Basic Information :

Name :	Hany Mohamed Hasanien Mohamed
Title :	Professors

Education:

Certificate	Major	University	Year
PhD	Electrical Engineering		2007

Teaching Experience:

Name Of Organization	Position	From Date	To Date
FUE	Professor	01/09/2025	Current

Researches / Publications :

- Robust Dynamic Charging Price in PV-assisted Charging Stations
- Enhanced stability of grid-connected inverter using adaptive filtering damping of capacitive current feedback of LCL filter
- Dealing with Contradictory Objectives in Energy Communities: a Game-oriented Trilevel Approach
- A Voltage-Power Self-Coordinated Control System on the Load-Side of Storage and Distributed Generation Inverters in Distribution Grid
- Comparative analysis of metaheuristic algorithms-based control for enhancing low voltage ride through in grid-connected photovoltaic systems
- A novel solution strategy for scheduling optimization of virtual power plant considering multiple participants and Peak Energy Market
- Hybrid extended Kalman filter with Newton Raphson method for lifetime prediction of lithium-ion batteries
- Fifth-order resistance-capacitance-based optimal equivalent circuit model of lithium-ion batteries with improved transient search optimization algorithm
- Rotor angle stability enhancement using DDPG reinforcement agent with Gorilla troops optimized input scaling factors
- Risk-aware Strategies for Optimal Participation of Parking Lots in Day-ahead Electricity Markets
- Equalization Strategy of Lithium-Ion Battery Packs under Two-Level Structure: An Adaptive Model Predictive Control Approach
- Robust Rooftop Photovoltaic Planning in Energy Communities
- Multi-Scenario Chaotic Transient Search Optimization Algorithm for Global Optimization
- Health indicator construction and health status evaluation for the photovoltaic array based on the currentï voltage curve conversion
- Bi-level Supply Restoration Method for Active Distribution Networks Considering Multi-resource Coordination
- Deep reinforcement learning-based plug-in electric vehicle charging/ discharging scheduling in a home energy management system
- Advanced optimization of renewables and energy storage in power networks using novel metaheuristic technique with voltage collapse proximity and dynamic thermal rating technology
- Optimal scheduling of hydrogen storage in integrated energy system including multi-source and load uncertainties
- Accurate Modeling and Parameters Estimation of Photovoltaic Models: Analytical and Artificial Intelligence Solutions
- Precise three-diode photovoltaic model for photovoltaic modules based on Puma optimizer
- A Robust-based Home Energy Management model for Optimal Participation of Prosumers in Competitive P2P platforms

Dynamic performance improvement of Oscillating water column wave energy conversion system using optimal walrus optimization algorithm-based control strategy
Robust Parameter Estimation of Proton Exchange Membrane Fuel Cell Using Huber Loss Statistical Function
Novel reinforcement learning technique based parameter estimation for proton exchange membrane fuel cell model
Optimized hybrid osprey with PSO control for improved VSC-HVDC-wind power integration
Fuel cell life prediction considering the recovery phenomenon of reversible voltage loss
Fault Prediagnosis, Type Identification and Degree Diagnosis Method of the Photovoltaic Array Based on the Current-Voltage Conversion
Multi-objective optimization of combined heat and power system integrated with multi-energy storage systems for rural communities
Optimizing Active Distribution Microgrids with Multi-Terminal Soft Open Point and Hybrid Hydrogen Storage Systems for Enhanced Frequency Stability
Impact of electric vehicles and wave energy systems on OPF of power networks using hybrid Osprey-PSO approach
Distributed Consensus-based Optimal Power Sharing Between Grid and EV Charging Stations with Derivative-free Charging Scheduling
Adaptive Laplacian Continuous Mixed-Norm Control Approach for Dynamic Performance Improvement of Wind Energy Systems
Wasserstein generative adversarial networks-based photovoltaic uncertainty in a smart home energy management system including battery storage devices
Voltage Control of PEM Fuel Cell in a DC Microgrid Using Optimal Artificial Rabbits Algorithm-Based Fractional Order PID Controller
Parameters estimation and sensitivity analysis of lithium-ion battery model uncertainty based on osprey optimization algorithm
An Accurate Parameter Estimation Method of the Voltage Model for Proton Exchange Membrane Fuel Cells
Efficient Energy Management of Domestic Loads with Electric Vehicles by Optimal Scheduling of Solar-Powered Battery Energy Storage System
Optimal Artificial Intelligence Technique for LVRT Capability Improvement of a Grid-tied Wind Energy Conversion System: A MGOANFIS-PI Methodology
Global MPPT controllers for enhancing dynamic performance of photovoltaic systems under partial shading condition
Coati optimization algorithm-based optimal frequency control of power systems including storage devices and electric vehicles
Parameters estimation of proton exchange membrane fuel cell model based on an improved Walrus optimization algorithm
Smart Vehicle-to-Grid Integration Strategy for Enhancing Distribution System Performance and Electric Vehicle Profitability
Electric Eel Foraging Algorithm-based Optimal Control for Low Voltage Ride through Capability Improvement of Grid-Connected Photovoltaic Power Plants
A chaos game optimization algorithm-based optimal control strategy for performance enhancement of offshore wind farms
Reinforcement learning-driven proximal policy optimization-based voltage control for PV and WT integrated power system
Frequency Control of Interconnected Power System Using Dandelion Optimization Algorithm
State of health estimation of lithium-ion battery using dual adaptive unscented Kalman filter and Coulomb counting Approach
Dandelion Optimizer-Based Reinforcement Learning Techniques for MPPT of Grid-Connected Photovoltaic Systems
Advanced Control of A Stand-Alone Wind Energy System
Various Control Techniques for Converter-Based DC Power Transmission in Offshore Wind Systems: A Comprehensive Review
Performance Enhancement of Grid-Connected PV Systems Based on Pelican Optimization Algorithm
Dynamic performance enhancement of nonlinear AWS wave energy systems based on optimal super-twisting control strategy
Precise modeling of lithium-ion battery in industrial applications using Walrus optimization algorithm
Circle Search Algorithm-Based Super Twisting Sliding Mode Control for MPPT of Different Commercial PV Modules
Optimal planning of collective photovoltaic arrays in energy communities through a multi-cut bendersô decomposition strategy
Optimize and analyze a large-scale grid-tied solar PV-powered SWRO system for sustainable water-energy nexus

Robust energy management for multi-mode charging stations equipped with batteries
Optimal super twisting sliding mode control strategy for performance improvement of islanded microgrids: Validation and real-time study
Probabilistic optimal power flow in power systems with Renewable energy integration using Enhanced walrus optimization algorithm
Hybrid Transient Search Algorithm With Levy Flight for Optimal PI Controllers of Islanded Microgrids
Marine Predator Algorithm-Based Optimal PI Controllers for LVRT Capability Enhancement of Grid-Connected PV Systems
A data-driven methodology to design user-friendly tariffs in energy communities
Distributionally robust planning for data center park considering operational economy and reliability
PEM fuel cells: Two novel approaches for mathematical modeling and parameter estimation
A review of different control methods of wind and PV systems
Optimal Design of Fractional-Order PID Controllers for a Nonlinear AWS Wave Energy Converter Using Hybrid Jellyfish Search and Particle Swarm Optimization
Techno-enviro-socio-economic design and finite set model predictive current control of a grid-connected large-scale hybrid solar/wind energy system: A case study of Sokhna Industrial Zone, Egypt
Optimal energy trading in cooperative microgrids considering hybrid renewable energy systems
Mountain Gazelle Algorithm-Based Optimal Control Strategy for Improving LVRT Capability of Grid-Tied Wind Power Stations
On Different Collective Storage Schemes in Energy Communities with Internal Market
Hybrid particle swarm and sea horse optimization algorithm-based optimal reactive power dispatch of power systems comprising electric vehicles
Optimal parameters estimation of lithium-ion battery in smart grid applications based on gazelle optimization algorithm
An enhanced optimizer of social network search for multi-dimension optimal power flow in electrical power grids
Investigation of noise suppression in experimental multi-cell battery string voltage applying various mother wavelets and decomposition levels in discrete wavelet transform for precise state-of-charge estimation
Enhanced Coati Optimization Algorithm-Based Optimal Power Flow Including Renewable Energy Uncertainties and Electric Vehicles
Robust optimal coordination of active distribution networks and energy communities with high penetration of renewables
Energy Management of Multi-Area Islanded Hybrid Microgrids: A Stochastic Approach
Giant Trevally Optimization Approach for Probabilistic Optimal Power Flow of Power Systems Including Renewable Energy Systems Uncertainty
IoT-based Monitoring and Control of Substations and Smart Grids with Renewables and Electric Vehicles Integration
Adaptive-Width Generalized Correntropy Diffusion Algorithm for Robust Control Strategy of Microgrid Autonomous Operation
A fully robust home energy management model considering real time price and on-board vehicle batteries
Hybrid Particle Swarm and Gravitational Search Algorithm-Based Optimal Fractional Order PID Control Scheme for Performance Enhancement of Offshore Wind Farms
Hybrid State of Charge Estimation of Lithium-Ion Battery Using the Coulomb Counting Method and an Adaptive Unscented Kalman Filter
Optimal sliding mode control for frequency stabilization of hybrid renewable energy systems
Improved reinforcement learning strategy of energy storage units for frequency control of hybrid power systems
Load management, energy economics, and environmental protection nexus considering PV-based EV charging stations
A novel stochastic home energy management system considering negawatt trading
Adaptive controlled superconducting magnetic energy storage devices for performance enhancement of wind energy systems
Robust Operation of Flexible Distribution Network with Large-Scale EV Charging Loads
Optimal Comfortable Load Schedule for Home Energy Management Including Photovoltaic and Battery Systems
Hybrid Driving Training and Particle Swarm Optimization Algorithm Based Optimal Control for Performance Improvement of Microgrids

State-of-the-Art of the most commonly adopted wave energy conversion systems
Parameter Identification of Lithium-Ion Battery Model Based on African Vultures Optimization Algorithm
Enhanced transient search optimization algorithm-based optimal reactive power dispatch including electric vehicles
Implications of smart grid and customer involvement in energy management and economics
Optimal Real-time implementation of fuzzy logic control strategy for performance enhancement of autonomous microgrids
An Interval-based privacyï Aware optimization framework for electricity price setting in isolated microgrid clusters
Risk-averse Optimal Participation of a DR-intensive Microgrid in Competitive Clusters considering Response Fatigue
Energy management system for islanded multi-microgrids using a two-stage optimization scheme based on political optimizer
Gorilla tropical optimization algorithm solution for performance enhancement of offshore wind farm
Optimal Model Predictive Control for Virtual Inertia Control of Autonomous Microgrids
Photovoltaic model parameters identification using an innovative optimization algorithm
Identifying the PEM Fuel Cell Parameters Using Artificial Rabbits Optimization Algorithm
Transient Search Optimization Based Fuzzy-PI Controller for MPPT of Standalone PV System
Optimal Home Energy Management including Batteries and Heterogenous Uncertainties
Monte Carlo Simulation and a Clustering Technique for Solving the Probabilistic Optimal Power Flow Problem for Hybrid Renewable Energy Systems
Optimal scheduling and techno-economic analysis of electric vehicles by implementing solar-based grid-tied charging station
Optimal model predictive control of energy storage devices for frequency stability of modern power systems
Comparative analysis of optimal damped and undamped passive filters using MIDACO-solver
A Comprehensive Review of Photovoltaic Modules Models and Algorithms Used in Parameter Extraction
Hybrid African vulturesï grey wolf optimizer approach for electrical parameters extraction of solar panel models
Adaptive PI Control Strategy for Optimal Microgrid Autonomous Operation
Solution of Probabilistic Optimal Power Flow Incorporating Renewable Energy Uncertainty Using a Novel Circle Search Algorithm
Modeling and optimal operation of hybrid wave energy and PV system feeding supercharging stations based on golden jackal optimal control strategy
Multiobjective home energy management systems in nearly-zero energy buildings under uncertainties considering vehicle-to-home: A novel lexicographic-based stochastic-information gap decision theory approach
Parameters Identification of Proton Exchange Membrane Fuel Cell Model Based on the Lightning Search Algorithm
Hybrid Adaptive Controlled Flywheel Energy Storage Units for Transient Stability Improvement of Wind Farms
Optimal Energy Management of Cooperative Energy Communities considering Flexible Demand, Storage and Vehicle-to-Grid under Uncertainties
Probabilistic Optimal Power Flow Solution Using a Novel Hybrid Metaheuristic and Machine Learning Algorithm
A Stochastic-Interval Model for Optimal Scheduling of PV-assisted Multi-mode Charging Stations
Advanced studies for probabilistic optimal power flow in active distribution networks: A scientometric review
Accurate Three-Diode model estimation of Photovoltaic modules using a novel circle search algorithm
African Vulture Optimization Algorithm-Based PI Controllers for Performance Enhancement of Hybrid Renewable-Energy Systems
Optimal PEM Fuel Cell Model Using a Novel Circle Search Algorithm
Speed control and torque ripple minimization of SRM using local unimodal sampling and spotted hyena algorithms based cascaded PID controller
Enhanced block-sparse adaptive Bayesian algorithm based control strategy of superconducting magnetic energy storage units for wind farms power ripple minimization
Circle Search Algorithm: A Geometry-Based Metaheuristic Optimization Algorithm

Nonlinear Modeling and Real-Time Simulation of a Grid-Connected AWS Wave Energy Conversion System
Precise modeling of PEM fuel cell using a novel Enhanced Transient Search Optimization algorithm
Transient stability improvement of wave energy conversion systems connected to power grid using anti-windup-coot optimization strategy
Uncertainty-Aware Day-Ahead Scheduling of Microgrids considering Response Fatigue: an IGDT Approach
Stability Enhancement ofWind Energy Conversion Systems Based on Optimal Superconducting Magnetic Energy Storage Systems Using the Archimedes Optimization Algorithm
Precise modeling of PEM fuel cell using improved chaotic MayFly optimization algorithm
A novel hybrid GWO-PSO optimization technique for optimal reactive power dispatch problem solution
Solving of Optimal Power Flow Problem Including Renewable Energy Resources Using HEAP Optimization Algorithm
OPF of Modern Power Systems Comprising Renewable Energy Sources Using Improved CHGS Optimization Algorithm
Proton Exchange Membrane Fuel Cells Modeling Using Chaos Game Optimization Technique
Optimal Power Flow of Power Networks with Penetration of Renewable Energy Sources By Harris hawks Optimization Method