

**Paper ID:** 122

**Title:** Home Energy Management Systems (HEMS) Control Strategies Testing and Validation: Design of a Laboratory Setup for Power Hardware-in-the-loop (PHIL) considering Multi-timescale Co-Simulation at the Smart Grids Test Lab, Morocco



Mr. Abdelilah ROCHD is an R&D Project Manager & Researcher specializing in Smart Grids at Green Energy Park, Morocco. With an engineering degree in Electrical Systems and Renewable Energy, he is currently pursuing a PhD at ENSET Mohammed VI, Hassan II University of Casablanca, Morocco. He contributed to the design of the Smart Grids Research Group's roadmap, and has been involved in many international R&D collaborative projects with partners from Europe, Africa, and Asia. He contributed to establishing the Smart Grids Research Center in collaboration with Korean partners. Adept at securing funding, managing projects, and fostering international partnerships, he is contributing to shaping smart energy applications, conducting training programs, and presenting research insights at international conferences and forums. His scientific and technical publications cover many topics including Smart Grids, Microgrids, Smart Buildings, and E-Mobility.

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**Paper ID:** 62

**Title:** Assessing the Socio-Economic Potential of Electric Vehicle Charging Infrastructure: A Machine Learning-based Approach for Marrakech-Safi Region, Morocco



Mr. Mohamed BENAYAD is originally from Morocco. He is currently a doctoral student at the Faculty of Sciences-Ain Chock, Hassan II University, Casablanca, Morocco, where he is pursuing his studies and research. My academic career has taken me to the Green Energy Park Research Institute in Benguerir, Morocco, where he is focusing on the field of his passion: infrastructure planning for electric vehicles using advanced GIS-based tools. He has acquired an in-depth mastery of Geographic Information Systems (GIS), which helps him to map and analyze spatial data efficiently. In addition, his interest in artificial intelligence (AI) led him to delve into the fast-growing field of AI. In addition to his skills in GIS and AI, he also has solid skills in IT development. His ability to design, develop and implement solutions, his hands-on experience in software development has enabled him to create customized tools to facilitate data collection, analysis and visualization, thus optimizing the research process.

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