

ABSTRACT

APPLICATIONS OF INFORMATION TECHNOLOGY TO MAINTENANCE IN THE LOCAL OIL INDUSTRY

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Information Technology is one of the areas of engineering which has experienced tremendous growth over the past two(2) decades . These developments have the potential to impact positively on maintenance since good maintenance management is founded on information.

The oil industry being a highly capital intensive operation with high valued end products would derive substantial savings from increases in operational efficiency. This study is intended to investigate the scope of applications of Information Technology to oilfield maintenance practice and the extent of the potential benefits to be realized.

The premise of the paper is that maintenance is essentially comprised of a series of information flows and improvements can be realized if these processes are allowed to be performed more efficiently. Several relevant areas of development of Information Technology are identified including the status of the technology.

The extent of the application of these technologies in the various companies was investigated by conducting surveys and interviews with key personnel in the industries. Based on the response received, the potential scope for future applications was determined.

In general it was found that the actual implementation of any of the technologies to maintenance in the industry is limited at the present time. The scope for applications is thus excellent.

A sample economic justification of the applications was performed based on industry data. From this it was seen that cost benefit ratios ranging from 1.6 to 8.6 are realizable in practice. It is therefore safe to conclude that substantial potential savings can be accrued from the application of Information Technology to maintenance in the oil industry locally.

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