IInvenTiv
A GLOBAL INNOVATION SHOWCASE
2ⁿᵈ EDITION OF LARGEST R&D INNOVATION FAIR FROM HIGHER EDUCATION INSTITUTES OF INDIA
2024

भारतीय सांकेतिक विज्ञान संस्था हैदराबाद्
भारतीय प्रौद्योगिकी संस्थान हैदराबाद
Indian Institute of Technology Hyderabad

PRESS RELEASE

Ministry of Education's IInvenTiv-2024 Concludes with Trailblazing Innovations and Key Industry Partnerships at IIT Hyderabad

> ➢ **The concluding ceremony marked a significant milestone with the formalization of a Technology Transfer agreement between IIT Hyderabad and E-Spin Nanotech to pilot commercial application of Cellulose-based Nanofiber Feminine Hygiene Products**
> ➢ **Engaging and thought provoking panel discussions between global academia and industry leaders**

Hyderabad, January 20, 2024: IInvenTiv-2024, India's largest R&D innovation fair from higher education institutes, concluded its second edition today at the esteemed Indian Institute of Technology (IIT), Hyderabad. A flagship event of the Ministry of Education, IInvenTiv brought together a harmonious convergence of industry stakeholders and academia.

The concluding ceremony of IInvenTiv-2024 marked a significant milestone with the formalization of a Technology Transfer agreement between IIT Hyderabad and E-Spin Nanotech, aiming to pilot the commercial application of Cellulose-based Nanofiber Feminine Hygiene Products. This patented technology, recognized in the United Kingdom, India, and China, effectively addresses two critical challenges: biodegradation and health hazards. By substituting the non-biodegradable super absorbent polymer layer with eco-friendly nanofibers in conventional feminine hygiene products, the technology stands poised for commercialization. The agreement, signed on 19th January 2024, involved Prof. B.S. Murty, Director, IIT Hyderabad, and Dr. Sandip Patil, Director, E-Spin Nanotech.

This milestone perfectly aligns with the vision of the Hon'ble Minister of Education and Skill Development & Entrepreneurship, Government of India, Shri Dharmendra Pradhan. During his address at IIT Hyderabad, he said, *"India, a cradle of innovation, stands poised at the forefront of a transformative era where groundbreaking ideas will be the hallmark of leadership. The nation is resolutely charting its course into the realm of Industry 4.0, propelling progress through unparalleled research and innovation."*

Speaking about the technology transfer, Prof. Chandra Shekhar Sharma, Lead researcher of the technology and Dean, Sponsored Research & Consultancy, IIT Hyderabad, said, "*I am glad to reach to this stage today through IInvenTiv platform. It took us little more time just because nanofiber technology was too premature for industrial scale production when this invention took place. Besides Ministry of Education, I also acknowledge Ministry of Textiles for their support to build this partnership with E-Spin Nanotech Pvt Ltd to make this journey from Invention to Innovation successful. We are quite excited to have this user and environment friendly feminine hygiene product in the market in the months to come."*

The two-day event saw engaging panel discussions under each of these domains, fostering profound insights, facilitating knowledge exchange, and igniting collaborative dialogues among industry experts, academicians, and innovators. This convergence aimed at propelling students to new heights of scientific and technological advancements, sowing the seeds for the nation's future. The highlights included:

Affordable Healthcare - This panel discussion delved into discussions surrounding the growth potential within this domain. While emphasizing the need to harness industry support, the conversation highlighted the significance of building innovations and identifying blind spots through market-specific innovations that are cost-effective, high-impact, and have an enhanced outreach. The discussion concluded by identifying India's vast potential for affordable healthcare products and the collective responsibility of both the industry and

academia to collaborate in building and promoting products that would cater to all sections of society.

Agriculture & Food Processing - Engaging conversations revolved around the requirement for technology specifically tailored to rural conditions. The impact of rising costs of cultivation, including procurement of seeds, machinery, and fertilizers, among others, on both small and marginal farmers were discussed along with the non-economical nature of this sector due to its labour intensive processes and comparatively lower returns. This called for the Ministry's attention on leveraging AI and IoT for advancements in agriculture and food processing.

Defense & Space - This discussion highlighted a range of perspectives and strategies to foster disruptive innovations in these critical sectors. It was noted that there is a scope to increase India's contribution towards the $400 billion space business. Thus the need for strategic initiatives to enhance India's market share in the global space industry with emphasis on material science and technology as a mantra for growth in manufacturing defence equipment.

Industry 4.0 - Several discussions were centered around the idea of maximizing indigenization, integrating data-driven and machine learning approaches, and the importance of adapting education curricula to support innovation. There were suggestions to adhere to a practical and forward-thinking approach for adapting to the present requirements through the remodelling of knowledge and skills, understanding data and continuous learning in the context of evolving technologies.

Sustainable Technologies - This panel shed light on the crucial role of responsible consumption and production in achieving sustainability, with a specific focus on sustainable technologies. There was reiteration on using resources efficiently to minimise waste and environmental impact. Thus optimising production processes, reducing material use, and enhancing overall resource efficiency. The opportunity for India to become a global leader in recycling was identified, along with the need to build intellectual property around innovative recycling technologies.

The event brought together dignitaries from various verticals, who shared insightful thoughts on aiding best practices that will enhance alternative thinking and foster viable solutions.

Speaking about the significance of IInvenTiv-2024, Mr. Omkaram Nalamasu, Senior Vice President, and Global Chief Technology Officer of Applied Materials, Inc., said, *"Platforms like IInvenTiv-2024 bring together leading technological institutions, entrepreneurs, industry and the government. Turning inventions from these institutes into value-added innovations requires an intimate collaboration between these stakeholders, thereby contributing to economic growth and job creation. At Applied Materials, we work with several educational and research institutes, and I am delighted to be at IInvenTiv to explore collaborations in the areas of energy and environment, AI, IoT, Industry 4.0, green energy. I congratulate the team at IIT Hyderabad for putting up such an insightful innovation fair that brings together academia and industry."*

Speaking about linking Innovation to Impact, Prof. Bhallamudi Ravi, Director, NIT Karnataka, Surathkal, said, *"In the journey from conceptualization and development to prototyping, every technology or innovation undergoes these crucial steps to reach its final product. However, for these advancements to make a substantial impact at a larger scale, events like IInvenTIv-2024 play a pivotal role in bridging the gap and fostering meaningful connections between innovators and industries."*

Speaking about fostering disruptive innovations, Prof. Govindan Rangarajan, Director, IISc Bangalore, said, *"To promote disruptive innovations, it is crucial to create an environment that*

embraces change, encourages out-of-the-box thinking, and provides resources and platforms for individuals to explore unconventional ideas, ultimately driving transformative advancements in the industry. IInvenTiv-2024 stands as a testament to this ethos, offering a dynamic platform catalyzing transformative changes across various sectors."

Emphasasing on maximising indigenization, localisationm and self-reliance of Industry 4.0, Prof. V. Kamakoti, Director, IIT Madras, said, *"We must start looking at smaller aspects, and individual components have to be made locally for us to be truly Atmanirbhar. This approach ensures a holistic strategy, where the local production of each component contributes to the overall goal of building a self-sufficient ecosystem."*

Several industries actively participated, contributing to the event's success. Enthusiastic collaboration with these industries holds the potential for translating innovative ideas from participating institutes into reality. Notable collaborations included an MOU signed between industry titans and academic trailblazers, facilitating the transfer of cutting-edge technology.

Along with this, the second half of the day witnessed participation from students from regional secondary and higher secondary educational Institutions providing them a unique opportunity to witness the latest breakthroughs in technology and research.

This global innovation platform underscored the pivotal role of education in nation-building, making a significant contribution to the development of the country. The collaboration fostered by IInvenTiv-2024 has become a cornerstone of progress, enabling our nation's vision of Atmanirbhar Bharat.

Having witnessed the successful transition of innovative ideas into real-world success stories, the 3rd edition of IInvenTiv is scheduled to be held in IIT Madras.

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About the first IInvenTiv:

In celebration of the 75th year of India's Independence as part of the Azadi ka Amrit Mahotsav initiative, all the 23 IITs for the first time came together to showcase the technologies developed at these premier institutions through IInvenTiv, an R&D Fair. A total of 75 diverse array of technologies encompassing climate change, sustainability, smart city architecture, rural agriculture, affordable healthcare, and drone technology were showcased from 23 IITs at IIT Delhi between October 14th and 15th, 2022. The event drew over 3000 attendees, including participants from the industry, government, academia, and various other sectors.

About IIT Hyderabad

About IIT Hyderabad: Indian Institute of Technology Hyderabad (IITH) is one of the eight IITs established by the Government of India in 2008. In a short span of 15 years, the institute has become one of the top-ranked institutions in the country with Rank #3 in Innovation, #8 in Engineering, and #14 in Research as per NIRF 2023 and has received global recognition. It has 300+ full-time faculty, 4,700+ students, 18 Departments + 1 Centre for Interdisciplinary Programs, nearly 500+ state-of-the-art Research Facilities, and five research and entrepreneurship centres. The institute has a strong research focus with more than Rs 1,000+ crores of sanctioned research funding, with PG+PhD students accounting for about 60% of total student strength. IITH has more than 9800+ research publications with 1,48,000+ Citations, 190+ Published Patents, 3,700+ sponsored/consultancy projects with 500+ running projects, and about 150+

startups that have generated 1000+ jobs and a revenue of Rs. 1200+ Cr. Follow us on Instagram, LinkedIn, Twitter, Facebook, Koo, and YouTube for the latest updates. To know more, please visit https://www.iith.ac.in/ To know more, please visit https://www.iith.ac.in/.

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