

## **SPEECH FOR IEMDST-2026**

Prof. Tata Narasinga Rao, Guest of Honour;

Prof. O.R. Jaiswal, Director, NIT Goa;

Distinguished scientists, researchers, academicians, industry leaders, innovators, students, ladies and gentlemen,

A very good morning to all of you.

1. It gives me immense pleasure to join you today at the inauguration of the Second International Conference on *Emerging Multifunctional Materials and Devices for Sustainable Technologies (IEMDST-2026)*. I congratulate NIT Goa, NIT Warangal, the organizing committee, and all participating institutions for bringing together an outstanding congregation of scientific minds from India and abroad.
2. Today, humanity stands at a pivotal moment in history. The world is confronting challenges of unprecedented scale. Climate change is altering ecosystems and economies. Energy security has become a strategic concern for every nation. Rapid urbanization is increasing pressure on natural resources. Healthcare systems are seeking affordable and advanced

technologies. At the same time, technological competition among nations is intensifying.

3. India too faces these challenges. As we aspire to become a developed nation by 2047, we must provide clean energy to millions, create sustainable infrastructure, ensure environmental resilience, strengthen strategic capabilities, and improve the quality of life of every citizen. None of these goals can be achieved without scientific research, technological innovation, and advanced manufacturing.
4. This is precisely why conferences such as IEMDST are so important. The themes being discussed here—advanced materials, multifunctional devices, energy technologies, smart systems, sensors, nanotechnology, and sustainable solutions—are not merely academic subjects. They are foundational technologies that will determine how we generate energy, deliver healthcare, build industries, protect the environment, and compete globally in the decades ahead.
5. India has entered an era where research must increasingly move beyond publications and patents towards measurable

societal impact. The true success of research lies not merely in what is discovered, but in what is transformed.

6. A laboratory breakthrough must eventually become a technology. A technology must become a product. A product must become an enterprise. And an enterprise must create value for society. Our universities and research institutions must therefore become centres not only of knowledge creation but also of innovation, entrepreneurship, and problem-solving.
  
7. I firmly believe that every research project should ask some simple question like:
  - a. How will this improve lives?
  - b. Will it reduce energy consumption?
  - c. Will it make healthcare more affordable?
  - d. Will it strengthen national security?
  - e. Will it help our farmers, industries, or communities?
  
8. When research is guided by such questions, scientific excellence naturally translates into national development. India today is creating an enabling ecosystem for exactly this transformation.

9. Through initiatives such as the National Education Policy 2020, the Anusandhan National Research Foundation, the National Quantum Mission, the Semiconductor Mission, the Green Hydrogen Mission, Startup India, Make in India, and Atmanirbhar Bharat, the Government of India is making significant investments in science, technology, innovation, and advanced manufacturing.
  
10. These initiatives reflect a clear national vision—to position India not merely as a consumer of technology but as a creator of technology. Our young scientists and innovators therefore have unprecedented opportunities before them.
  
11. I am also pleased to note that Goa is actively contributing to this national effort. Goa has emerged as a vibrant centre for higher education, innovation, electronics, pharmaceuticals, information technology, and knowledge-based industries. The State Government is promoting startup ecosystems, innovation hubs, skill development, digital governance, and industry-academia collaboration. Institutions such as NIT Goa are playing a vital role in creating the scientific and technological talent that will drive the future economy.

12. No discussion on innovation today can be complete without recognizing the role of startups. Many of the world's transformative technologies have emerged not from large organizations alone, but from small teams with bold ideas and the courage to challenge conventional thinking.
13. Startups are often the bridge between research and real-world application. Researchers must therefore not hesitate to think entrepreneurially. Innovation should not stop at the laboratory door. Young scientists should aspire not only to publish papers but also to build products, launch enterprises, generate employment, and solve real-world problems.
14. India's startup ecosystem has already become one of the largest in the world. The next generation of globally successful startups may very well emerge from research laboratories such as those represented here today. I encourage industry leaders, investors, and policymakers to work closely with academic institutions so that promising ideas receive the support necessary to reach society.
15. History teaches us that every major transformation of civilization has been driven by breakthroughs in science and

technology. The Industrial Revolution was powered by new materials and machines. The Digital Revolution was powered by semiconductors and computing. The Sustainable Revolution of the twenty-first century will be powered by advanced materials, intelligent devices, clean energy systems, and interdisciplinary innovation.

16. The future belongs to those who can combine scientific excellence with societal relevance. The future belongs to nations that invest in knowledge. And the future belongs to young minds that dare to dream beyond existing boundaries. As Dr. A.P.J. Abdul Kalam reminded us, "*Dream, dream, dream. Dreams transform into thoughts and thoughts result in action.*"

17. I am delighted to see so many young researchers and students participating in this conference. I urge you to be ambitious in your aspirations, rigorous in your research, and committed to the service of humanity.

18. May the deliberations over the next two days generate new ideas, new collaborations, and new pathways for sustainable technological advancement.
  
19. I once again congratulate NIT Goa, NIT Warangal, all partner institutions, researchers, and delegates for organizing this important international conference.
  
20. With these words, I extend my best wishes for the grand success of IEMDST-2026 and declare the conference open for fruitful deliberations.

**Thank you. Jai Hind.**