

ITN-DCH: PROJECTING OUR PAST TO THE FUTURE

ITN-DCH Newsletter

September 2016

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3rd ITN-DCH Summer School & CGI 2016 Conference

by Nicola Carboni, ESR8

The 3rd ITN-DCH summer school has been held in Heraklion, Greece from the 27/06 to 01/07, and co-located within the CGI 2016 Conference. With a strong focus on the technical side of computer graphics, the conference aimed to explore a set of diverse subjects such as geometrical algebra, character animation and tracking, as well as the exploitation of 3D animation technique for the dissemination of cultural heritage.

The first days started with a series of talks, which introduced the different subjects of the conference laying down what would be the leitmotif of the whole day: creating and showing the links between the different disciplines involve in the documentation of cultural items and the “know how” required during the creation of a virtual reconstruction. The subject quickly jumped from topic such as “Recording and 3D modelling of Cultural Heritage” to “Astronomical Knowledge and Calendars in Aegean from Neolithic era”, opening furthermore discussion on the museology and how instruments can improve

the experience of the users. In the digital humanities session, Martha Vassiliadi greatly delineates how it is possible to use digital technologies to uncover pattern of motifs and types within the literature. The methodology described seemed very helpful in finding pattern and commonalities within different civilisation. Moreover, this great talk outlined the main ideas behind a conceptual framework of understanding which include the humanistic and sociological background together with the technological one. The icing on the cake in the evening was the “Introduction to Geometric Algebra” session. Professor Eckhard Hitzer gave a great introduction to the topic, formalising the introductory mathematical tools, needed for fully understand the content of the GACSE workshop.

Tuesday 28 was the workshop day with a focus on geometric Algebra (“Geometric Algebra in Computer Science and Engineering Workshop (CAGSE)”) and

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human machine interactions (“Presence, Robotics and Human-Machine synergetic, social interaction applied in Cultural Heritage”). The GACSE workshop was very challenging, but very informative. The talk “Massive Geometric Algebra for Outer and Geographic Space” of Werner Bengler was particularly interesting because he managed to define the mathematical foundation and applicative tools for exploiting large-scale LIDAR data. The speaker was very informative and he used different examples for explaining the conceptual foundation of the operations and analysis that were done on a set of geographical data.

The very first day of the conference, Wednesday 29, began with the speech of Nadia Magnenat-Thalmann, which explained, using the example of Nadine, a social robot developed by the NTU Singapore and MIRALab - University of Geneva, the challenges of the current robotic research. With a particular eye on the complex social interactions, the speaker described in rich details the possibilities and limitations given by current technologies, both from a technical and a research perspective. The main issue in the latter topic is to understand what exactly a robot is, and if an artificial intelligent is defined by its social interactions with human or not. There are quite a lot of opinions in the field, and the project Nadine, because of its inclusion of both research in social interaction and technical enhancement, seems to be qualified to act as bridge between them.

The second day of the conference was greatly introduced by the keynote of Ari Shapiro “Rapidly built character animation and simulation”, which presented to the public a set of low-cost techniques and instruments for the digitisation and animation of human characters. The audience was left in wonder when Mr Shapiro showed and explained how to easily build up 3D fictional characters, citing research that span from psychological study of the recognition of the self to the technical details for an accurate photogrammetric model. Very interesting was the part about the animation and how we reflect the recognition of a person on its way to move around, and not on the quality of the reconstructed body. A list of open tools and techniques developed by Mr Shapiro was presented, allowing, with some easy steps, to replicate the results proved in the keynote.

On the very same day, in the afternoon session, was held the poster session, where the MC ITN-DCH fellows could explain and interact with the public, allowing the MC

Fellow to discuss and present the ITN-DCH project to a wider audience.

The last day was introduced by Alan Chalmers, with a brilliant talk on “Real Virtuality: High-fidelity multisensory virtual experiences”, which explained why and how we need to introduced a more complex experience in our reconstruction. Several application examples, comprising scent, audio, and natural lights, were displayed, showing the limitations of the current approaches, which rely only on vision and do not take into account the interpretation and context of the reconstruction.

This last keynote summarised the need for a greater effort in describing heritage artefact, and the multidisciplinary requirements that such work demand, outlining, in what seems a perfect ending for a great conference, a request for collaboration and exchange between professionals. Exactly what ITN-DCH is doing.



Figure 1: Preparing poster session

Figures 2,3,6: Poster Session



Figure 4 (top): Michalis Tsioumas presenting the role, the work and needs of Ephorates of Antiquities.

Figure 5 (middle): Keynote speaker Alan Chalmers presenting his work on “Real Virtuality: High-fidelity multisensory virtual experiences”.

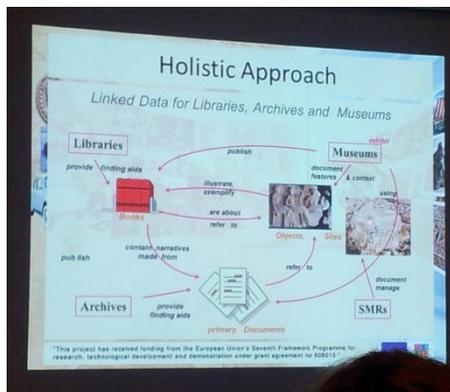


“Cultural Heritage Simulations in Mixed Reality” ITN-DCH Summer School @ CGI’16

By Eirini Papageorgiou, ER2

The “Cultural Heritage Simulations in Mixed Reality” held at CGI’16 has been the first ITN-DCH Summer School that the CUT fellows Vasiliki Nikolakopoulou (ESR12), Georgios Leventis (ER3) and Eirini Papageorgiou (ER2) attended. Therefore the latter one will attempt to provide a description which highlights this first collective ITN-DCH experience, as been seen through the eyes of the CUT fellows.

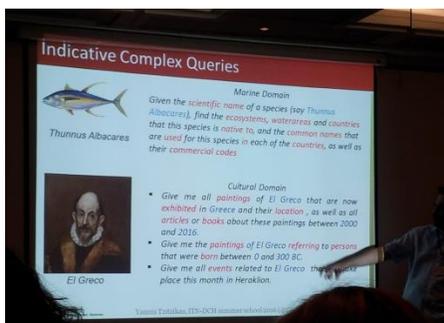
The opening lecture of the Summer School by Mr. Ioannides was regarding the term “monument” as a 3D structure which has a memory and a story to tell, stimulates the multidisciplinary scientific community as well as the society to listen and comprehend. The gathering of knowledge of every form and format in one hub, the link between the data and the open access to information that will eventually be formulated into “encyclopedia” is a goal to reach, using the holistic approach in the procedure.



Further on Mr. Tzitzikas presented the ways to connect the “*fetched pieces of information*”. The quest of knowledge in every domain seems to be a tricky endeavor and through an exceptional metaphor from the marine domain and Thunnus Albacares Mr. Tzitzikas “linked” us to the cultural domain and El Greco, proving that a query about a tuna can be equally challenging as the query about El Greco’s paintings. Databases, Integration of Information, the construction of a “*semantic warehouse*” and the assessment of its quality have been analysed.

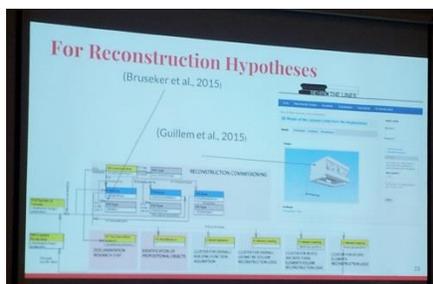
But “*important is not only to fill in databases but make real propositions for the world*” is what Mr. Brusecker (ER1) pointed out,

underlying the role that formal ontology and semantics can play. Documentation and contextualization make all the difference between a scientifically-based model and a simple photorealistic model. The ways to convert these models to real tools of knowledge, *Digitization Workflow Protocols*, *Hypotheses for Reconstruction*, and *Human Computer Interaction (HCI)* were topics of high interest; while the correlation of *Linked Open Data* with airlines and Plato led us to the vision of the next step: a graded system.



The shift from philosophy to mythology came with Mrs. Vassiliadi, the lecture of who evolved around the concept of Myth. Through the interconnection to Utopias, Heterotopias and mirrors Mrs. Vassiliadi talked to us about “*Virtuality*” and showed us examples of virtual worlds such as that of Pompeii.

Virtual are also (some of) the worlds that Mr. Partarakis creates with the use of *interactive technologies*. With variable e-tables, the advanced kinect systems that capture human body and motion and interact with the user providing him a personalized access to knowledge, web and mobile apps, location-based games and timelines he aims to teach children and adults a lesson about CH.



Her own lesson learnt has on the other hand Mrs. Pateraki when talked to us about

“*recording and 3D modelling of CH sites*”. The needs for quality 3D data acquisition, multiple techniques to obtain complete site 3D modelling and interactive details required to be extracted from the models provide rich input for consideration before, during and after the procedure of documentation of CH assets.

For this highly educational “*voyage*” in the differentiated paths of Cultural Heritage we would like to thank all the prominent speakers alongside with the organizational committee which has provided us with this unique first experience.

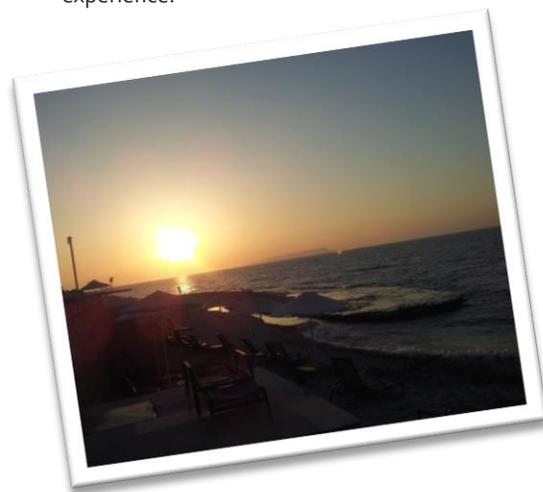


Figure 7 (left): *The Holistic Approach*, presented by Mr. Ioannides

Figure 8 (center, top): *Tunnus Albacares VS El Greco*, by Yiannis Tzitzikas.

Figure 9 (center, bottom): *Reconstruction Hypotheses*, by George Brusecker

Figure 10 (right): *Endpoint of “voyage”*

SEAHA Conference 2016

By Vasiliki Nikolakopoulou, ESR12

The 2nd International Conference on Science and Engineering in Arts, Heritage, and Archaeology was hosted by the University of Oxford School of Geography and the Environment on 20th and 21st of June 2016. The conference aims to provide a platform for scientists, researchers, engineers, professionals, practitioners, entrepreneurs, and policy-makers, to engage and discuss emerging trends in the field with ongoing dialogue over global issues, which define the research and technological applications of heritage scientists. Moreover, the importance of raising awareness to the public as well as promoting dialogue amongst heritage scientists in order to create partnerships between research institutions and industries, was highlighted by the SEAHA's director May Cassar.

ITN-DCH fellow ESR12, Vasiliki Nikolakopoulou, participated at the poster session of the conference and had the chance to present a holistic approach to ecosystems of Historic Churches, which explores the applicability of Digital Heritage in such systems as an attempt to deal with them both as cultural and historical sites. Behavioral patterns within cultural places, visitor's space, time, content-related practices and prior digital applications are taken into consideration in order to shed light on the ways by which a mobile application can enhance the church visiting experience. The result is an interactive prototype, the CHAPP, which acts as a visitor's tool to navigate through the history of the site (intangible) and its individual components (combination of tangible and intangible).

In the provided Breakout Sessions, the participants had the opportunity to attend interesting and engaging workshops, such as *Smartphone adaptation for low-cost sensing in heritage science*, as well as an amazing heritage walk by Prof. Heather Viles (School of Geography and the Environment, University of Oxford) in Oxford's streets and built heritage. The conference acted also as social catalyst, an opportunity to meet and network with researchers and cultural heritage specialists, exchange research ideas, create new partnerships and broaden relationships.



Figure 11 (top): ESR12 Vasiliki Nikolakopoulou demonstrating her poster to conference's participants. (bottom) Group photo with participants of the conference.

Secondment @ NTUA

By Gina Stavropoulou, ESR5

In the past July I participated in the last secondment of my fellowship, which gave me the chance to acquire some new skills but also refresh my old ones. The secondment was organized by the National Technical University of Athens (NTUA) and more specifically by the laboratory of Photogrammetry. Since this was the university that gave me my MEng degree, I was lucky to be hosted by my old supervisor prof. Andreas Georgopoulos and to cooperate again with people I had worked with in the past.

The purpose of this secondment was to promote the collaboration between the two Institutes, NTUA and KU Leuven and, of course, to exchange knowledge and expertise. In my previous secondment in FBK, the focus was given on the documentation of large-scale monuments. In contrast, during the secondment in NTUA, the focus was given to the digitization and 3D modelling of small archaeological objects, which, in comparison to large-scale monuments, require a quite different approach. In this field, KU Leuven has significantly contributed with the development of the Minidome and its respective digitization pipeline that uses the photometric stereo method. Therefore, it was considered beneficial to bring the Minidome with me at NTUA. As part of the training, 4 stamped amphora handles were digitized in the museum of the Stoa of Attalus. These handles are very suitable objects for the



Figure 12 (From top left clockwise): ESR5 and ESR4 presenting the Minidome in Photolab; Stamped amphora handle; Digitization of the handle using the Minidome.

Minidome digitization pipeline since their surface is rather flat with imprinted seals of low-relief. The four handles are dated from the 5th to the 1st century BCE and the impressions they bear have representative symbols of the area of origin. For the purposes of the secondment, permission was granted by the curators to assemble the Minidome in one of the offices of the museum and digitize the 4 handles under the supervision of the archaeologist and museologist Mr. S. Kazanis. The results will be compared with other digitisation methods of the same objects that are currently in the processing step.

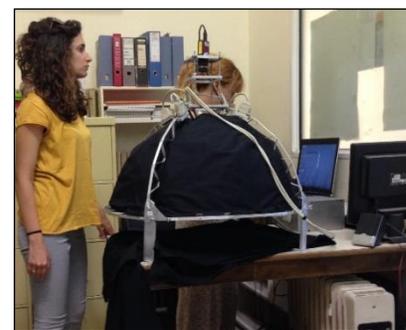


Figure 13: ESR5 and ESR4 operating the Minidome.

Overall I believe this secondment was a fruitful experience and I think the most important outcome was the collaboration with Ellie, the fellow hosted in NTUA. Since we have worked together many times for our common publications, but always through online meetings or during the projects events, this secondment formed a good opportunity for us to meet for a more extended period, exchange knowledge and work together more effectively. Concluding, Ellie was a great host for me and I sincerely thank her for that!



NTUA, National Technical University of Athens is among the oldest and most prestigious higher education institutions of Greece.

Visit: <http://www.ntua.gr/>

ITN-DCH @ ISPRS 2016 Congress

By Ellie Stathopoulou, ESR4

The XXIII ISPRS conference, titled "From Human History to the Future with Spatial Information", was held between 12th and 19th July 2016 in Prague, Czech Republic. This big international event, organised every four years, covers a large variety of thematic areas ranging from Photogrammetry and Computer Vision related topics (3D reconstruction, metrology, image processing, indoor navigation etc.) to Geovisualisation (mapping, spatial databases, location based services etc.), Remote Sensing (land cover mapping, forestry, geological applications etc.) to Planetary Science (planetary mapping, change detection, earth observation etc.). The event took place in the Congress Center of Prague, with over than 2000 registered participants. Various parallel sessions were held, together with a huge exhibition, including hardware such as cameras, laser scanner, virtual reality handset and comprising new services and resource available, which were not only promoted and demonstrated, but also explained thanks to several daily tutorials.

ITN-DCH was actively involved in the event, with several fellows and supervisors attending. One of the highlights of the week, was ESR8 Nicola Carboni presenting, on the 14/07, the collaborative work of a group of 10 fellows entitled "Data Provenance in Photogrammetry through Documentation Protocols" in the Cultural Heritage session of the conference. This article, already published in the ISPRS Annals, is the culmination of the efforts of a multidisciplinary team, for finding a common solution for documenting the photogrammetric process. ESR3 Diego Bellido and ESR4 Ellie Stathopoulou also participated the event, with ESR4 also being a co-author of the article "Evaluating Unmanned Aerial Platforms for Cultural Heritage Large Scale Mapping" which, presented the 17/07, review the current UAS technologies, evaluating their applicability and advantages for large scale mapping of limited areas. ESR1, Chance Coughenour, who finished his fellowship last June was also present in the event. Several supervisors participated to such great congress, starting from, Nadia Thalmann, which was invited as keynote speaker in the Opening Ceremony, while Dieter Fritsch, Andreas Georgopoulos, Anastasios Doulamis and Fabio Remondino were instead actively involved in

presentations and ISPRS administrative issues.

A conference is not only a series of presentation; the aim is greater than that, is to create and consolidate a community of professional who need a place and the time to confront each other, to argue, to bond, and to start working together towards new objectives. On that side, the organisers of the XXIII ISPRS Conference, provided plenty of space and occasions to exchange opinions, network, discuss and proposing new collaboration, creating the right set of conditions for a flourishing scholarly experience.



Figure 14: Nadia Thalmann as a keynote speaker in ISPRS's Opening Ceremony.

(Picture: Courtesy of ISPRS Congress 2016)

Saint Neophytos Mission

By Georgios Leventis, ER3

Within the framework of ITN-DCH's research activities, the Marie Curie fellows ER2, ER3 and ESR12 hosted in Cyprus University of Technology along with project's coordinator Dr. Marinos Ioannides visited the holy monastery of Saint Neophytos located in Paphos in order to digitally document the place that Saint Neophytos carved and spent his life during his reclusion. Enkleistra is considered to be a monument of unique cultural significance as it dates back to the 12th century. It contains priceless hagiographies of the Komnenian period arousing interest on both of its tangible and intangible aspects making it a reference point of unique blending of natural and man-made environment that bears the signs of human work and the effect of multi-criterial factors that have shaped so far its religious history.



Over the years, the holy cavern has suffered severe damages by natural (rock slides, frequent earthquakes, humidity etc.) and human causes (dents on frescoes, deterioration on its surrounding area etc.), which already destroyed much of its exceptional hagiographical decoration, leading Enkleistra's pathology state to be deemed as critical requiring immediate restoration methods to be applied on its surface. Upon arrival of the research staff at the Monastery, followed a warm welcome by the Fathers of the Monastery, who facilitated at their maximum potential the smooth conduct of research work that took place during fellows' visit.



During the e-documentation of the monument, a holistic approach has been followed where recording, ground and air measurements were performed using Total Station and UAV (drone) for capturing the geometric features of the monument in order to depict a highly detailed 3D Model. The purpose of this visit was the completion of the holistic digital recording which gave us the opportunity to analyze monument's history, geometry as well as its existing structural problems in order to further develop innovative applications that will exploit the acquired data for educational purposes as well as to promote Enkleistra's tangible and intangible Cultural Heritage.



Upcoming Publication: Book on Mixed Reality and Gamification for Cultural Heritage

By CUT

There is a tremendous interest among researchers and creative industries professionals for the development of virtual, augmented reality and gamification technologies for cultural heritage. The main emphasis of this book is not to present different case studies, as other similar textbooks in the field already successfully present up to date. The unique emphasis is to aid, from both a computer science and digital humanities approach, science researchers, humanities students as well as cultural heritage and creative professionals, in learning how to design next-generation virtual heritage applications, systems and services that can simulate both tangible as well as for the first time: intangible digital cultural heritage reenactment and storytelling through gamification and latest VR/AR advances.

This research volume on virtual, augmented reality and gamification for cultural heritage offers an insightful introduction to the theories, development and applications of latest advances of the enabling technologies of VR/AR and gamified interaction in cultural heritage and creative industries in general. It is divided into two sections following a pedagogical model realized by the focus group of the first EU Marie S. Curie Fellowship Initial Training Network on Digital Cultural Heritage (ITN-DCH) project fellows, which have been undergoing such training:

Section I: Describes all recent advances in the enabling technologies of MR and gamification that include chapters in the following eight parts:

a) Part II: Digitization and Visualization (Acquisition, Capturing, Modelling, Web3D-WebGL)

b) Part III: Content Use and Re-Use (Semantics, Ontologies and Digital Libraries)

c) Part IV: Geospatial (3D Cultural Web GIS and Historic BIM for VR/AR)

d) Part V: Presence (Mobile VR/AR, Multisensory rendering and Multimodal Serious Games)

Section II: Describes all recent advances in interaction with 3D tangible and intangible cultural heritage in the following thematic areas:

a) Part VI: Intangible Heritage (Interactive virtual characters and ancient gamified sports simulation)

b) Part VII: Ambient Intelligence & Storytelling (Robotic curators, Gamified smart environments and Digital-Epigraphy Narratives)

c) Part VIII: Museum applications (3D printing, e-learning and 4D modeling)

This book contains selected contributions from some of the most experienced researchers and professionals in the field of VR/AR, Gamification, Digital Heritage and documentation of the Past, based in large part on their experience in the last decade. In particular, the following key-players have contributed to this book: Marinos Ioannides (DHRLab, CUT), Nadia Magnenat-Thalmann (MIRALab, University of Geneva), George Papagiannakis (FORTH, University of Crete), Mariano Flores Gutierrez and Alfredo Grande Leon (University of Murcia), Andreas Georgopoulos and Antonia Moropoulou (NTUA), Luv Van Gool (KU Leuven), Dieter Fellner (Fraunhofer, IGD), Roko Zarnic (University of Ljubljana), Alan Chalmers (University of Warwick), Michael Klein (7reasons) as well as CERTH, Deutsches Archäologisches Institut and University of Zagreb. Therefore, it is directed to all heritage professionals, scientists, researchers, professors, scholars and students who wish to explore the enabling technologies and applications of virtual, augmented reality and gamification in cultural heritage and creative industries further.

At the same time having as a starting point the first international European-funded Initial Training Network in Digital Cultural Heritage (ITN-DCH: www.itn-dch.eu) this book has included the significant contributions of the trained heritage-related professionals, early stage (PhD Candidates) as well as experienced researchers (Post-Docs). In particular, the contributions from Eirini

Papageorgiou (ER2), Georgios Leventis (ER3), Vasiliki Nikolakopoulou (ESR12) from DHRLab (CUT), Simon Senecal (ESR13) from MIRALab (University of Geneva), Margarita Papaefthymiou (ESR10) from FORTH (University of Crete), Matthew Vincent (ESR11) from University of Murcia, Emmanouil Alexakis (ESR15) from NTUA and Matevz Domajnko (ESR7) from Fraunhofer, IGD.



Figure 15: Point - Cloud Model of Asinou Church.

(Picture: Courtesy of ITN-DCH)

Forthcoming events & meetings

European Researcher's Night, 30th September 2016

Exploring science whilst having fun

Researchers' Night gives you the opportunity to meet researchers and become one!

This Pan-European event takes place every year simultaneously in several cities across Europe on the last Friday of September and this year will be held on Friday 30th of September.

The events are dedicated to popular science and fun learning showcasing what research really offers to society, engaging the public in interactive ways, inspiring youngsters and increasing awareness of the importance of research and innovation. This can be through hands-on experiments, science shows, learning activities for children and students, guided visits of research labs and schools, science quizzes, games and competitions with researchers.

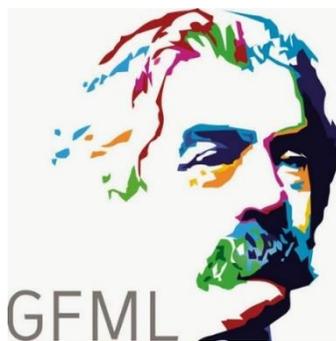
As every year, all **ITN-DCH's fellows** will actively participate in Researchers' Night from different locations, disseminating their research attainments to wide public and raising attention on digital archaeology, Cultural Heritage's preservation, protection and its digital documentation and presentation:

ESR7 Matevž Domajnko, **ESR3** Diego Bellido Castaneda, **ESR4** Ellie Stathopoulou, **ESR5** Gina Stavropoulou, **ESR8** Nicola Carboni & **ESR9** Marleen de Kramer will be in **Ljubljana, Slovenia**.

ESR15 Manolis Alexakis will be at NTUA, in **Athens, Greece**

ESR10 Margarita Papaefthymiou, **ESR12** Vasiliki Nikolakopoulou, **ER2** Eirini Papageorgiou & **ER3** George Leventis will be at CUT, in **Nicosia, Cyprus**.

More info: http://ec.europa.eu/research/researchersnight/index_en.htm



14th EUROGRAPHICS Workshop on Graphics and Cultural Heritage, 5th -7th of October 2016, Genova, Italy

The 14th EUROGRAPHICS Workshop on Graphics and Cultural Heritage (GCH 2016) aims to foster an international dialogue between ICT experts and CH scientists to have a better understanding of the critical requirements for processing, managing, and delivering cultural information to a broader audience. The objective of the workshop is to present and showcase new developments within the overall process chain, from data acquisition, analysis and synthesis, 3D documentation, and data management, to new forms of interactive presentations and 3D printing solutions. Interdisciplinary approaches for analysis, classification and interpretation of cultural artefacts are particularly relevant to the event.

Specific sessions will be devoted to reports on applications, experiences and projects in this domain. Contributions are solicited (but not limited to) in the following areas:

- 2/3/4D data acquisition and processing in Cultural Heritage
- Multispectral imaging and data fusion
- Digital acquisition, representation and communication of intangible heritage
- Material acquisition analysis
- Heterogeneous data collection, integration and management
- 3D printing of cultural assets
- Shape analysis and interpretation
- Similarity and search of digital artefacts
- Visualization and Virtual Museums
- Multi-modal and interactive environments and applications for Cultural Heritage
- Spatial and mobile augmentation of physical collections with digital presentations
- Semantic-aware representation of digital artefacts (metadata, classification schemes, annotation)
- Digital libraries and archiving of 3D documents
- Standards and documentation
- Serious games in Cultural Heritage
- Storytelling and design of heritage communications
- Tools for education and training in Cultural Heritage
- Experiences and projects in Computer Graphics and CH documentation, conservation and dissemination

<http://gch2016.ge.imati.cnr.it/>



EuroMed2016 - An ongoing success story in Nicosia, Cyprus

THE CONFERENCE: The biannual International Euro-Mediterranean Conference on Cultural Heritage started ten years ago in Nicosia Cyprus, where it returns this year from 31st of October to 5th of November 2016 to be hosted at Filoxenia Conference Centre. EuroMed2016 (<http://www.euromed2016.eu/>) is supported by national and international institutions, organizations and authorities such as the European Commission, UNESCO, ISPRS, CIPA, ICOMOS, ICOM, Interpol, Europeana, Getty Foundation etc. and has already become a milestone in the field of Cultural Heritage documentation and preservation.

WHO'S INVOLVED: Eminent experts, policy makers, stakeholders and delegates from the five continents and more than seventy countries of the world will come together during EuroMed2016, exchange know-how and experiences as well as the current and future worldwide developments in the field of Cultural Heritage.

THE ONGOING SUCCESS: The success story of EuroMed2016 has already started with the submission of 502 papers with 2.668 authors from 71 countries of the world. The submissions were sent from top universities, research centers, leading companies and key professionals and experts, as well as individual scholars. The success story will be continued in Nicosia, Cyprus with an extensive agenda at the disposal of the participants.

THE AGENDA: The agenda of this unique conference will include excellent both oral and poster **presentations** by professionals of multiple disciplines working in the field, in addition to the **workshops** and **exhibitions** from the academic and industrial sector. Cultural Heritage **Protection, Restoration, Preservation** and **e-Documentation, Monitoring, Research** and **Innovative Developments** as well as their impact on EU policies, legislation and guidelines are only some of the topics to be discussed at the conference. Especially for the issue of **destruction and looting** of Cultural Heritage assets, there will be a special panel organized with the participation of distinguished personalities and representatives from the domain of science, industry and politics, who have significant experience in the field of Cultural Heritage management and protection, as well as in international activities, agreements and cooperation.

ITN-DCH in EuroMed2016: The participation of the ITN-DCH fellows in EuroMed2016 is expected to be rather active. ESR12 Vasiliki Nikolakopoulou, ER2 Eirini Papageorgiou and ER3 Georgios Leventis are members of the Organizing Committee, while together with ESR7 Matevz Domajnko and ESR9 Marleen de Kramer have already participated in the paper review as members of the **International Scientific Committee (ISC)**. Also the opportunity is provided for the fellows to be conference sessions' chairs/panel moderators. Moreover, on November the 2nd all the fellows will participate in the **in situ presentation of the Asinou case study**, by demonstrating the work they have done and/or the expertise they can provide, as well as the expertise they have obtained as individual professionals and researchers through the e-documentation of this UNESCO's World Heritage monument, in front of a scientific audience, comprised of prominent stakeholders, researchers and professionals (Outreach to all the EuroMed2016 participants).

We are looking forward to welcome you all to EuroMed2016!

Visit:



<http://www.itn-dch.eu/>

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Credits:

Thanks to all the people that have contributed to this edition of the ITN-DCH newsletter in particular:

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