Special Session in Distributed Ledger Technologies (DLT) applied to Smart Environments (SE)

- Enhancing SE with DLT: Explore how DLT can address SE challenges such as security, scalability, and data integrity.
- Decentralized SE Architectures: Discuss the benefits and challenges of decentralizing SE networks using DLT.
- Securing SE Devices with DLT: Examine how distributed ledgers can secure SE devices against hacking and unauthorized access.
- Privacy-Preserving Mechanisms: Discuss DLT-based solutions for enhancing user privacy in SE applications.
- Immutable Data Storage: Explore the use of distributed ledgers for immutable storage of SE data, ensuring data integrity and authenticity.
- Data Sharing and Monetization: Discuss how DLT can facilitate secure data sharing and monetization in SE.
- Automation with Smart Contracts: Explore the role of smart contracts in automating SE processes and transactions.
- Use Cases of Smart Contracts in SE: Present real-world examples of smart contracts in SE applications, such as supply chain management and autonomous vehicles.
- Scalability Challenges: Identify the scalability challenges in DLT-based SE.
- Layer 2 and Alternative Solutions: Discuss layer 2 solutions like sidechains and state channels, as well as alternative DLTs (e.g., IOTA, Hedera Hashgraph) to improve scalability in SE.
- Energy Consumption Issues: Address the energy consumption concerns of DLT and IoT devices.
- Energy-efficient DLT Protocols: Explore energy-efficient DLT protocols and consensus mechanisms suitable for SE.
- Cross-platform Interoperability: Discuss the challenges and solutions for achieving interoperability between different DLTs and SE platforms.
- Standards and Protocols: Review existing standards and protocols that facilitate interoperability in DLT and SE.
- Regulatory Challenges: Discuss the regulatory challenges of integrating DLT with SE.

- Compliance Solutions: Present compliance solutions and frameworks for DLT-based SE.
- Smart Cities: Discuss the application of DLT and IoT in developing smart cities.
- Healthcare: Explore how DLT and IoT can improve healthcare through better data management and device interoperability.
- Supply Chain and Logistics: Present case studies on the use of DLT and SE in supply chain management and logistics.
- Emerging Trends: Discuss emerging trends at the intersection of DLT and SE.
- Research Opportunities: Identify key research opportunities and challenges in the field.
- Ethical Considerations: Discuss the ethical implications of using DLT and SE.
- Impact on Society: Explore how these technologies can impact society positively and negatively.