Foreword and Editorial

International Journal of Mobile Device Engineering(IJMDE)

We are very happy to publish this issue of an International Journal of Mobile Device Engineering by Global Vision Press.

This issue contains 2 articles. Achieving such a high quality of papers would have been impossible without the huge work that was under taken by the Editorial Board members and External Reviewers. We take this opportunity to thank them for their great support and cooperation.

The paper entitled "Application of Handheld Scanner to Investigate Diameter at Breast Height and Tree Height", the Diameter at Breast Height(DBH) is the basic data among the essential items of forest management. Existing DBH survey have generally been made manually. But this way can cause personal and has a disadvantage that it is difficult to measure when the shape of the tree is irregular. In recent years 3D laser scanning method has been introduced in the field of forestry. In this study, DBH and tree height were measured using a 3D laser scanner. Data on the forests studied were obtained using hand-held scanners and DBH and tree height were measured. Additionally obtained data on felled trees was also performed software measurements, and compared the measurements with calipers. The DBH measurement showed a deviation of less than 4 cm compared to the caliper measurement. This result indicates that the DBH can be measured using a hand-held scanner. And measuring a 1.2 m high diameter is difficult in the field, so using a handheld scanner will improve work efficiency. The tree height was within 10 cm of the reference. Although the reference was measured using the total station for accurate measurement, the error of the clinometer used in the field is likely to occur, and the tree height measurement using the hand held scanner may improve the accuracy of the measurement. Further research and measurement automation in the future, the scanner-based method that can be used to reduce noise will be used to measure the diameter of a log tree.

In the paper "A Simplified FT protocol over Software-Defined WLAN", the fast BSS transition (FT) is defined to support intra-ESS mobility at the IEEE 802.11 network. In the FT protocol, authentication and reassociation messages piggyback the parameters for a new session key generation. When a station changes its point of attachment from the current access point(AP) to the target AP, the supplicant key holders of the station and associator key holders in the current AP and the target AP interact to simplify the authentication and a new session key generation processes. We propose a simplified FT protocol to achieve a faster FT for the IEEE 802.11 network over SDN. In SDN, associator key holders can locate at the centralized SDN controller, so an integrated key holder can replace associator key holders of APs. As a result, the simplified FT protocol re-associates the station and the target AP with a single message exchange (two messages) instead of two message exchanges (four messages).

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