Conf-IRM 2027 Bogota, Colombia, 31 May – 2 June, 2027

Conference Theme: **Intelligent & Fragile Infrastructures: Governing Complexity in Information Systems**

Track Number	1
Track Name	Conference Theme - Intelligent & Fragile Infrastructures: Governing Complexity in Information Systems
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Track Description	As digital technologies become increasingly embedded in the infrastructures that support organizations and society, these systems are becoming more intelligent, interconnected, and adaptive. At the same time, their growing complexity can introduce new forms of fragility. This track explores how technological and organizational interdependencies create systemic risks and how such infrastructures can be understood, managed, and governed from an information systems perspective. It invites research that explores how digital and organizational interdependencies create complexity and systemic risk, how emerging technologies reshape critical infrastructures, and how such systems can be designed, managed, governed, and made more resilient. We welcome theoretical, empirical, design-oriented, and interdisciplinary research on the governance and transformation, resilience, and societal implications of critical, public, organizational, and digital infrastructures. Topics will include, but are not limited to: 1. **Intelligent and Interconnected Infrastructures:** Intelligent infrastructures, cyber-physical systems, smart cities, critical infrastructure, and digital infrastructure. 2. **Infrastructure Interdependencies and Systemic Complexity:** Interdependencies across infrastructure systems, systems-of-systems, cascading effects, systemic risks, uncertainty, and emergent behavior. 3. **Governance of Intelligent Infrastructures:** Infrastructure and technology governance, institutional arrangements, policies, standards, stakeholder coordination, and public-private collaboration. 4. **Fragility, Risk, and Resilience:** Infrastructure fragility, risk assessment and management, reliability, resilience, adaptation, recovery, and continuity of essential services. 5. **AI, Digitalization and Infrastructure Transformation:** The role of digital technologies, artificial intelligence, automation, and intelligent systems in transforming infrastructures. 6. **Data, Information, and Decision-Making:** Data governance, information sharing, interoperability, situational awareness, analytics, and decision-making across interconnected infrastructures. 7. **Human, Organizational, and Societal Dimensions:** Organizational capabilities, human factors, trust, accountability, sustainability, societal impacts, and stakeholder relationships. 8. **Designing and Governing for Resilience:** Approaches to designing, evaluating, and governing infrastructures that can anticipate, absorb, adapt to, and recover from technological, organizational, environmental, and societal disruptions.