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Digital Technologies Driving Smart Cities

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WHAT IS A SMART CITY?

- Uses technology and data to improve quality of life
- Integrates urban systems: transport, utilities, buildings
- Enhances efficiency, sustainabilty and citizen engagement

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Smart City Solutions

Data-driven decision making

Real-rime monitoring of city infrastucture

Sustainable resource management

Citizen-centric services

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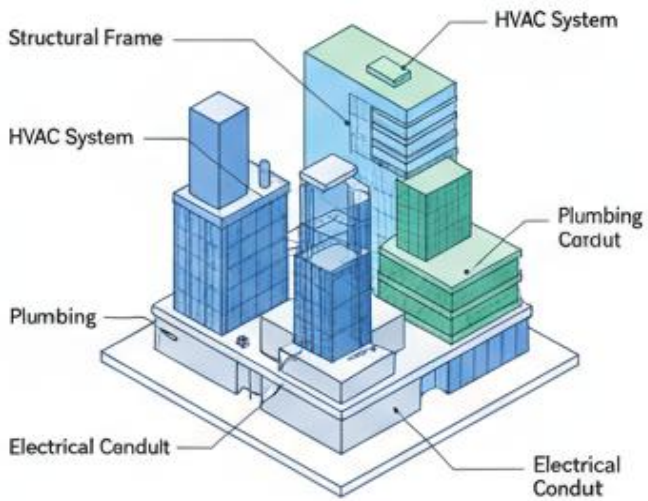
Impact of Digital Technologies (BIM, GIS, ML)

BIM

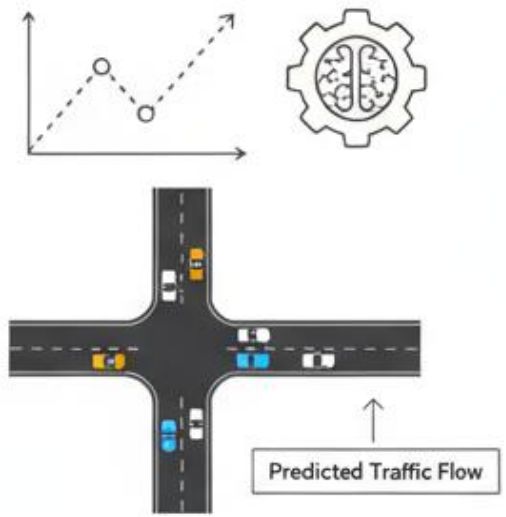


Collaborative 3D Building Design & Data

GIS

Geosopestial Mapping & Analysis

ML



Predictive Modeling & Optimization

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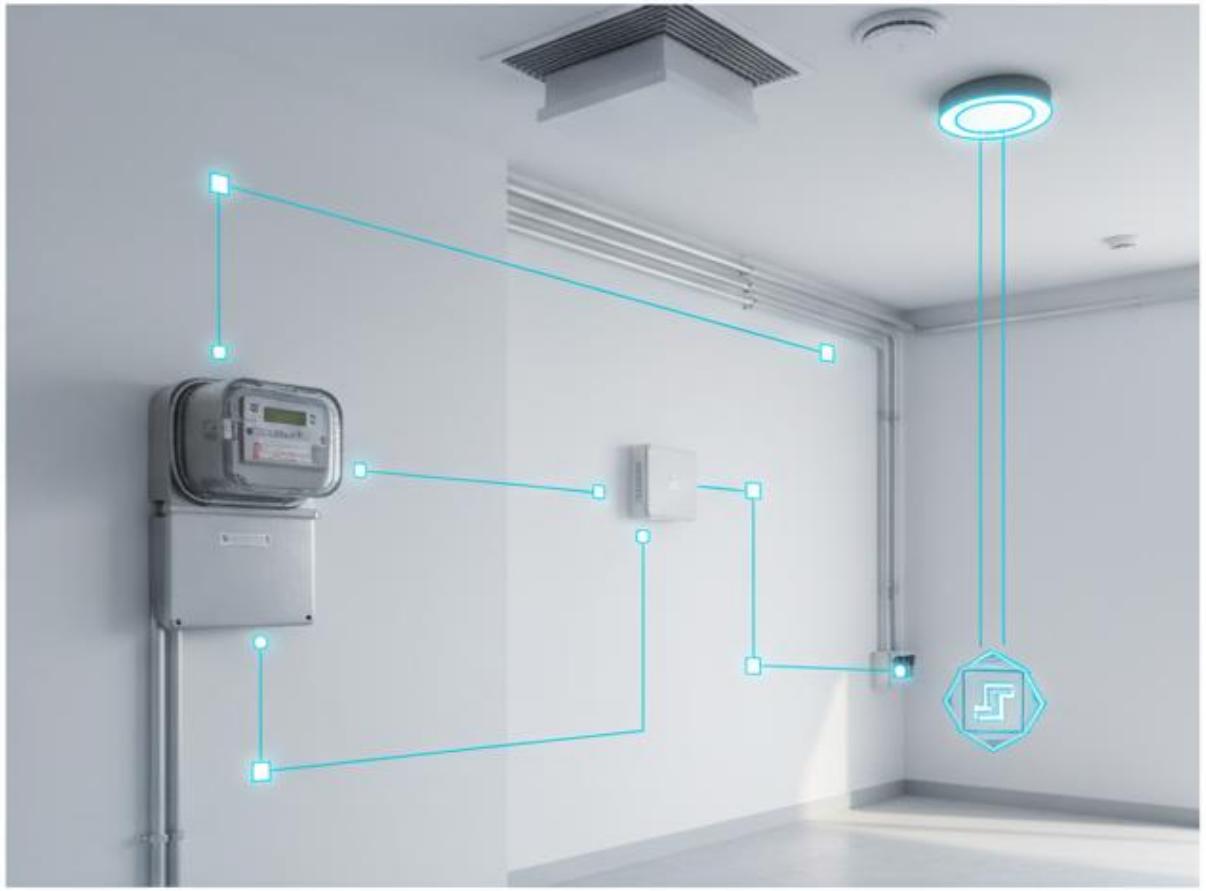
IOT and Building Operations

- IOT = network of connected sensors and devices
- Smart meters, HVAC sensors occupancy detectors
- Enables predictive maintenance and energy optimization



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Digital Twin Solutions

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Benefits for City Management

Faster, evidence-based decisions

Reduced costs & improved maintenance

Greater sustainability & resilience

Enhanced citizen satisfaction

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Conclusion

Smart cities = digital + data + people

BIM, GIS, ML, IOT & Digital Twins = core pillars

Future = more connected, sustainable, and liveable cities

https://www.linkedin.com/posts/mennakamel1_kaitech-digitalengineering-smartcities-activity-7373083112752316416-0D1G?utm_source=share&utm_medium=member_desktop&rcm=ACoAAEVjVk0BqHVMXt8wz8gUvE0Evt_AZzhhx58