

ملخص البحث رقم (٦)

السيد الأستاذ الدكتور/ مقرر اللجنة العلمية الدائمة لترقية الأساتذة والأساتذة المساعدين للحاسبات
والمعلومات

تحية طيبة وبعد - احيط سيادتكم علما بان البحث رقم ٦ بياناته كالتالي:

عنوان البحث باللغة الانجليزية:

Point clouds reduction model based on 3D feature extraction

مكان النشر وتاريخه:

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ملخص البحث باللغة الانجليزية :

Light detection and ranging (LIDAR) is a remote sensing method that scans the Earth's surface with high density to construct the digital elevation model (DEM). In this paper, we present a point clouds reduction model based on two 3D feature extraction techniques, namely: the sharp feature detection algorithm and feature extraction technique-based LIDAR point attributes. These techniques are used as initial selection criteria and are compared with the maximum and the minimum elevation criterion that gives reduction with the highest accuracy. However, point clouds reduction algorithms lead to high consumption of time to generate a reduced file with high accuracy, which prompts the need to propose a new model that considers the trade-off between the processing time and the accuracy. The results showed that the proposed model significantly reduced the processing time at the expense of accuracy reduction by 0.7% and 1.3% for the two used techniques respectively, which is acceptable for realistic applications.