



Systems for Transforming India: Opportunities & Challenges Conference Sub – Themes

1. Systems for Sustainable Development

- 1.1. Agriculture: Innovative farming techniques, preserving systems etc.
- 1.2. Systems for study of Geosphere, Hydrosphere and Biosphere interactions
- 1.3. Systems for Bio-resource conservation
- 1.4. Advances in Coastal eco-system management
- 1.5. Recent research efforts on Weather and Climate Change
- 1.6. Effect of micro-gravity on crop growth for Space Agriculture

2. Systems for Energy Security

- 2.1. Power generation systems: Solar, Hydro, Wind, Wave, Thermal, Nuclear etc.
- 2.2. Recent advances in Power Transmission and Distribution: Smart Grid, Wireless Power Transmission etc.
- 2.3. New energy conservation systems High efficiency power converters etc.
- 2.4. Space based Solar power systems
- 2.5. Advances in Particle Accelerators

3. Systems for National Security

- 3.1. Advanced Navigation Guidance and Control systems
- 3.2. Advances in Surveillance technology
- 3.3. Signal Intelligence: Electronic Intelligence, Communication Intelligence
- 3.4. Protected Communication system
- 3.5. Advances in Cyber Security
- 3.6. Arial and Agile platforms for national security
- 3.7. Space Based Microwave and Optical Sensors for Surveillance



4. Systems for Governance, Public administration and Management

- 4.1. Systems for Smart City- Public Transportation, Waste Management etc.
- 4.2. E-Governance – Systems for Digital India
- 4.3. Data Science for good governance
- 4.4. Public administration systems
- 4.5. Open Data Infrastructure

5. Systems for Aerospace Applications

- 5.1. Advances in Communication, Navigation & Earth Observing Satellite Technologies and Applications
- 5.2. Latest advances in Launch Vehicle Technologies
- 5.3. Recent research in Materials for Aerospace Applications
- 5.4. Advance Avionics for Aerospace
- 5.5. Technologies for Human Space flights, Space stations
- 5.6. Space Exploration
- 5.7. Quantum frontiers: communication and radar systems
- 5.8. Applications with High Altitude Platforms (HAPS)
- 5.9. Big-LEO Networks

6. Systems for Next-gen Industries

- 6.1. Artificial Intelligence, Machine Learning, Internet on Things (IOT) and Robotics
- 6.2. Advances in Big Data Analytics and Next generation computing: Cloud, neural network etc.
- 6.3. Green technologies for Industries
- 6.4. Advances in e-vehicle technologies
- 6.5. Recent advancements in Manufacturing: 3D Printing, Net Positive manufacturing etc.
- 6.6. Advances in microelectronics and nanotechnology: design and manufacturing
- 6.7. Technologies to enable mass production of satellites