INDIAN S&T BREAKTHROUGHS

ESTIC 2025
Powering India's Next Scientific Revolution

THE Emerging Science, Technology, and Innovation Conclave — ESTIC 2025, a three-day mega event, took place from 3 November to 5 November 2025 at Bharat Mandapam, New Delhi. The conclave marks a significant step towards India becoming the world leader in innovation by 2047.

More than 3,000 people, including leading scientists, policymakers, industry leaders, and young innovators, attended the conclave, which was themed "Viksit Bharat 2047 — Pioneering Sustainable Innovation, Technological Advancement, and Empowerment."

With a differential of the last ten years, the Hon'ble Prime Minister of India, Shri Narendra Modi, divided his speech into increased investments in R&D and the number of patents by Indian innovators, and how this can lead to India's transformation into a developed nation through the use of science and technology. He inaugurated a Research, Development, and Innovation (RDI) scheme of ₹1 lakh crore, a project that aims to involve the private sector in high-risk and high-impact areas, such as Artificial Intelligence (AI) and quantum technology, to revolutionise the field.

Besides, the PM also revealed to the world three major innovations that would change the face of the country, namely QSIP — India's own quantum security chip, a product of QNu Labs with the support of the DST and scientists from DRDO and IIT Madras; 25-qubit QPU — India's first quantum computing chip, created by the startup QpiAI; and NexCAR19, India's first homegrown CAR-T cell therapy, developed by ImmunoACT (an IIT Bombay spin-off) with the support of the DBT and BIRAC. As a result, this pool of money will open the way for tech start-ups who are working on turning lab ideas into real-world solutions.

The event was an occasion for speeches and many other activities that resulted in genuine handshakes and collaborations. More than 13 ministries have partnered with the Department of Science and Technology (DST) and the International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), under the guidance of the Principal Scientific Adviser. The government stated that these conversations centred on 11 key focus areas: advanced materials, AI, biomanufacturing, blue economy, digital communications, electronics and semiconductors, emerging agricultural technology, energy and climate, health innovations, quantum science, and space technologies. The meetings in these sessions would result in enhanced interaction between the education, business, and government sectors,

along with a request for policy changes to facilitate R&D at a faster pace.

One of the most brilliant consequences was the launch of the Anusandhan National Research Foundation (ANRF) fund, aimed at increasing funding for basic research and developing young talent. Apart from these, the coffee table book and vision document were also unveiled, which depict India's roadmap for technological self-reliance in 2047. The blue economy track witnesses ocean experts from the National Institute of Ocean Technology (NIOT) advocating for ocean-based clean energy and marine resources that resist climate change.

PitchX is a startup showcase that presented 30 deep-tech firms pitching to investors. It also had 50 stalls displaying innovations in AI and semiconductors, which could lead to potential B2B deals.

Encouraging the future generation, the students in science also performed well, with poster presentations and awards. Hon'ble Union Minister Dr Jitendra Singh, in his valedictory address, lauded the achievement of the event and also proposed virtual workshops for presenters to hone their skills in the future. He further emphasised the importance of meeting start-ups with investors early to incubate genuine relationships.