GEOSPATIAL WORLD
ADVANCING KNOWLEDGE FOR SUSTAINABILITY

USC Dornsife
Dana and David Dornsife
College of Letters, Arts and Sciences

Senior Executive Training Program on Geospatial Knowledge Infrastructure (GKI) at GEOSMART India 2025

Theme: Advancing India's Geospatial Future: Integrating National Priorities with State Capabilities

VENUE

29 - 30 November 2025
Crowne Plaza Hotel
Mayur Vihar, New Delhi

1–4 December 2025
Bharat Mandapam
New Delhi

GKI Program Partners

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DAY 1: 29th November 2025				
09:00 – 10:00	Registration and Tea/Coffee			
10:00 – 10:15	Welcome and Introduction by **Sanjay Kumar, CEO, Geospatial World**			
10:15 – 11:30	Lesson 1	**Geospatial Knowledge Infrastructure – The Future Geospatial Ecosystem**	• Introduction to Geospatial Knowledge Infrastructure: Core principles and concepts • Significance of GKI for national development, digital transformation, and socio-economic growth • Understanding the role of national geospatial agencies and institutional ecosystems in the Digital Age • Navigating challenges and unlocking opportunities for implementing GKI • Strategic pathways and frameworks for strengthening GKI to support national and regional development	**Ananyaa Narain,** Vice President – Consulting Geospatial World
11:30 – 12:00	Coffee Break			
12:00 – 13:00	Lesson 2	**Communicating the Value Proposition of Geospatial Knowledge Infrastructure**	• Articulating the strategic importance of GKI for evidence-based decision-making with relevant Indian examples and global best practices. • Highlighting the socio-economic impact of GKI in driving growth and prosperity. • Methodology to communicate the Return on Investment of Geospatial Knowledge Infrastructure	**Ananyaa Narain,** Vice President – Consulting Geospatial World
13:00 – 14:00	Lunch Break			
14:00 – 15:00	Lesson 3	**Building GKI and Prioritizing State-Level Development**	• Introduction to Geospatial Knowledge Infrastructure and state-centric GKI • National Mapping and Geospatial agencies as strategic enablers • Strengthening state capabilities in geospatial infrastructure • Collaborative Models and Partnerships at the State Level • Discussion on pillars of state-level geospatial transformation • Alignment with National Geospatial Policy and Need for State-level policy	**Oaishik Bhattacharya,** Associate Director, Geospatial World
15:00 – 15:30	Coffee Break			
15:30 – 17:30	Lesson 4	**Building the Future of GKI in India: Infrastructure, Innovation, and Integration**	• Designing strategic spatial infrastructure for national and state-level geospatial ecosystems • Advanced spatial data management for cross-sector integration • Capacity building and skill development for sustainable GKI growth across Indian states	**Prof. (Dr.) Zaffar Sadiq Mohamed-Ghouse,** Vice President and Director-Advisory & Innovation, Woolpert
Day 2: 30th November 2025				
10:00 – 11:00	Lesson 5	**Information Technology as Critical Enabler of GKI Ecosystem: Role of AI, Big Data, Cloud Computing and IoT**	• Establishing state-controlled and nationally aligned digital infrastructure as the foundation for geospatial systems • Moving from siloed GIS systems to state-governed, cloud-native spatial platforms to enable GKI • AI/ML Applications needed for building Established State Data Infrastructure • Big Data & IoT–Enabled Real-Time Geospatial Services	**Jitender Mehta,** Director of Cloud Engineering, Oracle
11:00 – 11: 30	Coffee Break			

11:30 – 13:00	Lesson 6	**Integrated Platform Architecture for Governance and Service Delivery**	• From Data-Centric to Knowledge-Centric: What Changes in a GKI Platform? • Designing a Distributed, Cloud-Based Geospatial Platform • Integrating Dynamic Data Streams and Multi-Source Inputs for decision-making – a core of the GKI • Embedding Intelligent Search, Analytics, and Decision Support • Enable Sectoral Service/Applications Delivery through Building an Ecosystem-Centric Platform Governance Model for sustained GKI	**Vijay Kumar,** Senior Vice President and CTO, Esri India
13:00 – 14:00	Lunch Break			
14:00 – 15:30	Lesson 7	**Fundamentals of Positioning, Navigation and Timing and Relevance in the GKI Ecosystem**	• Understanding the fundamentals of PNT systems • Indian PNT ecosystem and strategic infrastructure • Sectoral applications and economic relevance of PNT • Challenges of dependence and data sovereignty • Future trends and emerging technology integration	**Major General (Dr.) B Nagarajan (Retd.),** Professor, Department of Civil Engineering, Indian Institute of Technology, Kanpur
15:30 – 16:00	Coffee Break			
16:00 – 17:00	Lesson 8	**Interoperability and Integration: Advancing Geospatial Data Infrastructure through Standards and Collaboration**	• The role of open standards in ensuring interoperability across National platforms. • Importance of standards and strategies for aligning Centre, state and local GKI ecosystems • Need to eliminate data duplication, fragmentation and strengthening metadata protocols. • Developing federated NGDI architectures to enable seamless central–state data exchange	**Harsha Madiraju,** Associate Director, Open Geospatial Consortium (OGC)
Day 3: 1st December 2025				
09:30 – 11:00	Lesson 9	**Harnessing Earth Observation Data for National Mapping**	• Typology and data ecosystems of Earth Observation • Moving from thematic information towards sectoral intelligence integration • Operational application and creating strategic impact • Emerging technology integration and the future of Earth Observation	**Dr. Hrishikesh Samant,** Professor of Geology, St. Xavier's College, Mumbai
11:00 – 11:30	Coffee Break			
11:30 – 13:00	Lesson 10	**GKI Workflow Integration Across AEC/ Infrastructure Sector**	• Leveraging GKI for Smarter Infrastructure Design and Development in the Indian context • Digital Twins in AEC: GKI's Role in Real-Time Data and Simulation • Integration of GKI with BIM for Streamlined Project Management • Enhancing Sustainability in AEC Projects through Geospatial Analysis • Case Studies: GKI Implementation in Large-Scale Construction and Urban Projects	**Professor. John P. Wilson,** USC Professor and Founding Director of the Spatial Sciences Institute, University of Southern California
13:00 – 14:00	Lunch Break			
14:00 – 15:30	Lesson 11	**GKI Workflow Integration for Natural Resource Management and Ecological Restoration**	• Leveraging GKI for sustainable natural resource management at the national level • Integrating geospatial intelligence into environmental monitoring systems across India • Using GKI to support community-driven decision-making processes • Building early warning systems through geospatial-enabled insights • India Observatory Case Study – Applicability to India	**Chiranjit Guha,** General Manager, Foundation for Ecological Security (FES)

15:30 – 16:00	Coffee Break			
16:00 – 17:30	Lesson 12	**GKI Workflow Integration for Disaster Management**	• Building an integrated geospatial data platform integrating satellite imagery, ground observations, and real-time sensor feeds for disaster intelligence. • Enabling continuous hazard monitoring and early-warning through PNT-enabled IoT sensor networks and real-time spatial data streams. • Structuring end-to-end disaster management workflows within a unified GKI framework for coordinated, data-driven response. • Applying advanced geospatial technologies including SAR, LiDAR, UAVs, and AI-driven analytics to enhance hazard prediction, impact assessment, and infrastructure resilience. • Embedding geospatial intelligence into decision workflows for faster response and resilient planning.	**Dr. Shirish Ravan,** Director, EarthSight Foundation
18:00 -19:00	Networking Reception with the CXO Summit Delegates			
19:00 – 20:30	Honouring the Living Legends & GeoSmart India Leadership Awards 2025			
20:30- 22:00	Dinner Reception			
Day 4: 2nd December 2025				
09:30 – 05:30	**GeoSmart India Conference Program**		• Participation in thought-leadership plenary sessions on: - State Geospatial Infrastructure and Industry Development Strategy - Sensors to Services: Advancing Turnkey Solutions through Collaborative Business Models • Explore strategies connecting technology with governance & gain insights on collaborative models. • Networking with policymakers, innovators, and industry leaders driving India's geospatial agenda.	
Day 5: 3rd December 2025				
10:00 – 13:00	**Technology Demonstrations as part of Senior Executive Training**		• 45-Minute-long immersive technology showcase: - Geospatial Analytics & Platform Infrastructure - Positioning, GNSS and Precision Infrastructure - High Resolution Aerial and 3D Imaging	
13:00 – 14:00	Lunch Break			
14:30 – 17:00	**ESRI Technology Track**		• ArcGIS Reality & Digital Twins: Showcasing advanced 3D reality capture and digital simulation capabilities. • Geospatial AI for Optical & SAR Imagery: Demonstrating AI-driven analysis and feature extraction across diverse imagery. • NISAR Data Processing in ArcGIS: Highlighting workflows to transform NISAR's global SAR data into meaningful insights.	
Day 6: 4th December 2025				
09:30 – 11:00	**Technical Sessions/Seminars**		• Deep-Dive Sessions that bridge technical insight with strategic application: - Expose participants to emerging technologies like GeoAI, HD Mapping and surveying, LIDAR, Scanning and spatial computing shaping India's geospatial transformation	
11:00 – 12:30	**Assessment Workshop**		• Key Takeaways and Outcomes	
12:30 – 13:00	**Closing Ceremony**		• Presentation of Certificates and Group Photograph	

Note: Attendance at the assessment workshop and the closing ceremony is mandatory. A completion certificate will be awarded to all trainees, certified by USC Dornsife and Geospatial World.