

ABSTRACT

Traditionally, survey field work is needed at the different stages of any engineering project. Namely; the preliminary study, design study, construction and for the preparation of as build plans, in addition to the monitoring.

This research is directed towards the investigation of the use of Remote Sensing and Geographical Information Systems in engineering project stages, after collecting and processing data from field and satellite image, the main conclusions are as follows:

- Remote sensing are useful in a preliminary study to give information about initial quantities soil, vegetation and flood.
- Remote sensing are not suitable for all design studies.
- Data extracted from Geographical Information Systems is not suitable for contour map studies with small interval.
- Geographic Information Systems is suitable for documentation purposes.

المستخلص

عادة ما نحتاج لأعمال الحقل في المراحل المختلفة للمشروع الهندسي. تحديدًا مراحل الدراسات الأولية، ودراسة التصميم والإنشاء من حيث بناء الخطط بالإضافة إلى المراقبة. هذا البحث موجه للتحقق من استخدام الاستشعار عن بعد و نظم المعلومات الجغرافية في مراحل المشروع الهندسي، وبعد جمع البيانات ومعالجتها من الميدان وصور الأقمار الصناعية الخلاصة النهائية هي:

- الاستشعار عن بعد مفيد في الدراسة الأولية لإعطاء معلومات حول التربة والغطاء النباتي والفيضانات.
- الاستشعار عن بعد ليس مناسب لجميع دراسات التصميم.
- البيانات المستخرجة من نظم المعلومات الجغرافية ليست مناسبة من أجل دراسات الخرائط الكنتورية مع فاصل صغير.
- نظم المعلومات الجغرافية مناسبة لأغراض التوثيق.

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