Weather-Based Wind Turbine Energy Prediction

ENTICE

College Project Idea

Research on Renewable Energy
Faculty Guidance

Goal: Build innovative AI-based project
Positive: Excited about AI + Renewable Energy
Negative: Confusion about ML models
Opportunity: Provide dataset & architecture diagram

ENTER

Visit Landing Page

Home | About | Sign Up | Login

Goal: Secure system access
Positive: Attractive UI
Negative: Login validation errors
Opportunity: Clear error messages

ENGAGE

Sign Up/Login → Enter Weather Data → Predict

Wind Speed
Temperature
Humidity
Air Pressure

Goal: Accurate energy prediction
Positive: Instant graph output
Negative: Wrong input format
Opportunity: Real-time validation

EXIT

View Result Page

Predicted Energy Output (kWh)
Weather vs Energy Graph
Output Category

Goal: Understand prediction clearly
Positive: Clear charts
Negative: Unit confusion
Opportunity: Add tooltips

EXTEND

History & Reports

Save Prediction History
Download PDF
Trend Analysis

Goal: Analyze long-term performance
Opportunity: Smart recommendations & alerts