



Request for Proposal

3D laser Scanner Tools and Capacity Building Activities

1. Introduction

The Welfare Association – TAAWON is a non-profit foundation established in Geneva in 1983 to support Palestinian society in sustainable development. As a pioneering development Palestinian organization, TAAWON dedicates its work to provide a unique contribution to support development efforts of Palestinians, help preserve their heritage and identity, support their living culture and develop their civil society. TAAWON contributions to the development of the Palestinian society in the different regions, mainly in the 1948 Palestinian areas, the West Bank, including Jerusalem, Gaza Strip and Palestinian communities in Lebanon, through the following programs: Community Development, Education, Culture, Youth, and Rehabilitation.

OCJRP is a program established by Taawon in 1995 with the main goals of safeguarding the cultural heritage of the Old City of Jerusalem and supporting the steadfastness of its residents. The program expanded to Nablus as well and has added new components to its work such as community awareness activities, specialized training and documentation (using GIS as one of the tools).

Therefore, Taawon/OCJRP is seeking to purchase a 3D laser scanner and to conduct training courses as follows:

2. Equipment's Specifications

a) 3D laser scanner surveying devise, 3–Years warranty, including software license

The Package should include but not limited to the following:

- 3D laser scanner surveying devise
- USB stick with software License



- 32GB SD Card, SD Card Reader, SD Card Cover
- 1 Charger
- 2 Batteries
- Transport hard case
- User's manual
- Optic Cleaning Fluid, Optic Cleaning Tissues.

Technical Specification

Accuracy	2mm
Scanning Speed	Up to 1 million points/second
Scanner Control	via Touch Screen Display and WLAN
Use	indoor and outdoor
Laser Class and Ingress Protection	Laser class 1, Ingress Protection (IP) Rating Class 54/55 or equivalent
Imaging	Integrated HDR camera, high resolution
Scan time	2-5 minutes for standard high resolution scans
Scanning Range	From >2mm to wide range 70m
Warranty	standard and extended warranty (3 years warranty)
Software compatible with 3d laser scanner devise	The software should be user-friendly software that allows scans to be automatically combined and the resulting point cloud can be viewed in three dimensions .

b) Tripod: 1 laser scanner High Quality tripod

- 1 laser scanner tripod with quick release compatible with the 3D laser scanner devise.

Delivery contents:

- 1 laser scanner tripod
- high-quality tripod bag with carrying strap

c) Laser scanning starter kit compatible with the 3D laser scanner devise for surveyors

The starter kit includes the following products:

- Reference sphere sets Flexi with a total of 6 reference spheres



- 1 Set consisting of 6 Reference Sphere Pedestals with Magnet Plate
- 1 Rotatable tripod adapter
- 1 Tripod Adapters for Reference Sphere (145mm/5.7 in sphere)
- 50 3D measuring point disks

d) Optional item :4k 360 Spherical Camera

- Hi-Def smooth 360 Degree video at 30 fps @ 3840 x 1920 pixels or 4K.
- Hi-res 360 Degree spherical stills & video with improvements to the image quality.
- Object distance– Approx. 10cm – ∞ (from front of lens)
- Remote Playback capable fully spherical camera allows users to wirelessly playback 360 Degree images and videos on a large–screen display Using a compatible wireless display adapter
- Wireless High speed transfer (AC)

3. Expected Capacity building

Capacity building through training at least 25 Architects and Engineers on heritage documentation using digital documentation technique (using 3d laser scanner) the trainee should be involved in the whole documentation process.

comprehensive training courses

A comprehensive training courses on heritage documentation using digital techniques (3d laser scanning and photogrammetry). In addition to preparing a digital manual for the project documentation process (includes short video clips) the manual should be prepared after conducting a pilot training course and should be modified continuously according to trainees' remarks and evaluation for the training manual.

The training should include theoretical session, practical and on–site session. (including onsite data acquisition and data processing) The trainees should be involved in delivering part of the



work under the direct and full supervision of the consultant. The consultant is fully responsible of all the deliverables.

a) The training should include but not limited to following:

- Introduction, example of surveys with the scanner Why use a laser scanner?
- Demonstration with low- and high-cost laser scanners Second data acquisition onsite
- What we can do with a laser scanner: advantages and problems
- Typical errors; strategies to capture accurate and complete point clouds
- data acquisition on-site
- Processing of the data captured onsite
- Point cloud registration with different methods: targets, ICP, planes
- Registration in a superior reference system.
- Registration in a superior reference system.
- Evaluation of accuracy
- From point clouds to deliverables: production of orthophotos, plans, sections, elevations with manual and automatic methods
- Generation of plans and sections, revision, corrections
- Considerations after trying: how to plan a survey and the work related to acquisition, registration, and production of technical drawings
- Check the status of deliverables
- Scan Registration, Integration
- Sharing point clouds
- Advanced techniques for point cloud processing: Denoising, shading, smoothing, ...
- Automatic 3D modeling from point clouds: auto surfacing and editing tools, texture mapping, sectioning,

b) The trainings will be held in different locations (Jerusalem, west bank and historical Palestine with different groups) with coordination with technical team.

c) All Training sessions in the different locations must be completed within a maximum period of 18 months according to the approved schedule by the technical team.



4. Technical Offer

The consultant will submit the following offers:

- Trainer resume /team members' resumes
- Training methodology
- Training course structure
- Time schedules
- Training experiences /similar previous course

5. Financial Offer according to the below table:

No	Item	Price (USD)
1	3D laser scanner devise, 3–Years warranty, including software license	
2	Tripod: 1 laser scanner tripod	
3	Laser scanning starter kit	
4	Optional item :4k 360 Spherical Camera	
5	comprehensive training courses	
Total		

6. Offers Evaluation:

The submitted Technical offers will be evaluated according to following:

Technical evaluation		
Trainer resume /team members' resumes	20	
Training methodology	20	
Training course structure	25	



Proposed training Time schedules	10	
Training experiences /similar previous training course	25	
Total	100%	

WA/OCJRP Will not take into consideration any financial offers that do not pass 70% in the technical evaluation.

7. General Submission Requirements

- Technical and financial proposals required and should be submitted separately in 2 signed Documents.
- Additional information in the Technical Proposal includes detailed CV that includes all the projects, all the staff, registration and classification from official authorities.
- Technical and Financial proposals should be valid for 120 days at least.
- Companies Should submit valid Vat exemption Certificate.
- The Financial offer should include all costs.
- Submission of technical and financial proposals should be 10th of June 2020, to Taawon Offices in Ramallah Al-Nahda Building Canada St>
- Any requested clarification or questions should be submitted to waocjrp@taawon.org till of 28th of May 2020, and the answers will be sent by mail on 31st May 2020