A.D. 1308
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DIPARTIMENTO
DI INGEGNERIA
CIVILE E AMBIENTALE

CIVIL AND ENVIRONMENTAL ENGINEERING

DOCTORAL PROGRAM 2023-2024

Federico Cluni is Associate Professor in Structural Mechanics at the Department of Civil and Environmental Engineering of University of Perugia. Since 2011-12 he teaches "Dynamics of structures" course for the Master's Degree in Civil Engineering. He has been member of programs funded by the Italian Ministry of University and Scientific Research on wind engineering, vibrations in civil engineering structures, advanced mechanical modeling of new materials and structures and modelling of constitutive laws for traditional and innovative building materials. His reserach is devoted to the analysis and reliability of historical buildings, numerical analysis of masonry walls through the homogenization method, dynamics of cables (experimental test in wind tunnel, numerical models , fatigue analysis), development of equivalent beam models for tall buildings under environmental loads, development of techniques for the identification of masonry texture through photographic adn thermographic images, developing of nonlocal models for the design of innovative composite materials.

Location
Campus of Engineering of University of Perugia
Via G. Duranti, 93 - Perugia
Room C

Team platform link
https://urly.it/3ydd9

PYTHON FOR NUMERICAL COMPUTING AND DEVELOPMENT OF SCIENTIFIC APPLICATION

Instructor
Federico Cluni, Associate Professor, Department of Civil and Environmental Engineering, University of Perugia

Course Description
The course aims to provide skills for the use of the Python programming language in the scientific field. In the first part, the students will learn the basics of the language (data types and structures, syntax, control flow tools, input and output, classes); in the second part, the students will learn how to use tools dedicated to the management and processing of scientific data.
Particular attention will be paid to possible applications in civil and environmental engineering research and to the acquisition of the skills necessary to share the results of research by means of stand-alone applications or web apps.

Course Schedule (30 hours, 5 CFU)
Day 1, February 23rd: 14:30-17:30
Day 2, March 1st: 14:30-17:30
Day 3, March 8th: 14:30-17:30
Day 4, March 15th: 14:30-17:30
Day 5, March 22nd: 14:30-17:30
Day 6, March 25th: 14:30-17:30
Day 7, April 5th: 14:30-17:30
Day 8, April 12th: 14:30-17:30
Day 9, April 19th: 14:30-17:30
Day 10, April 26th: 14:30-17:30

For more info Mrs. Teresa Nocera, Ph.D. Program Secretariat (teresa.nocera@unipg.it)
Prof. Dr. Filippo Ubertini, Ph.D. Program Coordinator (filippo.ubertini@unipg.it)