# Abstract

Title: AI and ML-Based Power Grid Management and Consumer Advisory Chatbot Using ANN

This project employs Artificial Intelligence (AI) and Machine Learning (ML) to enhance power grid management and provide a user-friendly chatbot for consumers to receive personalized power conservation advice. Using Artificial Neural Networks (ANN), the system analyzes data to predict demand, identify faults, and optimize electricity distribution, improving grid reliability and efficiency and minimizes downtime.  
  
The consumer advisory chatbot, powered by Natural Language Processing (NLP) and machine learning, offers users tailored energy-saving tips and answers to their power consumption queries. This tool aims to educate consumers, promote energy-efficient habits, and contribute to lower energy bills and reduced environmental impact.  
  
Integrating ANN in power grid management and the chatbot highlights AI and ML's potential to revolutionize the energy sector, enhancing grid reliability, reducing costs, and empowering consumers towards sustainable energy use. The primary product runs on an Artificial Neural Network agent that can automate the sector and help the authorities to manage power efficiently and effectively.

References:

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