FLEDGE NEWSLETTER

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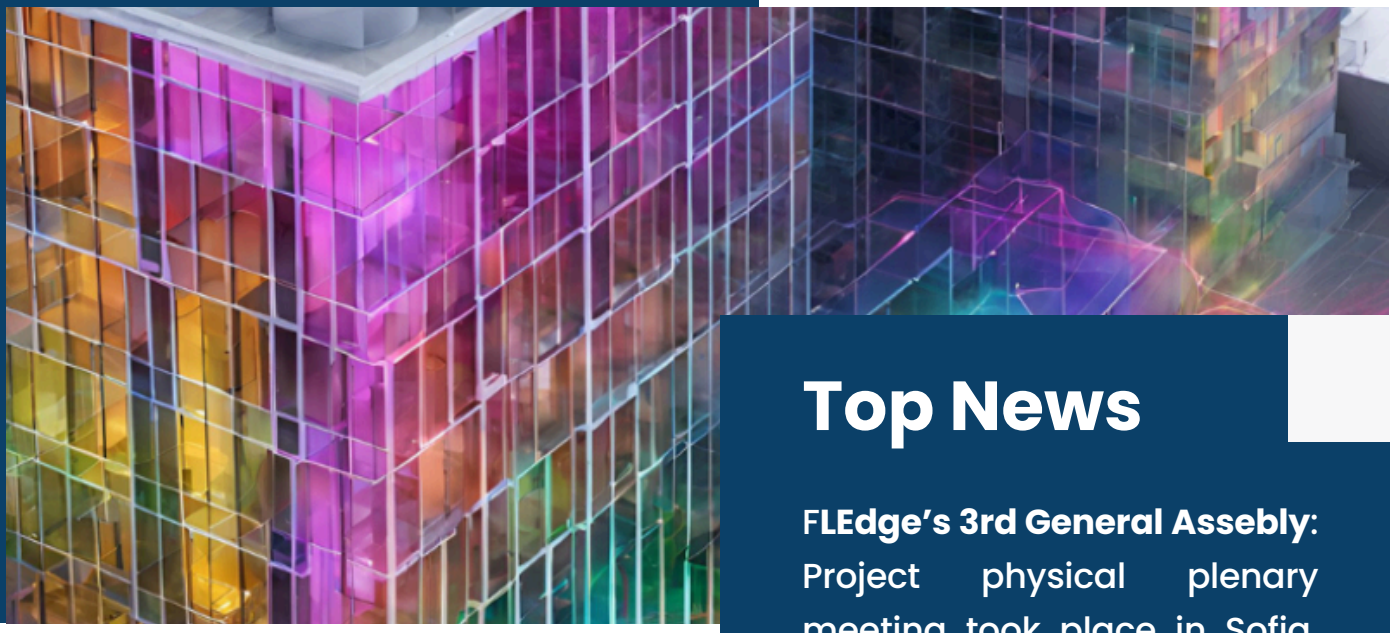


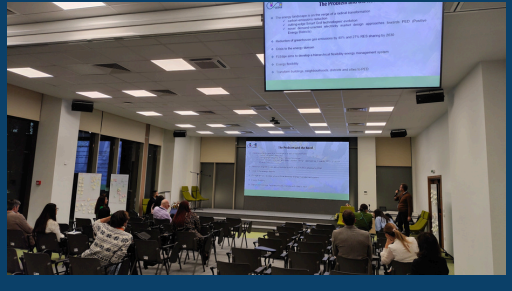
FLEdge Project: Advancing Smart Energy Management for Sustainable Cities

The FLEdge Project is revolutionizing energy management with its Edge-Energy Management (EEM) system. By optimizing energy use at building, neighborhood, and city levels, FLEdge promotes efficiency and sustainability. This innovative technology ensures real-time data processing and automatic management of energy resources, enhancing resident comfort and contributing to greener cities.

Top News

FLEdge's 3rd General Assebly: Project physical plenary meeting took place in Sofia, Bulgaria on 21-22 November.

FLEdge's Presentation: Project summary at the Up to GATE Forum 2024 in Sofia, Bulgaria on 20-24 November.



DUT Driving Urban Transitions
EUROPEAN PARTNERSHIP
Co-funded by the European Union
FLEdge project F-DUT-2022-0337.

FLEdge's 3rd General Assembly

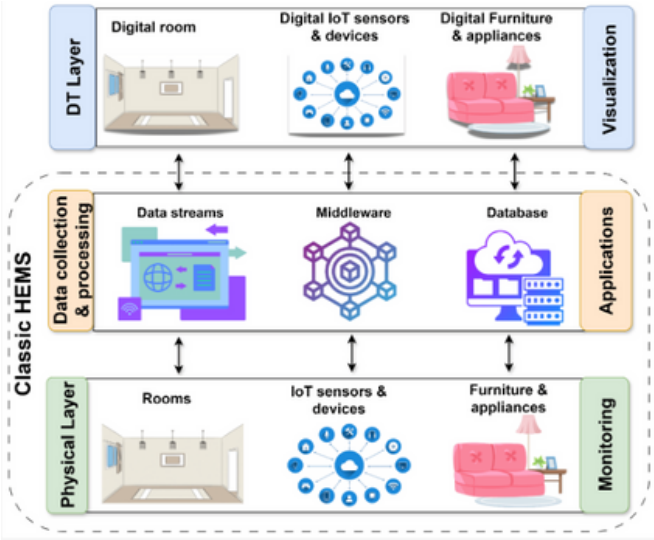
The FLEdge project, committed to advancing sustainable energy solutions, recently held its 3rd General Assembly in Sofia, marking another significant step forward. This in-person plenary brought together project partners, collaborators, and stakeholders to review progress on key work packages, tackle technical and operational challenges, and align on strategies for the next phases. The meeting celebrated achievements such as advancements in system architecture, pilot program preparations, and strengthened collaboration among consortium members.

Looking ahead, FLEdge is poised to implement its innovative pilot programs in Sofia, Thessaloniki, and Kavala, showcasing real-world applications of intelligent energy systems. These efforts will focus on features like real-time optimization, energy load forecasting, and Positive Energy Districts (PEDs), propelling the project closer to its vision of decentralized, efficient energy management. Stay updated on the latest progress at fledge.ihu.gr.

Up to GATE Forum 2024

FLEdge proudly participated in the Up to GATE Forum 2024 in Sofia, Bulgaria, showcasing our contributions to sustainable urban solutions. This year's forum focused on the integration of Urban Digital Twins (UDTs) in shaping the cities of tomorrow, with a special emphasis on how these technologies can drive smarter, more sustainable urban development.

A Scalable and User-Friendly Framework Integrating IoT and Digital Twins for Home Energy Management Systems



New paper published! This paper presents an innovative framework designed to integrate Internet of Things (IoT) technologies with Digital Twins to optimize home energy systems. By using standardized parametric 3D models and plug-and-play IoT integration, the framework significantly reduces deployment time and memory usage, achieving a 94% reduction in deployment time and a 98% decrease in memory usage.

The framework provides users with real-time insights into energy consumption and indoor conditions, enabling more informed decision-making for sustainable energy management. This approach aims to not only improve energy efficiency but also enhance thermal comfort while reducing overall energy costs.

Stay connected as we continue advancing our project goals!

📖 Read the full publication here: Link

FLEdge Linktree

Explore everything FLEdge has to offer in one convenient place! From our mission and goals to the amazing partners and collaborators driving our vision, discover the latest news and updates, dive into our pilot projects, and access valuable resources like publications, deliverables, and digital tools. Stay connected with us on LinkedIn, X (formerly Twitter), Facebook, and YouTube.

SCAN ME

FLEdge Pilots


Thessaloniki


Kavala


Sofia

A comprehensive survey was conducted to gather detailed insights into the unique characteristics of each pilot area, including Sofia, Thessaloniki, and Kavala. This survey aimed to define the specific needs and challenges of each location, ensuring that the implementation of FLEdge's energy management solutions is tailored and effective. By assessing factors such as building infrastructure, energy consumption patterns, and local conditions, the survey helps guide the development of customized strategies to optimize energy usage and improve sustainability.

Learn more about the pilots and their progress on our project webpage!

FLEdge Gear

FLEdge is equipped with state-of-the-art Edge-Energy Management (EEM) devices that are pivotal in optimizing energy flexibility at both the building and city levels. The IHU team is working diligently to deploy these advanced devices, including Heavy Duty Smart Switches, Wall Plug Sensors, CO2 Sensors, and CoMotion Sensors, all designed to transform the way buildings manage energy. These cutting-edge sensors track environmental factors like temperature, humidity, light levels, and air quality in real-time, providing valuable data to enhance energy efficiency and sustainability.

With these innovations, FLEdge is shaping the future of energy management, one smart building at a time, ensuring a greener, more efficient urban environment.