

# **Special Sessions**

**of**

## **Nanotechnology for Better Living**

**NBL-2025**

**From:**

**07-11 September 2025**

### **1. Smart education-**

**A concept that describes learning in digital age in presence of peers and parents**

In digital age of global competition, schools and universities have to train young people for creative thinking, collaboration, and complex problem solving.

## 2. Industry Institute partnership-

**A dream, yet to materialize**

Industry Institute partnerships reflects in equipping faculty to latest practices and makes the students industry-ready by providing exposure to current industry practices, and hone their skills to adapt changing technologies.

## 3. Clean Energy & Smart Homes

*Smart Homes: The Next Frontier & Solar energy the only way out*

The intersection of solar energy and smart home technology represents a significant leap towards creating sustainable and efficient living space. As the world embraces renewable energy, solar power has emerged as a frontrunner, offering clean and abundant energy.

## 4. Climate, Clean Water & Green Technologies

Carbon dioxide builds up in the atmosphere and causes Earth's temperature to rise, much like a blanket traps in heat. This extra trapped heat not only increases temperatures, but it also disrupts many of the interconnected systems in our environment.

## **5. Health care & Biotech**

### **Emerging Applications of Nanotechnology in Healthcare and Medicine**

The development of better and safer medications, tissue-focused activities, and personalized Nano medicines is driven by nanoparticles.

Biotech products have ushered in a new era of healthcare technology, redefining the approach to diagnosis, treatment, and prevention. These innovations improve patient outcomes and inspire hope for a future where previously incurable diseases may become manageable or curable.

## **6. Nano fertilizers, agri and safe food**

Nanotechnology emerges as a promising avenue, offering substantial opportunities to revolutionize food safety practices and elevate agricultural productivity in a sustainable manner.

Nano-fertilizers the next agri revolutions

## **7. AI, Data Science and Quantum Computation**

It's a marriage that could only happen in cyberspace -- quantum computing and artificial intelligence.

It has the potential to solve complex problems at speeds that would make even our most advanced classical computers look like abacuses in comparison

## **8. Satellites, Drones & Roberts**

**Will guard our planet**

Geospatial intelligence (GEOINT) is the use of satellite and aerial imagery, as well as other geospatial data, to provide a better understanding of the Earth's surface. GEOINT can be used for a wide range of applications, including military intelligence, disaster response, and natural resource management.

## **9. Transportation and Electric Vehicles**

**Smart and Safe Roads-**

If the EV sales growth experienced in recent years is sustained, CO2 emissions from cars can be put on a path in line with the Net Zero Emissions by 2050 Scenario.

The rollouts of electric vehicles are set to avoid the need of 600 million barrels of oil a day.

## **10. Disaster and Remote Sensing**

Disaster rehabilitation phase GIS is used to organize the damage information and the post -disaster census information, and in the evaluation of sites for reconstruction

## **11. Innovations : The Main theme**

**Good Education Makes Better Life**