Mohd Shafry Mohd Rahim is a Professor of Image Processing at the Faculty of Computing, Universiti Teknologi Malaysia (UTM). He currently holds the position of Deputy Vice Chancellor (Academic and International) at UTM. In addition, he serves as a Research Fellow at the Media and Game Innovation of Excellence (MaGICX) within the Institute of Human-Centred Engineering (iHuMeN) at UTM, where he leads initiatives in Image Processing and Applications Research. With a strong passion for innovation, he focuses on developing advanced image processing techniques for emerging applications that enhance sustainability and improve quality of life. His research interests encompass a wide range of topics, including image enhancement, feature extraction, segmentation, recognition, detection, and classification, as well as deep learning, computer graphics, computer vision, and digital media. Through his work, he aims to contribute to the advancement of technology and its applications in various fields.

Image processing and artificial intelligence for energy efficiency

Abstract

In the era of rapid technological advancement, the integration of image processing and artificial intelligence (AI) presents transformative opportunities for enhancing energy efficiency across various sectors. This keynote will explore innovative methodologies that leverage advanced imaging techniques and AI algorithms to optimize energy consumption in industrial, commercial, and residential settings. By analyzing visual data from smart sensors and cameras, we can identify inefficiencies, predict energy usage patterns, and implement real-time adjustments to reduce waste. Case studies will illustrate successful applications, such as automated lighting systems, predictive maintenance in manufacturing, and smart grid management. Furthermore, we will discuss the challenges and ethical considerations associated with deploying these technologies, emphasizing the importance of sustainable practices. Attendees will gain insights into the future of energy efficiency, driven by the synergy of image processing and AI, and will be inspired to explore collaborative solutions that contribute to a more sustainable and energy-conscious world.