

ABSTRACT

Traditionally, survey filed 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 is 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. تحديداً مراحل الدراسات الأولية، ودراسة التصميم والإنشاء من حيث بناء الخطط بالإضافة إلى المراقبة.

هذا البحث موجه للتحقق من استخدام الاستشعار عن بعد ونظم 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.

ACKNOWLEDGMENTS

Extend my sincere thanks and appreciation for a family of *Surveying school in Sudan University for Science and Technology* and I especially thank the:

Dr. / El Hadi El Nagier Ibrahi

For his patience, motivation, enthusiasm and immense knowledge. His guidance helped me in all the time of research of this thesis.

I am using this opportunity to express my deepest gratitude and spatial thanks to the:

Engineer Advisory / Mohammed Osman Mohamed El Hassan - General Manager of Azman Advisory

Who in spite of being extraordinarily busy with his duties, took time out to hear, guide and keep me on the correct path which was his directives the greatest impact in my situation on the road to complete this study with the sincerest invitations health and wellness the service of science.

I register thanks for the *Geographical Information Systems Centre* of the *General Administration for Surveying, Khartoum state* who did not spare no effort to assist me.

I also like utmost thanks and gratitude to the brothers in the *Sadik Roads & Bridges CO-LTD* for the good cooperation.

I thanks and gratitude for a family of *sudanese survey corporation* And I especially thank the family of the *Topographic - center Kassala*.

I express my warm thanks to the family company "*DC*" *Property Investment "Saria Khartoum"* for their support and encourage.

I special thanks to my *small family* which have contributed significantly to the level of my performance for this study.

Lastly, I would like to express my deepest appreciation to all those who provided me the possibility to complete this project.

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