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Paper Title : Fuzzy-Enhanced Smart Building Energy Forecasting: A Case Study from the 2025 GECAD Competition

Bio :

Dr. Gulcihan Ozdemir (IEEE Senior Member) is an Associate Professor in the Department of Applied Informatics at Istanbul Technical University. She received her Ph.D. in Computational Science and Engineering and her B.Sc. in Electrical Engineering, both from Istanbul Technical University, and her M.Sc. in Power Systems from the University of Wisconsin–Madison, USA. Her doctoral research focused on regulating closed-loop power flows in interconnected electric power systems through fuzzy decision-making.

Her research focuses on modeling, simulation, and optimization, with an emphasis on fuzzy logic and intelligent system applications in power systems, including Volt/VAR optimization, distributed power management, and load forecasting. She also works on image processing and data analysis, employing statistical, artificial intelligence, and machine learning techniques.