Institute of Archaeologists of Ireland

Event title: **An introduction to the use and application of 3D photogrammetry for archaeologists and those in the heritage sector**
Date: Thursday 29th March 2018
Venue: University College Cork - UCCDH Active Learning Space – https://www.openstreetmap.org/?mlat=51.892122477293015&mlon=-8.496111631393433#map=18/51.89212/-8.49611&layers=N

Trainer: **Gary Dempsey (RealSim/ Digtial Heritage Age (@DH_Age) and Orla Peach Power (@DH_Age)**

Introduction
3D photogrammetry has developed greatly within the last ten years and as the technology has developed, so too has its open access and practical usage for archaeologists and those in the wider heritage sector.

Gary Dempsey and Orla Peach Power of @DH_Age will deliver a workshop for IAI members to enable them to learn about and engage with some of the software packages available, learn how to use their digital cameras effectively so that the images can confirm to the requirements of the software, add accurate scale and ground control points, and generate informative and accurate images of the objects photographed.

The course will consist of a morning where the theory will be outlined, as well as some useful case studies. The trainer will outline some of the pitfalls that archaeologists can avoid. The afternoon session will be based around the practical usage of the tools used in 3D photogrammetry and the generation of a usable end product.

Due to the popular demand from a previous workshop, the organisers invite attendees who wish, to bring along small to medium sized objects/artefacts that they wish to scan themselves during the workshop.

Learning Outcomes
On completion of this introductory course, the participants will have an understanding of:

1. The methodology and theory of 3D photogrammetry
2. An awareness of the availability software for use in 3D photogrammetry
3. The techniques used in the setting up and capturing of fit for purpose images
4. Generation of an end product that is accurate and informative and can be incorporated into an archaeological/ heritage project.

Programme

10.00-10.15	Registration
10.15-11.30	Introduction to theory and methodology of 3D photogrammetry
11.30-12.00	Tea/ Coffee
12.00-13.00	Software – open source to top-shelf what's out there and what do I need to know to get the best one for my project
13.00-.14.15	LUNCH (Not included in registration fee)
14.15-16.15	Practical workshop capturing images of a unique object, followed by instruction as to how to incorporate the image into the software (Agisoft Photoscan for demo purpose)
16.15-16.30	Summation and close

N.B Programme may be altered on the day to facilitate learners' needs

Registration:

Members can register their place on this course, by completing the Registration form in the Members Section of the IAI website. An option to pay the course fee via paypal is also available in the Members Section.

Non-members can register on the IAI website and pay the course fee via the paypal link - http://www.iai.ie/cpd/cpd-events/

Course fee:

Members - €30	Students/ Associate - €15
Non-members - €45	Students/ Associates/Unwaged - €20

Please note: Course fee includes light refreshments, lunch is not included

Equipment:

Participents are encouraged to bring the following equipment on the day

Digital Camera – Any digital camera with a min of 8megapixels (Phone camera are suitable if above required resouloution, and enough free memory for photographs

Laptop Computer – A computer with Windows OS, anything from Windows 7 above is suitable. If people have Mac computers please check the list of software for available versions.

Software -

Visual Structure From Motion (Open Source Discussed) - http://ccwu.me/vsfm/

Agisoft Photoscan (Commerical Software – Install 30 Day Trial Licence) - http://www.agisoft.com/downloads/installer/

MeshLabs (Freeware – Viewing Software) - http://www.meshlab.net/

CloudCompare(Freeware – Meshing Software) http://www.danielgm.net/cc/

** Please remember to bring all cables and batteries for your equipment, for camera remember to include data cables or SD card reader to transfer images to your computer