### Telecoms & Tech Academy

SCHOOL OF ADVANCED COMMUNICATIONS TECHNOLOGIES

# SMART CITES

Format: Classroom Duration: 2 Days



# **COURSE SUMMARY**

#### HIGHLIGHTS

- Exposure to the latest IoT analysis from Ovum experts
- Define the Smart City
- Technology, data and infrastructure
- Strategy, governance and industry support
- Safeguards, risk and mitigation
- Case studies and examples used throughout

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"The course was very insightful and the lessons learnt from the course will be very relevant to the telecoms industry."

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#### **COURSE SUMMARY**

With the majority of the world's population set to live and work in Megacities or large metropolitan urban areas, there is urgent need to solve a range of pressing issues, from sanitation and transport, to increasing the effectiveness of education and commerce.

Extensive progress in connectivity, big data, and control algorithms has enabled a whole range of systems and solutions to be developed as part of "Smart City", "Future City" or "Sustainable City" projects. However, a city can only be considered "Smart" when the right systems are deployed in a coordinated framework; a single or integrated infrastructure; the systems are used effectively and appropriately for the benefit of the citizens and businesses; and when the use, infrastructure and data is safeguarded appropriately.

This workshop looks at the systems, frameworks, control mechanisms, and technologies behind Smart City initiatives, as well as the opportunities, ecosystems, and the global community behind much of the progress. Case studies are used extensively to illustrate and analyse the requirements, as well as the dangers (and associated safeguarding mechanisms). Standardisation, benchmarking and the role of the different players within the various ecosystems are explored, including the role and opportunities for leading and coordinating specific elements of the overall system.

#### OUTCOMES & COMPETENCY DEVELOPMENT

Participants will develop or be able to:

- Effectively assess issues and problems that need to be solved by technology and smart city initiatives
- Evaluate business opportunities within different types of Smart, Future and Sustainable City project
- Contribute much more effectively to strategic debate and agenda setting both within their own organisation and within Smart City projects and ecosystems
- Identify and debate the key technologies available, including their benefits and features - and their likely impact on key issues such as security, safety, cost, standardisation and future development
- Assess implementation options and technology requirements for Smart City systems and solutions
- Develop solutions in a more holistic way, identifying where value can be created for businesses, citizens and city authorities, and (where appropriate), where that value can and should be monetized
- Make decisions on technology implementation and procurement that are commercially viable, minimise risk, and in line with the strategy and goals of the wider organization and ecosystem.

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## **COURSE CONTENTS**

#### DEFINING THE SMART CITY - AS A LIVING ENTITY

- Smart, Future and Sustainable Cities
- Citizens, Work and Commerce, Government
- City Infrastructure and Layout
- Key Development Projects and Focus
- Aspirations and Status
- The Drive for better Living and better Working
- Resources, Costs and Budgeting

#### PROBLEMS TO BE SOLVED AND ISSUES TO BE ADDRESSED

- Sustainability, Planning, Resources and Growth
- Connectivity
- Transportation
  - Public Transport, including Ticketing
  - Smart Cars and Private Transport
  - Congestion & Parking
- Health and Wellbeing
- Energy Efficiency, Distribution and Maintenance
- Utilities Metering and Control
- Sanitation and Waste Management
- Security and Safety
- Education and Learning
- Commerce and Smart Working
- Effects of Climate Change
- Information Access and Control

#### TECHNOLOGY, DATA AND INFRASTRUCTURE

- Connectivity
- The Role of IoT and M2M
- Cloud Technology
- Virtualisation
- Big Data
- Sensors and Infrastructure
- Connecting the Sensors & Infrastructure
- Data -
- Storage, Access Handling, Analysis
- Security, Data Protection and Privacy
- Control Schemes and Control Rooms
- Interfaces
  - Administration & System Control
  - Citizens and Users
  - Role of Apps
- Technology Standardisation
- Example Systems and Frameworks
  - Intel
  - IBM

#### STRATEGY, GOVERNANCE AND INDUSTRY SUPPORT

- Smart City Drivers
- Smart City Initiatives Global, Regional
- EU Initiatives
- Resources and the Global Smart City
  Community
  - Main Players and Their Roles
  - Leading the Initiative
  - The Role of the Citizen
  - The Role of City Businesses
  - Top Down and Bottom Up
  - Partnerships
  - Example Ecosystem
  - Ethics and Governance
  - Compliance
  - Performance, Progress and Benchmarking

#### SAFEGUARDS, RISK AND MITIGATION

- Warning Systems
- Disaster Recovery
- Protecting the Data
- Data Security Breaches
- Malicious Access / Control Breach
- Failsafe Infrastructure and Systems

#### CASE STUDIES - NOMINAL EXAMPLES MAY INCLUDE ...

- Santander, Spain
- Milton Keynes, UK
- Lusail, Qatar
- Rio de Janeiro, Brazil
- Istanbul, Turkey

#### **EXAMPLES**

Examples and Case Studies are used throughout in order to apply the concepts to real-life projects and to allow for deeper evaluation and analysis. More comprehensive case studies are used to bring the concepts together in order to develop clarity and to assess bothy the next-steps and additional learning opportunities.

# **OUR TRAINING SERVICES**

#### TELECOMS & TECH ACADEMY STRUCTURE

Our training programmes are delivered worldwide as part of the training and development plans of many operators, vendors, and service providers. The programmes cover a wide range of competency development requirements.

To ensure we meet the training needs of the industry as effectively as possible, we operate three schools:

#### **School of Telecoms & Tech Business**

Business training tailored to the telecoms industry, ranging from the intensive 5-day Telecoms Mini MBA to specialist leadership and marketing training.

#### School of Advanced Communication Technologies

Covering a multitude of technologies, these courses range from overviews aimed at nontechnical staff to in-depth engineering training.

#### **Distance Leaning**

Our comprehensive suite of Distance Learning programmes provide an excellent opportunity to expand knowledge and build confidence.

#### **OUR TRAINERS**

We only use trainers and programme directors that satisfy the following three criteria:

- Experts in their field
- High level of Industry Experience
- Expert facilitators and training professionals.

All our trainers have undergone a rigorous election process and are subject to continuous monitoring and evaluation. Each trainer is accredited for specific courses or topic areas. Whether engineers or business experts, all our trainers are required to continue their own development within their specialist areas, and to broaden their Industry view of trends, best practice and technology.

This is achieved by our on-going work with many tier 1 operators and vendors, and by full exposure to Ovum research and KNect 365 TMT worldwide events.

#### UNIVERSITY ACCREDITATION

Some of our programmes have been accredited by the University of Derby Corporate; a UK-based university highly acclaimed in the area of employer engagement. They are at the forefront of the drive to integrate highly focused industry -led training with the academic rigor and quality control of universitybased education. Our comprehensive Advanced Telecoms Management Series have been accredited Post-Graduate Level, with our extensive suite of Distance Learning at Undergraduate Level)

We would be happy to discuss extending accreditation to tailored ATMS or programmes based on our Distance Learning modules. Although accreditation is specific to these programmes, the work we do with the University of Derby enable us to develop and apply best practice across our portfolio.

#### CUSTOMISED IN-HOUSE TRAINING

Telecoms & Tech Academy has worked with countless companies to deliver customised training programmes. We take time to understand your requirements, you'll work with our specialist training team to ensure that we deliver your perfect training programme for your business.

A customised training programme from Telecoms & Tech Academy ensures you get a course that precisely matches your organisation's needs, presented by a first-rate training organisation, with access to all the latest industry research and analysis.

#### WHY CHOOSE IN-HOUSE TRAINING FROM TELECOMS & TECH ACADEMY?

- Content can be customised to focus on the issues you want – work with us to develop the training course to match the exact needs.
- Unique industry research from Ovum's team of industry leading analysts
- Expert trainers our team of versatile trainers have the knowledge and experience to deliver a highly effective learning experience
- The most efficient way to train your staff – at the time and location to minimise disruption
- Flexible delivery options with a range of instructor led, distance learning and virtual classroom formats available you can build a blended solution to maximise training effectiveness over the long term
- Pre and post course assessment can be included in programmes to measure competencies and check on the required progress.

Contact us to discuss how we can build your perfect programme.



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