

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202341030908 A

(19) INDIA

(22) Date of filing of Application :30/04/2023

(43) Publication Date : 05/05/2023

(54) Title of the invention : Efficient Residential Load Scheduling through a Demand Response Multi-Objective Optimization Model

(51) International classification :G06F 012600, G06Q 100400, G06Q 100600, G06Q 500600, H04W 280800
(86) International Application No :PCT//
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
The present invention relates to a fish monitoring system that uses a network of sensors, cloud-based data storage, and artificial intelligence algorithms to analyze fish movements and behavior patterns in aquatic environments. The system is designed to help researchers, fishery managers, and conservationists better understand fish behavior and habitat use, and ultimately aid in the conservation and management of fish populations. The system utilizes underwater cameras and hydrophones to detect visual and acoustic cues of fish activity, and a deep learning neural network algorithm to identify and classify fish species based on their physical characteristics and movements. Real-time and historical data on fish movements and behavior patterns can be displayed through a user interface, and reports can be generated based on the analyzed data. The invention provides a powerful tool for monitoring fish populations and understanding their ecological interactions in aquatic environments.

No. of Pages : 19 No. of Claims : 10