2021 MITI Mashhad Webinars

Concept Note

Geospatial Visualization for Urban Revitalization; from CADs to Digital Twins

When & where

This webinar will be held on 11th February (10 am CEST), on Webex platform. It is organized by the Metropolis International Training Institute – Mashhad [MITI-Mashhad].

Context

According to the urban sustainability exchange (USE), "urban renewal, redevelopment, and revitalisation projects are crucial to the success of the modern city". Such projects have the potential to rehabilitate and better utilise land and space to create employment opportunities, create diverse housing options, stimulate the local economy and attract investments. Sense of desirability, reduction of crime rate, increase in property values, foster social inclusion and citizen engagement are among many benefits of urban redevelopment projects. Urban revitalisation initiatives can, however, be large projects, complex in terms of implementation and operation, and require significant investments.

Computer Aided Design (CAD) systems have been extensively utilised to assist architects and urban planners, decision makers and even the general public to have a better understanding of the proposed urban redevelopment projects. Over the last 30 years, with the advances of geospatial simulation and visualisation techniques, such technologies have been an inseparable part of any large-scale redevelopments. In recent years, Digital Twins has also been part of this visualisation journey; and much more than that.

Digital twin technology is being used around the world to address the complex challenges of urban renewal, sustainable living and revitalisation. A successful digital twin relies on collaboration across governments, industry, the research sector and general public to reach the best possible outcomes. Digital Twins has the potential to assess new projects against a much broader representation of a place. For instance, traffic data, air quality data and many more could all be added to the digital twin ecosystem to create a dynamic analysis environment, rather than static 3D simulation.

IBM defines the digital twin as "the virtual representation of a physical object or system across its life-cycle. It uses real-time data and other sources to enable learning, reasoning, and dynamically recalibrating for improved decision making." Using geospatial simulation and the potential to link hundreds of data layers spatially, digital twins provide the opportunity for a "virtual testbed" in major redevelopment projects to test, evolve and support delivery of development proposals and provide greater benefits to society.

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In addition, digital twins have the potential to improve public communication and participation which will result better decision making in the areas such as:

- Visualising and Showcasing the role project plays in society;
- Policy Testing for government and local governments when creating jobs or housing options;
- Decision-making on investments;
- Communication of ideas.

In this presentation, after a background on visualisation in general, we will review a couple of redevelopment / revitalisation projects in Victoria, Australia over the last a few years and then explore the concept of the Digital Twins in Fishermans Bend, Melbourne.

Target Audience

- Senior Officials, Managers and Administrators of Urban Planning, and Urban Development
- Experts in charge of Urban Planning, Digital & Smart Cities, Architecture and Urban Development
- Members of city councils

Language

English Only

Contacts

For more information, or any questions you may have regarding the webinar, please feel free to contact us at +9890-5531-3038 [WhatsApp] or via info@mashhadisco.ir.

Register Online

For registration please go to:

https://forms.gle/TjWHvtR9SoHMyWD39

Online Speaker

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