

**Interreg
Greece-Italy**

European Regional Development Fund



EUROPEAN UNION



TRITON SUMMER SCHOOL 2019

24th-25th-26th September
Patras / Greece

1st-2nd-3rd October
Bari / Italy

www.interregtriton.eu

International Summer School "Sustainable management of coastal heritage and actions to mitigate coastal erosion"

The Triton project Summer School is a high-level cross-border course, aimed at improving the skills of public administration staff and technicians involved in coastal management and mitigation actions to erosive phenomena.

Target

The initiative is addressed to public officials, GIS technicians and operators, scholars and experts in the sector, with the twofold objective of expanding skills and exchanging transversal experiences at technical level (geological, engineering, landscape, administrative).

The participation in the Summer School is for free. 16 students (8 Italians and 8 Greeks), selected through a call for expressions of interest (more info on www.interregtriton.eu), will benefit of travel and accommodation costs covering a maximum of 700 euros each.

The deadline for the application is CET 12:00 a.m., September 12, 2019.

Structure

The Summer School is articulated in six days divided in two modules: one to be held in Western Greece and one in Puglia.

a) The Western Greece module includes 2 days of lessons at the Museum of Science and Technology of University of Patras and a study visit to the pilot observatory area of the gulf of Patras (which is affected by relevant erosion phenomena), respectively on September 24, 25 and 26, 2019.

b) The Puglia module includes 3 days of lessons in Bari on October 1, 2 and 3 and a study visit at the Bari pilot case, on October 1.

Contents

- Technical and geological aspects of coastal erosion: impact analysis
- Outline of the territorial marketing of coasts and socio-economic-environmental impacts;
- Integrated management of coasts between GIS and SID (Maritime State Property Information System) and ICT planning and management tools;
- Use of software for integrated WEB GIS coastal planning;
- The EUSAIR strategy (Ionian Adriatic Euroregion) focused to the sustainable use of coasts;
- Key performance indicators (KPI) for coastal management planning in order to prevent the corrosive phenomenon;
- Analysis of the Bolkestein Directive and application effects between Puglia and Western Greece;
- Erosion and coastal submersion forecast scenario models;
- Use of GIS spatial planning tools to support decision-making systems and administrative policy guidelines (DSS).
- Good practices for contrasting coastal erosion, with study visits.

Lessons will be held in English and will include the elaboration of a project work.

Professor Nicolò Carnimeo (University of Bari) is the scientific manager of the course on behalf of Regione Puglia / ARTI. Among the teachers there will be the representatives of the Triton project partners (University of Patras, Puglia Region, Euro-Mediterranean Center on Climate Change-CMCC, Region of Western Greece, Network of European cities for sustainable development)

Teachers

Technical / engineering / landscape / scientific field concerning coastal erosion

1. **Giuseppe Roberto Tomasicchio** (Wave action and response of beaches, with some applications for the Apulian coastline)
2. **Simona Bramato** (Morphological evolution, management tools and GIS)
3. **Nikos Depountis** (Good geotechnical practices for contrasting coastal erosion)
4. **K. Nikolakopoulos** (Good remote sensing practices for contrasting coastal erosion)
5. **D. Christodoulou** (Good marine practices for contrasting coastal erosion)
6. **E. Fakiris** (Technical and geological aspects and monitoring of coastal erosion)
7. **G. Papatheodorou** (Good marine practices for contrasting coastal erosion)
8. **Elisa Furlan** (Technical and geological aspects)
9. **Silvia Torresan** (Technical and geological aspects)

Legal framework

1. **Lara Marchetta** (State property management, Eusair strategy, position paper for the Adriatic Ionian strategy)
2. **Giuseppe Delle Foglie** (Comparison between Greece and Italy and a proposal based on the role of coastal zone management)



PROGRAMME

24th September

Museum of Science and Technology of University of Patras

9.30-13.30

Welcome speech from Dr. N. Sabatakis
Project manager on behalf of UoP

Elias Fakiris
Michela Cariglia
Coastal erosion and effects state of art legislation
Giuseppe delle Foglie
EUSAIR Strategy

14.30 - 16.30

Lara Marchetta
Comparison between Greece and Italy and proposal based on the coastal zone management role

25th September

Museum of Science and Technology of University of Patras

9.30-13.30

Lara Marchetta and Giuseppe delle Foglie
Coastal zone management role and EUSAIR Strategy

Elias Fakiris
Technical and geological aspects of coastal erosion: impact analysis

14.30 - 16.30

Lara Marchetta and Giuseppe Delle Foglie
Workshop > EUSAIR strategy and coastal zone management

26th September

Patras Gulf

8.30- 16.30

Training day in the gulf of Patras in three groups
(08:30-11:00, 11:15-13:45, 14:00-16:30)

G. Papatheodorou, K. Nikolakopoulos, E. Fakiris, D. Christodoulou and N. Depountis
Good practices for contrasting coastal erosion study visits

N. Depountis and K. Nikolakopoulos
Geotechnical, remote sensing and shoreline survey

1st October

Fondazione Puglia, Bari

9.00-13.30

TRITON PROJECT WORKSHOP

Coastal planning
In Puglia and Greece

TRAVEL + STUDY VISIT

Focus on the
S. Girolamo Fesca
Project

2nd October

Fondazione Puglia, Bari

9.30-13.30

Nicolò Carnimeo - Scientific manager of the Summer School - University of Bari

Michela Cariglia - ARTI Blue economy expert
Coastal Management as opportunity for sustainable development

Silvia Torresan - CMCC
Tools and methods for assessing coastal vulnerability to climate change

Elisa Furlan - CMCC
Tools and methods for assessing coastal vulnerability to climate change

3rd October

Fondazione Puglia, Bari

9.30-13.30

Nicolò Carnimeo - Scientific manager of the Summer School - University of Bari

Simona Bramato - Civil Engineer specialized in maritime engineering
Morphological evolution of mixed and gravel beaches. Analyses of interaction between coastal geology and marine/atmospheric processes and principal indicators of coastal erosions. Natural recovery of the Mediterranean Carchuna Beach in Spain as a case of study to be applied to the Adriatic and Ionian Region;

14.30-16.30

Giuseppe Tomasicchio
University of Salento
The Beach, some thoughts and a case study in Bari

14.30-16.30

Elias Fakiris - University of Patras
Technical and geological aspects of the coastal erosion: impact analysis

14.30-16.30

Simona Bramato - Civil Engineer specialized in maritime engineering
Global management of a complete database comprises wave, wind, atmospheric pressure, meteorological and astronomic tide, water inflow, turbidity salinity and other relevant quality water parameters, developed in MATLAB for the monitoring of the Guadalquivir estuary process and post processing analysis as a tool to support decision-making system and administrative policy guidelines to be applied for a prosperous and integrated Adriatic and Ionian Region

Teachers



GIUSEPPE ROBERTO TOMASICCHIO

Professor of Hydraulic Structures and Coastal Engineering at the University of Salento, author of a large number of scientific papers, he is member of High Council for Public Works. His main recent research topics are water wave propagation and longshore sediment transport. He has contributed to the design of the master plans of several ports, like Savelletri, Margherita di Savoia and Mola di Bari. He designed the marina at Polignano a Mare. For the Bari Municipality he joined the development of relevant projects, such as the feasibility analysis of the remediation of the Torre Quetta beach severely polluted by asbestos, the waterfront redevelopment of the coast of San Girolamo and Fesca. He also contributed to the feasibility studies of the erosion mitigation works for the coast of Ugento (Lecce) and Torre Canne (Brindisi).



MICHELA CARIGLIA

Blue Economy Expert. Master Degree in European and International project management, specialized in Blue Transportation and Green Energy, is Contract Professor in Rijeka University. Actually, she is President of Sea-Shell Farm Consortium, an aquaculture company established in Apulia Region, which is involved in Blue economy from hatchery to circular economy. She is the first Italian business woman involved in sea-house-boat market. National Counsellor of Italian Association of Aquaculture (API).



SIMONA BRAMATO

Civil Engineer specialized in maritime engineering, hydraulics and hydrodynamics. Currently is responsible of the Technical Office within the Municipality of Specchia (Lecce). She was responsible for the urban and environmental planning, private building, and maritime domain sector of the coastal Municipalities of Tiggiano, Ugento and Tricase (Lecce), which consist of rocky and sandy coastlines. She was a researcher in Coastal Engineering at the University of Granada in Spain where she also earned a Masters in Environmental Hydraulic Engineering and a PhD in Maritime Engineering. She has several publications and is an expert in the laboratory generation of wave motion through the use of scientific equipment and field measurements of wave propagation in Atlantic and Mediterranean coastlines.



MARCO BROCCA

Lawyer, PhD in Environmental and Resource Management, is an associate professor of Administrative Law at the University of Salento qualified as full professor of Administrative Law. At the University of Salento is professor of Urban Planning Law, Cultural Heritage, Landscape and Environmental Law. He has several publications on the themes related to the Environment, Landscape, Cultural Heritage, Urban Planning, Administrative Management.



LARA MARCHETTA

Lawyer, specialized in Navigation Law, also holds the qualification of Transport Manager with a master's degree from the Polytechnic of Bari. In the Higher technical institutes and the University of Bari (as an expert on the subject of the Law of navigation), she taught respectively Law of the sea and Aeronautical Law.



GIUSEPPE DELLE FOGLIE

Lawyer, specialized in Navigation and Transport Law, Coastal Planning and Maritime Legislation, State Property and concessions, he is a lecturer at the chair of Navigation and Transport Law at the University of Bari-Ionian Department. He was a member of the temporary group of professionals that dealt with the drafting of the Moorings Plan and the definition of the guidelines for the remodeling of state property concessions for the Municipality of Giovinazzo (Bari), as well as the study group on the Municipal Coastal Plan for the C.L.A.A.I. Taranto. He has several publications on the subject of Navigation Law and Transport. Deals with Sustainable Mobility.



SILVIA TORRESAN

She is senior scientist in climate risk, impact and vulnerability assessment and co-director of the research division 'Risk assessment and adaptation strategies' at the CMCC. PhD in Science and Management of Climate Change, she has more than 10 years of experience in the development and application of methodologies for the assessment of environmental impacts and risks related to climate change and anthropogenic hazards in coastal and marine areas, river basins, groundwater and related ecosystems. She is author/co-author of more than 25 peer-reviewed publications in volumes and scientific journals, with Scopus H-index: 10, and G-Scholar H-index: 14, respectively.



ELISA FURLAN

She is junior scientist in climate change risk assessment and adaptation planning at the CMCC. Ph.D. in Environmental Science, her research focuses on the design and application of multidisciplinary risk assessment methodologies for the evaluation of interactions among different climate-driven in combination with local/global anthropogenic factors affecting marine and coastal areas. With a M.Sc. degree in Environmental planning and policies, she has more than 15 years of experience in the development and implementation of Geographic Information Systems, integrating multi-criteria decision analysis methodologies for the assessment and management of environmental issues.

Teachers



NICOLÒ GIOVANNI CARNIMEO

Lawyer, he is aggregate Professor of Uniba at the Ionian Department in "Mediterranean Legal and Economic Systems: society, environment, cultures". Responsible for studies and scientific research such as the R.e.a.d.y project. Med Fish (Requirement of Employment and Diversification for Youth in the Mediterranean Fisheries Sector) implemented within the ENPI CBC Mediterranean Sea Basin Program and the project "Small scale fisheries multi-functionality and regulatory framework survey" within the Fishinmed project (Project funded by ENPI CBC Mediterranean Sea Basin Program - Measure 1.2 - Ref. No. IB / 1.2 / 441). He is the Scientific Coordinator for ARTI - Puglia Region of the project "BOOSTing the innovation potential of the triple helix of the Adriatic-Ionian traditional and emerging BLUE growth sectors clusters through an open source / knowledge sharing and community based approach - BlueBoost", proposed by the Croatian Chamber of Economy , Zadar County Chamber, Croatia. He has produced several scientific publications on the Law and Economy of the Sea.



NIKOLAOS DEPOUNTIS

Nikolaos Depountis is assistant Professor in the Department of Geology, University of Patras (Greece). He holds a degree in geology (UoP), a Master's degree in Applied Environmental Geology (UWCC) and a doctorate in Geoenvironmental Engineering (UWCC). He has also carried out a post-doc research in the field of geotechnical centrifuge modeling in Lisbon (LNEC). He has worked in many research institutes in Europe (Cardiff, Dundee and Lisbon) and has published a book on the use of centrifuge modelling for geotechnical applications. His current research interests include engineering geology, soil and rock mechanics, geotechnical investigations for infrastructural works, landslide monitoring, mitigation and planning, coastal and inland erosion investigations. He has produced 35 publications in peer-review journals and conferences.



KONSTANTINOS NIKOLAKOPOULOS

Konstantinos Nikolakopoulos is associate Professor in the Department of Geology, University of Patras (Greece). He holds a degree in Geology and a doctorate in Remote Sensing. He carried out Post Doc research in the field of hyperspectral data processing. His areas of specialization are remote sensing and geographic information systems for geological applications. Since 2012 he is President of the Geological Interest Group Special Applications of the European Association of Remote Sensing Laboratories: (<http://www.earsel.org/SIG/Geology/index.php>). His main research interests include: geological mapping, engineering geology, risk analysis, 3D mapping and coastal area mapping. He has produced over 100 publications (108 on Scopus) in peer-review journals and conferences.



ELIAS FAKIRIS

Elias Fakiris is a marine geo-scientist with experience in remote sensing, passive and active acoustics, habitat mapping, geophysics, assimilation of expert data, machine learning and hydrodynamic modeling. He has participated in several research programs, including 11 funded by the EU. He has written 20 articles in SCI journals (of which 6 as first author) and 39 in conferences (of which 15 as first author). It has implemented computational tools to analyze sonar and video images, classify regions of interest and detect artificial targets (debris - waste). These tools are now used for seabed mapping in more than four research institutes worldwide, such as the Rutgers University, USA; the University of Santa Catarina (Brazil); the New Hampshire Univ., CCOM, USA; and the Bath Univ, United Kingdom.



DIMITRIS CHRISTODOULOU

He is a marine geologist with a masters in Environmental Oceanography. He currently works as an associate researcher at the Marine Geology and Physical Oceanography Laboratory, Department of Geology, University of Patras, (Greece). His research interests focus among other things on marine geological processes, in particular marine geohazard, seabed fluid flows, methane flows and origin from the marine and terrestrial environment, processes and impacts of hypoxic / anoxic environments, investigations of marine remote sensing in underwater archaeological sites, sea bottoms and cartography and marine litter habitats. He has over 19 years of experience in research projects such as the collection of geophysical data with the use of echo sounders. In the last 3 years he has taught Environmental Oceanography at the Department of Geology of the University of Patras. He has several publications in peer-reviewed journals.



GEORGE PAPATHEODOROU

George Papatheodorou is full Professor of "Environmental and geological oceanography" in the Department of Geology and Dean of the Faculty of Natural Sciences of the University of Patras (Greece). He is the director of the marine geology and physical oceanography laboratory. His research interests are: marine geology, submarine active faults, flows of seabed fluids, underwater gravitational mass movement processes, marine pollution of important submerged archaeological sites in the eastern Mediterranean. He has been the coordinator of numerous national and international research projects. He has produced more than 100 publications in international reference journals.

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TRITON
SUMMER SCHOOL

PRACTICAL INFORMATION

How to reach PATRAS (Greece)

- Araxos Patras Airport - www.araxos-airport.gr
- Athens International Airport - www.aia.gr
- Patras Ferry Boat

Connections

Ktel Patras Bus Station
Radio Taxi 18300 - www.taxipatras.gr

How to reach BARI (Italy)

- "Karol Wojtyla" Bari Airport - www.aeroportidipuglia.it
- Bari Port

Connections

Radio Taxi +39 080 554 33 33

To/from the airport:

Urban service Bus No. 16 - www.amtab.it
Train - www.ferrovienordbarese.it

To/from the port:

Urban service Buses No. 53 and 13 - www.amtab.it

Summer School Secretariat

segreteria@spazioeventi.org
+39 080 5347030

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