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| **Author(s) Name:** | Niloy Sarker; Ifran Kabir; Peuly Saha; Sazzed Mahamud Khan; Apurba Kumar Saha; Abu Hena Shatil | | |
| **Contact Email(s):** | abu.shatil@aiub.edu | | |
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| **Abstract:** |  |
| A modern digital electric power monitoring system technique is proposed in this paper. Using an Arduino device as a microcontroller, it manages a single-phase electrical circuit to read the voltage and current values from the sensors. The calculated data would then be transmitted via the Wi-Fi transmitter to an Android application. As a microprocessor, an Arduino Nano is used to measure the results obtained from voltage and current sensors in the design and calculate the electricity, which is then transmitted through SP32 to an Android smartphone app. The Arduino Nano and SP32 are microcontrollers and wireless tools that are affordable. A latest Android application that uses open source Kodular tools to track voltage and current measurements. This facilitates the control of certain characteristics of basic voltage power efficiency. | |