



Faculty of Industrial Engineering & Robotics
and
**Center for Research and Training in Innovative
Techniques of Applied Mathematics in
Engineering Traian Lalescu (CiTi)**

**organise in blended learning format between
June 25th – July 10th, 2024
the Summer School MATH4ENG, 2nd edition
in the framework of the EELISA Community DIGITAL4PPP**

European Engineering Learning Innovation and Science Alliance (EELISA) is the first alliance of Higher Education Institutions (graduate engineering schools, technology universities and full-spectrum universities) from different countries in Europe meant to define and implement a common model of *European engineer* rooted in society.

EELISA Community DIGITAL4PeoplePlanetPerformance has been launched in the framework of the EELISA European Universities Alliance

<https://community.eelisa.eu/communities/digital4ppp-people-planet-performance/>

aiming to

- (1) research and share practices for improving students' skills and competencies to pro-actively adapt, learn, network and innovate in businesses' digital transformation context
- (2) processes digital transformation to better valorise people's capabilities, but focusing customer, too, in close respect to the planet and the community where the business operates to increase and sustain performance
- (3) build the camp for sharing practices, testing innovative solutions, and learning together with students – professors – professionals in companies – researchers to motivate students to become more enthusiastic and passionate in the research of engineering solutions in a Digital 4 People Planet Performance thinking

In this context, a 2-weeks summer school is organized aiming to improve knowledge and develop skills of engineering students in applied mathematics, sustainability, and applied sciences.

Courses and applications subjects are presented as follows:

Day (changes may intervene into the interval)	Section (changes may intervene)	Professor (changes may intervene)
25.06.2024	Registration and summer school opening	Manuela Roxana DIJMĂRESCU
26.06.2024	Project Management	Magdalena ROȘU
27.06.2024	Introduction to digital manufacturing	Gabriel TAȘCA
28.06.2024	Advanced statistical methods and algorithms with applications	Raluca Roxana PURNICHESCU PURTAN
01.07.2024	Mathematical modelling with applications in biology	Irina BADRALEXI
02.07.2024	Cryptology: from theory to practice, an integrated view; Innovative techniques for data security. Applied cryptography in information security	Emil SIMION
03.07-9.07.2024	Projects and applications	All professors schedule tutorials and consultancy for students
10.07.2024	Projects presentation	Committee

All modules will be taught in English as presented and followed by individual and/or teamwork projects. Participants will receive a Certificate of Attendance including the Summer School details and the Erasmus + European project context (EELISA).

The modules target students, PhD students, specialists interested in mathematics applications in the fields of engineering, project development, sustainability, and applied sciences. For bachelor students (2nd and 3rd year), attendance may be considered as part of the summer internship and graded accordingly (no math exam 😊).

Project and applications will be customised in line with the student's level so as to acquire technical and transversal skills and promote teamwork. In total, the Summer School activity facilitates for students a practical stage of 90 hours of activity, respectively **4 ECTS**.

You may apply for an Erasmus+ scholarship (70 EUR/day) for your stay in Bucharest to be provided by your home University. No fees for the summer school will be charged.

Registration is open at [MATH4ENG event](#)