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[ZJPAS] Article Review Request

1 message

editor Engineering 1 <zanco.scientific@su.edu.krd>
To: "Dr. Haval Sadeq" <haval.sadeq@su.edu.krd>

Sun, Jul 2, 2023 at 9:00 AM

Dr. Haval Sadeq:

I believe that you would serve as an excellent reviewer of the manuscript, "Documentation of Traditional Terrace Form of the Jewish Neighbourhood in Akre Historic City Using UAV Photogrammetry," which has been submitted to Zanco Journal of Pure and Applied Sciences. The submission's abstract is inserted below, and I hope that you will consider undertaking this important task for us.

Please log into the journal web site by 2023-07-30 to indicate whether you will undertake the review or not, as well as to access the submission and to record your review and recommendation.

The review itself is due 2023-07-30.

Submission URL: <https://zancojournal.su.edu.krd/index.php/JPAS/reviewer/submission?submissionId=1351&reviewId=1739&key=WeGwZD>

Thank you for considering this request.

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"Documentation of Traditional Terrace Form of the Jewish Neighbourhood in Akre Historic City Using UAV Photogrammetry"

UAV Photogrammetry is, as of recently, the most innovative technique for conservation of cultural heritage. It is used in the documentation, monitoring, and assessment of heritage sites. Consequently, helps understand site significance and develop guidelines for protecting the significance of the site.

The ability of UAVs to remotely capture high-quality images particularly oblique images and the development of numerous computer software especially freely available software for data processing have led to a breakthrough in the 3D modelling using photogrammetry, the documentation of cultural sites, and the heritage engineering field in general. However, researches on using UAV for documentation in the research context are still in short supply.

Akre historic city is registered in the national list of heritage sites of Iraq (1970) as a cultural site. The Jewish Neighbourhood in Akre historic city represents the most significant part in terms of historical and architectural value of the buildings and the urban pattern. Today, many new buildings have replaced the old buildings, negatively affecting the integrity of the traditional terrace form. which is considered the most significant feature of the historic city. Therefore, the local government urgently needs operational guidelines to preserve this vital feature.

This article aims to present the methods and techniques of data acquisition and processing to document the traditional terrace form of the Jewish Neighbourhood in Akre historic city. UAV, type DJI PHANTOM 4, was used to capture 337 images through one planned "double grid flight" on the Pix4Dcapture application at an altitude of 40 meters above the ground with a tilted camera angle of 45 degrees for an oblique view of the building sides. Agisoft Metashape photogrammetry software was used to produce 3D digital surface model of the buildings. quantitative and qualitative methods have been carried out to assess the accuracy of the deliverables. Moreover, Global Mapper and ArcGIS software were used to drive more documentation details that serve setting the required guidelines.