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# FlexiBIT

**presented by Alexander Micallef**

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# Who are you, and what is your organization's area of expertise?

**Prof. Alexander Micallef**

**People: John Licar & Cyril Spiteri Staines**

I am Associate Professor at the Department of Electrical Engineering, University of Malta.

Our department focuses on advancing knowledge and innovation in electrical systems, power electronic converters, and energy technologies. We aim to advance knowledge and create sustainable solutions, equipping future leaders through impactful research and education.



# What is your vision for FlexBIT?

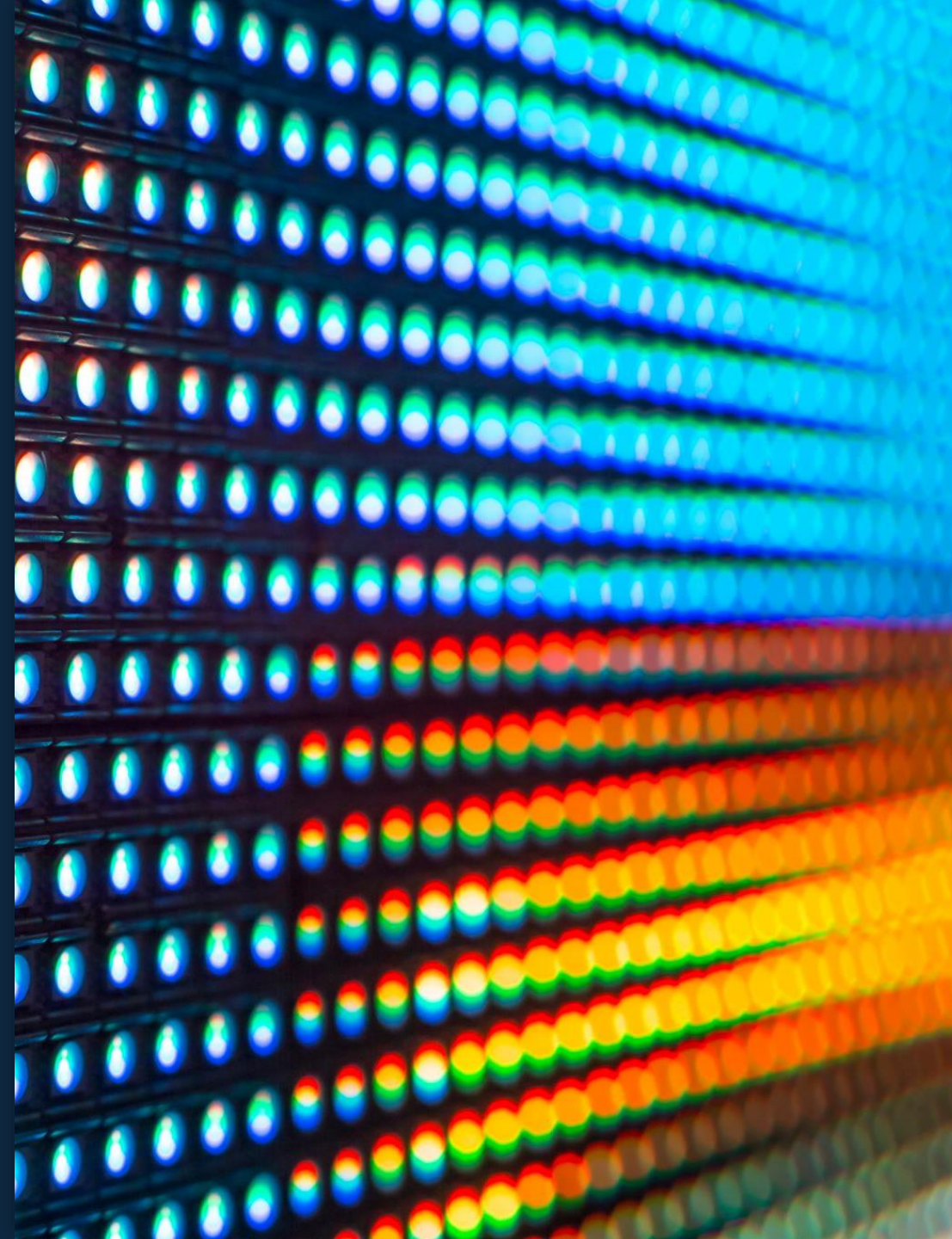
Our vision for FlexBIT is to empower Europe's energy transition through advanced digital and energy technologies. We believe that by leveraging microgrid digital twins and fostering transnational collaboration, we can contribute significantly to the project's success, promote renewable integration, and help shape a resilient and sustainable energy future.





# What specific role does your organization play in FlexBIT?

We are responsible for developing a microgrid digital twin that facilitates advanced monitoring, simulation, and optimization. By conducting a lab-based pilot, we will validate the technology's functionality, providing insights critical for scalability and broader adoption, thus showcasing digital tools' potential in enhancing energy systems.



## What are the key outcomes your organization hopes to achieve in FlexBIT?

Through our involvement in FlexBIT, we aim to develop a robust microgrid digital twin platform, validate its effectiveness through lab-based pilots, and provide scalable solutions for renewable integration and energy flexibility. These outcomes will strengthen the project's goals and benefit stakeholders by demonstrating practical energy solutions.





# Why is FlexBIT important for Europe's energy transition?

FlexBIT addresses critical challenges in decarbonization, renewable integration, and system flexibility. It combines cutting-edge technologies with stakeholder collaboration to foster sustainable, resilient energy solutions. This holistic approach ensures FlexBIT's significant contribution to achieving Europe's clean energy goals.



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