Dublin City University embraces Bentley's 3D technology in smart city research initiative

Dublin City University (DCU) has partnered with Bentley Systems to spearhead the creation of an advanced digital twin of its campus as a pivotal element of its Smart DCU initiative. This collaborative smart city research project leverages artificial intelligence (AI) and immersive digital twin technology, utilizing DCU's campus as a testing ground for pioneering smart city solutions, with the overarching goal of forging sustainable, efficient and enjoyable urban spaces on a global scale.

In addressing the project's challenges, the team grappled with an abundance of siloed data, IoT sensors and radar devices, necessitating seamless integration for intelligent monitoring. To harness the full potential of data capture and analysis, a user-friendly platform was indispensable. Bentley's open 3D and reality modelling technology emerged as the ideal choice, facilitating the creation of a campus model intricately linked with IoT data, resulting in an immersive digital twin on the iTwin Platform.

Democratizing data visualization

Integrating AI-powered analysis with a user-friendly interface for visualizing complex analytics realized a seamlessly interconnected, smart DCU campus. This facilitates proactive problem-solving, resource optimization and informed decision-making, thereby enhancing urban functionality and sustainability. The DCU digital twin stands as a catalyst for numerous environmental and sustainability initiatives, democratizing data visualization and empowering agencies and individuals to implement intelligent processes that actively shape the future of their cities.

Smart DCU, a collaborative effort involving Dublin City Council and partners Enable, Insight SFI Research Centre for Data Analytics and DCU Alpha, has furthered its cause through the Smart DCU Digital Twin project, a joint venture between Bentley Systems, DCC and KTU.

Noteworthy contributors to the Smart DCU Digital Twin project include Dr Ali Intizar, lead principal investigator, Kieran Mahon, Smart DCU project facilitator, and Dr Jaime Boanerjes Fernandez Roblero, postdoctoral researcher, and lead developer. Their collective efforts underscore the project's commitment to advancing the frontiers of smart city solutions.

Smart DCU integrates AI and digital twin technology, transforming Dublin City University's campus into a hub for innovative smart city solutions.