

**EVALUATION OF ASSET MANAGEMENT PRACTICES IN  
TVET INSTITUTIONS IN KENYA**

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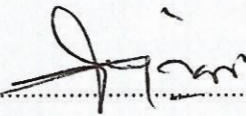
**E221-003-0019/2013**

**A Thesis submitted in Partial Requirement for the Award of the  
Degree of Master of Science in Industrial Engineering and  
Management, in the School of Engineering, Dedan Kimathi University  
of Technology**

**April, 2016**

## Declaration

I hereby declare that this thesis is my original work and effort and has not been submitted in any other institution for any award.

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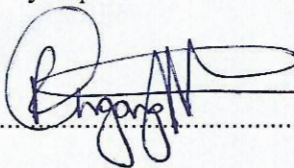
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## Certification

I certify that the above mentioned student carried out the work detailed in this report under my supervision.

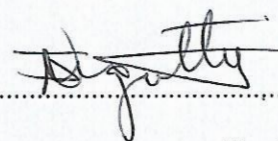
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## **Abstract**

TVET institutions are expected to produce the bulk of Kenya's middle level manpower equipped with skills to drive the attainment of infrastructural objectives of Kenya Vision 2030. However inadequate training resources brought about by poor asset management practices continue to impede efforts to equip Kenyan youth with employable technical skills. A programme to re-equip TVET institutions has been effected but it requires the asset management practices to be aligned with the new acquisitions to ensure they are constantly available for training. The purpose of the study was to evaluate asset management practices in public TVET institutions with a view to developing strategies to improve their performance.

A survey was conducted through a questionnaire in 102 engineering departments to evaluate compliance with maintenance KPIs that support asset management; maintenance practices form the backbone of asset management activities of the acquired equipment. The questionnaire was constructed using a framework of Key Performance indicators put together by combining ideas developed for leading and lagging indicators, European Standard for Maintenance Key Performance Indicators (2007) as well as the Society of Maintenance and Reliability Professionals (SMRP) metrics (2006). A 5 point rating scale was used to score responses in the questionnaire. The combined scores across departments were used to compute the Asset Management/Maintenance Management System Effectiveness Index (MMEI). The institutions surveyed returned a combined Maintenance Management System Effectiveness Index of 0.517 which indicated a need for improvement of asset management practices. The Analytical Hierarchical Process (AHP) method identified predictive maintenance policy supported by three maintenance KPIs; inventory and purchase integration, planning of maintenance activities and work order system as the key drivers of maintenance management improvement. The study shows that the maintenance process KPIs used in industry are applicable in a training setting; their application to TVET can be used to drive the asset management improvement process.