Smart Cities: Planning & Implementation Training Course

Professional Development Training Course Outline

Category	Public Sector Innovation	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Smart Cities planning and implementation have become critical priorities as urban areas face rapid population growth, climate change, infrastructure strain, and rising demand for efficient public services. Smart Cities: Planning & Implementation Training Course provides a comprehensive foundation in smart city concepts, digital transformation strategies, urban innovation frameworks, and integrated planning approaches that leverage data, technology, and governance to improve quality of life. Participants will explore smart infrastructure, intelligent transport systems, urban data platforms, IoT-enabled services, and sustainable city development models aligned with global smart city standards and best practices.

The course emphasizes practical implementation, policy alignment, stakeholder coordination, and long-term sustainability of smart city initiatives. Participants will gain skills to design smart city roadmaps, manage multi-sector projects, integrate emerging technologies, and measure performance using data-driven indicators. Through case studies and applied learning, the course equips professionals to translate smart city visions into actionable programs that enhance resilience, inclusivity, efficiency, and economic competitiveness.

Programme Curriculum

Smart Cities: Planning & Implementation Training Course

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Course Objectives

1. Understand core smart city concepts, frameworks, and global trends.
2. Apply integrated urban planning principles for smart city development.
3. Design smart city strategies aligned with national and local priorities.
4. Analyze digital infrastructure requirements for smart city ecosystems.
5. Apply data-driven decision-making in urban management.
6. Understand IoT, AI, and big data applications in smart cities.
7. Plan smart mobility and intelligent transport systems.
8. Integrate sustainability and climate resilience into smart city projects.
9. Develop governance and institutional models for smart city implementation.
10. Apply public–private partnership models for smart city financing.
11. Manage risks, cybersecurity, and data privacy in smart cities.
12. Monitor smart city performance using KPIs and dashboards.
13. Develop implementation roadmaps for scalable smart city solutions.

Organizational Benefits

- Improved urban planning and service delivery efficiency
- Enhanced capacity to implement smart city initiatives
- Stronger data-driven decision-making capabilities
- Better coordination across city departments and stakeholders
- Increased sustainability and climate resilience outcomes
- Improved citizen engagement and service accessibility
- Optimized infrastructure investment and asset management
- Enhanced innovation and digital transformation readiness
- Reduced operational costs through smart technologies
- Strengthened governance and accountability frameworks

Target Audiences

- Urban planners and city development officers
- Municipal and local government officials
- Infrastructure and public works managers
- ICT and smart city program managers
- Transport and mobility planners

- Environmental and sustainability officers
- Policy makers and regulators
- Consultants and advisors in urban development

Course Duration: 10 days

Course Modules

Module 1: Smart City Concepts and Evolution

- Definitions and components of smart cities
- Evolution of smart city models globally
- Key drivers of urban digital transformation
- Smart city maturity frameworks
- Role of technology in urban innovation
- Case Study: Transformation of a mid-sized city into a smart city

Module 2: Strategic Urban Planning for Smart Cities

- Integrated urban and regional planning approaches
- Aligning smart city strategies with development plans
- Stakeholder engagement in city planning
- Land use and spatial planning considerations
- Scenario planning for future urban growth
- Case Study: Smart master planning for a metropolitan area

Module 3: Smart City Governance and Institutional Frameworks

- Governance models for smart cities
- Roles of public institutions and leadership
- Inter-agency coordination mechanisms
- Policy and regulatory enablers
- Accountability and transparency structures
- Case Study: Governance reforms supporting smart city rollout

Module 4: Digital Infrastructure and Connectivity

- Broadband, fiber, and wireless infrastructure
- Cloud platforms and data centers for cities
- Interoperability and system integration
- Open standards and architectures
- Scalability and resilience considerations
- Case Study: City-wide digital backbone implementation

Module 5: Urban Data Platforms and Analytics

- Urban data ecosystems and data governance
- Data collection from sensors and systems
- Real-time dashboards and analytics
- Open data platforms and innovation
- Data-driven urban policy design
- Case Study: City data platform improving service delivery

Module 6: Internet of Things (IoT) for Smart Cities

- IoT architecture and components
- Smart sensors and device deployment
- Use cases in utilities, lighting, and waste
- Data security and device management
- Performance monitoring and optimization
- Case Study: IoT-enabled smart street lighting program

Module 7: Smart Mobility and Transport Systems

- Intelligent transport system concepts
- Traffic management and congestion reduction
- Smart public transport solutions
- Mobility-as-a-service models
- Integration of active and shared mobility
- Case Study: Smart traffic management reducing congestion

Module 8: Smart Energy and Utilities

- Smart grids and energy management systems
- Renewable energy integration
- Water and wastewater smart management
- Demand-side management techniques
- Utility performance optimization
- Case Study: Smart metering for urban utilities

Module 9: Smart Environment and Sustainability

- Environmental monitoring and sensors
- Climate resilience and adaptation strategies
- Waste management and circular economy

- Air quality and emissions management
- Green infrastructure planning
- Case Study: Smart environmental monitoring improving air quality

Module 10: Smart Buildings and Infrastructure

- Intelligent building management systems
- Energy-efficient building design
- Asset management and predictive maintenance
- Retrofitting existing infrastructure
- Standards for smart construction
- Case Study: Smart public buildings program

Module 11: Citizen Engagement and Smart Services

- Digital citizen service platforms
- E-government and service automation
- Participatory governance tools
- Inclusion and accessibility considerations
- Service performance feedback mechanisms
- Case Study: Citizen engagement platform increasing service uptake

Module 12: Cybersecurity and Data Privacy in Smart Cities

- Cyber risks in connected urban systems
- Data privacy and protection requirements
- Secure system design principles
- Incident response and resilience planning
- Trust and ethical data use
- Case Study: Cybersecurity breach response in a smart city

Module 13: Financing and Public–Private Partnerships

- Smart city investment models
- PPP structures and risk sharing
- Funding from development partners
- Cost–benefit analysis and value capture
- Financial sustainability planning
- Case Study: PPP-funded smart city infrastructure project

Module 14: Monitoring, KPIs, and Performance Management

- Defining smart city KPIs
- Performance measurement frameworks
- Data-driven monitoring and evaluation
- Continuous improvement approaches
- Reporting to stakeholders and citizens
- Case Study: KPI dashboard guiding city decision-making

Module 15: Implementation Roadmaps and Scaling

- Translating strategy into implementation plans
- Phased rollout and pilot programs
- Change management and capacity building
- Risk management and mitigation planning
- Scaling and replication strategies
- Case Study: Scaling smart city solutions across districts

Training Methodology

- Instructor-led lectures and conceptual briefings
- Practical group exercises and planning workshops
- Technology demonstrations and simulations
- Case study analysis and peer learning
- Scenario-based problem-solving activities
- Development of city-specific action plans

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.
f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

Ready to enroll or request a customized program? Book online or contact us:

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