

بسم الله الرحمن الرحيم



Graduation Project

Terrestrial Laser Scanner Data Processing and Evaluation TX5

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جامعة بوليتكنك فلسطين
كلية الهندسة
دائرة الهندسة المدنية والمعمارية

اسم المشروع :-

Terrestrial Laser Scanner Data Processing and Evaluation

أسماء الطلبة :-

أنوار عماد سبيتان نور يوسف قصاص منار سمير وهادين

بناء على نظام كلية الهندسة والتكنولوجيا وإشراف ومتابعة المشرف المباشر على المشروع
وموافقة أعضاء اللجنة الممتحنة تم تقديم هذا المشروع إلى دائرة الهندسة المدنية و المعمارية
وذلك للوفاء بمتطلبات درجة البكالوريوس في الهندسة تخصص هندسة المساحة والجيوماتكس.

توقيع المشرف

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توقيع اللجنة الممتحنة

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توقيع رئيس الدائرة

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الاهداء

قال تعالى : (وَلَقَدْ آتَيْنَا لُقْمَانَ الْحِكْمَةَ أَنِ اشْكُرْ لِلَّهِ وَمَنْ يَشْكُرْ فَإِنَّمَا يَشْكُرُ لِنَفْسِهِ) (لقمان ١٢)

الى منارة العلم والامام المصطفى الى سيد الخلق الى رسولنا الكريم محمد صلى الله عليهم وسلم
الى الينبوع الذي لا يمل العطاء الى من حاكت سعادتي بخيوط منسوجة من قلبها الى والدتي العزيزة
الى القلوب الطاهرة الرقيقة والنفوس البريئة اخوتي واخواتي
الى من علمونا حروفا من ذهب وكلمات من درر الى من صاغوا لنا علمهم حروفا ومن فكرهم منارة تنير لنا
سير العلم الى اساتذتنا الكرام
الى من وقف بجانبنا خطوة بخطوة لانجاز هذا العمل الى مشرف المشروع د. غادي زكارنة
فريق العمل

الى من سعى وشقى لانعم بالراحة الذي لم يبخل بشيء من اجل دفعي في طريق النجاح الى والذي العزيز
الى من ساندني لشق طريق النجاح الى رفيق دربي وزوجي الغالي محمود
الى ابنتي الحبيبة لجين
نور يوسف قصاص

يا من احمل اسمك بكل فخر يا من افتقدك منذ الصغر يا من يرتعش قلبي لذكرك يا من أودعتني الله الى ابي الغالي
رحمه الله

اوارعمادسببتان

الى من سعى وشقى لانعم بالراحة الذي لم يبخل بشيء من اجل دفعي في طريق النجاح الى والذي العزيز
الى من ساندني لشق طريق النجاح الى رفيق دربي وزوجي الغالي
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Who helps us during our work .

Working Team



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Project Abstract :

This project aims to the evaluate TX5 Laser Scanner at Palestine Polytechnic University for the data processing possibilities and evaluation of accuracy and limitation.

Different objects are scanned from interior and exterior, the object are scanned from different station, the different scans are gathered to form the surface of the objects, 3D models are constructed and finished, an evaluation of the processes, limitation and accuracies are done.

Finally, a report that contains best procedures to apply scans of small and large objects from interior and exterior by means of many stations are prepared, this are include the expected accuracy and limitations of the scanner.



فريق العمل:

انوار سبيتان نور قصاص

منار وهادين

إشراف:

د. غادي زكارنة

الملخص:

يهدف هذا المشروع الى تقييم اداء جهاز الليزر سكنر في جامعة بوليتكنك فلسطين من حيث امكانية معالجة البيانات وتقدير الدقة.

تم تطبيق عملية مسح الكائنات المختلفة من الداخل والخارج ، وتم مسح الكائن من اكثر من محطة مختلفة ، وتم تجميعها من خلال اشعة الليزر لتشكيل سطح الكائنات، وتم انشاء نموذج ثلاثي الابعاد.

وأخيرًا ، تم إعداد تقرير يحتوي على أفضل الإجراءات لتطبيق فحوصات الكائنات الصغيرة والكبيرة من الداخل والخارج بواسطة العديد من المحطات ، وهذا يشمل الدقة والقيود المتوقعة للمساحة الضوئية.

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