



*Training Course:
Smart Population Management Using AI and
Data Analytics*

24 August - 4 September 2025

Cairo (Egypt)

Holiday Inn & Suites Cairo Maadi, an IHG Hotel

Training Course: Smart Population Management Using AI and Data Analytics

Training Course code: SC236127 From: 24 August - 4 September 2025 Venue: Cairo (Egypt) - Holiday Inn & Suites Cairo Maadi, an IHG Hotel Training Course Fees: 6000 € Euro

Introduction

In an era shaped by digital transformation, the management of population dynamics—whether in urban expansion, rural migration, or aging demographics—requires innovative and data-driven approaches. Artificial Intelligence AI and data analytics now offer unprecedented tools to forecast, plan, and optimize population-related policies.

This advanced training program, designed by [Global Horizon Training Center](#), empowers professionals and decision-makers to apply AI and analytics to complex population management challenges. Through practical sessions, real-world case studies, and interactive exercises, participants will learn to transform data into actionable strategies that enhance policy development, urban planning, and social service delivery.

Objectives

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

- Understand the fundamentals of AI, machine learning, and big data in population studies.
- Collect, analyze, and integrate demographic data from diverse sources.
- Apply predictive models to forecast demographic trends and optimize planning.
- Visualize population insights using advanced tools like Power BI and Tableau.
- Develop smart city strategies supported by AI.
- Address ethical, privacy, and governance challenges related to data-driven decisions.
- Build institutional frameworks for sustainable population management.

Course Methodology

- Instructor-led expert presentations
- Case studies and practical simulations
- Group discussions and collaborative exercises
- Hands-on data analysis labs using selected AI tools Python/R/Tableau

- Final strategy design and presentation

Organizational Impact

Organizations participating in this course will benefit from:

- Enhanced data-informed decision-making
- Improved forecasting of demographic shifts and service needs
- Smarter urban planning and infrastructure development
- Risk mitigation through predictive analytics
- Aligned strategies with international best practices in population management

Target Audience

- Government officials and policy makers in urban planning or social development
- Data analysts and AI professionals in the demographic or public sector
- NGO and development agency staff involved in community services
- Urban planners and smart city designers
- Healthcare administrators handling population health data
- Academics and researchers in demography, AI, or public policy

Outlines

Day 1: Introduction to Smart Population Management and AI

- Challenges of modern population dynamics
- AI, ML, and data analytics: Core concepts
- Global best practices

Day 2: Data Sources and Collection Methods

- Census data, IoT sensors, social media, public records
- Ensuring data quality and privacy
- Ethical use of population data

Day 3: Data Integration and Big Data Technologies

- Merging health, education, and migration data
- Introduction to Hadoop, Spark
- Real-time vs. historical data

Day 4: Predictive Analytics in Demographic Forecasting

- Forecasting fertility, aging, migration
- Machine learning models linear regression, decision trees, clustering
- Case: Urban migration prediction using ML

Day 5: AI in Social Policy and Service Optimization

- Resource allocation using AI education, healthcare, housing
- Bias mitigation in AI models
- Case: AI in elderly care systems

Day 6: Data Visualization for Strategic Decisions

- Best practices for dashboards
- Power BI, Tableau, Google Data Studio tools
- Communicating complex data to stakeholders

Day 7: AI in Urban Planning and Smart Cities

- Smart infrastructure planning
- GIS & AI integration
- Case: AI for housing policy and public transport

Day 8: Scenario Simulation and Policy Modeling

- Simulating demographic policies
- Population risk modeling e.g., pandemic, migration surge
- Lab: Simulate policy change and assess impact

Day 9: Ethics, Governance, and Data Security

- AI bias, discrimination risks
- Legal frameworks and governance models
- Inclusive digital transformation strategies

Day 10: Designing a Smart Population Management Strategy

- Creating institutional frameworks using AI
- Group activity: Drafting population policy strategies
- Final presentations and course debrief.

Registration form on the Training Course: Smart Population Management Using AI and Data Analytics

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

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