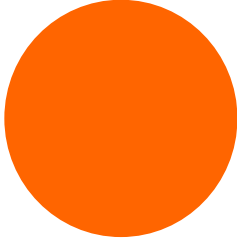


Deep Dive

July & August 2025



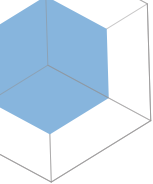


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Foreword

Friends and Innovators,

It gives me great pleasure to pen this foreword for Deep Dive, iTNT Hub's flagship newsletter that chronicles the pulse of Tamil Nadu's Deep & Emerging Technology ecosystem. Innovation today is not confined to laboratories or research institutions alone. It thrives at the intersection of academia, startups, industry, and government. Platforms like iTNT Hub are playing a catalytic role in bringing these diverse stakeholders together to accelerate technology development, enable commercialization, and create pathways for Atmanirbhar Bharat.

At NRDC, our mission has always been to translate the wealth of research emerging from India's laboratories into impactful products, services, and enterprises. I see a strong alignment with iTNT Hub's efforts in fostering collaboration, nurturing young innovators, and creating an enabling ecosystem for deep-tech entrepreneurship. The success stories highlighted in this newsletter are not just inspiring; they also signal India's growing strength in frontier technologies that will define the future – whether in AI, Robotics, Space Tech, Clean Energy or Advanced Manufacturing.

NRDC collaborated with iTNT Hub at the first Innovate in Tamil Nadu (IN²TN) IP Conclave at Chennai on July 30, 2025. We exchanged an MoU with iTNT Hub to benefit Tamil Nadu based Deep & Emerging Tech startups & Researchers through Technology Transfer management & mentoring; Linking to Startup India Mission & technology sourcing support from Govt Labs/Institutions; Facilitation of technology marketing in India & abroad; Support in IPR awareness & sensitization in TN Tier 2 & Tier 3 cities; and Technology Readiness Level certification through the NRDC - NETRA Program.

As we move forward, it is imperative that we continue to invest in research, strengthen the innovation-to-market pipeline, and build global partnerships while ensuring that our innovations address the needs of society. Initiatives like Deep Dive help amplify these efforts by sharing knowledge, celebrating milestones, and inspiring the next generation of entrepreneurs and researchers.

I congratulate the iTNT Hub team for their tireless work in shaping this ecosystem and for curating this newsletter as a mirror to its progress. I am confident that Tamil Nadu's DeepTech journey will serve as a model for the nation and contribute significantly to India's vision of becoming a global leader in science, technology, and innovation.

Jai Hind.



Commodore Amit Rastogi (Retd.)

Chairman & Managing Director
National Research Development Corporation (NRDC)
Email id: cmdnrdc@nrdc.in

IT & DS

MINISTER'S DIARY

A glimpse of the key events and initiatives that the Hon'ble Minister for Information Technology & Digital Services, Government of Tamil Nadu, Dr. Palanivel Thiaga Rajan was a part of in July & August 2025.



The Hon'ble Minister addressed the 57th Regional Conference of the Southern India Regional Council of ICAI on "Globalisation, Free Trade and Tariffs – Past, Present and Future." The minister stated that today we are at an inflection point – a shift from hyper-globalisation towards regional blocs and bilateral pacts. Free trade has generated prosperity, though unevenly spread.

As globalisation enters a new phase of fragmentation, India's growth story will be written by how well we invest in our people – their skills, their ingenuity, their productivity and above all, their ability to adapt. Harnessing this power with vision and purpose will ensure that India will not merely participate in the next chapter of globalisation – we will define it, he noted.

As the Chief Guest at the 65th ICT Academy BRIDGE Conference in Coimbatore on the theme "TN – From Skilling to Global AI Leadership", Dr. Palanivel Thiaga Rajan reaffirmed the State's commitment to investment in human capital and inclusive growth. The Hon'ble Minister launched India Design Week 2026 – India's largest design fest for budding engineers - organised by ICT Academy and powered by Autodesk and honoured NEXT GEN Edupreneur Awards 2025 winners – celebrating innovation in education.



Gracing the MakeGPT Conference at IIT Madras, in collaboration with Kochadai Technology Solutions, the Hon'ble witnessed a live demo of building a full embedded system in under a minute. The minister said that at a time when AI often raises fears of disruption, innovations like this show how technology can also empower and inspire.

Innovations like this enable not just experts, but students, enthusiasts, and people from all walks of life to create meaningful products, he said and noted that this also calls for a shift in our mindset. With its strong human capital, Tamil Nadu can turn these global shifts into inclusive growth.

Addressing the centenary celebrations of Good Shepherd Convent & Matriculation Higher Secondary School, Chennai, the Hon'ble Minister urged for a reimagining of existing curricula to attune it towards an AI-driven future, with strong emphasis on human oversight and ethics.



In the presence of Dr. Palanivel Thiaga Rajan, the Tamil Nadu e-Governance Agency (TNeGA) functioning under the minister's IT & DS Department signed an MoU with Meta to launch WhatsApp-based citizen services, launching a single number through which people can access 50 essential government services anytime, anywhere.

In its first phase, citizens will be able to lodge grievances, pay electricity and water bills, pay municipal taxes, and metro tickets – all within a single chat window. The event was attended by Thiru. Brajendra Navnit, I.A.S., Principal Secretary to Government, IT & DS Department; Dr. Alby John Varghese, I.A.S., CEO, TNeGA; and Mr. Ravi Garg, Director, Business Messaging, Meta in India.

Speaking at the inaugural conference of CII Indian Women Network's Madurai Chapter, the Hon'ble Minister highlighted women's pivotal role in the workforce powering industries like electronics, footwear, and textiles – driving our 11.19% economic surge. With technology like AI, Big Data, and voice-based governance set to shape the future, the Minister said that we can look forward to better services, a stronger democracy, and a level-playing field for Women in Tech.



Dr. Palanivel Thiaga Rajan joined eminent jurists, scholars, and policy leaders at the Harvard Law School and delivered the Distinguished Public Lecture on "75 Years of Indian Constitution and the Supreme Court of India: The Role of Human Rights & Public Policy for Empowering Citizens", organised by O.P. Jindal Global University, in collaboration with Center on the Legal Profession, Harvard Law School.

Sharing the stage with Hon'ble Justice U.U. Lalit, Former Chief Justice of India, the Hon'ble Minister reflected on the evolving role of the Constitution as a living document; the interplay between judicial interpretation and public policy; and the imperative to safeguard human rights in an era of rapid change.

The Hon'ble Minister also delivered the Presidential Address at the JGU Alumni Meet in New York, held at the Harvard Club as part of O.P. Jindal Global University's Distinguished Public Lecture series on "India at 2047: The Future of Law & Justice in the World's Largest Democracy."

He reflected on how technology, federalism, and inclusive governance will shape India's democratic journey over the next two decades. The occasion also marked the release of JGU's Sustainable Development Report 2025, underscoring the role of academia in fostering innovation, equity, and global cooperation.



Joining the celebration of 60 years of diplomatic ties between Singapore and India in Chennai, hosted by the Consul-General of the Republic of Singapore in Chennai, the Hon'ble Minister highlighted the enduring economic, historic and cultural bonds between Tamil Nadu and Singapore, where Tamil is one of the official languages. Having made Singapore his home for years during his stint with Standard Chartered Bank and volunteering at the Monetary Authority of Singapore, he touched on the rising stature of Singapore on the Global stage.



Dr. Palanivel Thiaga Rajan inaugurated the Tamil e-Library at the Tamil Virtual Academy –functioning under the IT & DS Department – which has been enhanced with various modern technological facilities, including multimedia applications including photographs, audio collections, videos, and maps, user-defined search and classification facilities, and the facility for users to directly upload rare documents.

The event was attended by the Principal Secretary to the Government, IT & DS Department, Thiru. Brajendra Navnit, I.A.S.; TVA Joint Director Thiru. R. Komahan; Assistant Director (E-Library) Mr. Selva Puviyarasan, and other officials and members of the TVA Advisory Committee. Here is the link to this free knowledge repository: <https://tamildigitallibrary.in>

The Hon'ble Minister hosted Jorgan K. Andrews, Chargé d'Affaires, U.S. Embassy in India; Chris Hodges, U.S. Consul General in Chennai; Brian Smyser, Chief of the Political & Economic Section; and Edith Yuh, Vice Consul, at his camp office in Chennai. Their discussions were on Tamil Nadu's digital transformation journey, covering ground from AI-led innovation, cybersecurity and public digital infrastructure to sharing our vision of building resilient, future-ready tech ecosystems through cross-border partnerships.



Participating in the 204th Peru Independence Day celebrations in Chennai, hosted by the Embassy of Peru in India, Dr. Palanivel Thiaga Rajan cherished the growing collaboration between Tamil Nadu and Peru, especially across the IT, automobiles, textiles, pharmaceuticals, and minerals sectors.

The Hon'ble Minister highlighted the deep culinary and cultural ties that unite our peoples. "Our connections, rooted in friendship and shared history, will continue to grow stronger in the years ahead. We look forward to deepening cooperation in innovation, trade, and cultural exchange, forging lasting bonds between our regions," the minister said.

As the Chief Guest at the NABARD's 44th Foundation Day celebrations, the Hon'ble Minister recalled the National Bank for Agriculture and Rural Development's vital role in supporting agriculture, allied sectors, and rural enterprise across the length and breadth of India.

He termed achievement of the 100% computerisation of Primary Agricultural Credit Societies (PACS) was a long-needed reform ensuring transparency, improving service delivery, and strengthening financial accountability at the most local level of credit access.



Dr. Palanivel Thiaga Rajan spoke at the GCC Coimbatore Summit 2025, organised by CII on the theme Coimbatore – India's Twin-Engine GCC Hub. The Hon'ble Minister also released the report "Coimbatore Rising – A New Blueprint for GCC Expansion," which captures the city's growing potential as a destination of choice for global capability centres.

The Minister highlighted the importance of nurturing well-rounded professionals with strong integration skills and cross-functional capabilities. GCCs are increasingly drawn to cities that combine global standards of growth and inclusiveness with deep-rooted, established ecosystems. Coimbatore, with its culture of openness, innovation, and entrepreneurship, is uniquely poised to become a leading hub in India's evolving GCC landscape, he added.

The Hon'ble Minister took part in the reception hosted onboard Itsukushima, Japan Coast Guard Academy's training vessel, during its maiden visit to Chennai, as part of its Global Ocean Voyage Training programme. The minister said that this port call further cements maritime cooperation between India and Japan, strengthening our shared commitment to safety, security, and strategic engagement at sea.

The evening was graced by Captain Naoki Mizoguchi, Commanding Officer of Itsukushima; Mr. Muneo Takahashi, Consul-General of Japan in Chennai; Inspector General Datwinder Singh Saini, TM Commander Coast Guard Region (East); and cadets of the Indian Coast Guard, reflecting the spirit of collaboration and mutual respect between our maritime institutions.



The Hon'ble Minister meet His Excellency YB Tuan Gobind Singh Deo, Malaysia's first Minister of Digital – a portfolio established in December 2023 to spearhead the nation's digital transformation. The timely meeting and meaningful conversation focused on areas that are redefining how governments engage with citizens and drive innovation: Big Data, Artificial Intelligence and GovTech. The Minister said that these exchanges open up multiple opportunities for collaboration in digital governance and emerging technologies, even as they strengthen the centuries-old historical ties between Tamil Nadu and Malaysia.



Innovate In TN (IN²TN) IP CONCLAVE 2025

Highlights

PARTICIPANTS

1,315

RESEARCHERS - 711

INDUSTRY - 313

OTHERS - 106

MASTERCLASS PARTICIPANTS - 185

44

RESEARCHERS & STARTUPS FOR
PATHFINDER INCUBATION &
IACCELERATE ACCELERATION
COHORT ONBOARDED

4

TECHNOLOGIES TRANSFERRED

51

BEACON GRADUATES

16

TECHNOLOGIES SHOWCASED

25

NEW JIGSAW INSTITUTION PARTNERS

37

INDUSTRY INNOVATOR INTERACTIONS

33

SUBJECT MATTER EXPERTS

16

RESEARCHERS

15

EXPERT TALK

Highlights

10

INDUSTRY EXPERTS

5

PANEL DISCUSSIONS &
FIRESIDE CHATS

13

INVESTMENT PARTNERS ONBOARDED
TO FOUNDATION FUND NETWORK

RS. 53 LAKH

HANDED OVER TO DEEP &
EMERGING TECH STARTUPS

5

FOUNDATION FUND BENEFICIARIES

4

LEGAL PARTNERS ONBOARDED

7

STRATEGIC PARTNERSHIPS

4

MASTERCLASSES

PRECURSOR EVENTS

05

MASTERCLASSES

15

SUBJECT MATTER EXPERTS

722

BENEFICIARIES

Innovate In TN (IN²TN)

IP CONCLAVE 2025

COLLABORATORS

Government Partners



Ecosystem Partners



Event Sponsors



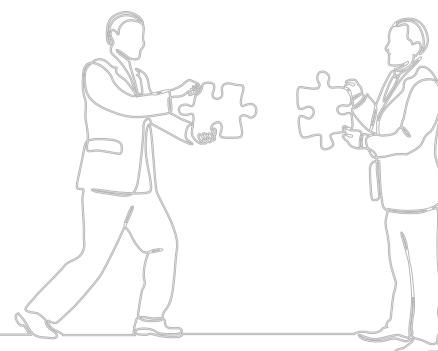
Industry Partners



National & International Collaborators



Co-Incubators



Innovate In TN (IN²TN) IP CONCLAVE 2025

ASSEMBLY ANNOUNCEMENT



Intellectual Property is the cornerstone for Deep Tech and Emerging Tech startups. Over the last two years, Tamil Nadu has been the leader in patent filing in India with 12,948 patents, mainly driven by Deep Tech innovations. To establish the State as an IP capital, and to promote IP commercialization by facilitating technology transfers between academia, researchers, innovators, and startups & industry, the Government will organize an annual “Innovate in Tamil Nadu” (IN²TN) conclave

-Dr. Palanivel Thiaga Rajan, Hon’ble Minister for Information Technology & Digital Services,
At the Tamil Nadu Legislative Assembly on June 28, 2024





IP is the cornerstone for Deep Tech and Emerging Tech startups. Over the last three years, TN is the leader in patent filing in India with 20,000+, mainly driven by Deep Tech innovations. The Hon'ble Deputy Chief Minister of Tamil Nadu Thiru. Udhayanidhi Stalin inaugurated the 1st "Innovate in Tamil Nadu (IN²TN) IP Conclave" at the Anna Centenary Library in Chennai on July 30, 2025.

The Conclave themed "Intellectual Powerhouse: Transforming Tamil Nadu into the Innovation Capital of India" was hosted by iTNT Hub. IN²TN aimed at fostering industry-academia collaborations by bridging the gap between knowledge and industry, strengthening Tamil Nadu's IP framework and strengthening the State's IP ecosystem, accelerating patent filings & creating a clear pathway for research outcomes to reach the market.

The Conclave brought together researchers, startups, incubators, industry, investors, policy makers & decision makers and was packed with a series of keynote & experts talks, masterclasses, fireside chats, panel discussions, speed mentoring, innovation showcases & technology pitches. TVS Next, Jeppiaar University, Kotak Mahindra Bank and Vellore Institute of Technology collaborated with iTNT Hub as the conclave sponsors.

World Intellectual Property Organization (WIPO), Indian Patent Office (IPO), All India Council for Technical Education (AICTE), National Research Development Corporation (NRDC), NASSCOM, The American Society of Mechanical Engineers (ASME), Centre for Development of Advanced Computing, India (C-DAC), Indian Science Technology & Engineering facilities Map (i-STEM), Bosch, Mahindra and Mahindra, National & Global investors were the Conclave collaborators.

CHIEF GUEST ADDRESS



THIRU. UDHAYANIDHI STALIN

Hon'ble Deputy Chief Minister

Today, under the leadership of the Chief Minister Thiru. M.K. Stalin, Tamil Nadu has become the third-largest software exporter in India and has established Chennai as the SaaS capital, with IT expansion spreading rapidly to Tier 2 cities. Launch of iTNT Hub in May 2023 is a significant milestone, driving structured innovation ecosystem by supporting Deep & Emerging Tech startups with seed funds, national & global partnerships, technology transfer, and commercialization efforts.

The Conclave emphasized the importance of creating, protecting, scaling & commercializing IP, fostering collaboration among researchers, startups, industry, and policymakers to enhance IP awareness and economic value. The Government's commitment to policy, infrastructure, investment, and leadership aims to empower the entire ecosystem. Together, Tamil Nadu is moving forward as one innovative ecosystem, united in building a future-ready, innovation-driven State.

SPECIAL ADDRESS

DR. PALANIVEL THIAGA RAJAN

Hon'ble Minister for IT&DS

We have consistently shown that an inclusive approach with participation of all delivers superior outcomes, at least in terms of education, innovation, research patents. What we aim to do through first the establishment of the iTNT Hub, and events like this, is to find ways to leverage that research, innovation and ideas into commercial outcomes and into new companies. The conclave is an opportunity to create a lot of interchanges, a lot of relationships, creating ecosystems and cultures of innovation through sustained focus.



WELCOME ADDRESS



THIRU. BRAJENDRA NAVNIT, I.A.S.

Principal Secretary to Government, IT&DS Department

For a uniquely curated program for Innovation In Tamil Nadu, there are four "I" that are key elements - Innovators, Institutions, Investors and Industrialists - and we are bringing all these people together. From the takeaways of the IP Conclave's proceedings a solid plan will be worked out for which all the startups will look forward towards turning innovations to monetization.

VOTE OF THANKS

MS. VANITHA VENUGOPAL

CEO, iTNT Hub

Whole-heartedly thanked the Hon'ble Chief Minister Thiru. M.K. Stalin, Hon'ble Deputy Chief Minister Thiru. Udhayanidhi Stalin, Hon'ble Minister for IT & DS Dr. Palanivel Thiaga Rajan, and State Planning Commission Executive Vice Chairman Dr. J. Jeyaranjan for their support since inauguration of iTNT Hub in 2023. Thanked the Principal Secretary to Government, IT & DS Department, Thiru. Brajendra Navnit, I.A.S., collaborators, Ecosystem Partners, Researchers, Startups, Industry and Media for valuable partnership and unwavering support in advancing Tamil Nadu's DeepTech innovation and startup ecosystem.



Technology SHOWCASE

The IP Conclave featured a vibrant Technology Showcase in collaboration with the AICTE, where patent holders and researchers from leading institutions presented their cutting-edge innovations across Deep and Emerging Tech domains. The Hon'ble Deputy Chief

Minister of Tamil Nadu, Thiru. Udhayanidhi Stalin, accompanied by the Hon'ble Minister for IT&DS, Dr. Palanivel Thiaga Rajan, visited the stalls, interacted with innovators and encouraged the participants to explore the potential impact of their breakthroughs on industry and society.



- “Machine for making edible sheets for packaging industry” by Dr. Rajeshwari of Avinashilingam Institute for Home Science and Higher Education for Women.
- “SafeMate, an AI-powered wearable device designed to predict and detect falls in elderly individuals”, designed by Mr. Ruthresh & Dr Martin of Sri Manakula Vinayagar Engineering College.
- “SmartEYE HighRes: Advanced Endoscopic Imaging System” by Ms. A. Maheswari, from the Healthcare Technology Innovation Centre, IIT Madras.
- “V-SenseX - a non-invasive hearing device using tooth-mounted micro-vibrations that transfer sound through the skull, providing an affordable alternative to conventional hearing aids” by K. Vaishal Manu & Dr.Martin of Sri Manakula Vinayagar Engineering College.
- “Spectral colour sensor for detecting methanol & ethanol (Residual/Native) in beverages/cosmetics” technology by Dr. Jayapriya & Ms. Nikarika Ramesh of Anna University.
- “Autonomous Coal Mine Dumper – a bold industrial innovation” by Dr. Pradeesh and Dr. Chinnadurai from Chennai Institute of Technology and Bannari Amman Institute of Technology.
- “Sectional Hank Dyeing Machine” a semiautomatic dyeing machine is developed to hold the portion of yarn to be undyed by providing a platform and a synchronised movement, by Dr. Sukanya Devi from Kumaraguru College of Technology.
- “Real-time AI Autonomy Robot for UV dis-infection and patient assistance using Edge device” by Dr. Sivabalakrishnan of Bannari Amman Institute of Technology.
- “Amphibious Crawler Robot – an all-terrain innovative amphibious robot that seamlessly operates on both land and underwater” by Mr. Rajeuv Govindan.
- IoT Enabled Aquabuooy for Precision Aquaculture by Dr. Kanagachidambaresan of Vel Tech Rangarajan and Dr Sakunthala R&D Institute of Science.
- “Flame Retardant Coating Composition and a Process for its Preparation - technology” by Dr. Eshwaraiah of SRM Institute of Science and Technology, Kattankulathur.
- “Hybrid Panel Structure for Optimized Structural Performance technology” by Dr. Pradeep of SRM Institute of Science and Technology, Kattankulathur.
- “Gait Rehabilitation Device - A single-motor device that aids gait rehabilitation by providing consistent, repetitive leg movement cycles for disabled patients” by Dr Mohan Varma, of Vellore Institute of Technology, Vellore.
- “Multipurpose Bio-Glue for Electrochemical Biosensor: Point-of-care Diagnostics” by Dr. Murugan Veerapandian of CSIR-Central Electrochemical Research Institute, Karaikudi.
- “Sustainable Nanotech Solution: Improved Method of Bacterial Mediated Biosynthesis of Zirconium Oxide Nanoparticle” by Dr. S.P.Suriyaraj, of Rathinam Technical Campus, Coimbatore.
- “Monitoring, Diagnosing, and Managing the health of chickens in poultry farms using Collaborative Robots” by Dr. Elango of KSR College of Technology,



Impressed by the showcased research, industry representatives engaged in one-on-one Industry-Inventor Interactions. The mentoring sessions were organised in collaboration with NASSCOM. In four dedicated meeting rooms, industry experts provided valuable input to the researchers, serving as a crucial platform for researchers to present their diverse

projects and gain immediate expert feedback.

A total of 37 mentoring sessions happened between the 16 researchers and 10 industry experts from companies like AstraZeneca, Featherlite, Neoware, Eone, Worldline, Saama, Aqua Connect, Nuerealm, and Siam Computing.

TECHNOLOGY Transfers

The Tamil Nadu Technology Transfer Facilitation Centre (TNTTFC) for DeepTech Innovations at iTNT Hub facilitated four Technology Transfers at the IP Conclave, bridging the gap between research, innovation and industry adoption. By connecting academia, startups, and enterprises, these collaborations accelerate the commercialization of cutting-edge solutions in DeepTech and Emerging Tech, driving economic impact and strengthening Tamil Nadu's position as an innovation leader.

The Hon'ble Deputy Chief Minister of Tamil Nadu Thiru. Udhayanidhi Stalin; Hon'ble Minister for IT&DS Dr. Palanivel Thiaga Rajan; and State Planning Commission Executive Vice Chairman Dr. J. Jeyaranjan. Principal Secretary to Government, IT&DS Department, Thiru. Brajendra Navnit, I.A.S.; Chairman & Managing Director, NRDC, Commodore Amit Rastogi; President – Electronics, Zetwerk, Mr. Josh Foulger; Group CEO, IIT MRP, Mr. Natrajan Mallupillai; & Managing Director & Head of Global Innovation & Technology Center, AstraZeneca India Pvt Ltd, Mr. Siva Kumar Padmanabhan, was on stage.



Recombinant Ectoine Technology Derived from Deep-sea Bacteria

from Prof. Balaji Ramakrishnan, Director, National Institute of Ocean Technology (NIOT) to Mr. Varre Chaitanya Pradeep, Managing Director of Varre AyuStruct Ventures Pvt. Ltd.



Medical Drone with Data Communication Enabled Flight Controller for Realtime Tracking

from Dr. M.A. Bhagyaveni, Professor, Department of Electronic & Communication Engineering, College of Engineering, Guindy, to Mr. Shreeprakash Rathakrishnan, CEO & Founder ACME India Medical Drones Pvt. Ltd.



System and Method for Gesture Driven UAV - Gesturefly

from Dr. M.A. Bhagyaveni to Arul Jaganathan, Director, Mayura Aero Space Pvt. Ltd.

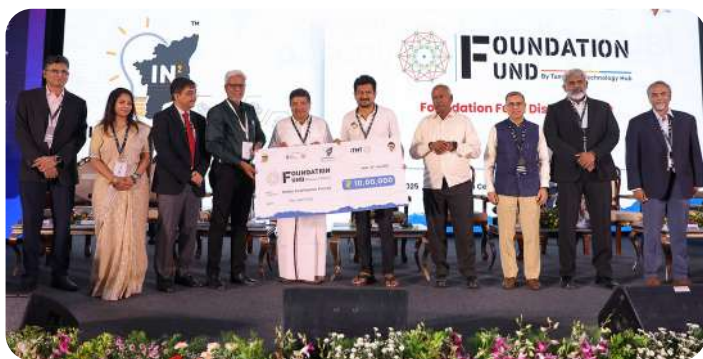


IoT Based Handheld Pregnancy Monitoring Device

from Dr. M.A. Bhagyaveni to Mr. T. Arivuraja, CEO, MAPe IT Solutions Pvt. Ltd.

FOUNDATION Fund

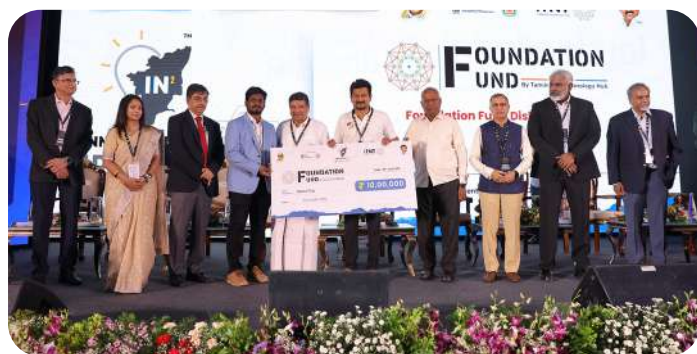
The Hon'ble Deputy Chief Minister of Tamil Nadu Thiru. Udhayanidhi Stalin presented cheques for Rs. 53 Lakh under iTNT Hub's FOUNDATION (Financing Opportunities for Unleashing Deep Tech Advancements & Transformative Innovations) to five promising Deep and Emerging Tech Startups incubated at the Hub to support their innovation journey, accelerate product development, and drive market adoption of cutting-edge solutions.



Settler Ecopolymer Pvt. Ltd.

Mr. Senthil Kumar, Founder & CEO, Settler Ecopolymer, is transforming unrecycled PET waste into eco-friendly resin solutions for a sustainable future. He received a cheque for Rs. 10 Lakh, which will enable Settler Ecopolymer to generate revenue and further aid in its overall growth.

Through FOUNDATION Fund, iTNT Hub supports the growth of promising Deep and Emerging Tech startups by providing crucial early-stage financial assistance. This fund is designed to help iTNT hub incubated and Accelerated startups enhance product development, scale operations, and bring innovative solutions to market, strengthening Tamil Nadu's position as a hub for technology-led entrepreneurship.



SpaceTug Pvt. Ltd.

Mr. Hari Shankar, Co-founder & CEO, SpaceTug, is building a satellite network to clean up space debris and enable sustainable space operations. He received a cheque for Rs. 10 Lakh, which will enable Spacetug to build and test a robotic arm and achieve their goals.



Likan Cleancell Innovations Pvt. Ltd.

Mr. Senthil Kumar, CEO, Likan Cleancell Innovations, is developing eco-friendly aluminum batteries as a sustainable alternative to lithium-ion for clean energy storage. He received a cheque for Rs. 10 Lakh, which will enable Likan Cleancell Innovations to boost R&D and prepare for pilot scale manufacturing.



Acrofluidic Innovations Pvt. Ltd.

Mr. Satish Ramalingam, Co-founder of Acrofluidic Innovations, has developed an integrated platform combining immunomagnetic systems & microfluidic chips to isolate Circulating Tumor Cells - offering rapid, non-invasive cancer detection & monitoring. The Rs. 10 Lakh fund will enable Acrofluidic to transform their academic innovation into a MVP.

IMRobonix Pvt. Ltd.

Mr. Iyyappan Madasamy, Founder & CTO, IMRobonix is developing Surgi-Kot, India's first precision robotic handheld surgical device for minimally invasive procedures. The cheque for Rs. 13 Lakh he received will enable IMRobonix to complete clinical trial compliances and regulatory approvals.



FOUNDATION Network Launch



iTNT Hub formalised the Letter of Intent (LoI) for the FOUNDATION Network, a strategic initiative to connect its incubated and accelerated startups with potential investors. The network aims to provide these startups with access to capital as well as mentorship and industry expertise, accelerating their journey from innovation to market impact.

The investor networks that the handed over the LoI to be part of the Network are: Algram Labs, 4i Airavat Ventures, Malabar Angels, Campus Angels, IN44 Capital, Keiretsu Capital, Lead Invest, Pontaq, Enlighten Capital, Artha99, Artha Venture Capital, Peaceful Progress & IvyCap Ventures.

Highlights of the LoI

- iTNT Hub will connect investors with portfolio startups seeking capital through profiles, meetings, and direct connections.
- The initiative promotes risk investment, encouraging investors to contribute both funding and their expertise.



COLLABORATIONS at IN²TN IP Conclave

As part of the IN²TN IP Conclave, a series of strategic Memoranda of Understanding (MoUs) were exchanged between key stakeholders from industry, academia, research institutions, and Government agencies. These collaborations aim to accelerate technology transfer, strengthen Tamil Nadu's IP ecosystem, and drive

commercialization of innovations across DeepTech and Emerging Tech sectors. The MoUs underscore the state's commitment to fostering a vibrant innovation landscape and positioning Tamil Nadu as a global hub for intellectual property-led growth.

iTNT Hub x NRDC

Ms. Vanitha Venugopal, CEO, iTNT Hub, exchanged the MoU with Commodore Amit Rastogi, Chairman & Managing Director, NRDC.

MoU Highlights

- Technology Transfer Management & Mentoring Support.
- Linking to Startup India Mission & technology sourcing support from GoI Labs/Institutions.
- Facilitation of Technology Marketing in India and abroad.
- Support in IPR Awareness & sensitisation in TN Tier 2 & Tier 3 cities.
- Technology Readiness Level Certification through NRDC - NETRA Program.



iTNT Hub x ASME

Ms. Vanitha Venugopal, CEO, iTNT Hub, exchanged the MoU with Ms. Avni Malhotra, Deputy Director, ASME Foundation.



MoU Highlights

- DeepTech Hardware Product Design support.
- Preferential access to ASME's flagship programs such as International Mechanical Engineering Congress & Exposition (IMECE) and iShow
- Strengthening the hardware product design ecosystem through sensitisation events for TN Tier 2 & 3 cities.
- Joint hardware and product design challenges.

iTNT Hub x BOSCH Global Software Technologies

Ms. Vanitha Venugopal, CEO, iTNT Hub, exchanged the MoU with Mr. Naved Narayan - Vice President, Head R&D Center, Bosch Global Software Technologies.

MoU Highlights

- Corporate led co-incubation support programs.
- Collaborate on joint innovation challenges for solution identification and acquisition.
- Access to Bosch's technical mentorship and advanced labs.



iTNT Hub x C-DAC, Bangalore

Ms. Vanitha Venugopal, CEO, iTNT Hub, exchanged the MoU with Dr. D Ethirajan, Centre Head, (Centre for Development of Advanced Computing) C-DAC, Chennai, and Mr. P. Soundararajan, Scientist E, C-DAC, Bangalore.



MoU Highlights

- Access to Supercomputing facilities such as PARAM Utkarsh and other quantum infrastructure.
- Enable joint research & product development in technology domains such as HPC, AI, Cybersecurity, IoT, Quantum, and Strategic Electronics.
- Access to labs & technical mentorship from CDAC Technology experts

iTNT Hub x I-STEM

Ms. Vanitha Venugopal, CEO, iTNT Hub, exchanged the MoU with Dr. Harilal Bhaskar, Chief Operating Officer & National Coordinator, I-STEM.

MoU Highlights

- Facilitating access to (Pan-India Govt) lab equipment via the I-STEM portal.
- Create focussed "Women-in-Tech" program & Lab-to-Market Discovery Tours.
- Supporting in TN Startup & (pan-India) Researcher mentor matching.



iTNT Hub x Mahindra & Mahindra

Ms. Vanitha Venugopal, CEO, iTNT Hub, exchanged the MoU with Mr. Shankar Venugopal, Vice President, Mahindra & Mahindra.



MoU Highlights

- Corporate led co-incubation support programs.
- Collaborate on joint innovation challenges for solution identification and acquisition.
- Access to M&M's technical mentorship and advanced labs.

iTNT Hub x GCT

Ms. Vanitha Venugopal, CEO, iTNT Hub, exchanged the MoU with Dr. Gopi, Associate Professor, Government College of Technology, Coimbatore

MoU Highlights

- Collaboration covering areas such as IPR, usage, and resource sharing on a case-by-case basis.
- Facilitating the establishment of a dedicated innovation space in collaboration with iTNT Hub, to nurture Deep Tech and Emerging Tech entrepreneurship.



LoI with Legal Partners

The TNTTFC at iTNT Hub received Letters of Intent (LoIs) from four legal firms – Puthran & Associates, A.K. Mysamy & Associates, IP Dome, and Kria Law – to democratise access to IP services, enabling innovators across Tamil Nadu to protect, scale, and commercialize their ideas with confidence



LoI Highlights

- Strengthening the IP ecosystem for startups, researchers, and other stakeholders
- Promote IP awareness to enhance protection mechanisms and facilitation commercialization of innovations
- Structured delivery of IP masterclasses, legal advisory sessions and virtual IP clinics for Tier 2 & 3 cities.

JIGSAW MoU Exchange



JIGSAW (Joint Innovation Gateway for Synergistic Startup - Academic - Industry - Investor Work) a first-of-its-kind digital innovation platform, fosters Industry - Academia collaboration and advancement to foster Research & Development & Innovation through impactful collaborations by tapping the knowledge wealth in the engineering colleges of the State

iTNT Hub exchanged MoUs with 25 colleges across the southern districts as part of its ongoing efforts forging strong academia partnerships to strengthen the innovation ecosystem of Tamil Nadu, especially in Tier II & III

regions to launch Deep & Emerging Tech ventures and to facilitate technology transfers. Researchers and patent holders from these 25 colleges will be onboarded to the JIGSAW platform.

They will be engaged with the BEACON idea-validation bootcamp, will get access to the PATHFINDER incubation and iAccelerate acceleration programs, training & access to tech transfer, mentorship from SMEs and investors. Access to labs for prototype development and investment are among facilities to be extended to them. The TNTTFC for deep tech innovations will facilitate transfer of technologies to startups and industries.

Colleges that signed MoUs at the IP Conclave

Madurai

- Latha Mathavan Engineering College
- Sacs Mavmm Engineering College
- Ultra College of Engineering and Technology
- Vaigai College of Engineering
- Pandian Saraswathi Yadav Engineering College
- Fathima Michael College of Engineering and Technology

Virudhunagar

- Kamaraj College of Engineering and Technology
- P.S.R. Engineering College
- Ramco Institute of Technology
- Sethu Institute of Technology
- Sree Sowdambika College of Engineering

Sivagangai

- Alagappa Chettiar Government College of Engineering and Technology, Karaikudi
- K.L.N.College of Engineering
- Karaikudi Institute of Technology and Karaikudi Institute of Management

- SRM Madurai College For Engineering and Technology
- St. Michael College of Engineering and Technology

Theni

- Bharath Niketan Engineering College
- Government College of Engineering Bodinayakanur
- Nadar Saraswathi College of Engineering and Technology
- Theni Kammavar Sangam College of Technology, Theni

Dindigul

- NPR College of Engineering and Technology
- University College of Engineering, Dindigul
- Christian College of Engineering and Technology

Ramanathapuram

- Mohamed Sathak Engineering College

Chennai

- GRT Institute of Engineering and Technology

BEACON Graduation

Business Exploration & Accelerating Creation of New Ventures (BEACON) is iTNT Hub's flagship bootcamp designed to help aspiring founders validate, refine, and launch their early-stage startups. An immersive experience designed to refine and validate startup

concepts and market-entry strategies. A total of 51 BEACON 4.0 & 5.0 idea validation programs - mainly patent holders, researchers and startup founders - graduated in the presence of Hon'ble Deputy Chief Minister, Thiru. Udhayanidhi Stalin.





PATHFINDER Cohort 4.0 Launch

The PATHFINDER (Promoting Advanced Technologies & Innovations by Nurturing Entrepreneurs) incubation program of iTNT Hub supports early-stage ventures in becoming scalable and competitive businesses. Whether in DeepTech or Emerging Tech, the program empowers startups with tools, insights, funding and expert

guidance. iTNT Hub proudly launched the PATHFINDER Cohort 4.0 in the presence of the Hon'ble Deputy Chief Minister Thiru. Udhayanidhi Stalin. The Cohort is incubating a total of 22 startups working on breakthrough solutions across Deep and Emerging Technologies, addressing challenges in multiple sectors.



KEYNOTE Addresses



MS. DEBJANI GHOSH
Distinguished Fellow, NITI AAYOG

Tamil Nadu, A 360 Degree Landscape

In her virtual address, stressed that India's path to Viksit Bharat hinges on world-class R&D, impactful lab-to-market transitions, and leadership in frontier technologies. She highlighted Tamil Nadu's 360° ecosystem as a springboard to become a global innovation powerhouse.

MR. STEPHEN EZELL
Vice President – Global Innovation Policy, ITIF

Universities as Engines of Innovation

Highlighted how U.S. universities have become engines of innovation, generating 550,000+ inventions, 140,000 patents, and 18,000 startups. He urged India to adopt strong tech-transfer policies, foster scientist- entrepreneurs, fund young startups, and invest in R&D.



COMMODORE AMIT RASTOGI (RETD.)
Chairman & Managing Director, NRDC

Technology & Innovation as Enabler to High Growth Economy

Announced the expansion of NRDC's footprint in Tamil Nadu through iTNT Hub, enabling Deep Tech startups to access NRDC schemes and TRL certification. He reaffirmed the Hon'ble Chief Minister's vision of IP as a key driver for a trillion-dollar economy.

MR. NAVED NARAYAN
Vice President & Head R&D, BOSCH Global Software Technologies

Innovation Culture is Important for Creating Opportunities

Highlighted BOSCH's largest R&D presence outside Germany in India, including Coimbatore, working with 70+ Deep Tech startups in e-mobility, clean tech, robotics, and Edge AI. He stressed fostering an innovation culture where passion meets purpose to drive meaningful change.



MR. JOSH FOULGER
President - Electronics, Zetwerk

It's Time to Refocus on Hardware

Emphasized the importance of IP in manufacturing processes, from semiconductors to electronics. Drawing from his Nokia and Foxconn experience, he urged India to refocus on hardware, as China once did by replicating global machinery at lower costs.

MR. SIVA KUMAR PADMANABAN
Managing Director & Head of Global Innovation
& Technology Center, AstraZeneca India Pvt. Ltd.,

Risk Taking to Capitalise on Innovation

Noted Tamil Nadu's pioneering GCC Policy and vibrant startup ecosystem, highlighting the opportunity to bridge both through a culture of experimentation, agility, and risk-taking, supported by sensing, seizing, and scaling capabilities.



EXPERT Talks



PROF. BALAJI RAMAKRISHNAN Director, National Institute of Ocean Technology

NIOT's Role in Creating a Lasting Impact

Highlighted NIOOT's role in the blue economy through initiatives in food, energy, water, climate change, and health, including LTD plants in nine islands, ocean current energy projects, and weather prediction support to the Indian Meteorological Department.

DR. SHANKAR VENUGOPAL, Vice President, Mahindra & Mahindra

Innovation Through Patents with Real World Application

Hailed Tamil Nadu's patent-filing lead as phenomenal, noting that automotive innovations like the shift from IC to electric engines are driven by real-world patents. He highlighted four drivers of innovation: Focus, Leap, Orient, and What Next.



DR. BHAVYA MANJEERA PATRUNI, Deputy Manager & Scientist, NRDC

Celebrating 70 Years of NRDC's Impact on Innovation

Highlighted NRDC's 70-year legacy of turning Indian innovations into market-ready solutions—from saltwater lanterns for fishermen to women-led startups and advanced medical devices—through IP support, mentorship, and global partnerships.

MR. SURESH SAMBANDAM, Founder & CEO, Kissflow

Be bold, upskill, and ride the AI wave

Urged embracing AI as it reshapes industries, opening more opportunities for those who adapt. He emphasized upskilling, creative application, and unique differentiation as keys to thriving in the evolving tech and IP landscape.



MR. SASIKUMAR, President, ELCINA

Innovation must be inclusive, scalable, and globally competitive

Stressed that digital transformation is essential, urging India to leverage emerging tech, protect IP, and build inclusive, scalable, globally competitive innovations. He emphasized India's talent, market, and vision to lead the next wave of digital growth.



PANEL Discussions

Investment in Intellectual Property



An insightful panel on “Investment in Intellectual Property (IP)” moderated by Mr. Manu Iyer, Co-founder & General Partner, Bluehill VC, featured Ms. Anju Gupta, Partner, IvyCap Ventures, Ms. Naveena Reddy, Head, Investments, Lead Angels, and Mr. Vignesh Shankar, Founder & Managing Partner, A99.

They shared portfolio case studies and emphasized the need for HNIs and ultra-HNIs to back fundable, problem-driven, and scalable IP-led innovations. The discussion also highlighted strategies for bridging the gap between innovation and investor confidence.

Navigating the Legal Landscape of IP Protection



An Engaging panel discussion was held on Investment in Intellectual Property (IP), moderated by Ms. Subathra Mysamy – Managing Partner – A.K Mysamy & Associates and our panellists: Ms. Elizabeth Puthran, Founder Partner – Puthran & Associates; Dr. Sudhir Ravindran, Founder – Altacit Global; Ms. Swapna Sundar, Senior Partner, IP Dome.

DeepTech startups in Tamil Nadu face challenges like delayed patents, limited market research, and lack of early legal planning. A strong IP strategy, proactive validation, and early legal integration can help them protect innovations and scale globally.

Evaluating Patents and Commercializing IP



A thought-provoking panel discussion on Evaluating Patents and Commercializing IP with the moderator for the session: Mr. Bhaskar Verma, Director, Nasscom and panellists Mr. Manikumar Krishnamoorthy, Global Head AI, Virtusa and Mr. Anand Barnabas, Practise head – Patent Attorney, De Penning & De Penning

India has risen from 89th to 39th in global innovation rankings since 2015, with Tamil Nadu leading in IP filings, showing innovation thrives when ideas are protected. Behind every patent lies ambition and growth, making strong IP your ticket to global recognition.

Government & Intellectual Property



A power-packed Panel Discussion with moderator Kewyn George, GCC Head, Expeditors and panellists Mr. Rajeshwar Singh Jenwar, Director & HoD, Software Industry Promotion Division, MeitY, Gol; Mr. Sivarajah Ramanathan, Mission Director & CEO, StartupTN; Dr. S. Vincent, Member Secretary, Tamil Nadu State Council for Science and Technology.

Tamil Nadu is driving innovation with 30+ IP facilitation sessions, affordable legal aid, and policies covering up to 50% of tech transfer costs—turning ideas into reality. Success stories show that linking entrepreneurs with institute-owned patents sparks breakthroughs from agritech to manufacturing.

Fireside Chat: Operation Excellence meets IP



An engaging Fire side chat between Ms. Kayalvizhi Selvarajan, Director, Operation Excellence, AstraZeneca India Pvt. Ltd. and Ms. Geetha Ramamurti, Managing Director, KBR.

The conversation discussed how Tamil Nadu is driving collaboration between startups, industry, and academia, with focus on boosting R&D, supporting MSMEs, and fostering a culture that rewards innovation. Inclusion is key – empowering women innovators and addressing their challenges will unlock immense potential for the future.

FOUNDER Experience



MR. RAMESH VINAYAKAM CEO, Music Temple

His patented Gamaka Box Notation System is the first universal notation for Indian music, documenting Carnatic, Hindustani, and folk with precision. Like Western staff notation, it enables global learning, performance, and preservation of India's musical heritage.

MR. SRINATH RAVICHANDRAN Co-founder & CEO Agnikul Cosmos

Reinventing rockets for today's compact satellites with single-piece 3D-printed engines, modular design, and cutting-edge IP; making launches flexible, efficient, and affordable and it's being built right here in India.



MS. SWETHA MOHANACHANDRAN Co-founder & CTO of SpaceTug

The FOUNDATION Fund recipient is building satellites with robotic manipulators to remove space debris, making space safer for future explorations. From facing doubts at home to showcasing innovation on global platforms, iTNT Hub has been her mentor, cheerleader, and catalyst for success.



Masterclasses at IP Conclave



**Mr. P. Balamurugan, Joint Controller of Patents & Designs,
Patent Office Chennai**

“Basics of IP Filing and Protection”

The session provided startups and innovators with a practical understanding of IP rights as a strategic asset for technology commercialization. It highlighted the importance of proactive patent protection, not just as a legal formality, but as a competitive advantage. Key focus areas included identifying what to protect, drafting strong claims, and timely filing to ensure global relevance.

**Mr. C. Naveen Andrew, Deputy Controller of Patents & Designs,
Patent Office Chennai**

“IP for Startups: Protecting Innovations”

The session focused on equipping startups with practical knowledge of IP protection, demonstrating how early-stage innovators can leverage patents and government schemes to safeguard and commercialize their technologies. It covered essential filing processes, outlined the benefits of the SIPP scheme, and shared real-world success stories, encouraging startups to embed IP strategy into their overall growth roadmap.



**Ms. Mahalakshmi, Asst Registrar of Trademarks,
Copyrights & GI, Patent Office Chennai**

“Copyrights and Trademarks: Protecting Branding and Creativity”

The session provided startups and innovators with a practical understanding of IP rights as a strategic asset for technology commercialization. It highlighted the importance of proactive patent protection, not just as a legal formality, but as a competitive advantage. Key focus areas included identifying what to protect, drafting strong claims, and timely filing to ensure global relevance.

Mr. Satish Gokhale, Co-founder Design Directions

Building a culture of Design Led Innovation in Startups & Academia

The session emphasized the importance of embedding design thinking into the core of startups and academic institutions. It showcased how a user-centric, problem-solving approach can drive product innovation, enhance usability, and deliver meaningful customer experiences. The discussion underscored that design is not merely about aesthetics, but about functionality, empathy, and purposeful innovation.



Green Certificates

In support of the Hon'ble Chief Minister's vision for a Greener and Cleaner Tamil Nadu, iTNT Hub is proud to contribute to the march toward a sustainable future. As a token of this commitment, all speakers of the day were honoured with Green Certificates.

Each certificate symbolizes our pledge to plant and nurture a sapling of a native tree species on their behalf. Details of the plantation and its progress will be duly shared with the respective speakers.



Tamil Nadu Technology Transfer Facilitation Centre (TNTTFC) Inaugurated



The Hon'ble Minister for Information Technology & Digital Services (IT&DS) Dr. Palanivel Thiaga Rajan on 17th July 2025 inaugurated the Tamil Nadu Technology Transfer Facilitation Centre (TNTTFC) for DeepTech Innovations Inaugurated at Tamil Nadu Technology (iTNT) Hub at the Anna University Campus.

Funded by the Tamil Nadu Government under the Tamil Nadu Innovation Initiatives (TANII), the Centre was dedicated in the presence of Dr. J. Jeyaranjan, Executive Vice Chairman of the State Planning Commission; Thiru. Brajendra Navnit, I.A.S., Principal Secretary to Government, IT&DS Department; and Ms. Vanitha Venugopal, CEO, iTNT Hub.



Dr. Palanivel Thiaga Rajan, Hon'ble Minister for IT&DS

The Hon'ble Minister stated that the TNTTFC will enable Tamil Nadu to compete at an international level in fields like AI, semiconductors, biotechnology, clean energy, etc. This centre will strengthen Tamil Nadu's position as a DeepTech innovation hub, contributing to global advancements and reinforcing the State's leadership in technology-driven economic growth, he added.

Dr. J. Jeyaranjan, Executive Vice Chairman of the State Planning Commission

Dr. Jeyaranjan said that the TNTTFC will act as a centralized platform for technology commercialization and global collaborations including IP management, licensing and market analysis. He said that the Centre will actively support startups, MSMEs & researchers in scaling and commercializing innovative technologies through structured funding, training and mentorship programs.



Thiru. Brajendra Navnit, I.A.S., Principal Secretary to Government, IT&DS Department

The Secretary said that the Centre will also offer comprehensive support for the end-to-end IP Management; empower researchers & innovators to transform IP into successful ventures through dedicated spinoff support; and seed grant for proof-of-concept validation, prototype development, and early market testing.

Ms. Vanitha Venugopal, CEO - iTNT Hub

TNTTFC is a vital link between academia and industry by aligning real-world challenges with the research strengths of academic institutions, the CEO said. She added that the Centre will facilitate the execution of joint projects, contract research, and consulting engagements that address industry needs while advancing scientific discovery.

TNTTFC aims at bridging academic institutions & research organizations with startups & industries by facilitating efficient transfer of DeepTech innovations. The Centre will ensure that Tamil Nadu's leading IP and research ecosystem translates into economic and societal benefits.



Addressing systemic challenges such as fragmented networks, regulatory barriers and commercialization hurdles, TNTTFC will organise sensitisation & Research 2 Revenue (R2R) programs to support innovators build scalable & sustainable businesses from research outcomes. It will also conduct Innovation Spotlight to serve as a launchpad for cutting-edge, IP-secured technologies from academic & research institutions.

What's Brewing @ iTNT HUB

CURTAIN RAISER X Nasscom



Gathering momentum towards the Innovate In Tamil Nadu (IN²TN) IP Conclave, iTNT Hub hosted a Curtain Raiser in collaboration with NASSCOM on July 8, 2025. It set the tone among industry leaders and investors on Intellectual Property, Innovation, and the Future of Deep and Emerging Technologies. The evening highlighted the importance of IP awareness, commercialization and collaboration, all leading to the grand vision of positioning Tamil Nadu as the Intellectual Powerhouse of India.

Ms. Vanitha Venugopal, CEO, iTNT Hub, set the context for the evening. She stated that Tamil Nadu has the maximum number of IPs in the country and it is important to leverage this facet to aspire towards an inclusive approach towards innovation. She also stated that the path to converting innovations from Lab to market is crucial to create a global impact through strategic Industry - Academia collaboration.

Mr. Bhaskar Verma, Regional Director NASSCOM in his opening remarks noted that when people talk about IP they talk about Tamil Nadu, therefore it is a significant space to build a culture of innovation in the state. He stated that NASSCOM has aspirations to work with academia and meet challenges in bridging industry and academia towards innovation and growth.



Panel Discussion



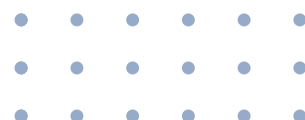
Mr. Bhaskar Verma also moderated a Panel discussion on “Intellectual Property in the Innovation Economy: Driving Growth and Protecting Value” with panellists Mr. Anantharaman Prakash, Vice President Research & Advance Engineering, Renault Nissan Technology & Business Center India Pvt. Ltd. and Dr. Santhosh Kumar, Senior Director - Technology, KBR.

The panel discussion opened with a definition of innovation, with Mr. Anantharaman outlining its three phases Ideation, Incubation, and Industrialisation. Emphasizing that while ideation is often free-flowing, the latter two stages pose greater challenges, and that IP

should be seen as a business strategy rather than just a legal element. Mr. Santhos described innovation as incremental change, stressing that it is essential for organisations to progress and he believes in the “Fail Fast” approach. On innovation within organisations, Mr. Anantharaman highlighted the importance of both structure and culture, noting that while structure is usually well-defined, building a culture requires motivating people with rewards and recognition and focusing on doing things differently rather than merely doing different things. Mr. Santhos added that fostering a safe environment where failures can be reported openly encourages fresh ideas, and that innovation teams should not be isolated but integrated across the organisation to distinguish feasible ideas from mere noise.

Fireside Chat

Mr. Madhan Raj J, AVP and Sr. Principal Technology Architect at Infosys, moderated a Fireside Chat with Dr. Shankar Venugopal, VP at Mahindra & Mahindra, exploring whether IP is a competitive differentiator or a monetization tool, and how innovation drives efficiency and growth. Dr. Shankar highlighted Mahindra’s journey from 30 to 17,000 granted patents, stressing the importance of pursuing new ideas and citing Apple’s R&D focus as a key to its success. On disruption in the automotive industry, he emphasized the need for cross-industry collaboration, noting Tesla’s decision to open its patents since the real competition was from petrol and diesel engines, not other EVs. He further underscored that building new technologies requires strong collaboration with academia and that IP serves as a crucial metric for success in solving real-world problems.



BEACON 5.0 IGNITING THE Entrepreneurial Spirit of Innovators

The 5th edition of BEACON (Business Exploration & Accelerating Creation of New Ventures) idea validation bootcamp by iTNT Hub was conducted in two batches, benefitted 51 patent holders and researchers from engineering colleges, ideators and aspiring

entrepreneurs in July 2025. The power-packed 4-week program built strong foundations and empowered them to kick-start their entrepreneurial journey, with some identified as interested and eligible for incubation under the PATHFINDER program.

Glimpses of the sessions:

Week 1



Mr. George Koshi, Leadership Coach & CEO of Sify Technologies, shed light on turning ideas into impactful businesses through clarity of vision, resilience, and execution.

Ms. Puspallatha, Advocate at Altacit Global, highlighted key legal and regulatory frameworks that every startup must be mindful of while building their venture.

Mr. Ashwin Ganesh, Partner at ANOVA Corporate Services Pvt Ltd, guided founders on clearly defining co-founder roles, responsibilities, and contributions.

Mr. Allan, Lab Tech, Tamil Nadu Smart and Advanced Manufacturing Centre (TANSAM) walked startups through the product development lifecycle mapped to Technology Readiness Levels (TRLs), helping them understand the path from idea to market.

Week 2



Ms. Lavanya Gopal, Founder of Lineup (IDEEZ Career Pvt Ltd), introduced startups to the Business Model Canvas as a powerful tool to structure and validate their ideas.

Ms. Subathra Mysamy, Managing Partner at AK Mysamy & Associates, shared insights on developing a strong IP strategy and conducting IP audits to safeguard innovation.

Ms. Anbumathi, Design Thinking Expert, engaged founders in problem-solving methodologies and solution brainstorming techniques to unlock innovative thinking.



Week 3



Mr. Sriramman M, Director at IAMUSAP Ventures Pvt. Ltd., guided startups on crafting a compelling value proposition that resonates with customers.

Mr. Senthilkumar, Founder & Brand Consultant at Reachwell Brand Consulting, highlighted the role of branding and design in shaping a startup's identity and market presence.

Mr. Gopi, Founder of TShell Motors Pvt Ltd, introduced startups to rapid prototyping techniques and design sprints for faster product validation

Week 4



Dr. Sridevi Arunachalam, Founder of IIEC and INDO UAE Economic Chamber of Commerce, shared key insights on the art of pitching with clarity and confidence.

Ms. Priyadarshini, Chartered Accountant, provided practical guidance on finance management tailored for early-stage startups.

MASTERCLASSES FOR IN²TN IP Conclave

iTNT Hub hosted a series of masterclasses in the march towards the IN²TN IP Conclave. These masterclasses for researchers, startups and futurepreneurs laid the platform for strengthening IP in the respective domains.

Tech Horizons: Unlocking the Future with Emerging Technologies

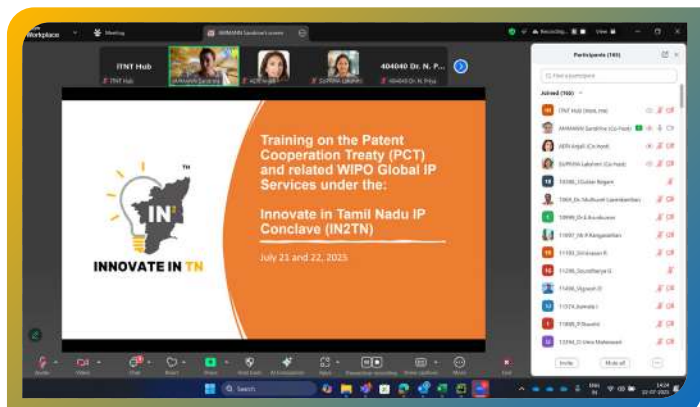


On 5th August 2025, iTNT Hub, in collaboration with the US Consulate General, hosted a Masterclass by Mr. Stephen Ezell, VP of Global Innovation Policy at ITIF, on how critical and emerging technologies are reshaping the global economy. He noted the digital economy now accounts for 25% of global GDP, with India's semiconductor market set to double to \$108B and its AI ecosystem—ranked #2 in talent growth—driving 200+ GenAI startups and 24 LLMs. With AI projected to add \$19.9T globally and \$1.5T to India's GDP by 2030, Ezell stressed the importance of R&D, infrastructure, and talent retention for India's innovation leadership.

World Intellectual Property Organization (WIPO)

In collaboration with the World Intellectual Property Organization (WIPO), iTNT Hub hosted a two-day online Masterclass on 21st & 22nd July for Researchers, Patent holders, Professors and Startups. The sessions focussed on the Patent Cooperation Treaty (PCT) and various WIPO global IP services. 213 participants from engineering colleges in Tier II & III regions of Tamil Nadu, startups and innovators benefited from the Masterclass and received certificates from WIPO.

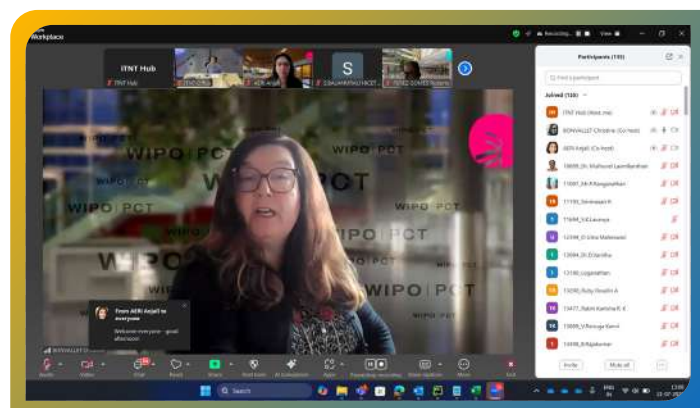
Day 1: Patent Fundamentals and PCT System



Mr. Taegeun Kim, Senior Program Officer – WIPO, provided participants with a strong foundation on Patent Basics, Application & Examination. He explained patents as legal intellectual property rights granted by sovereign states.

A significant portion of the day was dedicated to the Patent Cooperation Treaty (PCT) system and ePCT demonstration, which allows inventors to seek patent protection in multiple countries through a single international application.

Day 2: Patent Information, Searches, and IP Commercialization



Ms. Lakshmi Supriya, Patent Analytics Officer, elaborated the role of Technology and Innovation Support Centres (TISCs) in providing local, high-quality IP services to researchers, entrepreneurs, and inventors.

Ms. Sandrine Ammann, Marketing and Communications Officer – WIPO, offered an overview and demonstration of WIPO's global patent database and its search capabilities. Ms. Margherita Marini, IP Commercialization Specialist, provided insights into intellectual property commercialization strategies.

Cybersecurity: Fortifying the Digital Frontier of Innovation

iTNT Hub, in collaboration with CSEC, hosted a cutting-edge Cybersecurity Masterclass on 18th July 2025 to address two pressing themes at the intersection of cybersecurity and intellectual property. The Masterclasses was a powerful knowledge-sharing platform, equipping 125 students and young innovators with a deeper understanding of how cybersecurity and intellectual property protection intersect in today's digital-first world.



Mr. Karthikeyan K, Principal Security Architect and Chapter Lead at OWASP & DEFCON Chennai, led an engaging session on "The Digital Safe", highlighting the role of encryption across the R&D lifecycle, cloud-based techniques, and strategies to protect trade secrets.



Mr. Sriram Murali, Senior Engineering Manager at Alteryx, shared insights on "Securing the IP Factory: From Code to Cloud", stressing how CI/CD pipelines act as digital IP assembly lines and prime targets for attackers. Citing cases like SolarWinds and CircleCI, he highlighted the need for DevSecOps-first practices, including automated testing, secure secrets management, and cloud posture hardening.

Frontiers of Quantum Computing

iTNT Hub hosted a DeepTech Virtual Masterclass on “Quantum Technologies: Safeguarding and Scaling Through Robust IP Strategies” with Dr. Dhinakaran Vinayagamurthy, Research Scientist at IBM Quantum and Adjunct Professor at IIT Madras on 26th July 2025.

Covering Quantum vs. Classical Computing, industry applications, IBM’s roadmap, and career opportunities, the session engaged 29 participants including startups, researchers, professionals, and students; highlighting quantum computing as a key driver of innovation and IP in areas like AI, materials science, and cryptography.

Kick starting the Pathfinder Cohort 4.0



The PATHFINDER 4.0 cohort began on 14th August, 2025, with a hands-on Design Thinking Masterclass by Mr. Balasubramanian S, Technology & Innovation Architect and Design Thinking Expert, which encouraged startups to collaborate, share ideas, and build camaraderie. A brief Orientation Session followed, introducing the program structure, expectations, and milestones, marking the start of a guided journey toward innovation and entrepreneurial success.

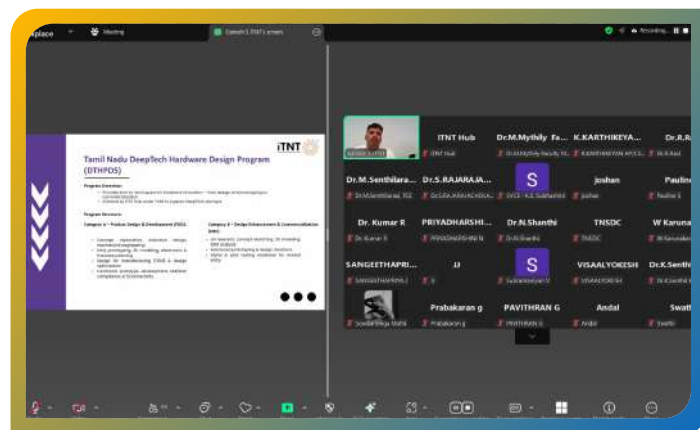
Articulating the Purpose of Business Model Canvas



Unifying the various fragments of building a business from ground zero Mr. Senthil Pandian, Business Transformation Advisor, Stanford Seed – South Asia, took iTNT Hub’s PATHFINDER incubated startups on an insightful journey through his Masterclass on Business Model Canvas at iTNT Hub on 29th August, 2025.

The Masterclass, led by Mr. Senthil, gave startup founders a clear roadmap to building a business, emphasizing that true innovation begins with understanding customer needs. He guided participants through problem definition, customer segmentation, value proposition, competitive analysis, cost structure, partnerships, and revenue models.

SENSITIZATION PROGRAM WITH Naan Mudhalvan



iTNT Hub in collaboration with Naan Mudhalvan conducted an online sensitization program for the top 141 teams of Naan Mudhalvan’s Niral Thiruvizha 2.0, on 19th August, 2025. The session aimed to introduce participants to iTNT Hub’s initiatives, highlight available support for startups, researchers, and innovators, and encourage active participation in the upcoming BEACON Program.

The participants were given an overview of comprehensive suite of initiatives by iTNT Hub, including Incubation & Acceleration programs and the JIGSAW portal. (Mr. Daniel Prabhakaran, AVP partnership elaborated on the initiatives by the Tamil Nadu Technology Transfer Facilitation Center (TNTTFC). The session concluded with an interactive Q&A segment, allowing participants to clarify program details, opportunities, and application processes.

ROYAL THAI Consulate Delegation at iTNT Hub



iTNT Hub hosted delegates from the Royal Thai Consulate on 19th August, 2025. Ms. Pornpun Pupiengjai, Consul for political and Economic affairs, Royal Thai Consulate and Mr. Chelikani Dharma Teja, Political and Economic Analyst, Royal Thai Consulate discussed with iTNT Hub CEO Ms. Vanitha Venugopal collaborative initiatives between iTNT Hub and National Innovation Agency (Thailand). Ms. Pornpun Pupiengjai briefed the iTNT team regarding the delegation's visit to Chennai in the month September 2025.

HOSTING EDII TN Students



Twenty-four students from the Entrepreneurship Development and Innovation Institute (EDII-TN) visited iTNT Hub on 8th August, 2025, under the Tamil Nadu Young Innovators & Entrepreneurs Development Programme (TNYIEDP). The event aimed to immerse young innovators in Tamil Nadu's vibrant innovation ecosystem and encourage active engagement with entrepreneurship initiatives.

Participants were given a walkthrough to our flagship programs such as BEACON, PATHFINDER, and iAcceleration. Students toured iTNT's coworking and event spaces.

Mr. Daniel Prabhakaran, AVP, Partnerships, introduced the Tamil Nadu Technology Transfer Facilitation Centre (TNTTFC). Mr. Muthukumar, Founder of Esideos, an iTNT-incubated startup, explained how iTNT's incubation support enables deep-tech innovations to scale from concept to impactful products.

STUDENT OF GEOINFORMATICS Institute of Remote Sensing, Anna University Visit iTNT Hub



A group of 65 students from the department of Geoinformatics, Anna University, visited iTNT Hub on 19th August, 2025, to gain first-hand exposure to the innovation and entrepreneurship ecosystem. The visit was aimed at familiarising them with ongoing programs, opportunities in DeepTech and Emerging Technologies, and to inspire active participation in innovation-driven initiatives.

The students were introduced to iTNT Hub's mission, focus areas, and key initiatives including incubation (PATHFINDER) and acceleration (iAccelerate) programs, the JIGSAW portal, and technology transfer initiatives and BEACON Program. It was followed by a guided tour of co-working spaces, prototyping labs, event halls, and startup zones.



Founder Stories @ iTNT Hub

KENESIS - Prajein CK & Amrish



A group of young inventors have placed their attention in creating solutions that not only push the boundaries of innovation but also respond to real-world challenges with purpose and intent. Imperfections like visual impairment can impair the regular functioning of a person who will experience the world bereft of visual feedback. Amrish P Founder & CEO, Kenesis and Prajein CK, COO, Kenesis, have designed an assistive technology that provides visual feedback to such persons.

Prajein and his team are currently in their final year of B.Tech in AI/ML, travelling with the collective goal of making the world better by creating value in life and productivity. In their second year of college, they participated in the Smart India Hackathon 2023 and in the long list of problem statements chose development of a "Digital Platform for Multi-modal Visibility of Coal Transportation". Mentors at the hackathon were surprised by the young team and their enthusiasm in creating a novel technology for the problem solution.

The team's multi-model coal transportation tool, which acts as a big brother and completely tracks the transportation of coal through various modes such as road and waterways. They also developed an IoT device, a telematic control unit tracking trucks carrying coal. The Kenesis team were declared the winners of the 2023 Smart India Hackathon. Soon many college students would follow suit inspired by Kenesis.



In their fourth year, Amrish, Prajein and a group of friends came together to create Sixth Sense, an assisted technology device for the visually impaired. It consists of a smart glass (spectacles) designed to provide real-time audio feedback and sensory alerts for navigation, object recognition, and environmental awareness. With AI-powered perception, these glasses act as a sixth sense, transforming how users interact with the world around them.

The device not only recognizes and announces familiar faces but also has the ability to read facial expressions to inform the user of the emotional state of an individual. It combines audio, touch, and spatial alerts for a holistic experience. It's real-time guidance tailored for accessibility and all processing happens on-device, ensuring security. Amrish, though a college student, makes a six figure income by promoting brands and products with his digital marketing skills. Prajein has a spirit of innovation ingrained in his personality.

Amrish, though a college student, makes a six figure income by promoting brands and products with his digital marketing skills. Prajein has a spirit of innovation ingrained in his personality. He has designed a hand gesture controlled robot and 3D underwater game and had an instinctive inclination to invent and innovate. The duo and Kenesis team represent a powerful convergence of empathy, technology, and purpose.

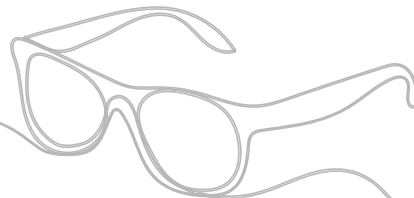
What began as a college project rooted in curiosity has evolved into a transformative mission. Their journey is a testament to how focused attention, when driven by values and vision, can spark innovation that not only advances human potential but also uplifts the dignity and independence of others. As they prepare to step beyond the campus and into the world, they carry with them not just a product, but a promise, to build technology that sees beyond barriers.

Kenesis is a PATHFINDER incubation portfolio startup at iTNT Hub.

PROJECT STATUS



R&D of the α-Version of Kenesis Vision



Founder Stories @ iTNT Hub

UNMODEL.AI - Raaja Murugan

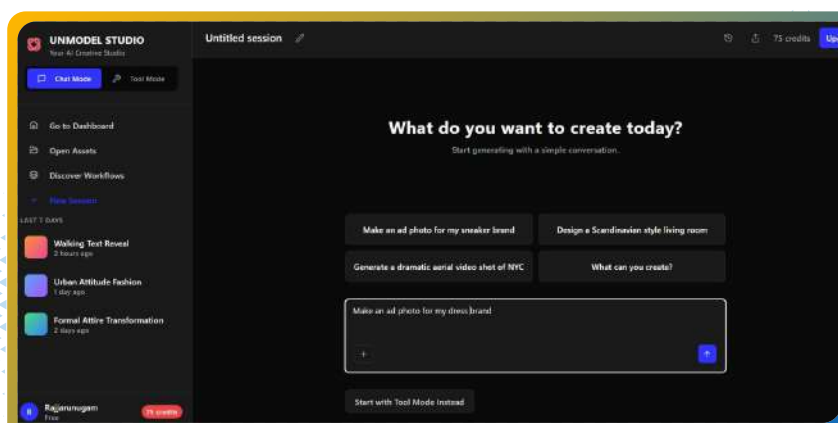


Your dreams are closer to you when technology intervenes to take you ahead of time, it feels like we are living the realities of science fiction with Raaja Murugan's Unmodel.AI. From the classrooms of GCE Salem to the prestigious corridors of IIM Calcutta, Raaja Murugan's journey has been one of relentless curiosity and a hunger to push boundaries. With a solid foundation in electrical engineering and a sharpened edge in sales and marketing strategy, Raaja learned early on that the true value of technology lies not in invention alone but in its ability to solve problems at scale and create new markets.

His co-founder, Vijay Kumaran, brought complementary expertise, an MS in Data Science from

UT Dallas and experience leading data science teams at Walmart and Walgreens. Together, they envisioned a future where fashion content creation is no longer bound by physical limitations but powered by the limitless possibilities of AI.

That vision became reality in September 2024 with the birth of Unmodel.AI, a startup that has set out to revolutionize the trillion-dollar e-commerce and fashion ecosystem. What started as Live Box, a virtual try-on e-commerce platform, quickly transformed into a B2B powerhouse, enabling brands across the globe to break free from the constraints of costly, time-consuming photoshoots.



At the heart of Unmodel.AI is a fusion of cutting-edge AI models with Stable Diffusion, Flux Context, and proprietary IP in masking, pattern rendering, lighting, and shadows. The result is an Hyper-realistic fashion imagery that brings garments to life on models of any ethnicity, body type, or aesthetic, all at a fraction of the conventional cost. What once took weeks and experts can now be done in minutes.

Raaja didn't stop there. Today, Unmodel.AI is rewriting the playbook again by creating AI-generated fashion videos and celebrity avatars that blur the line between imagination and reality. They are also in the near future, launching an AI assistant for video editing, designed to function like a "ChatGPT for image and video editing." This tool promises to democratize content creation, putting advanced storytelling capabilities in the hands of every brand, designer, and creator.

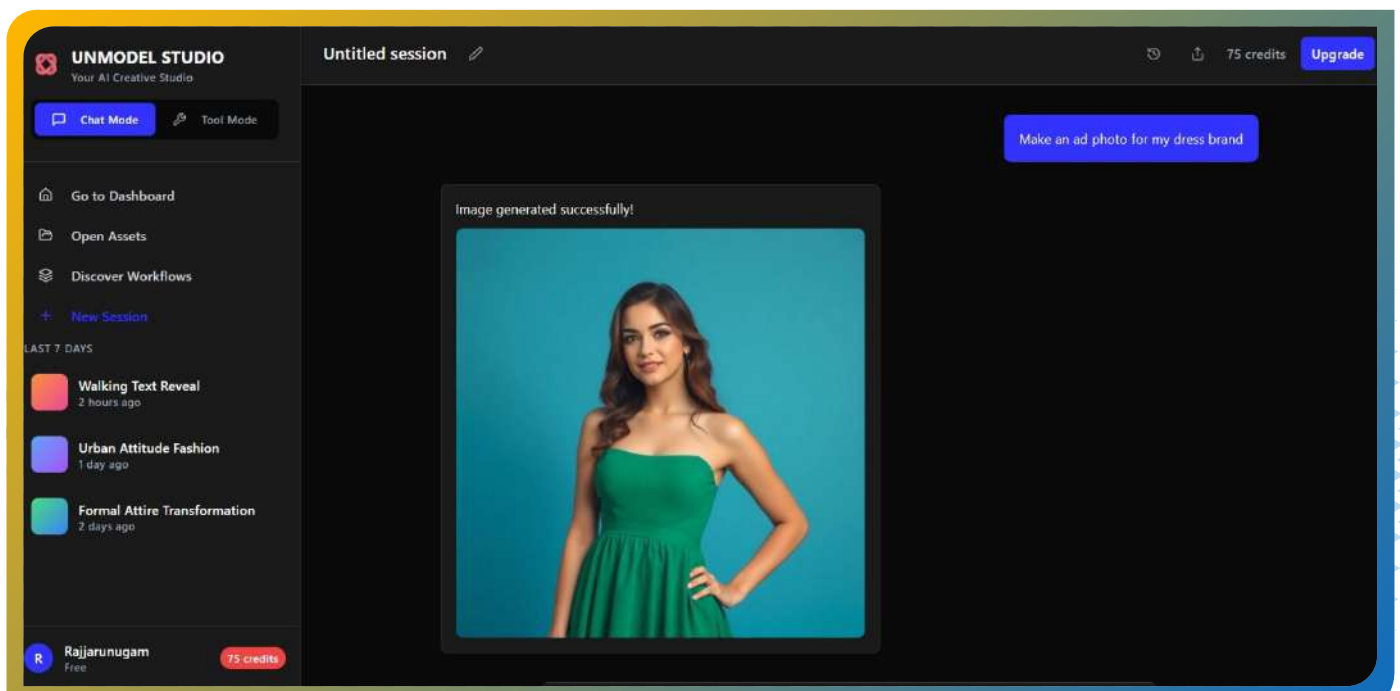
The impact is profound: faster product launches, global scalability, hyper-personalized content, and massive cost optimization.

For startups, it levels the playing field against industry giants. For global retailers, it unlocks new speed and agility. And for consumers, it means richer, more inclusive, and more diverse shopping experiences.

With a paradigm shift in how creativity, commerce, and technology converge, their vision is more than technological disruption. It embodies the belief that innovation is not about predicting the future, but creating it.

In many ways, Unmodel.AI is not just a startup, it is a movement redefining the boundaries of possibility. With Unmodel.AI, Raaja and Vijay are proving that the future of fashion and e-commerce will not be manufactured in photo studios, but generated, scaled, and personalized by AI. The duo is inspiring a new generation of entrepreneurs to imagine boldly, execute fearlessly, and shape the future.

Unmodel.AI is an iAcceleware acceleration portfolio startup at iTNT Hub.



DeepTech INSIGHTS

8 top VC Firms Unite in \$1 Bn+ push for India's DeepTech Startup Ecosystem

The alliance, named the India Deep Tech Investment Alliance, brings together Celesta Capital, Accel, Blume Ventures, Gaja Capital, Ideaspring Capital, Premji Invest, Tenacity Ventures, and Ventures Catalysts.



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Speciale Invest Tops Target For Third VC Fund, To Bet On Deep-Tech Startups

Speciale Invest, a Chennai-based venture capital firm that focuses on deep-tech startups, has closed its third fund after securing Rs 600 crore (\$68.5 million) in commitments from its limited partners (LP), surpassing its initial target of Rs 500 crore. This is more than double the corpus it raised for its second vehicle.



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DPIIT & Hero MotoCorp Join Hands to Support Mobility, Clean Tech & Deep Tech Startups

DPIIT and Hero MotoCorp have partnered to empower early-stage startups in mobility, clean tech, and deep tech, offering access to R&D facilities, mentorship, and market opportunities under the Startup India initiative.



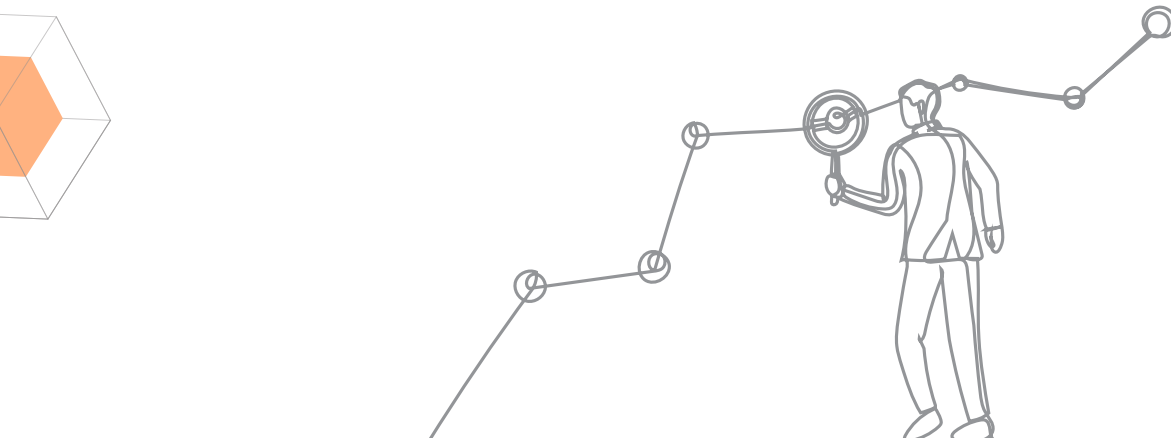
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Startup Policy Forum forms Advisory Board to Strengthen DeepTech Startups

Industry body Startup Policy Forum (SPF) has formed a DeepTech Advisory Board to strengthen the country's deeptech ecosystem, the forum announced. The board includes angel and venture capital investors, government policymakers, startup founders, academics, and deeptech experts.



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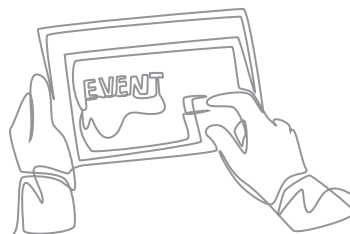


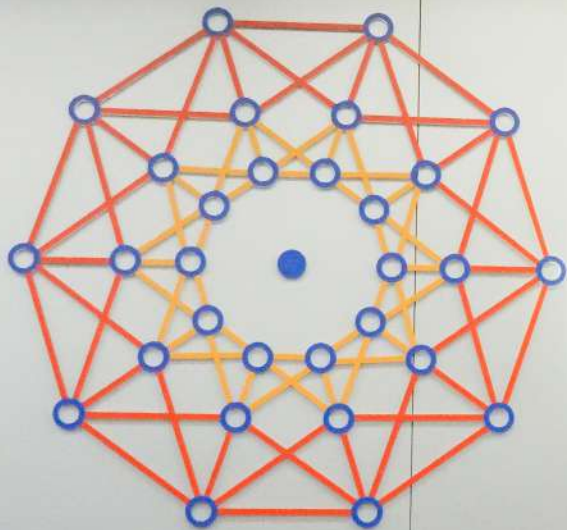
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