1. **Title of the special session: Blockchain and Smart Contract**

2. **Objective of the special session**

This special session aims to explore the potential applications of blockchain and smart contract technologies in smart nations. The special session on blockchain will provide a platform for participants to share their research findings, practical experiences, and insights on the various aspects of these technologies, including their benefits, challenges, and potential implications.

3. **Topics of the special session**

1. Blockchain and Smart Contracts in various industries such as healthcare, supply chain management, finance and banking, e-governance, digital identity management, energy management, and voting systems.
2. Investigation of privacy and security challenges related to the implementation of blockchain and smart contracts in various industries and use cases.
3. Evaluation of the potential benefits and limitations of blockchain and smart contracts in improving transparency, efficiency, and security in various industries and use cases.
4. Investigation of the scalability and interoperability issues of blockchain and smart contracts and the potential solutions to overcome these challenges.

Tracks:

Track 1: Blockchain and Smart Contracts in Healthcare Industry

- Analysis of the potential use cases of blockchain and smart contracts in healthcare.
- Evaluation of the benefits and challenges of implementing blockchain and smart contracts in healthcare, such as improving data interoperability, patient data privacy, and supply chain management.
- Investigation of the legal and regulatory frameworks governing the use of blockchain and smart contracts in healthcare.

Track 2: Privacy and Security Challenges of Blockchain and Smart Contracts

- Analysis of the privacy and security challenges related to the implementation of blockchain and smart contracts in various industries and use cases.
- Assessment of the potential threats and vulnerabilities associated with blockchain and smart contracts, such as cyber-attacks and data breaches.
- Investigation of the potential solutions to overcome these challenges, including encryption and decentralized storage.

Track 3: Benefits and Limitations of Blockchain and Smart Contracts

- Evaluation of the potential benefits and limitations of blockchain and smart contracts in improving transparency, efficiency, and security in various industries and use cases.
- Analysis of the economic and social impacts of blockchain and smart contracts, such as job displacement and new business opportunities.
- Comparison of blockchain and smart contracts with other technologies and solutions for improving efficiency and security in various industries.

Track 4: Scalability and Interoperability Issues

- Investigation of the scalability and interoperability issues of blockchain and smart contracts.
- Assessment of the potential solutions for improving scalability and interoperability,

such as sharding and cross-chain interoperability.

- Implementation of best practices and standards for scalability and interoperability in blockchain and smart contract implementations.

The aim is to attain a comprehensive understanding of these challenges and to propose effective strategies to mitigate them, thereby guaranteeing the secure and reliable deployment of Blockchain and Smart Contracts for various industries and use cases.

4. Proposer full name and affiliation (Chair of the special session)

Dr Navneet, Professor, Computer Science Engineering, Chandigarh University, India
(Session Chair)

Dr. Meenu Khurana, Professor, Computer Science Engineering, Chitkara University, Baddi

Dr. Satbir Singh Sehgal, Professor, Division of Research and Innovation, Uttaranchal University, Dehradun, India