

# Mobile Prepaid Meter (MoPM) using IoT (Internet of Things)

**Kumbukani S. Tembo<sup>1</sup> and Fanny Chatola<sup>2</sup>**

Student, DMI ST John The Baptist University, Computer Science, Lilongwe, Malawi<sup>1</sup>

Project guide, DMI ST John The Baptist University, Computer Science, Lilongwe, Malawi<sup>2</sup>

kumbukanstembo@gmail.com and fionachatola@gmail.com

**Abstract:** *This pioneering mobile application revolutionizes electricity management by seamlessly replacing traditional prepaid meter systems. At its core, the app empowers users to monitor and manage their electricity consumption with ease. Users can purchase and enter units for their homes conveniently, obviating the need for cumbersome payment methods. In addition to its fundamental purpose, the app boasts a suite of supplementary features that enhance its utility and value. Users receive real-time notifications and alerts, keeping them informed about power outages, low prepaid unit balances, and unusual energy consumption patterns. Predictive AI algorithms leverage historical data to forecast future energy consumption trends and costs, empowering users to make informed decisions. Users can export their data for analysis or sharing with relevant parties, ensuring data transparency and accountability. Swift emergency service reporting integration enables users to report electrical emergencies or outages directly to utility companies, streamlining response processes. This holistic solution not only replaces traditional prepaid meter systems but also introduces a new era of electricity management that prioritizes convenience, efficiency, and user empowerment*

**Keywords:** Electricity management, Efficiency, Predictive AI, User empowerment