



Management of energy use during tire production at Loadstar factory using a home made message display unit

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Loadstar, a leading tire manufacturer in Sri Lanka, provides its products to the worldwide market. One of the main intentions of the Loadstar tire factory in Midigama, Matara was to reduce the power consumption during tire production by reducing energy wastage as much as possible. To achieve the task, the pattern of energy consumption during tire production was studied first using routine records for a period of six months in 2010. Data were carefully examined and only those corresponding to proper working days were used to calculate the daily mean energy requirement for production. The value of mean energy was used to estimate and set a daily target value for the total energy. The production group needs to work together to reach their daily production without exceeding the target value mainly by reducing unwanted power usage. To achieve this task effectively, a LED moving display unit was constructed to send hourly messages to the workers in the production unit containing the current energy usage or the energy remaining for production so that they can reduce or switch off unnecessary power consuming units to maintain the production within the targeted energy.

Key words: LED moving display unit, Loadstar tire factory, Energy management