

...meets **POLITEIA II** IESL-FORTH Heraklion, Crete - Greece



03-07 JUNE, 2019

OPTO-CH 2019



## PROGRAM

### Days 1-3 Intro, Basics and Lab sessions

Venue: FORTH, Seminar Room 1, 1<sup>st</sup> Floor

#### MONDAY

3 June 2019

#### The first response - Imaging

09:00-09:30	Registration
09:30-10:00	Welcome to IESL-FORTH; short introduction and activities on CH, <b>P. Pouli (IESL-FORTH)</b>
10:00-11:00	Optics and Lasers- an introduction, <b>D. Papazoglou (IESL-FORTH)</b>
11:00-11:30	<i>Break for Coffee</i>
11:30-12:15	Optical Imaging- the seen and the unseen- Principles, <b>K. Hatzigiannakis (IESL-FORTH)</b>
12:15-13:00	Optical Imaging- the seen and the unseen –Case Studies, <b>K. Melessanaki (IESL-FORTH)</b>
13:00-14:00	<i>Break for Lunch</i>
14:00-15:00	Pigments and materials throughout the Eastern Mediterranean cultural environment, <b>A. de Tagle (Consultant on Heritage Science studies, Spain)</b>
15:00-15:20	Photoacoustic Imaging in CH diagnostics, <b>G. Tserevelakis (IESL-FORTH)</b>
15:20-16:00	<i>Participants' presentations. Discussion on aims and goals of the workshop</i>

**TUESDAY**

4 June 2019

**The inside look - Materials analysis**

09:30-10:30	Material analysis- Spectroscopy, <b>D. Anglos (IESL-FORTH)</b>
10:30-11:00	Raman spectroscopy, the molecular signature, <b>A. Philippidis (IESL-FORTH)</b>
11:00-11:30	<i>Break for Coffee</i>
11:30-12:00	LIBS, the elements and their stratigraphy, <b>D. Anglos (IESL-FORTH)</b>
12:00-12:30	Light-Matter Interaction and Colour Perception, <b>S. Sotiropoulou (IESL-FORTH)</b>
12:30-13:00	Laser Safety, <b>P. Pouli (IESL-FORTH)</b>
13:00-14:00	<i>Break for Lunch</i>
	Lab hands-on (parallel sessions)
14:00-14:45	<ol style="list-style-type: none"> <li>1. Optical Imaging (K. Hatzigiannakis)</li> <li>2. Photo-acoustics (G. Tserevelakis)</li> <li>3. Raman (A. Philippidis, S. Sotiropoulou)</li> </ol>
14:45-15:30	Lab hands-on (parallel sessions 1, 2, 3)
15:30-16:15	Lab hands-on (parallel sessions 1, 2, 3)

**WEDNESDAY**

5 June 2019

**Laser cleaning****The inside look - Structural diagnostics**

09:30-10:00	Imaging with THz waves, <b>A. Koulouklidis, S. Tzortzakis (IESL-FORTH)</b>
10:00-10:30	Laser interaction with matter, a tailored relation, <b>P. Pouli (IESL-FORTH)</b>
10:30-11:00	Laser assisted removal of encrustation from stone, <b>P. Pouli (IESL-FORTH)</b>
11:00-11:30	<i>Break for Coffee</i>
11:30-12:30	Holographic Interferometry- the object's hidden structure- Principles & Case Studies, <b>V. Tornari (IESL-FORTH)</b>
12:30-13:00	Holographic Interferometry- in-situ campaigns, <b>M. Andrianakis, V. Tornari (IESL-FORTH)</b>
13:00-14:00	<i>Break for Lunch</i>

	Lab hands-on (parallel sessions)
14:00-14:45	<ul style="list-style-type: none"> <li>4. Laser Cleaning (P. Pouli)</li> <li>5. LIBS-Diffuse Reflectance (I. Malegiannaki, S. Sotiropoulou)</li> <li>6. Holographic Interferometry (M. Andrianakis, V. Tornari)</li> </ul>
14:45-15:30	Lab hands-on (parallel sessions 4, 5, 6)
15:30-16:15	Lab hands-on (parallel sessions 4, 5, 6)

## Days 4-5 POLITEIA II (lectures and in-situ campaigns)

### THURSDAY

6 June 2019

### POLITEIA II

09:30-10:00	Overview and the vision of POLITEIA II Project- <b>D. Anglos (IESL-FORTH)</b>
10:00-10:30	Ancient DNA Analysis: a novel approach in Cultural Heritage <b>N. Psonis (Ancient DNA Lab, IMBB-FORTH)</b>
10:30-11:00	Artificial Neural Network and Laser Induced Breakdown Spectroscopy for the classification of archaeological bones- <b>P. Siozos (IESL-FORTH)</b>
11:00-11:30	<i>Break for Coffee</i>
11:30-12:00	Innovative methodologies to study the impact of climatic conditions on CH monuments – <b>G. Alexandrakis (IACM-FORTH)</b>
12:00- 12:30	Documentation strategies to improve data sharing, interoperability and reuse- <b>S. Sotiropoulou (IESL-FORTH), Ch. Bekiari, K. Petrakis (ICS-FORTH)</b>
12:30- 13:00	Micro-LIBS for elemental imaging – <b>D. Anglos (IESL-FORTH)</b>
13:00-14:30	<i>Break for Lunch</i>
14:30-15:00	Restoration of historic glazed ceramics by means of laser irradiation <b>P. Pouli, K. Hatzigiannakis, K. Melessanaki (IESL-FORTH)</b>

## Day 5 In-situ Campaign

### Byzantine Church of Virgin Mary's Presentation, Fodele

FRIDAY  
7 June 2019

Working on site with LMntII, MSI and DHSPI instruments,  
data processing and handling

10:00-10:30	Introduction to the monument
10:30-13:30	<b>On-site Demos (parallel sessions A, B, and C)</b>
13:30-14:30	<i>Break for Lunch</i>
14:30- 17:15	<b>On-site Demos (parallel sessions A, B, and C)</b>
17:15-16:00	Wrap up discussion, evaluation and recap on the workshop, remarks, future directions and priorities

Key:	POLITEIA II lectures	Lectures	Lab sessions	Discussions and site-visits
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## Lab Groups

	LAB SESSION	LAB ROOMS	TIME SLOT		
			14:00-14:45	14:15-15:00	15:30-16:15
TUESDAY	1: Optical Imaging	Room C 005	Group 1	Group 2	Group 3
	2: Photo-acoustics	STEP - C	Group 3	Group 1	Group 2
	3: Raman	Room B 206	Group 2	Group 3	Group 1
WEDNESDAY	4: Laser Cleaning	Room B 204	Group 1	Group 2	Group 3
	5: LIBS-Diffuse Reflectance	Room B 207	Group 3	Group 1	Group 2
	6: DHSPI	Room B 005	Group 2	Group 3	Group 1