



## **A classification approach to identify fraudulent electricity usage in Nelson Mandela Bay Municipality**

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### **Abstract**

This study investigates the classification ability of a support vector machine in trying to identify fraudulent behaviour on electricity consumption in Nelson Mandela Bay, South Africa. The ability is assessed on commonly used performance measures and results discussed in relation to the limitations of the data and previous studies. The classifier exhibits reasonable performance with successful identification close to 80%.

**Keywords:** Support vector machines; fraud; electricity theft.