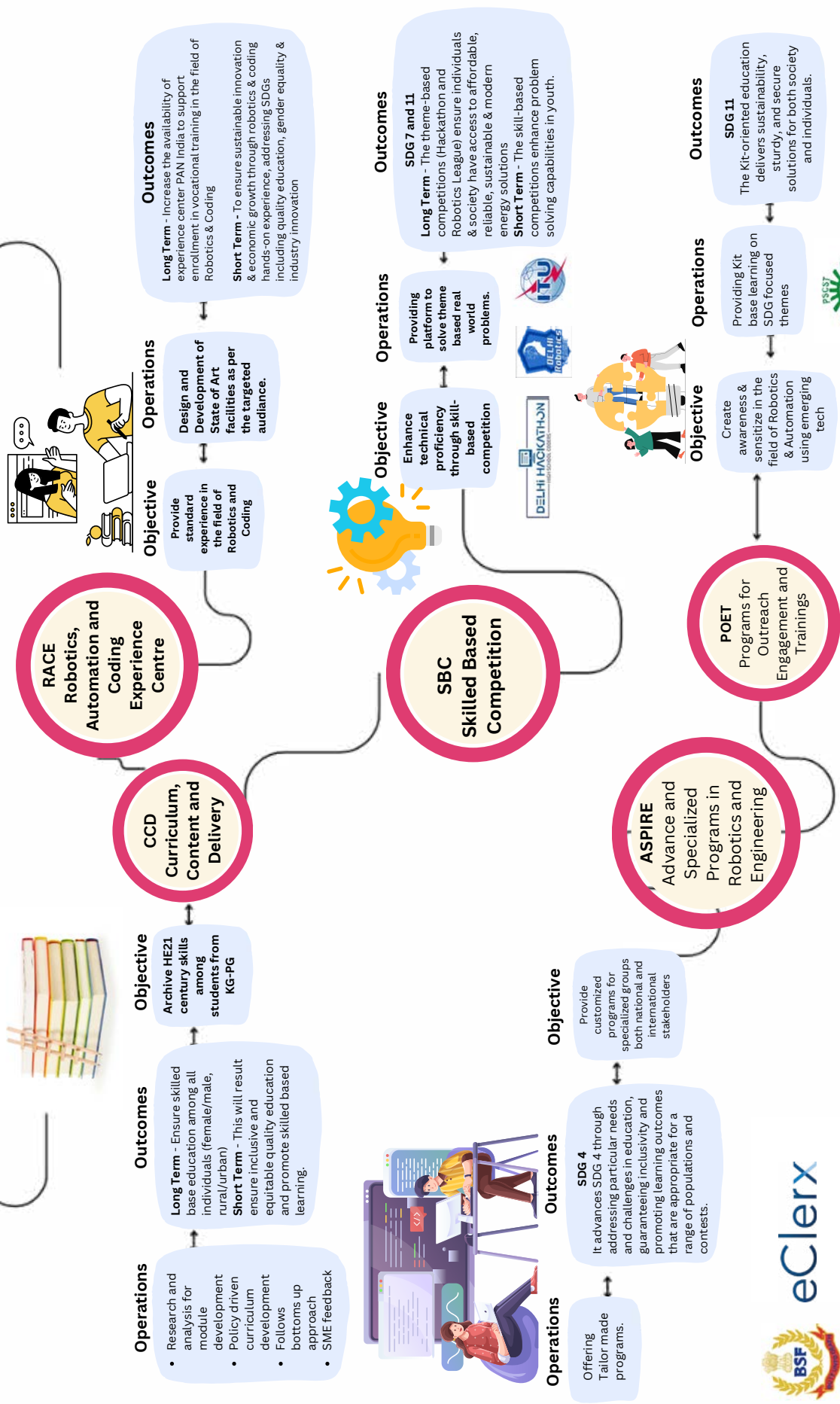


IHFC CEO Mr. Ashutosh Dutt's visit to the Department of State US



IHFC and All India Institute of Medical Sciences (AIIMS), New Delhi, have signed a Memorandum of Understanding (MoU)

IHFC - EDUCATION RESEARCH & TRAINING (ERT)



eClerx



IHFC GRAND PROJECTS



Rehabilitation Robotics

Design and Development of robotics exoskeletons and exo-suits for human rehabilitation and augmentation



Prof. Ashish Dutta
(IIT Kanpur)
Grand Project Coordinator



Healthcare Robotics

Development of collaborative robotics solutions for the healthcare sector



Prof. Laxmidhar Behera
(IIT Kanpur; Director, IIT Mandi)
Grand Project Coordinator



Intelligent Sensing & Secured Communication

Development of sensors and secure communication methods for intelligent robotics



Dr. Amol Choudhary
(IIT Delhi)
Grand Project Coordinator



Human Robot Interaction

Development of novel robot-learning techniques for effective robot-human interaction



Prof. G.C. Nandi
(IIT Allahabad)
Grand Project Coordinator



Drone Applications

UAV Research and application-based product development for the betterment of society



Prof. Laxmidhar Behera
(IIT Kanpur; Director, IIT Mandi)
Grand Project Coordinator



Industry 4.0 and Beyond

Novel development of collaborative robot solutions for the future of Indian Industry



Prof. Sunil Jha
(IIT Delhi)
Grand Project Coordinator



Nanorobotics

Revolutionizing Healthcare with Nano Robotics



Dr. Soutik Betal
(IIT Delhi)
Grand Project Coordinator

IHFC SUCCESS STORIES



DST-NSF Joint Research & Development Projects (IHFC International Collaboration)

IIT Delhi and IIIT Delhi Inaugurates Joint Medical Robotics Centre, AIIMS to Design Training Programmes

→ Cited by: Sakarya Bandy → News18.com → Last updated: SEPTEMBER 22, 2023, 16:17 IST → New Delhi, India



The Department of Science and Technology (DST), Government of India, has funded this joint facility to be operated by the technology hubs of IIT Delhi and IIIT Delhi.

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The robotics centre also launched its first call for proposals for young start-ups, with funding up to Rs 1 crore available to digital healthcare and medical healthcare using the robotic application areas.

IHFC has partnered with DBSE to develop curriculum under the SoSe program

June 16, 2022 – STATEMENTS AND RELEASES



New Delhi: IHFC has partnered with DBSE to develop their curriculum under the SoSe program which will be curated on the lines of imparting skills and education of the 21st century to the children

of Delhi. The need today is for all students to be adept in the subject of Robotics, Automation, Machine Learning etc. The MoU signed recently between IHFC and DBSE for SoSe Program is a futuristic collaboration between IIT Delhi and the Delhi Government in alignment with their vision

ITU: Date : Oct 17th 2024



for two age groups: Junior (Class 6th-8 th) and Senior (9th-12th)

IHFC, the Technology Innovation Hub of IIT Delhi, has been appointed as the national organizer in India for the Robotics for Good Youth Challenge 2024-2025. This challenge, to be held in India for the first time, will put Indian students and their robotics expertise on the global map. the International Telecommunication Union (ITU) is UN's specialized agency for information and communication technologies.

Participants under IHFC mentorship will design, build, and program a robot that completes a mission addressing natural disasters like earthquakes, seismic risk prediction, and soil and subsurface studies.

IHFC is the key enabler for this event and will organise the India Qualifying Tournament for this challenge, for the Grand Finale in Geneva during the AI for Good Global Summit 2025.



EDUCATION
The Logical Indian Crew

Empowering Minds! IIT Delhi's Technology Innovation Hub Set To Train 100 School Students On Robotics

Writer: Ronit Kumar Singh
Delhi, 24 Jan 2023 11:43 AM

Editor: Shiva Chaudhary | Creatives: Ronit Kumar Singh

The students from classes 9 and 10 participating in the Delhi Robotics League 2023 will be given training on robotics via boot camps by IIT Delhi's technology innovation hub- IHFC (i-Hub Foundation for Cobotics).

IHFC STARTUP ECOSYSTEM



Arka Aerospace



Aviate



Ayudyog



Botlab Dynamics



Cvrn AI Solutions



ENRODE



14-Marine Technologies



Kaidoko



KELVIN6K



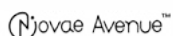
LightRay - (Retro Panda Labs)



Mountford



Nawe robotics



Novae Avenue (Papri Labs)



Pixuate (Cocoslabs)



Rancho Labs



Seianmai Tech



Simhatel



Systemantics India



The Innovation Story



Trouve



TSAW DRONES

INTERNATIONAL ALLIANCES

Successful Seminar on India-Japan Science & Technology Partnership: IHFC, in collaboration with the Tokyo Embassy, recently organized an enlightening seminar on "India-Japan Science & Technology Partnership: Robotics & Cobotics," hosted by the Embassy of India - July 2024



International Visitors Leadership Program US Department of States:



Keio University, Japan



Sripaad M started his association with IHFC as an Intern, where he was mentored under IHFC READY program for his product development and applied research. His novel idea of developing a multibody system with application in Disaster Response and Rescue is the need of the hour and is in line with the UN SDG goals as well at a global level. His product addresses a critical problem which demanded a solution and under the able guidance of IHFC, Sripaad has converted his research project ideas into a start up.

Shibaura Institute of Technology, Japan



In collaboration with Shibaura Institute of Technology in the Sakura Science Exchange Program - IHFC had the privilege to be a part of the Sakura Science Exchange program where during the 1 week visit the Japan ideas of future of science and robots were exchanged and discussed. Program included robot building, application of robotic techniques, exchanging with each other their respective country's stand in the area of robotics and international exposure of future development in science.



Research & Innovation Showcase for Entrepreneurs (RISE) at Medical Robotics Centre (MRC)



R&D Technology Transfer

Startup Trainings



Education Research & Training (ERT)

Medical Collaboration



**WE INCUBATE, WE ACCELERATE, WE MENTOR,
WE CONNECT, FUTURE IS US!**

SCAN TO CONNECT WITH US:



IHFC.CO.IN





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Innovation Hub
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