Urban Environmental Planner

Fostering innovation and better skills match with the green and digital sectors through the integration of emerging technologies (drones, VR, AR) in VET

Co-funded by the European Union

URBAN PLANNING SECTOR

✏️Short Description

This position uses drones to map urban green spaces and monitor environmental factors like air pollution. It's green because it supports sustainable city planning and improves urban ecosystems. It's applied in city development projects to enhance livability and reduce environmental impact.

🎯Key Skills Required

- 🚁 **Drone Piloting** – capturing aerial data for urban environmental assessments
- 🌍 **GIS and Mapping** – spatial analysis to support urban planning decisions
- 📡 **Remote Sensing** – monitoring land use, vegetation, and environmental changes
- 🌱 **Environmental Monitoring** – tracking air quality, green spaces, and urban ecosystems
- 📊 **Data Analysis** – interpreting environmental and spatial data for planning
- 🧭 **Urban Planning Principles** – integrating sustainability and development frameworks

💡Future Trends & Market Opportunities

The demand for drone-assisted urban planning is growing as cities look for smarter, more sustainable ways to develop. With urban areas expanding and environmental concerns rising, drones offer an efficient way to gather real-time data on green spaces and pollution. This helps planners make better, more informed decisions. The job market in this space is expected to grow, especially as new tech like AI, digital twins, and autonomous drones enhance how cities are designed and monitored. These tools not only improve efficiency but also help create healthier, more livable urban environments.

✈️Drone Applications

🌳 **Green Space Mapping:** Identifying, analyzing, and planning for urban parks and vegetation.

🌫️ **Air Quality Monitoring:** Gathering real-time data on pollution levels to support healthier environments.

🛰️ **Aerial Surveillance:** Monitoring construction sites, land use, and urban sprawl from above.

🔥 **Thermal Imaging:** Detecting heat islands in cities to guide cooling strategies and green infrastructure.

🌿 **NDVI Mapping** : Measuring vegetation health and density to inform sustainable urban planning.

Sector & Classification

🌍 Sector: Urban Planning / Environmental Monitoring

🟦 ESCO Code: Urban and Regional Planner (ISCO-08 Code: 2164)

External Sources

🌐 Mapping urban forest across North America: Computer vision for large-scale environmen...

🌐 Green spaces, urban places: The Mapping Green Dublin Project

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[AI system accurately maps urban green spaces, exposing environmental divides]

[Spatiotemporal Air Quality Mapping in Urban Areas Using Sparse Sensor Data, Satellite Imagery, Meteorological Factors, and Spatial Features]

[High-resolution urban air pollution mapping]

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