



# Foundation for Innovation and Technology Transfer (FITT)

## Quarterly NEWSLETTER

July-September 2024



### R&D Projects & Partnerships

Collaborative R&D |  
Technology Development |  
Expert Consultancy

Skill Development Programs |  
Workshops & Conferences

Industry |  
Government | Academia |  
Multilateral Organizations |  
CSR Funding



### Intellectual Property & Technology Transfers

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IP Filings & Management |  
IP Audits

Technology Scouting |  
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### Incubation & Entrepreneurship

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### Research & Innovation Park

Managed Facility for creating  
a knowledge and innovation  
ecosystem

Spaces for corporates in  
manufacturing, R&D, D&D,  
Process Engineering

Auditorium | Meeting/  
Conference Rooms | Training  
Rooms | Service Apartments

## Welcoming Dr. Nikhil Agarwal, Managing Director, FITT

We are thrilled to announce the appointment of **Dr. Nikhil Agarwal** as the new **Managing Director** of the **Foundation for Innovation and Technology Transfer (FITT)**. Dr. Nikhil brings with him a wealth of experience in the start-up ecosystem and corporate innovation, making him exceptionally well-suited to lead FITT into its next phase of growth and success.

With a distinguished career focused on nurturing and scaling innovative ventures, Dr. Nikhil has collaborated extensively with startups and corporate partners to drive impactful research and development initiatives. His expertise in building sustainable business models and forging strategic partnerships has consistently delivered transformative results, and we are excited to harness his experience to further advance FITT's mission.

In his previous roles, Dr. Nikhil has played a pivotal part in establishing innovation ecosystems that seamlessly connect academia, industry, and government. His work has facilitated the

commercialization of technologies with tangible real-world impact, driven by his passion for fostering change through innovation.

As FITT continues its vital role in supporting cutting-edge research and technology commercialization, Dr. Nikhil's vision and leadership will undoubtedly

open doors to new opportunities and growth. We eagerly anticipate the exciting possibilities his tenure will bring to our community.

Please join us in extending a warm and enthusiastic welcome to Dr. Nikhil Agarwal as we embark on this exciting new chapter together!



# R&D Projects & Partnerships

FITT actively engages with corporates, industry bodies, and academic institutions to expand its outreach and enhance technology commercialization efforts. These partnerships facilitate collaborative research, technology

transfer, and entrepreneurial support, driving regional economic development. These projects serve as catalysts for innovation and knowledge exchange between academia and industry.

From July to September 2024, FITT Facilitated 37 R&D, technology development and consultancy projects totaling INR 8.8 Cr.

## Notable projects initiated during this period:

| Project Title   | PI                | Department/Centre                                     |
|---|-------------------|---|
| Design and Development of LOMAH system for supersonic projectile  | Arun Kumar        | Applied Research in Electronics (CARE)                |
| Development of Continuous Column Chromatography for Downstream Intensification of IPB008 (mAb)                | Anurag S. Rathore | Chemical Engineering                                  |
| Private-LLM   | Santanu Chaudhury | Electrical Engineering                                |
| Battery Fidelity Test Cae Correlation   | Saurabh Saxena    | Automotive Research and Tribology (CART)              |
| Delhi Mohalla Bus Route Rationalization & Monitoring in Delhi   | Rahul Goel        | Transportation Research and Injury Prevention (TRIPC) |
| Development of bio-composites for various applications  | Hariprasad P      | Rural Development and Technology (CRDT)               |
| Prediction of "Knees" through mathematical modelling of capacity fade and lithium plating in Li-ion batteries | Amit Gupta        | Mechanical Engineering                                |
| Use of FTIR as a PAT Tool during Biopharmaceutical Processing   | Anurag S. Rathore | Chemical Engineering                                  |
| Ecology, Economy and Cultural Traditions: Investigating the Interactions of the Braj Region                   | Ankush Agrawal    | Humanities and Social Sciences                        |

## Major R&D Partners/Industries:

- AIMTREX Technologies
- IPCA Laboratories
- Infoorigin
- Hyundai Motor India Engineering
- JP Morgan Chase
- Delhi Transport Infrastructure Development Corporation (DTIDC)
- Carbon Esink Solution
- Volvo Group India
- Sanspareils Greenlands
- Agilent Technologies India
- Medulla Soft Technologies
- Indian Council of Social Science Research (ICSSR)
- Probo Media

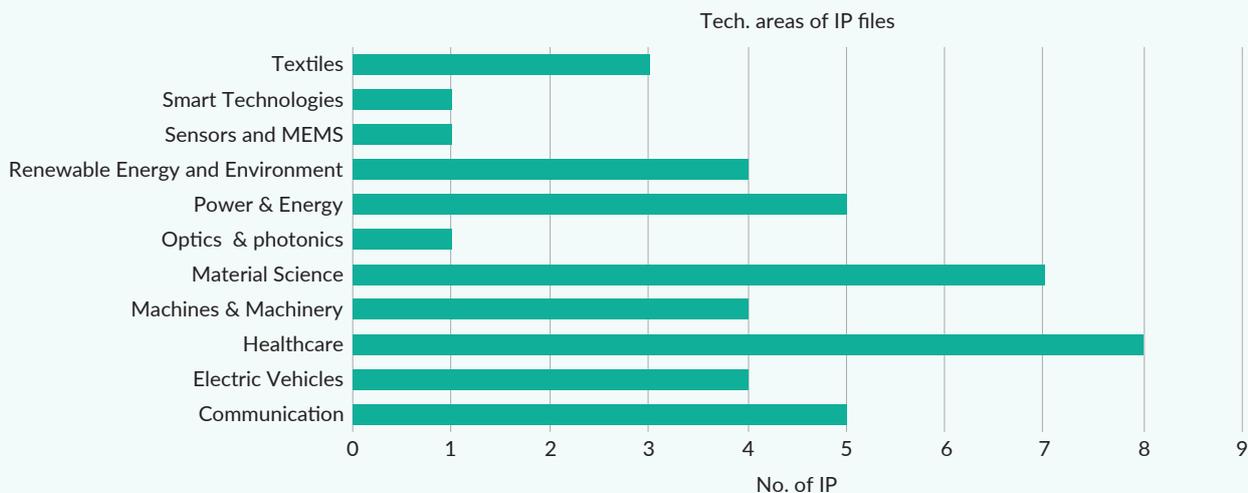
## Major collaborations:



FITT and Indian Army signed an MoU dated 27th Sept. 2024 for design and development of Sensor Fuzed Munition (SFM) for 155 mm Gun Systems

# Intellectual Property & Technology Transfer

As the intellectual property asset management arm of IIT DELHI, FITT filed 43 IP applications from July to September 2024.



## List of IP applications filed during Jul-Sep 2024:

| S.no. | Title   | Faculty (PI)              | Department                                     |
|-------|---|---------------------------|--|
| 1     | A process for fabricating a tribological nanocomposite coating on the surface of a substrate                            | Nirat Ray                 | Department of Material Science and Engineering |
| 2     | Digitally assisted low noise sub 1v chopper less bandgap reference circuit  | Rakesh Kumar Palani       | Department of Electrical Engineering           |
| 3     | Dual fuel cookstove   | Priyanka Kaushal          | Centre for Rural Development and Technology    |
| 4     | A dynamic undervoltage protection method for high c-rate discharge li-ion batteries                                     | Bijaya Ketan Panigrahi    | Department of Electrical Engineering           |
| 5     | D-master: mask annealed transformer for unsupervised domain adaptation in breast cancer detection from mammograms       | Chetan Arora              | Department of Computer Science and Engineering |
| 6     | A device for core temperature estimation of a cell  | Amit Gupta                | Department of Mechanical Engineering           |
| 7     | A system and method for reactive power compensation   | Sumit Kumar Chattopadhyay | Department of Energy Science and Engineering   |
| 8     | Fabrication of two-dimensional metallic meshes for electromagnetic interference shielding                               | Nirat Ray                 | Department of Material Science and Engineering |
| 9     | A dual gradient fabric for efficient human perspiration management and a process for preparation thereof                | Harun Venkatesan          | Department of Textile and Fibre Engineering    |
| 10    | Apparatus for simultaneous in-situ identification of reactive transients and intermediates on electrodes or electrolyte | Biswarup Chakraborty      | Department of Chemistry                        |
| 11    | A method, a system and toolkit for alignment-free Entanglement-based qkd network  | Joyee Ghosh               | Department of Physics                          |
| 12    | \multimodal breast cancer detection with clinical history   | Chetan Arora              | Department of Computer Science and Engineering |
| 13    | A system and a method for detecting target region in a data sample  | Chetan Arora              | Department of Computer Science and Engineering |
| 14    | A sprayable hydrogel kit harnessing metal oxide nanoparticles for wound healing   | Sachin Kumar B            | Centre for Biomedical Engineering              |
| 15    | An electrolyte composition for a fire-resistant zinc Battery and a rechargeable battery thereof                         | Vipin Kumar               | Department of Energy Science and Engineering   |
| 16    | Pressurized drop tube reactor for high-pressure kinetics of solid fuels under near-entrained-flow conditions            | Mayank Kumar              | Department of Mechanical Engineering           |
| 17    | Integrated plasmonic digital to analog converter based on broadband low-loss hybrid plasmonic switches                  | Anuj Dhawan               | Department of Electrical Engineering           |
| 18    | Modular vertical axis wind turbine  | Sujeet Kumar Sinha        | Department of Mechanical Engineering           |
| 19    | An anti-soiling coating for solar pv modules and process for preparation thereof  | Ankur Goswami             | Department of Material Science and Engineering |
| 20    | System and method for elephant detection by a one-Dimensional cnn architecture  | Subrat Kar                | Department of Electrical Engineering           |

| S.no. | Title  | Faculty (PI)              | Department                                     |
|-------|--|---------------------------|--|
| 21    | A method and machine for continuous production of electro-conductive fabric  | Dipayan Das               | Department of Textile and Fibre Engineering    |
| 22    | A system and a method for detecting a type of power source   | Swades De                 | Department of Electrical Engineering           |
| 23    | Bhet: battery health estimation toolbox  | Amit Gupta                | Department of Mechanical Engineering           |
| 24    | A signal processing system for frequency up and down conversion of modulated carriers, method thereof  | Rakesh Kumar Palani       | Department of Electrical Engineering           |
| 25    | An inner-hollow outer rotor brushless dc (bldc) motor for yarn feeding machinery   | Amit Kumar Jain           | Department of Electrical Engineering           |
| 26    | A catalyst and a process for its preparation and its application   | Sreedevi Upadhyayula      | Department of Chemical Engineering             |
| 27    | A method and a system for detection and characterization of defects in a pipeline  | Brejesh Lall              | Department of Electrical Engineering           |
| 28    | Micro surgical scissors and a method of optimization of microstructure for enhancing the cutting performance thereof                           | Jayant Jain               | Department of Material Science and Engineering |
| 29    | A uv-assisted additive manufacturing system and a process for producing continuous textile Fiber-reinforced thermoset composites               | Bijoya Kumar Behera       | Department of Textile and Fibre Engineering    |
| 30    | An acoustic and thermal performance measuring apparatus for exhaust Systems  | Apurba Das                | Department of Textile and Fibre Engineering    |
| 31    | Solution-processed laminar growth of li3vo4 (lvo) anode for ultra-long cycling in high-rate metal-ion batteries                                | Madhusudan Singh          | Department of Electrical Engineering           |
| 32    | Synthesis of methylene bridged bicyclo [2.2.2][3.3.1] polyketides oligomers via vinylogous domino/cascade annulation of alkylidene pyrazolones | Ravi P Singh              | Department of Chemistry                        |
| 33    | A microelectromechanical silicon-punch through resonant switch   | Bhaskar Mitra             | Department of Electrical Engineering           |
| 34    | A system and method for detecting anomalies in a data sample   | Chetan Arora              | Department of Computer Science and Engineering |
| 35    | A two-level output generating inverter   | Sumit Kumar Chattopadhyay | Department of Energy Science and Engineering   |
| 36    | A power factor correction rectifier  | Santanu Kumar Mishra      | Centre for Automotive Research and Tribology   |
| 37    | An electrode for a single cell or battery, and a method of developing the same   | Mohan Kumar Singh Verma   | Department of Chemical Engineering             |
| 38    | A non-isolated inverter for transformerless photovoltaic systems   | Anandarup Das             | Department of Electrical Engineering           |
| 39    | Embedded 3d printing process using solvent-water interaction   | Pulak Mohan Pandey        | Department of Mechanical Engineering           |
| 40    | A method for developing adsorbent from sugarcane bagasse for sustainable cooling and atmospheric water harvesting                              | Sudhir Kumar Tyagi        | Department of Energy Science and Engineering   |
| 41    | A digital system for generating an amplitude and phase stabilized rf sawtooth waveform   | Subrat Kar                | Department of Electrical Engineering           |
| 42    | An equity-aware var-supported voltage-based residential electronic vehicle charging control  | Bijaya Ketan Panigrahi    | Department of Electrical Engineering           |
| 43    | Inhalation exposure chamber for whole body exposure of small test models   | Debabrata Dasgupta        | Department of Mechanical Engineering           |

FITT facilitates the commercialization of valuable intellectual property through technology transfer and licensing agreements. Notably, 5 technology licensing deals worth 21 lakhs were signed during this period.

### Identification of a DNA Aptamer for Prostate Cancer Oncogene

The 'DNA Aptamer for Prostate Cancer Detection' technology developed by Prof. Prashant Mishra and a team from IIT Delhi is capable of binding to the specific oncogenes and could be useful as theranostics for prostate cancer.



Date of Licensing: 11th July 2024

Company: HUMMSA Biotech Pvt. Ltd., Kolkata, India

### Resazurin nanoparticles complex and method for detecting microbial contamination in milk

Traditional microbial testing methods for milk often involve time-consuming procedures and specialized equipment, making them impractical for on-site testing. Paper-based assays have gained popularity due to their simplicity, cost-effectiveness, and portability and resazurin dye is commonly used as an indicator of microbial activity. The present invention i.e synthesized resazurin nanoparticles offer several advantages over free resazurin, including enhanced stability, sensitivity, rapid results, cost effectiveness and ease of handling. These nanoparticles can be functionalized to target specific microorganisms, allowing for selective detection. This technology has been developed by Prof. Harpal Singh (Centre for Biomedical Engineering) in collaboration with FSSAI and NIFTEM.



**Date of Licensing:** 26th July 2024  
**Company:** ARF Lifesciences Pvt. Ltd.

### Photonic Chip-based Spectrometric Biosensor for Pathogen Detection

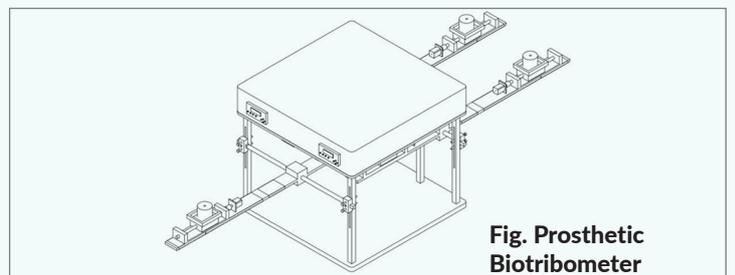
This technology has been developed by Prof. Joby Joseph and team from IIT Delhi and will enable quick and accurate detection of the pathogens, thereby aiding in the prevention of infectious diseases.



**Date of Licensing:** 31st July 2024  
**Company:** UNINO Healthcare Private Limited

### Prosthetic Biotribometer

This device is used for wear life estimation of prosthetic joint materials. The arrangements of linear sliding stages and rotational unit makes it possible to obtain a cross shear sliding which simulates the articulation of hip joint. Two linear sliding stages, rotational unit, control system, loading arrangements through cantilever, disc mounting accessories are the essential components of this novel design. A unique way of combining the cross-shear and load profile as the gait dynamics is novel work in this technology.

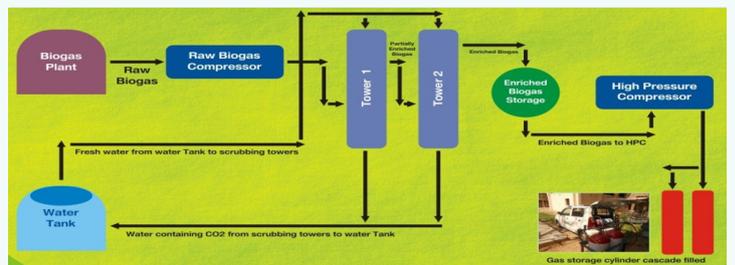


**Fig. Prosthetic Biotribometer**

**Date of Licensing:** 1st August 2024  
**Company:** HINOVA Innovations Private Limited

### A Device and a Process for Conversion of Biogas to a Fuel Gas with Enhanced Thermal Efficiency

This invention focuses on converting the biogas into a high-quality fuel by enriching its methane content. The upgraded biogas has higher energy efficiency and can be used for various industrial, commercial, and vehicle applications. The process is simple, cost-effective, and easy to use, making it ideal for rural areas. It turns animal waste into valuable fuel, helping with waste management and environmental protection. The device uses readily available materials and is easy to operate, requiring no special skills or advanced equipment. A key component is a packed bed scrubber that efficiently removes impurities from the biogas, producing clean fuel.



**Schematic representation of biogas production, enrichment and bottling system**

**Date of Licensing:** 5th August 2024  
**Company:** Praj Industries Ltd.

### IP and TT Management for Other Organizations

#### Empowering Defense Innovations: Technology Transfers for the Indian Army

**Title: Agniastra- Multi Target Remote Controlled Blaster (MTRB)**

The conventional method of firing targets in close-quarters battle ops is use of Exploder Dynamo Capacitor to wire the charges and then blast Target. Based on the reqmt to have a remote handheld firing device for use in door breaching, flushing of militants from hideouts, IED Disposal, the MTRB has been developed. It is a Portable Multi Target Detonation Device using microprocessor-based electronic system that functions using both wired and wireless modes allows it to be detonated without any wires or electrical connection



**Date of Licensing:** 23rd August, 2024  
**Company:** RedKite Digital Labs Private Limited

#### Xploder - Unmanned IED Disposal ROV

The Xploder is an unmanned IED disposal ROV with all terrain mobility and capability of delivering remote detonation circuits. The ROV is capable of disposal IEDs from longer ranges and remote detonation of explosives inside terror hideouts. A rugged all terrain ROV has been developed which is agile, light in weight and man portable. The remote detonation circuits are also developed which are compact, cheaper and effective in disposal of IEDs.



**Date of Licensing:** 23rd August, 2024  
**Company:** FC TecNrgy Private Limited

### IP Awareness and Outreach Sessions

FITT regularly conducts knowledge sessions for various stakeholders (faculty members, research scholars, inventors, students, start-ups, etc.) from IIT Delhi as well as other organizations.



A list of sessions conducted during this period is provided below:

| S. No. | Topic   | Organization Name                                       | Date                |
|--------|---|---|---------------------|
| 1      | Technology Transfer & Commercialization and how an Incubation Manager can contribute towards it | Indian STEPs and Business Incubators Association (ISBA) | 30th July 2024      |
| 2      | From Lab to market: Strategies for Technology Transfer & IP Commercialization                   | Parul University , Vadodara                             | 2nd August 2024     |
| 3      | Understanding Intellectual Property Rights  | Samsung Solve for Tomorrow                              | 6th August 2024     |
| 3      | Significance of IPR in Fashion and Design Industry  | DST-CPR, Punjab University                              | 22nd August 2024    |
| 4      | Trademarks, Design and their applications   | IIT Roorkee, DPIIT IPR Chair                            | 24nd August 2024    |
| 5      | IP Commercialization  | IIT (ISM) Dhanbad                                       | 28th August 2024    |
| 6      | Introduction to IP & TT   | Department of Chemical Engineering, IIT Delhi           | 28th August 2024    |
| 7      | Significance of IPR and Technology Transfer   | Baba Farid Group of Institutions, Bathinda Punjab       | 25th September 2024 |
| 8      | Significance of IPR and it's translation to technology transfer                                 | Central University of Punjab, Bhatinda                  | 25th September 2024 |

# Incubation and Entrepreneurship

The Institute's incubation program aims at converting technology-based innovative ideas into commercially viable products. Over the years, the Incubator has nurtured startups at a high success rate. It has evolved into an ecosystem with its scale-up at the Research and Innovation Park of IIT Delhi, which has facilities to house more than 125 startups.

## Recent Collaboration

Nasscom and FITT for the Techforchange programme - FITT signed an MoU with Nasscom Foundation on 13th September 2024 for implementation of the TechForChange program, a skilling and entrepreneurship development program for students.

## Portfolio Updates:

- Six Sense Mobility:** MeiTy TIDE supported and our incubated startup, Six Sense Mobility has secured a seed funding of Rs. 6 crores from Piper Serica.



- Vayuguard:** Vayuguard, a FITT-incubated startup supported by the MeiTy TIDE scheme, has won the GreenTech Accelerator Program. The startup, which employs patented hybrid electro-magnetic technology, delivers clean, sterilized air with real-time monitoring and enhanced energy efficiency, providing protection against dust, VOCs, and microbiological contaminants.



- Mobisec:** Mobisec Technologies, a cybersecurity company that enables enterprises to manage, audit, and secure their endpoint devices—through an intuitive web-based platform has collaborated with the University of Warwick, UK, in their prestigious Virtual International Programme TeamWork 2024!
- GreenAero Propulsion:** One of our incubated startups, supported under the iDEX and SISFS schemes, has won the GreenTech Accelerator Program. The startup is developing green hydrogen-based propulsion systems to decarbonize the aviation and shipping sectors, contributing to a more sustainable future.



- CLUIX Pvt Ltd:** Cluix Pvt. Ltd. has been selected as the winner of the WASH Innovation Challenge hosted by WASH Innovation Hub (WIH) & Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH India Team



- ZeroDrag:** Our incubated startup, Zerodrag is manufacturing the Core Electronics Hardware needed for UAVs(Unmanned Aerial Vehicles). The company has recently launched FPV flight controller, the WARP F7.



- Bravecore:** Dr. Mathew Joseph, one of the founding Directors of Bravecore Private Limited, has been awarded a patent for his innovative work on a new mechanism for steering ships and vessels.
- MOTOR AMA:** MotorAma, a startup developing high-performance Rare earth-free BLDC Motors for E-Mobility applications has been featured in the U.S. Ambassador Eric Garcetti video release, US India Forward for Technology!
- Trish-i:** Trish-i Private Limited, a startup supported under the SISFS scheme, working on bone health assessment using Near Infrared technology, has collaborated with the University of Warwick, UK, in their prestigious Virtual International Programme, TeamWork 2024.

## Events Hosted by FITT

### A 2 Day Workshop by UOC at FITT (18-19th July 2024)

University of Cologne in association with FITT successfully organized a 2 day workshop on 18th and 19th July 2024. The event included a meeting with our team and focused on exploring avenues for International Innovation Support.

The event featured a workshop by Dr. Dadhichi Paretkar, Transfer Scout Faculty of Mathematics and Natural Sciences at the Gateway Excellence Start-up Center University of Cologne on Unleashing the Entrepreneurial Potential of Your Research, focusing on innovation skills, creating impactful research statements, and aligning research with societal megatrends.



### Green Tech Accelerator Program (29th July 2024)

FITT successfully concluded the Green Tech Accelerator Program, an initiative under SIDBI(Small Industries Development Bank of India)'s Cluster Intervention Program in partnership with ReNew at R&I Park, IIT Delhi.



AgriVijay, AquaSynthesis, VAYUGUARD CLIMATE TECH PVT LTD, unbubble.co, Terracarb, and Green Aero Propulsion emerged as the winners of the Green-Tech Accelerator Program and received a grant of Rs. 5 lakhs for their outstanding innovations.

### U.S Small Business Administration Delegation Visit (12th August 2024)

FITT, in collaboration with iDEX-DIO, hosted a delegation led by Isabella Casillas G., Administrator, U.S. Small Business Administration, on 12th Aug 2024.

The visit began with the technology showcase, where iDEX-supported startups showcased their cutting edge products developed under the challenges launched by DIO followed by a roundtable discussion joined by Shri Amit Satija, Joint Secretary (Defence Production), Dr. Nikhil Agarwal, MD FITT, Mr Vivek Virmani, COO, iDEX etc. from the Indian side.

The Discussion was centred around the INDUS-X (India-US Defence Acceleration Ecosystem) initiative, strengthening the technology partnership and defence industrial cooperation between the two countries.



### Samsung Solve for Tomorrow (31st August 2024)

FITT and Samsung collaborated for the third edition of the Samsung 'Solve for Tomorrow' program. The students submitted their ideas under two broad themes: 'Community and Inclusion' and 'Environment and Sustainability.' Many of the projects addressed critical issues such as education and resource access for underprivileged communities, challenges in experiential learning, digital literacy, water conservation, and arsenic pollution.



The finalists underwent a rigorous selection process, involving several rounds of pitch presentations to the FITT and Samsung jury members. The teams also received expert mentorship from professionals at IIT Delhi and Samsung. A pitch event was held at FITT-IIT Delhi on August 31st, during which the Top 10 teams of the 'Solve for Tomorrow' 2024 competition were announced.

The selected teams received grants of up to Rs. 90 lakhs to support prototype development. Furthermore, the teams from the youth track were awarded the latest Samsung Galaxy laptops, while those from the school track received Galaxy tablets.

### DST NIDHI: Impact @8 (6th September 2024)

Inaugurated the celebrations of the completion of 8 years of the NIDHI program at IIT Delhi - a milestone in India's startup journey, with Hon'ble Minister for Science and Technology, Dr Jitendra Singh joining virtually.

With India emerging as the third-largest startup ecosystem in the world & the number of DPIIT-registered startups growing significantly to 1.25 lakh in the decade, NIDHI has played a pivotal role in strengthening the country's startup ecosystem.

Among the young startups, estimated 8,000 to 10,000 are working in deep tech & almost each one of these have been touched by DST directly or indirectly.

8 new NIDHI inclusive-Technology Business Incubators were also inaugurated to support Innovation and Entrepreneurship in the country, impact reports and compendiums of DST NIDHI PRAYAS and NIDHI EIR Program; and compendium on "50 Impactful Women-Led Startups in India supported by DST" were also released.



### MountTech Meetup (10th September 2024)

A mixer for defence and DeepTech startups was organised by DS Centre of Entrepreneurship with MountTech Growth Fund. Mr. Anagh Singh from MountTech Growth Fund - Kavachh-, engaged with the startups, offering them guidance to support their growth.



### DSIR - A2K+ Meet (19th September 2024)

Department of Scientific and Industrial Research (DSIR), Ministry of Science and Technology, Government of India and FITT, co-organized an "A2K+ Knowledge Integration Meet." The event featured addresses from Prof. Rangan Bannerjee, Director of IIT Delhi, Dr. Vipin Chandra Shukla, Scientist G & Head of the A2K+ program at DSIR, and Dr. Devi Prasad Bhukya, Director at DMEO, NITI Aayog. The event highlighted key findings from the A2K+ studies, TRL reports, and discussion on promoting inclusivity among stakeholders in commercialization efforts.



### Sonipat Startup Summit 3.0 (19-20th September 2024)

AIC IIT Delhi organized the 3rd edition of its flagship event, "Sonipat Startup Summit", Haryana's largest innovation festival, from 19th September to 20th September 2024. 650+ startups, innovators, students, government agencies, MSMEs and Industries gathered under a single roof to witness this innovation festival.

There were multiple events, such as Boot-Camp, Pitch Your Idea, Knowledge Session, Pitch Fest with Investor, TECH EXPO, Keynote Session and Fireside Chat.

**Boot-Camp:** An insightful boot-camp was organised for the startups to validate their startup ideas, guide them about their pitch decks, financial projections, and business plans and make them pitch-ready.

**Pitch Your Idea:** The event brought more than 25+ startups from various sectors/domains with different sets of innovative startup ideas and give an opportunity to the founders to pitch their ideas in front of the panel to get insightful feedback, which can help them progress in their startup journey.

**Knowledge Session:** An interactive session that brought innovators, startups, industry, MSME executives and professors from IIT Delhi and other reputed Universities to understand "Commercial benefits of Intellectual Property Rights".

**Pitch Fest with Investor:** A closed-door session was designed for the founders to get insightful feedback and the opportunity to raise funding by projecting their ideas. Founders of 10 different startups pitched in front of 13 investors from various domains.

**Tech Expo:** An opportunity for 10+ Startups to showcase their prototype and what they are working on, it gives a better understanding of the product and the idea behind the development of it to the viewers.

**Keynote Session:** An insightful session was delivered on "Key Investment trends in Deep Tech Startups" by Mr. Priyank Garg, Managing Partner IAN Alpha Fund.

**Fireside Chat:** Mr. Ritesh Srivastava, Founder & CEO, Freed, shared his entrepreneurial journey, his views on incubators role and govt. support in accelerating the startup growth.



### IAN meetup and pitching session (24th September 2024):

A pitching session was organized by the DS Centre of Entrepreneurship with Mr. Abhishek Kakkar from the Indian Angel Network, wherein the startups had the opportunity to pitch their ideas and secure funding from the IAN.



### Knowledge Session on Fundraising (27th September 2024):

An engaging session on fundraising for early-stage startups was conducted by Mr. Satya Prakash Singh, Chief General Manager of SIDBI (Small Industries Development Bank of India). He shared valuable insights into available funding opportunities and highlighted how investors assess startups during the fundraising process.



## Programs Launched

### Meity Grand Challenge

We launched the Grand Challenge Series 2024 with a grant pool of Rs. 30 lakhs, in association with MeitY Startup Hub and our co-hosts IIIT Delhi, Chitkara Innovation Foundation, and Amity Innovation Incubator, Gurugram. This series aimed to propel the startup from R&D to MVP stage.

We seeked solutions in 5 challenges:

1. Grand Challenge 1.0: Charging Solutions
2. Grand Challenge 2.0: Optical or Quantum Communication

3. Grand Challenge 3.0: Space-Tech Components
4. Grand Challenge 4.0: Advanced Material Engineering
5. Grand Challenge 5.0: Healthcare Solutions

### FITT SIDBI iDEX Fund

FITT had opened applications for the FITT SIDBI iDEX Fund, giving startups the chance to secure up to ₹1 crore in financial support. This opportunity was exclusively available to MSMEs and startups in the defence sector, aimed at fostering innovation and driving growth in the industry.

### FITT Investment Fund

After successfully closing the first cohort of the FITT Investment Fund, FITT, in collaboration with SIDBI (Small Industries Development Bank of India), opened applications for FITT Investment Fund 2.0 (FIF 2.0), designed exclusively for early-stage deep-tech startups.

FIF was a syndicated fund aimed at providing essential financial resources to support early-stage deep-tech startups. Our mission was to empower innovators by accelerating their journey from prototype to market realization.

### BUILD 4.0

FITT in collaboration with Boeing launched the Boeing University Innovation Leadership Development Program #BUILD 4.0, designed to foster innovation and entrepreneurship in high-impact sectors such as Aerospace, Space-tech, Electric Vehicles (EV), E-mobility, Green Energy, Sustainability & Social Impact. The winner will receive a funding Amount worth INR 10 Lakhs.

Roadshows has been conducted at various institutions and universities including AKGEC Ghaziabad, KIET Ghaziabad, NIT Srinagar, IIT Jammu, AIC - BIM-TECH, NSUT and IIT Ropar as a part of the outreach initiative under #BUILD 4.0.



# Research & Innovation Park

IIT Delhi Research and Innovation Park is a managed facility with a focus on innovation and product development where IIT Delhi, industry, entrepreneurs, and government agencies interact and enable the creation of advanced technological solutions.

- To accelerate research translation
- Provide avenues for IIT Delhi students and faculty to interact more closely with industry and bring to market technological breakthroughs through incubation
- Amplify technological and societal impact of R&D at IIT Delhi
- Galvanize entrepreneurial aspirations

## Facilities

For those who aren't a part of the research community yet, R&I Park, IIT Delhi extends opportunities to take advantage of its state-of-art facilities by booking them for events, conferences, workshops, etc.

- Auditorium (~ 110 People)
- Board Room (~ 35 People)
- Mini Board Room (~ 14 People)
- Conference Halls (~ 10 People)
- Meeting Rooms (~ 5 People)
- Training Room (~ 26 People)
- Cafeteria
- Suite Rooms (Single & double occupancy)
- Electronic Laboratory
- Mechanical Lab Laboratory
- Bionest Laboratory

## EVENTS @ R&I

### International Delegations Connect:

To strengthen cross-border partnerships, FITT hosted delegations from the UAE, Nepal, Malaysia, Denso International, the Japan Society for the Promotion of Science, and Korea.



### Visit by Mr. Werner Vogels, VP and CTO of Amazon (27th September 2024)

Mr. Werner Vogels, VP and CTO of Amazon visited the R&I of IIT Delhi and discussed the innovation and entrepreneurship activities on the campus and how FITT is engaging with corporates at the R&I Park. He showed particular interest in IP driven technologies and the Technology transfer activities at IIT Delhi. Mr. Vogels gave his in-depth insights on how Amazon plans and implements newer technologies and potential collaboration opportunities with startups in these sectors.



## List of Current Corporate Partners

|   |   |
|---|---|
| National Center for Assistive Health Technology       |   |
| Novo Nordisk Foundation India                         |   |
| CoE Process Safety & Risk Management - Nayara Energy  |   |
| DS Centre for Entrepreneurship                        |   |
| INRM Consultants Pvt Ltd                              | LetsVenture Technologies Pvt Ltd        |
| Foundation for Innovation and Social Entrepreneurship | BotLab Dynamics Pvt Ltd                 |
| DV2JS Innovation LLP                                  | Aftershoot Pvt Ltd                      |
| Tata Consultancy Services                             | Mitsui Kinzoku Components India Pvt Ltd |



# FITT: A Key Player in the Ecosystem

## Interaction with International Delegation (30th July 2024)

A brief discussion was held with the group of startups from Korea and Unicorn Incubator CEO Mahima Jinah Kim, discussing the global support and innovation, highlighting how the Indian ecosystem can be a robust support system for Korean startups, emphasizing the DS Centre of Entrepreneurship (DSCoE) as a pivotal platform for fostering both Indian and global startups.



As one of the leading partners in the defence innovation ecosystem, FITT will support these initiatives and stakeholders in driving the ecosystem in both countries.



## GBI 2024 (12-14th September 2024)

FITT took part in Global Bio India (GBI) 2024, a premier event in biotechnology and healthcare that brought together innovators from across the nation. Held from September 12-14, 2024, at Pragati Maidan, New Delhi, and organized by BIRAC, this gathering served as a crucial platform for collaboration and progress toward a healthier and more sustainable future.

At GBI 2024, FITT had the opportunity to:

1. Connect with incubators and startups driving India's dynamic biotech sector
2. Highlight its commitment to supporting innovative startups and fueling India's biotech growth
3. Discover new collaborative opportunities with fellow innovators
4. Learn from key industry leaders and experts, gaining valuable insights.



## Panel Discussion at IvyCap Day (14th September 2024)

At IvyCap Day, Ankit Saxena, Director of DSCoE, highlighted the importance of investor-ecosystem partnerships in incubators and the role of FITT-DSCoE's resources in unlocking startup potential. He emphasized that collaboration between investors and incubators will drive entrepreneurship and innovation.



## iDEX (INDUSXSummit2024) (9 - 10th September 2024)

3rd India-US Defence Acceleration Ecosystem Summit (INDUSXSummit2024)-iDEX - DIO Ministry of Defence, in collaboration with the US Department of Defence, successfully hosted the summit on 9th & 10th September at Stanford University.

This event brought together leading policymakers from Washington and New Delhi with a central focus on strengthening defence and advanced technology partnerships. This initiative strengthened the technology collaboration between the two nations as startups, MEMEs, and innovators got a platform to take their innovation to new heights of impact.

Dr Nikhil Agarwal, MD FITT, was a part of the Indian delegation. On Day 2 of the summit, he was part of a roundtable discussion focused on funding Defence Innovation and resilient supply chains joined by JR Gibbens (CIO, Office of Strategic Capital, U.S. Department of Defense), Ajay Kumar (Former Defence Secretary of India), Vish Sahasranamam (Co-founder & CEO, Forge Accelerator), and Eric Volmar (Center Associate Director, Stanford GKC).

## Visit to Fujitsu Research India (23rd September 2024)

Dr Nikhil Agarwal, Managing Director, FITT visited Fujitsu Research India for a discussion on cutting-edge technologies like semiconductors, quantum computing, and artificial intelligence (AI). The visit focused on how Fujitsu and IIT Delhi can collaborate on advancing research initiatives.

Potential synergies and partnerships for future research engagements were explored, aiming to drive innovation at the intersection of academia and industry.



### Foundation for Innovation and Technology Transfer

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