

SMART CAMPUS ENERGY MANAGEMENT – FEATURE SUMMARY (13 POINTS)

1. Live Power Monitoring

Shows real-time simulated electricity usage (power, voltage, current) for each building. Updates every 5 seconds.

2. Energy Consumption Summary

Displays today's energy (kWh), monthly estimated energy, and peak load recorded today.

3. Multi-Building Monitoring

Allows selecting from multiple campus buildings. Dashboard updates instantly for the selected building.

4. Live Power Chart

Line graph showing last 40 live power samples, refreshed every 5 seconds.

5. Daily Consumption Chart

Bar chart for last 7 days energy usage trends for the selected building.

6. Alerts System

Detects automatic high-load and low-voltage alerts. Stores latest 6 alerts with alert count.

7. Health Status & Prediction

Predicts tomorrow's consumption using a 7-day average. Shows building health status.

8. Buildings Overview Grid

Shows all buildings with live kW and today's kWh in a grid. Clicking switches dashboard view.

9. Export CSV Feature

Exports live building data into a CSV file for analysis or reporting.

10. Pause & Resume Simulation

Stops or resumes all live updates for presentation or testing.

11. Reset Data

Regenerates all energy data for all buildings instantly.

12. Mute Alerts

Stops alerts from showing visually while still calculating internally.

13. Snapshot via Keyboard

Pressing “S” downloads a JSON snapshot of the dashboard data for debugging or report usage.