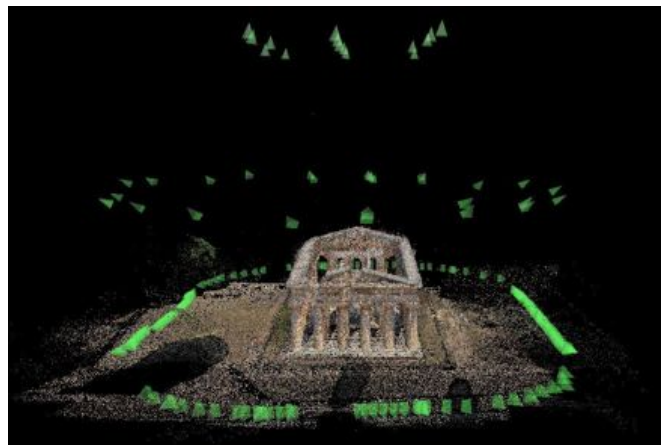




20-26 Sept 2013
Pontignano (Siena)
Italy

INTERNATIONAL
SUMMER SCHOOL
**DRONES APPLIED TO
CULTURAL HERITAGE &
ARCHAEOLOGY**

*In one week learn how to prepare and fly your drone
to survey in 3D your Cultural Heritage*



UNIVERSITÀ
DI SIENA
1240



FONDAZIONE
BRUNO KESSLER





International Summer School “Drones applied to Cultural Heritage and Archaeology”

20-26 September 2013 - Pontignano (Siena), Italy

Organised and coordinated by
Stefano Campana, Sofia Pescarin, Fabio Remondino, Livio De Luca
University of Siena-LapetLab, CNR-ITABC, FBK-3DOM and CNRS-MAP

Supported by
ArcheoLandscapes, Ariadne and 3D-Icons

OBJECTIVES:

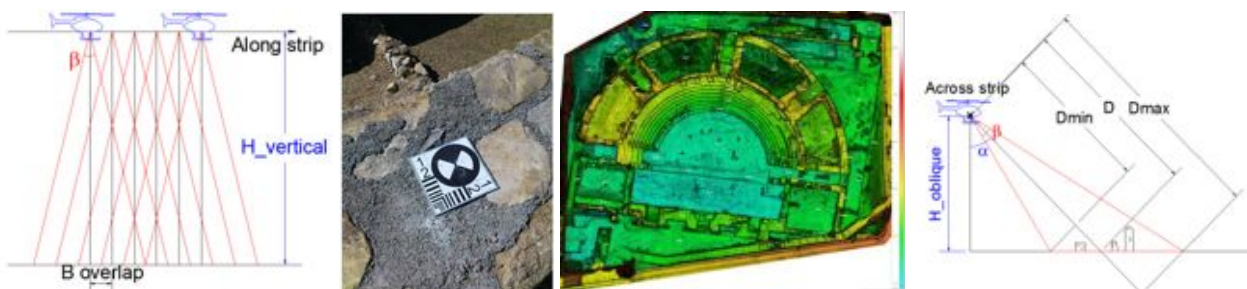
The Summer School aims to bring together young scientists, developers and advanced users from geomatics, cultural heritage, archaeology, environmental monitoring and mapping fields to study and discuss the latest developments of UAV platforms and related data processing procedures. UAVs (or drones) have recently become a powerful platform for aerial data acquisition. UAVs are a low-cost alternative to the classical manned aerial photogrammetry specifically for large-scale topographic mapping or detailed 3D recording of ground information. UAVs are also a valid complementary solution to terrestrial acquisitions. The Summer School will deal with the digital recording and 3D modeling of complex objects and scenarios, with emphasis on those of cultural and natural heritage value, considering the entire workflow from platform and flight preparation, to data acquisition and processing and final graphical restitution.

TARGET GROUP OF PARTICIPANTS:

PhD students, young researchers and advanced users of new sensor technologies and methods for digital recording and modeling in cultural heritage and environmental applications.

LOCATION:

Certosa in Pontignano (<http://www.pontignano.unisi.it/>) – The heritage complex, in the surrounding of Siena (Italy), dates back to 1350 and it now hosts a congress centre with accommodations. The beautiful location and absolute peacefulness of the Certosa make it an ideal location for guests to relax and dedicate their attention to scientific activities.





Draft Program of the Summer School

PART 1 - INTRODUCTION - BASIC PRINCIPLES - STATE OF ART

- State of the art of UAV platforms & related software
- Acquisition sensors (imaging cameras, GNSS/INS, LiDAR, etc.)
- UAV requirements in archaeology and cultural heritage
- Concepts and basics of cartography, GNSS/INS, photogrammetry
- UAV applied to CH communication (virtual archaeology)
- UAV failures, solutions and future perspectives
- Legal aspects and flight regulations

PART 2 - APPLICATIONS AND LABORATORIES

- Demo with different drones (swinglet, multirotor, model helicopter)
- Planning a survey
- Piloting & data acquisition with different platforms
- Laboratory work: data processing, DSM generation, orthophoto production, vectorialization, analyses

COSTS:

The registration fee of the Summer School is **EURO 750**, including accommodation and meals (full board) at the Certosa, lecture material, coffee breaks, welcome party, demos.

PARTICIPATION:

In order to participate to the Summer School, please send a CV to uav@lapetlab.it before **JULY 20th, 2013**. The maximum number of participants is 25.

