PRESENTATION AND OBJECTIVES

University of Split, Faculty of Civil Engineering, Architecture and Geodesy organizes a summer school for seven different courses in the area of civil engineering, architecture and geodesy. Each program offers a unique opportunity for students to develop the offered skills and at the same time enjoy their summer in one of the most popular tourist destinations in the Mediterranean.

The goal of STSS is to enable students from different countries and educational backgrounds an experience of multicultural and interdisciplinary studying with focus on one of the seven subjects, while actively networking with each other and lecturers.

Students who successfully complete any of these courses will be awarded 2 ECTS* credits. An assessment is based on classwork and final presentation.

The program is accredited by The Quality Enhancement Centre of University of Split.

European Credit Transfer System

INCLUDED

+ summer school tuition and study materials
+ reservations for bed and breakfast at favorable prices
+ excursions

City center   The dormitory

Faculty of Civil Engneering, Architecture and Geodesy

REGISTRATION ON

www.split-summerschool.com

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Faculty of Civil Engineering, Architecture and Geodesy
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SPLIT SUMMER SCHOOL 2016
SEPTEMBER 5-9, 2016,

TOGETHER WITH

First International Conference on Smart Data and Smart Cities
SEPTEMBER 7-9, 2016,

UNIVERSITY OF SPLIT, CROATIA

UDMS urban data management society

www.udms.net   University of Split

STRUCTURAL FIRE ENGINEERING ANALYSIS

Introduction of key steps in a fire engineering analysis:
fire modeling, heat transfer modeling, structural fire analysis, evacuation modeling.

+ Heat transfer modeling
+ Structural fire analysis
+ Prescriptive based design of structures in accordance with Eurocode rules
+ Performance based design of structures
+ Application of Eurocode calculation procedures on steel and concrete structures

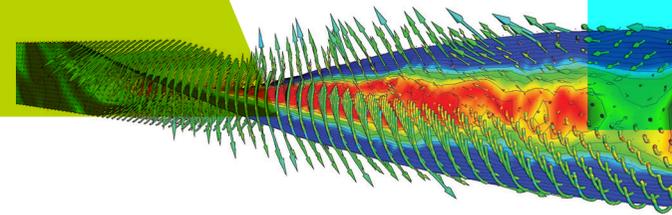## APPLICATION OF FINITE/DISCRETE ELEMENT METHOD IN ENGINEERING

Introduction to the basis of the Finite/Discrete Element Method (FDEM): contact detection, contact interaction, deformability, transformation from continua to discontinua

+ FDEM application to reinforced concrete structures
+ FDEM application to masonry structures
+ Parallelization of FDEM

DESIGN OF STRUCTURES BY SCIA ENGINEER

+ Structural analysis by FEM
+ Structural elements (beam, column, plate, wall, shell)
+ Supports and loads
+ Structural modeling of reinforced concrete, steel and wood structures
+ Stability analysis
+ Dynamic (earthquake load) analysis
+ Design of reinforced concrete structures
+ Design of steel structures

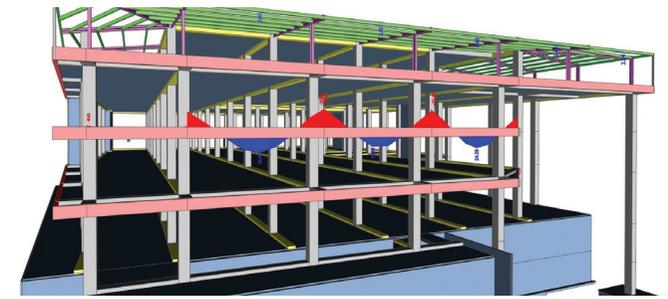## STRUCTURAL ANALYSIS OF HISTORIC BUILDINGS

+ Original and contemporary building materials
+ Supporting structures of historic buildings
+ Structural Analysis - simple and complex methods of analysis
+ Presentation of reconstruction works of some historic buildings
+ Visiting of Diocletian's Palace

WATER RESOURCES AND ENVIRONMENTAL ENGINEERING

+ Groundwater flow and transport modeling
+ Watershed hydrology
+ Human health risk assessment
+ Applied hydrometry
+ Transport phenomenon in porous media

INTRODUCTION TO GIS WITH PRACTICAL APPLICATIONS

+ GIS concepts
+ Overview of commercial and open source geospatial data and software
+ Geospatial analysis
+ Main concepts of remote sensing image analysis
+ Geospatial data visualisation
+ Web GIS dissemination

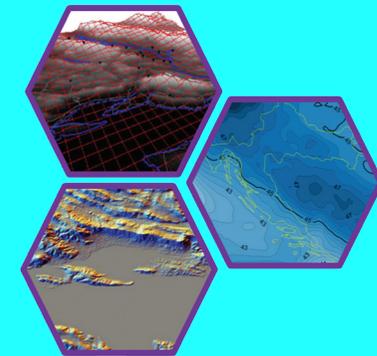## SCIENTIFIC VISUALISATION IN CIVIL ENGINEERING

+ Getting users acquainted with open source scientific visualisation software
+ Working with VTK (Visualisation ToolKit)
+ Creating effective scientific still images and animations