Advanced Smart City and Urban Innovation Planning Training Course



26 - 30 Oct 2026

Barcelona

5900 € (Per Person)

Ref: #INN9703_115243

Course Introduction / Overview:

The global shift towards urbanization presents unprecedented challenges and opportunities, demanding a new paradigm in city management and development. This course provides a comprehensive exploration of smart city concepts, moving beyond technological hype to focus on strategic planning and sustainable urban innovation. We will delve into the core principles that transform urban spaces into efficient, resilient, and citizen-centric environments. Drawing on the foundational work of experts like Carlo Ratti, whose research at MIT's Senseable City Lab and insights in his book "The City of Tomorrow" have shaped modern urban thinking, this program examines the integration of data, technology, and policy. Participants will learn to develop holistic strategies that address real-world urban problems, from traffic congestion to resource management. BIG BEN Training Center has designed this course to equip future urban leaders with the critical skills needed to navigate the complexities of digital transformation in cities, ensuring that innovation serves the ultimate goal of improving the quality of life for all residents. This is not just a technology course; it is a strategic guide to building the intelligent, sustainable, and inclusive cities of the future.

Target Audience / This training course is suitable for:

- Urban Planners and City Managers.
- Government Officials and Public Sector Leaders.
- Technology and Innovation Consultants.
- Infrastructure and Civil Engineers.
- Policy Advisors and Analysts.
- Real Estate Developers and Project Managers.
- Sustainability Officers and Environmental Planners.
- Public-Private Partnership Specialists.
- IT Professionals working on urban solutions.
- Community Engagement and Social Development Officers.

Target Sectors and Industries:

- Government and Public Administration.
- Technology and Information Services.
- Urban Development and Real Estate.
- Transportation and Logistics.
- Energy and Utilities.
- Telecommunications.
- Construction and Engineering.
- Environmental and Sustainability Services.
- Consulting and Professional Services.
- Public Safety and Emergency Services.

Target Organizations Departments:

- Urban Planning and Development.
- Information Technology (IT) and Digital Transformation.
- Strategy and Policy Making.
- Public Works and Infrastructure.
- Economic Development.
- Transportation and Mobility.
- Environmental and Sustainability Management.
- Public Safety and Security.
- Innovation and Research.
- Community Relations and Citizen Services.

Course Offerings:

By the end of this course, the participants will have able to:

- Develop a comprehensive strategic roadmap for smart city implementation.
- Analyze the role of IoT, Big Data, and AI in urban management.
- Evaluate various smart technologies for specific urban challenges.
- Design citizen-centric services and engagement platforms.
- Formulate effective policies for data governance and privacy in a smart city context.
- Assess the financial models and public-private partnership opportunities for smart projects.
- Integrate principles of sustainability and resilience into urban innovation plans.
- Manage the complexities of digital transformation within public sector organizations.
- Benchmark smart city initiatives against global best practices.
- Lead and champion urban innovation projects from conception to execution.

Course Methodology:

The training methodology at BIG BEN Training Center is designed to be immersive, practical, and highly interactive, ensuring that participants can translate theoretical knowledge into actionable strategies. This course moves beyond traditional lectures by employing a blended learning approach centered on real-world application. A significant portion of the program is dedicated to the analysis of detailed case studies from pioneering smart cities like Singapore, Barcelona, and Amsterdam, allowing participants to dissect successful strategies and learn from past challenges. Collaborative group workshops will form a core component, where attendees will work in teams to design a smart city initiative for a model city, fostering teamwork and problem-solving skills. Interactive sessions, expert-led discussions, and brainstorming activities will encourage the sharing of diverse perspectives and experiences. We emphasize a hands-on approach, where participants will engage with smart city frameworks and planning tools. Continuous feedback from the instructor and peers is integrated throughout the course to refine ideas and enhance learning outcomes, ensuring a robust and comprehensive educational experience.

Course Agenda (Course Units):

Unit One: Foundations of Smart Cities and Urban Innovation

- Defining the Smart City concept beyond technology.
- Historical evolution of urban development and technology.
- The key pillars of a smart city: economy, mobility, environment, people, living, and governance.
- Global case studies of leading smart cities and their unique approaches.
- Understanding the urban ecosystem and stakeholder mapping.
- The role of data as the new urban infrastructure.
- Challenges and ethical considerations in smart city development.

Unit Two: Core Technologies for Smart Urban Environments

- Internet of Things (IoT) and sensor networks for data collection.
- Big Data analytics and predictive modeling for urban services.
- Artificial Intelligence (AI) and Machine Learning in city operations.
- 5G connectivity and its impact on urban infrastructure.
- Digital Twins: creating virtual models of cities for planning and simulation.
- Cloud computing and edge computing for urban data processing.
- Blockchain applications for secure and transparent city services.

Unit Three: Smart Governance and Citizen-Centric Services

- Principles of e-governance and digital public administration.
- Open data platforms and their role in transparency and innovation.
- Developing citizen engagement strategies through digital tools.
- Designing user-centric smart services for residents.
- Digital inclusion and bridging the digital divide in urban populations.
- Data privacy, security, and ethical governance frameworks.
- Building trust between citizens and city administration in a digital age.

Unit Four: Innovations in Key Urban Sectors

- Smart Mobility: intelligent transport systems, MaaS, and autonomous vehicles.
- Smart Environment: waste management, air and water quality monitoring.
- Smart Energy: smart grids, renewable energy integration, and efficiency.
- Smart Buildings and sustainable infrastructure.
- Public Safety: predictive policing, emergency response systems, and smart surveillance.
- Smart Health and Education in the urban context.
- Circular economy principles in smart city design.

Unit Five: Strategy, Policy, and Implementation

- Developing a long-term smart city vision and strategic roadmap.
- Policy-making and regulatory frameworks for urban innovation.
- Financing smart city projects: models, grants, and investments.
- The role of Public-Private Partnerships (PPPs) in project delivery.
- Project management and agile methodologies for smart city initiatives.
- Measuring success: Key Performance Indicators (KPIs) and impact assessment.
- Future trends and the next generation of smart urbanism.

FAQ:

Qualifications required for registering to this course?

There are no requirements.

How long is each daily session, and what is the total number of training hours for the course?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

Something to think about:

How can smart city development be balanced with the critical need for data privacy and digital equity for all citizens?

What unique qualities does this course offer compared to other courses?

This course distinguishes itself by adopting a holistic, strategy-first approach to smart city development, rather than focusing narrowly on technology. While many programs provide a technical overview of smart solutions, our curriculum emphasizes the critical intersection of technology, policy, governance, and human-centric design. We move beyond buzzwords to equip participants with the strategic planning skills necessary to lead complex urban transformation projects. The content is deeply rooted in real-world applicability, utilizing an extensive library of international case studies to explore both successes and failures in smart city implementation. This provides a nuanced, practical understanding that is often missing from more theoretical courses. Furthermore, the course structure is designed to foster critical thinking about the ethical and social implications of urban innovation, including data privacy, digital equity, and community trust. Participants will not just learn what a smart city is; they will learn how to strategically plan, finance, and manage the creation of one that is sustainable, resilient, and truly serves its citizens.