



Training Of Youth for Preparedness Against Marine Induced Hazards

TROYO Learning Teaching and Training Activity

25-30 August, 2016, Marmaris, TURKEY

Agenda

Date and location

25-30 August, 2016; Marmaris Municipality, Cultural and Art Center, Marmaris

Organizers

Prof. Dr. Ahmet Cevdet Yalçiner (yalciner@metu.edu.tr)

Ms. Pelin Ögünç (pelinoqunc@ecco.com.tr)

Mr. Cengizhan Ceylan (cengizhanceylan@ecco.com.tr)

Ms. Nuray Cimen (snuray@metu.edu.tr)

Participants

Project coordinator, Project beneficiaries, Scientists in Tasks, Youth Workers, Young trainers, students

Goal of the meeting

- LTT Activity C1
 - Comments and contributions of the partners to all training materials
 - Review of training schedule
 - Description of the training program, training of young trainers with outputs of the project
 - Implementation of the training program to trainees to improve the level of key competences and skills on marine induced hazards
 - Discussion of the status of project activities and determination of the work plan and timeline
 - Further discussions on detailed implementation plan to transfer training materials into simplified scientific training materials;
 - Road map for Multiplier events (E1); LTT Activities (C2 and C3), recommendations from the collaborators for Multiplier events to foster the quality of the training program
 - Details of C1 Marmaris activities (schedule, content of each course, site visits and social program)
 - Networking between trainees for future activities

25 August, 2016

09:00-10:00 Opening Session

10:00-11:00 LECTURE: Oceans, Marine Environment and Atmosphere interactions

11:00-11:20 BREAK

11:20-12:20 LECTURE: Oceans, Marine Environment and Atmosphere interactions

12:20-14:00 LUNCH

14:00-15:00 LECTURE: Why Learning Disasters, Concept and Disaster Terminology

15:00-15:20 BREAK

15:20-17:00 LECTURE: Facilitating Disaster Risk Reduction

17:00-19:00 FREE TIME

19:00-20:30 DINNER

26 August, 2016

09:00-10:00 LECTURE: Ocean Processes,

10:00-11:00 LECTURE: Marine Geohazards

11:00-11:20 BREAK

11:20-12:20 LECTURE: Risk Associated to Marine Hazards and Climate Change

12:20-14:00 LUNCH

14:00-15:00 LECTURE: Tsunamis

15:00-15:20 BREAK

15:20-17:00 LECTURE: Consequences of Tsunamis on Coastal Communities and Coastal-Marine Structures

17:00-19:00 FREE TIME

19:00-20:30 DINNER

27 August, 2016

09:00-10:00 LECTURE: Seiche, Swell, Tide, Freak Waves, Cyclones

10:00-12:20 TECHNICAL TRIP TO COASTAL AND MARINE STRUCTURES

12:20-14:00 LUNCH

14:00-15:00 LECTURE: Preparedness, (Planning, Civil Protection, Drills, Mitigation, Resilience)

15:00-15:20 BREAK

15:20-17:00 LECTURE: Raising awareness (Risk perception, Capacity Building, Education of Youth, Disaster Preparedness in Schools)

17:00-19:00 FREE TIME

19:00-20:30 DINNER

28 August, 2016

09:00-10:00 Opening Session

10:00-11:00 LECTURE: Monitoring of marine extreme events, Data collection, forecasting and detection

11:00-11:20 BREAK

11:20-12:20 LECTURE: Early warning systems, Dissemination of warning messages,

12:20-14:00 LUNCH

14:00-15:00 LECTURE: Emergency Management

15:00-15:20 BREAK

15:20-17:00 LECTURE: Marine structures: functions, design and construction

17:00-19:00 FREE TIME

19:00-20:30 DINNER

29 August, 2016

09:00-10:00 LECTURE: Generation, propagation and coastal amplification of tsunamis and meteotsunamis

10:00-11:00 LECTURE: Case studies of world tsunamis; 1755, 2004, 2011 events

11:00-12:20 BREAK

11:20-12:20 LECTURE: Case studies of tsunamis in Marginal seas, Mediterranean examples: 365, 1956, 1999 events

12:20-14:00 LUNCH

14:00-15:00 LECTURE: Case studies of world tsunamis; 1755, 2004, 2011 events

15:00-15:20 BREAK

15:20-17:00 LECTURE: Consequences of tsunamis; communities and coastal-marine structures

17:00-19:00 FREE TIME

19:00-20:30 DINNER

30 August, 2016

09:00-10:00 LECTURE: Case Studies: assessment and mitigation of storms and storm surges, swell, seiche, resonance, tropical cyclones

10:00-11:00 LECTURE: Safety measures; structural and social preparedness and resilience

11:00-11:20 BREAK

11:20-12:20 LECTURE: Review of lectures and discussions by students

12:20-14:00 LUNCH

14:00-17:00 EXAM

17:00-19:00 FREE TIME

19:00-20:30 DINNER

DAY	24.08.2016 Wed	25.08.2016 Thu	26.08.2016 Fri	27.08.2016 Sat	28.08.2016 Sun	29.08.2016 Mon	30.08.2016 Tue	31.08.2016 Wed	01.09.2016 Thu	02.09.2016 Fri	03.09.2016 Sat	DAY					
Hour												Hour					
08.00-09.00	A R R I V A L <3	WAKE UP! AND BREAKFAST	WAKE UP! AND BREAKFAST	WAKE UP! AND BREAKFAST	WAKE UP! AND BREAKFAST	WAKE UP! AND BREAKFAST	WAKE UP! AND BREAKFAST	WAKE UP! AND BREAKFAST	WAKE UP! AND BREAKFAST	WAKE UP! AND BREAKFAST	WAKE UP! AND BREAKFAST	08.00-09.00					
09.00-10.00		OPENNING SESSION	LECTURE	LECTURE	LECTURE	LECTURE	LECTURE	SOCIAL ACTIVITY	SOCIAL ACTIVITY	SOCIAL ACTIVITY	D E P A R T U R E :(	09.00-10.00					
10.00-11.00		LECTURE	LECTURE	TECHNICAL TRIP	LECTURE	LECTURE	LECTURE					10.00-11.00					
11.00-11.20		COFFE BREAK	COFFE BREAK	TECHNICAL TRIP	COFFE BREAK	COFFE BREAK	COFFE BREAK					11.00-12.00					
11.20-12.20		LECTURE	LECTURE	TECHNICAL TRIP	LECTURE	LECTURE	LECTURE	LUNCH	LUNCH	LUNCH		12.00-13.00					
12.20-14.00		LUNCH	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH					13.00-14.00					
14.00-15.00		LECTURE	LECTURE	LECTURE	LECTURE	LECTURE	EXAM	SOCIAL ACTIVITY	SOCIAL ACTIVITY	SOCIAL ACTIVITY		14.00-15.00					
15.00-15.20		COFFE BREAK	COFFE BREAK	COFFE BREAK	COFFE BREAK	COFFE BREAK						15.00-16.00					
15.20-17.00		LECTURE	LECTURE	LECTURE	LECTURE	LECTURE						16.00-17.00					
17.00-18.00		FREE TIME						FREE TIME				17.00-18.00					
18.00-19.00		FREE TIME										18.00-19.00					
19.00-20.00	DINNER	FREE TIME										19.00-20.00					
20.00-21.00	G2K GAMES	DINNER	DINNER	DINNER	DINNER	DINNER	DINNER	DINNER	DINNER	DINNER		20.00-21.00					
21.00-22.00								PARTY	PARTY	PARTY		21.00-22.00					
22.00-∞	PARTY	PARTY	PARTY	PARTY	PARTY	PARTY	PARTY					PARTY	PARTY	22.00-∞			

Lecturer

Name: Ahmet Cevdet Yalçiner

Background: Prof. Dr.

Specialization: Coastal and Ocean Engineer

Contacts: yalciner@metu.edu.tr

Web site: <http://users.metu.edu.tr/yalciner>

Course Description

Title: Coastbusters: Roll me over on the Harbour

Fields of activity: Learning Event – Technological Course

Examination type: Oral Exam

Number of ECTS credits issued: 1.0

Learning Goals and Objective:

- To take account of the ethical, social, cultural, environmental and economic aspects of the profession related to coastal environment with lectures and enjoyable training activities.
- To transfer and share the experience and accumulation of knowledge for the benefit of humanity.
- To provide an enjoyable education in the areas related to marine environment and coastal utilization.
- Considering international standard and dimension, to conduct training according to the needs of human and conservation of nature.
- To share and disseminate expert knowledge for understanding and solution of marine problems.

Syllabus

Topic	Marine Extreme Events and Mitigation
Name of activity	Introduction
Number of working hours	2 hours
Type of activity	Lecture
Lecturer	Koray Kaan Özdemir and Ahmet Cevdet Yalçiner
Short summary of content	Oceans, Marine Environment and Atmosphere interactions
Bibliography	Yalciner A. C. (2016), Course materials of "Marine Hazards and Tsunamis", METU, Department of Civil Engineering, Coastal and Ocean Engineering Division, Ankara, Turkey. Yalciner, A.C., Karakus, H., Ozer, C., Ozyurt, G., (2005), "Short Courses on Understanding the Generation, Propagation, Near and Far-Field Impacts of TSUNAMIS and Planning Strategies to Prepare for Future Events" Course Notes prepared by METU Civil Eng. Dept. Ocean Eng. Res. Center Ankara, Turkey, for the Short Courses in the University of Teknologi Malaysia (UTM) held in Kuala Lumpur on July 11-12, 2005, and in Technology Development Division, Astronautic Technology (M) Sdn. Bhd (ATSB) Malaysia held in Kuala Lumpur on April 24-May 06, 2006, and in UNESCO Training Course I on Tsunami Numerical Modeling held in Kuala Lumpur on May 08-19 2006 and in Belgium Oostende on June 06-16, 2006. http://unesdoc.unesco.org/images/0022/002289/228963e.pdf, "UNESCO-TEACHERS-GUIDE-BOOK"
Expected effect	The students will learn about oceans and atmosphere interactions, e.g., exchange of energy and momentum and associated phenomena.

Topic	Marine Extreme Events and Mitigation
Name of activity	Natural Disasters
Number of working hours	2 hours
Type of activity	Lecture
Lecturer	Ahmet Cevdet Yalçiner, Koray Kaan Özdemir, Mustafa Esen
Short summary of content	Why Learning Disasters, Concept and Disaster Terminology Facilitating Disaster Risk Reduction
Bibliography	Yalciner A. C. (2016), Course materials of "Marine Hazards and Tsunamis", METU, Department of Civil Engineering, Coastal and Ocean Engineering Division, Ankara, Turkey. Yalciner, A.C., Karakus, H., Ozer, C., Ozyurt, G., (2005), "Short Courses on Understanding the Generation, Propagation, Near and Far-Field Impacts of TSUNAMIS and Planning Strategies to Prepare for Future Events" Course Notes prepared by METU Civil Eng. Dept. Ocean Eng. Res. Center Ankara, Turkey, for the Short Courses in the University of Teknologi Malaysia (UTM) held in Kuala Lumpur on July 11-12, 2005, and in Technology Development Division, Astronautic Technology (M) Sdn. Bhd (ATSB) Malaysia held in Kuala Lumpur on April 24-May 06, 2006, and in UNESCO Training Course I on Tsunami Numerical Modeling held in Kuala Lumpur on May 08-19 2006 and in Belgium Oostende on June 06-16, 2006. http://unesdoc.unesco.org/images/0022/002289/228963e.pdf, "UNESCO-TEACHERS-GUIDE-BOOK"
Expected effect	The students are introduced to natural disasters, e.g., concepts and disaster terminology and also they will learn about how disaster assessment and risk reduction can be facilitated.

Topic	Marine Extreme Events and Mitigation
Name of activity	Introduction to Marine Induced Risks
Number of working hours	2 hours
Type of activity	Lecture
Lecturer	Ayşen Ergin and Cüneyt Baykal
Short summary of content	Ocean Processes -How Oceans behave - Wave Behavior in Shallow Water Marine Hazards General Review -Tsunamis -Flood -Storm and Storm Surge -Seiche, Swell, Tide, Freak Waves -Flood -Volcanic Eruption -Hurricane, Cyclone, Tayphoon -Drought -Earthquakes Risk Associated to Marine Hazards Climate Change and Marine Hazards
Bibliography	Yalciner A. C. (2016), Course materials of "Marine Hazards and Tsunamis", METU, Department of Civil Engineering, Coastal and Ocean Engineering Division, Ankara, Turkey. Yalciner, A.C., Karakus, H., Ozer, C., Ozyurt, G., (2005), "Short Courses on Understanding the Generation, Propagation, Near and Far-Field Impacts of TSUNAMIS and Planning Strategies to Prepare for Future Events" Course Notes prepared by METU Civil Eng. Dept. Ocean Eng. Res. Center Ankara, Turkey, for the Short Courses in the University of Teknologi Malaysia (UTM) held in Kuala Lumpur on July 11-12, 2005, and in Technology Development Division, Astronautic Technology (M) Sdn. Bhd (ATSB) Malaysia held in Kuala Lumpur on April 24-May 06, 2006, and in UNESCO Training Course I on Tsunami Numerical Modeling held in Kuala Lumpur on May 08-19 2006 and in Belgium Oostende on June 06-16, 2006. http://unesdoc.unesco.org/images/0022/002289/228963e.pdf, "UNESCO-

	TEACHERS-GUIDE-BOOK"
Expected effect	The students will be able to distinguish different kind of marine hazard and also its relation with climate change.

Topic	Marine Extreme Events and Mitigation
Name of activity	Tsunamis
Number of working hours	2 hours
Type of activity	Lecture
Lecturer	Koray Kaan Özdemir, Ceren Özer, Ahmet Cevdet Yalçiner
Short summary of content	Generation and Behaviour of Tsunamis (consider also meteotsunamis) Consequences of Tsunamis on Communities and Coastal-Marine Structures World Tsunamis: In Oceans and Marginal Seas, Case studies (1755, 2011, 2004, 1956, 365, 1999)
Bibliography	Yalciner A. C. (2016), Course materials of "Marine Hazards and Tsunamis", METU, Department of Civil Engineering, Coastal and Ocean Engineering Division, Ankara, Turkey. Yalciner, A.C., Karakus, H., Ozer, C., Ozyurt, G., (2005), "Short Courses on Understanding the Generation, Propagation, Near and Far-Field Impacts of TSUNAMIS and Planning Strategies to Prepare for Future Events" Course Notes prepared by METU Civil Eng. Dept. Ocean Eng. Res. Center Ankara, Turkey, for the Short Courses in the University of Teknologi Malaysia (UTM) held in Kuala Lumpur on July 11-12, 2005, and in Technology Development Division, Astronautic Technology (M) Sdn. Bhd (ATSB) Malaysia held in Kuala Lumpur on April 24-May 06, 2006, and in UNESCO Training Course I on Tsunami Numerical Modeling held in Kuala Lumpur on May 08-19 2006 and in Belgium Oostende on June 06-16, 2006. http://unesdoc.unesco.org/images/0022/002289/228963e.pdf, "UNESCO-TEACHERS-GUIDE-BOOK"
Expected effect	The students will learn about generation and characteristics of tsunami. In addition, they will gain information about some of the world significant tsunamis.

Topic	Marine Hazards and Tsunamis
Name of activity	Storm Surge
Number of working hours	3 hours
Type of activity	Lecture
Lecturer	Işıkhan Güler and Cüneyt Baykal
Short summary of content	Generation and Behavior of Storm Surge Consequences of Storm Surges on Communities and Coastal-Marine Structures World Storms: In Oceans and Marginal Seas, Case Studies (Gonu, Katrina, Sardinia 2013)
Bibliography	Yalciner A. C. (2016), Course materials of "Marine Hazards and Tsunamis", METU, Department of Civil Engineering, Coastal and Ocean Engineering Division, Ankara, Turkey. Yalciner, A.C., Karakus, H., Ozer, C., Ozyurt, G., (2005), "Short Courses on Understanding the Generation, Propagation, Near and Far-Field Impacts of TSUNAMIS and Planning Strategies to Prepare for Future Events" Course Notes prepared by METU Civil Eng. Dept. Ocean Eng. Res. Center Ankara, Turkey, for the Short Courses in the University of Teknologi Malaysia (UTM) held in Kuala Lumpur on July 11-12, 2005, and in Technology Development Division, Astronautic Technology (M) Sdn. Bhd (ATSB) Malaysia held in Kuala Lumpur on April 24-May 06, 2006, and in UNESCO Training Course I on Tsunami Numerical Modeling held in Kuala Lumpur on May 08-19 2006 and in Belgium Oostende on June 06-16, 2006. http://unesdoc.unesco.org/images/0022/002289/228963e.pdf, "UNESCO-TEACHERS-GUIDE-BOOK"
Expected effect	The students will learn about generation and characteristics of storm. In addition, they will gain information about some of the world significant storms.

Topic	Marine Extreme Events and Mitigation
Name of activity	Seiche, Swell, Tide, Freak Waves
Number of working hours	1.5 hours
Type of activity	Lecture
Lecturer	Ahmet Cevdet Yalçiner

Short summary of content	Generation Mechanisms, Propagation, Shoaling, Run-up and Inundation Consequences of Seiche, Swell, Tide, Freak Waves on Coastal and Marine Structures and Communities Examples
Bibliography	Yalciner A. C. (2016), Course materials of "Marine Hazards and Tsunamis", METU, Department of Civil Engineering, Coastal and Ocean Engineering Division, Ankara, Turkey. Yalciner, A.C., Karakus, H., Ozer, C., Ozyurt, G., (2005), "Short Courses on Understanding the Generation, Propagation, Near and Far-Field Impacts of TSUNAMIS and Planning Strategies to Prepare for Future Events" Course Notes prepared by METU Civil Eng. Dept. Ocean Eng. Res. Center Ankara, Turkey, for the Short Courses in the University of Teknologi Malaysia (UTM) held in Kuala Lumpur on July 11-12, 2005, and in Technology Development Division, Astronautic Technology (M) Sdn. Bhd (ATSB) Malaysia held in Kuala Lumpur on April 24-May 06, 2006, and in UNESCO Training Course I on Tsunami Numerical Modeling held in Kuala Lumpur on May 08-19 2006 and in Belgium Oostende on June 06-16, 2006. http://unesdoc.unesco.org/images/0022/002289/228963e.pdf, "UNESCO-TEACHERS-GUIDE-BOOK"
Expected effect	The students will gain experience and knowledge on seiche, swell, tide and their relation to marine structures with examples.

Topic	Marine Extreme Events and Mitigation
Name of activity	Disaster Risk Management
Number of working hours	4 hours
Type of activity	Lecture
Lecturer	Ayşen Ergin and Ahmet Cevdet Yalçiner
Short summary of content	Preparedness -Planning -Civil Protection -Drills -Raising awareness (Risk perception, Capacity Building, Education of Youth, Disaster Preparedness in Schools) -Mitigation -Resilience

	Recovery
Bibliography	Yalciner A. C. (2016), Course materials of "Marine Hazards and Tsunamis", METU, Department of Civil Engineering, Coastal and Ocean Engineering Division, Ankara, Turkey. Yalciner, A.C., Karakus, H., Ozer, C., Ozyurt, G., (2005), "Short Courses on Understanding the Generation, Propagation, Near and Far-Field Impacts of TSUNAMIS and Planning Strategies to Prepare for Future Events" Course Notes prepared by METU Civil Eng. Dept. Ocean Eng. Res. Center Ankara, Turkey, for the Short Courses in the University of Teknologi Malaysia (UTM) held in Kuala Lumpur on July 11-12, 2005, and in Technology Development Division, Astronautic Technology (M) Sdn. Bhd (ATSB) Malaysia held in Kuala Lumpur on April 24-May 06, 2006, and in UNESCO Training Course I on Tsunami Numerical Modeling held in Kuala Lumpur on May 08-19 2006 and in Belgium Oostende on June 06-16, 2006. http://unesdoc.unesco.org/images/0022/002289/228963e.pdf, "UNESCO-TEACHERS-GUIDE-BOOK"
Expected effect	The students will learn about preparedness, mitigation, and recovery in the case of disasters.

Topic	Marine Extreme Events and Mitigation
Name of activity	Early Warning Systems
Number of working hours	1.5 hours
Type of activity	Lecture
Lecturer	Ceren Özer
Short summary of content	Monitoring of marine extreme events Data collection, forecasting and detection Early warning systems Dissemination of warning messages Civil Protection and emergency management
Bibliography	Yalciner A. C. (2016), Course materials of "Marine Hazards and Tsunamis", METU, Department of Civil Engineering, Coastal and Ocean Engineering Division, Ankara, Turkey. Yalciner, A.C., Karakus, H., Ozer, C., Ozyurt, G., (2005), "Short Courses on Understanding the Generation, Propagation, Near and Far-Field Impacts of TSUNAMIS and Planning Strategies to Prepare for Future Events" Course Notes prepared by METU Civil Eng. Dept. Ocean Eng. Res. Center Ankara, Turkey, for the Short Courses in the University of Teknologi Malaysia (UTM) held in Kuala Lumpur on July 11-12, 2005, and in Technology Development

	Division, Astronautic Technology (M) Sdn. Bhd (ATSB) Malaysia held in Kuala Lumpur on April 24-May 06, 2006, and in UNESCO Training Course I on Tsunami Numerical Modeling held in Kuala Lumpur on May 08-19 2006 and in Belgium Oostende on June 06-16, 2006. http://unesdoc.unesco.org/images/0022/002289/228963e.pdf, “UNESCO-TEACHERS-GUIDE-BOOK”
Expected effect	The students gain necessary information of monitoring, detection, warning, dissemination and emergency management.

Topic	Marine Extreme Events and Mitigation
Name of activity	Group work and presentations/discussions
Number of working hours	3 hours
Type of activity	Case Studies
Lecturer	Ayşen Ergin, Ahmet Cevdet Yalçiner, Gülizar Özyurt, Işıkhan Güler, Mustafa Esen, Ceren Özer
Short summary of content	Case studies: modeling, assessment and mitigation -Storms and storm surge -Tsunamis -Swell, seiche, resonance Social preparedness
Bibliography	Yalciner A. C. (2016), Course materials of "Marine Hazards and Tsunamis", METU, Department of Civil Engineering, Coastal and Ocean Engineering Division, Ankara, Turkey. Yalciner, A.C., Karakus, H., Ozer, C., Ozyurt, G., (2005), “Short Courses on Understanding the Generation, Propagation, Near and Far-Field Impacts of TSUNAMIS and Planning Strategies to Prepare for Future Events” Course Notes prepared by METU Civil Eng. Dept. Ocean Eng. Res. Center Ankara, Turkey, for the Short Courses in the University of Teknologi Malaysia (UTM) held in Kuala Lumpur on July 11-12, 2005, and in Technology Development Division, Astronautic Technology (M) Sdn. Bhd (ATSB) Malaysia held in Kuala Lumpur on April 24-May 06, 2006, and in UNESCO Training Course I on Tsunami Numerical Modeling held in Kuala Lumpur on May 08-19 2006 and in Belgium Oostende on June 06-16, 2006. http://unesdoc.unesco.org/images/0022/002289/228963e.pdf, “UNESCO-TEACHERS-GUIDE-BOOK”
Expected effect	The students will work in the groups on the given cases of marine extreme events and discuss the assesment procedure and develop solutions how to

	mitigate them.
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Topic	Marine Extreme Events and Mitigation
Name of activity	Technical visit to marinas and marine structures
Number of working hours	3 hours
Type of activity	Company visit
Coordinators	Ayşen Ergin, Koray Kaan Özdemir, Ahmet Cevdet Yalçiner, Gülizar Özyurt, Işıkhan Güler, Mustafa Esen, Ceren Özer
Short summary of content	Components of marinas Marina management Safety regulations against marine extreme events Marine structures: design, construction and functions
Bibliography	Yalciner A. C. (2016), Course materials of "Marine Hazards and Tsunamis", METU, Department of Civil Engineering, Coastal and Ocean Engineering Division, Ankara, Turkey. Yalciner, A.C., Karakus, H., Ozer, C., Ozyurt, G., (2005), "Short Courses on Understanding the Generation, Propagation, Near and Far-Field Impacts of TSUNAMIS and Planning Strategies to Prepare for Future Events" Course Notes prepared by METU Civil Eng. Dept. Ocean Eng. Res. Center Ankara, Turkey, for the Short Courses in the University of Teknologi Malaysia (UTM) held in Kuala Lumpur on July 11-12, 2005, and in Technology Development Division, Astronautic Technology (M) Sdn. Bhd (ATSB) Malaysia held in Kuala Lumpur on April 24-May 06, 2006, and in UNESCO Training Course I on Tsunami Numerical Modeling held in Kuala Lumpur on May 08-19 2006 and in Belgium Oostende on June 06-16, 2006. http://unesdoc.unesco.org/images/0022/002289/228963e.pdf, "UNESCO-TEACHERS-GUIDE-BOOK"
Expected effect	The students will visit the nearby marine and see the marina components, functions of structures, management of marina and safety precautions.

Topic	Marine Extreme Events and Mitigation
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Name of activity	Workshop on assesment and mitigation form marine extreme events
Number of working hours	4 hours
Type of activity	Workshop
Coordinators	Ayşen Ergin, Koray Kaan Özdemir, Ahmet Cevdet Yalçiner, Gülizar Özyurt, Işıkhan Güler, Mustafa Esen, Ceren Özer
Short summary of content	Components of marinas Marina management Safety regulations againmarine extreme events Marine structures: design, construction and functions
Bibliography	Yalciner A. C. (2016), Course materials of "Marine Hazards and Tsunamis", METU, Department of Civil Engineering, Coastal and Ocean Engineering Divison, Ankara, Turkey. Yalciner, A.C., Karakus, H., Ozer, C., Ozyurt, G., (2005), "Short Courses on Understanding the Generation, Propagation, Near and Far-Field Impacts of TSUNAMIS and Planning Strategies to Prepare for Future Events" Course Notes prepared by METU Civil Eng. Dept. Ocean Eng. Res. Center Ankara, Turkey, for the Short Courses in the University of Teknologi Malaysia (UTM) held in Kuala Lumpur on July 11-12, 2005, and in Technology Development Division, Astronautic Technology (M) Sdn. Bhd (ATSB) Malaysia held in Kuala Lumpur on April 24-May 06, 2006, and in UNESCO Training Course I on Tsunami Numerical Modeling held in Kuala Lumpur on May 08-19 2006 and in Belgium Oostende on June 06-16, 2006. http://unesdoc.unesco.org/images/0022/002289/228963e.pdf, "UNESCO-TEACHERS-GUIDE-BOOK"
Expected effect	The students will work on different aspects of different extreme events in small groups and present their approaches and discussions on the assesment and mtigation against the given extreme events.

Pre-materials

Name	http://astarte.ce.metu.edu.tr/best-troyo/01-YALCINER-LECTURE-SUMMARY-PART-1-BEST-TROYO-SUMMER-SCHOOL-2016-MARMARIS.pdf http://astarte.ce.metu.edu.tr/best-troyo/02-YALCINER-LECTURE-SUMMARY-PART-2-BEST-TROYO-SUMMER-SCHOOL-2016-MARMARIS.pdf http://astarte.ce.metu.edu.tr/best-troyo/03-YALCINER-LECTURE-SUMMARY-PART-3-BEST-TROYO-SUMMER-SCHOOL-2016-MARMARIS.pdf
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	MARMARIS.pdf
Topic/field	Marine Extreme Events and Mitigation-Introduction
Short description	Oceans, Marine Environment and Atmosphere interactions e.g., exchange of energy and momentum and associated phenomena

Name	http://astarte.ce.metu.edu.tr/best-troyo/01-YALCINER-LECTURE-SUMMARY-PART-1-BEST-TROYO-SUMMER-SCHOOL-2016-MARMARIS.pdf http://astarte.ce.metu.edu.tr/best-troyo/02-YALCINER-LECTURE-SUMMARY-PART-2-BEST-TROYO-SUMMER-SCHOOL-2016-MARMARIS.pdf http://astarte.ce.metu.edu.tr/best-troyo/03-YALCINER-LECTURE-SUMMARY-PART-3-BEST-TROYO-SUMMER-SCHOOL-2016-MARMARIS.pdf
Topic/field	Natural Disasters
Short description	Why Learning Disasters Concept and Disaster Terminology Facilitating Disaster Risk Reduction

Name	http://astarte.ce.metu.edu.tr/best-troyo/01-YALCINER-LECTURE-SUMMARY-PART-1-BEST-TROYO-SUMMER-SCHOOL-2016-MARMARIS.pdf http://astarte.ce.metu.edu.tr/best-troyo/02-YALCINER-LECTURE-SUMMARY-PART-2-BEST-TROYO-SUMMER-SCHOOL-2016-MARMARIS.pdf http://astarte.ce.metu.edu.tr/best-troyo/03-YALCINER-LECTURE-SUMMARY-PART-3-BEST-TROYO-SUMMER-SCHOOL-2016-MARMARIS.pdf
Topic/field	Introduction to Marine Induced Risks
Short description	Ocean Processes -How Oceans behave -Wave Behavior in Shallow Water Marine Hazards General Review -Tsunamis -Flood

	-Storm and Storm Surge -Seiche, Swell, Tide, Freak Waves -Flood -Volcanic Eruption -Hurricane, Cyclone, Tayphoon -Drought -Earthquakes Risk Associated to Marine Hazards Climate Change and Marine Hazards
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Name	http://astarte.ce.metu.edu.tr/best-troyo/01-YALCINER-LECTURE-SUMMARY-PART-1-BEST-TROYO-SUMMER-SCHOOL-2016-MARMARIS.pdf http://astarte.ce.metu.edu.tr/best-troyo/02-YALCINER-LECTURE-SUMMARY-PART-2-BEST-TROYO-SUMMER-SCHOOL-2016-MARMARIS.pdf http://astarte.ce.metu.edu.tr/best-troyo/03-YALCINER-LECTURE-SUMMARY-PART-3-BEST-TROYO-SUMMER-SCHOOL-2016-MARMARIS.pdf
Topic/field	Tsunamis
Short description	Generation and Behaviour of Tsunamis (consider also meteotsunamis) Consequences of Tsunamis on Communities and Coastal-Marine Structures World Tsunamis: In Oceans and Marginal Seas, Case studies (1755, 2011, 2004, 1956, 365, 1999)

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Topic/field	Storm Surge

Short description	Generation and Behavior of Storm Surge Consequences of Storm Surges on Communities and Coastal-Marine Structures World Storms: In Oceans and Marginal Seas, Case Studies (Gonu, Katrina, Sardinia 2013)
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Topic/field	Seiche, Swell, Tide, Freak Waves
Short description	Generation Mechanisms, Propagation, Shoaling, Run-up and Inundation Consequences of Seiche, Swell, Tide, Freak Waves on Coastal and Marine Structures and Communities Examples
Name	http://astarte.ce.metu.edu.tr/best-troyo/01-YALCINER-LECTURE-SUMMARY-PART-1-BEST-TROYO-SUMMER-SCHOOL-2016-MARMARIS.pdf http://astarte.ce.metu.edu.tr/best-troyo/02-YALCINER-LECTURE-SUMMARY-PART-2-BEST-TROYO-SUMMER-SCHOOL-2016-MARMARIS.pdf http://astarte.ce.metu.edu.tr/best-troyo/03-YALCINER-LECTURE-SUMMARY-PART-3-BEST-TROYO-SUMMER-SCHOOL-2016-MARMARIS.pdf
Topic/field	Disaster Risk Management
Short description	Preparedness -Planning -Civil Protection -Drills -Raising awareness (Risk perception, Capacity Building, Education of Youth, Disaster Preparedness in Schools) Mitigation

	Resilience Recovery
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Topic/field	Early Warning Systems
Short description	Monitoring of marine extreme events Data collection, forecasting and detection Early warning systems Dissemination of warning messages Civil Protection and emergency management

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Topic/field	Group work and presentations/discussions
Short description	Case studies: modeling, assessment and mitigation -Storms and storm surge -Tsunamis -Swell, seiche, resonance -Social preparedness

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Topic/field	Technical visit to marinas and marine structures
Short description	Components of marinas Marina management Safety regulations against marine extreme events Marine structures: design, construction and functions

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Topic/field	Workshop on assessment and mitigation from marine extreme events
Short description	Components of marinas Marina management Safety regulations against marine extreme events Marine structures: design, construction and functions

LIST OF PARTICIPANTS, TROYO Meeting 25-30 August, 2016

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