

Section	Subsection	Key Points
Abstract	-	Uses AI and IoT to reduce energy consumption through intelligent monitoring, real-time data analysis, and adaptive control.
Project Demonstration	Overview	Real-time tracking, AI strategies, dynamic performance.
	System Walkthrough	AI + IoT integration, user interface, dynamic energy optimization.
	AI Energy Prediction	ML-based forecasts, consumption trend analysis, proactive management.
	IoT Device Integration	Real-time sensor data, automation, seamless communication.
	Performance Metrics	Energy savings, load response time, cost reduction.
	Security Protocols	Encryption, secure communication, authentication.
	Outcome	Effective real-time optimization.
Project Documentation	System Architecture	IoT + cloud + edge computing, gateway communication.
	Code Documentation	AI prediction models, backend APIs, secure automation.
	User Guide	Logging in, energy reports, device control, scheduling.
	Administrator Guide	Setup, calibration, monitoring, maintenance.
	Testing Reports	Accuracy, latency, load handling, real-world validation.
	Outcome	Ensures maintainability and user onboarding.
Feedback and Final Adjustments	Feedback Collection	Surveys, observations, stakeholder input.
	System Refinement	UI/UX improvements, AI tuning, sensor optimization.
	Final Testing	Real-world stability, accuracy, satisfaction validation.
	Outcome	Robust and deployment-ready system.
Final Project Report	Executive Summary	Goals, tech overview, achievements.
	Phase Breakdown	Research, training, IoT setup, dashboard dev.
	Challenges & Solutions	Sensor inaccuracy, ML tuning, network lags.
	Outcomes	Energy savings, accuracy, real-world potential.
	Outcome	Full lifecycle summary and future readiness.
Project Handover and Future Works	Next Steps	Renewable energy, ML upgrades, personalization.
	Outcome	Delivery with documentation, training, roadmap.