



Prof BENHAMOU Amina (Algeria)

Biography:

Prof BENHAMOU Amina has been a distinguished professor and researcher at the university level since 2003, I have dedicated my career to advancing the fields of renewable energy and engineering. My research roles have included significant contributions at the Renewable Energy Development Center and the Solar Equipment Development Unit. I have also applied my expertise as a technical engineer with LPG Naftal and Sonatrach Petroleum. As the head of multiple research initiatives, I have overseen national projects like the PNR, as well as the Algero-Tunisian research partnership project, and the University research project CNEPRU. My academic mentorship has guided over 120 Master's, Engineer's, DEUA, and PhD students to successful thesis completions. I have authored more than 95 research papers and presented at numerous international conferences. My professional scope also includes providing technical consulting to industrial companies, and I am a recognized trainer and mentor in energy and engineering disciplines. My leadership in renewable energy has earned me international recognition and multiple awards. Additionally, I am an active member of various international organizations, a reviewer for over 20 scientific journals, and a member of the scientific committee for many international conferences.

Drone detection and mitigation of drone incidents at airports
Professor BENHAMOU AMINA

Abstract:

Drones have rapidly evolved from early military reconnaissance tools to versatile platforms used in both military and civilian sectors. The military drone market continues to expand, with major powers investing heavily in advanced UAV technologies for surveillance, combat, and logistics. Simultaneously, the proliferation of consumer drones has led to increased incidents at civil

airports, prompting aviation authorities to develop comprehensive strategies for detection, mitigation, and incident management.

The challenges of detecting and countering unauthorized drones near airports have spurred innovation in counter-drone technologies. These solutions integrate multiple detection methods, including radar, radio frequency analysis, and optical systems, to provide a robust defense against drone incursions. As drone technology advances, so too do counter-measures, with lightweight yet powerful detection systems and various mitigation techniques being developed to ensure the safety and security of civil aviation. The ongoing cat-and-mouse game between drone operators and security forces continues to shape the future of both drone and counter-drone technologies