

**UNIVERSITI TEKNOLOGI MARA**

**Development of Mobile Workforce Monitoring  
(MWM) System Prototype Utilizing Satellite Related  
Technology**

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## ABSTRACT

People use mobile devices for a variety of purposes include communicating, social networking, information sharing, location-based servicing and browse for information available over the web. Integrated applications embedded in the mobile devices help much in daily activities. From the workforce perspective, especially in Malaysia, mobile workforce application is growing gradually. By having a mobile workforce application, cost and time could be reduced. This project aims to improve the manual process of tracking and tracing information of asset during fieldwork with mobile application. In addition, tracking and tracing are becoming easier by utilizing satellite related technologies where mobile workforce activities can be monitored near to real time hence improvising mobile workforce management. For this project, data was gathered from hardware and software suppliers, technologists and case studies of several organizations to address the system requirements and development processes. This mobile workforce is applied to an organization doing asset maintenance as a pilot study. The developed prototype exploited Android, an open-source mobile platform, and built-in GPS receiver dedicated with the mobile device. The prototype will help to introduce new phenomena in various mobile workforce applications by taking into account the limitations and future enhancements.

**Keywords:** Mobile, Workforce, Mobile Workforce, Application, Satellite Technology, Tracing, Tracking, Monitoring, Mobile Workforce Monitoring System.

## ACKNOWLEDGEMENT

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