"Mircea cel Bătrân" NAVAL ACADEMY
FACULTY OF NAVIGATION AND NAVAL MANAGEMENT
DEPARTAMENT OF NAVAL AND PORT ENGINEERING AND MANAGEMENT

INFORMATICS LABORATORY

1. Destination

The laboratory ensures the development of practical activities in the disciplines: *Applied Informatics, Managerial Informatics, Technical Drawing and Infographics, Numerical Methods, Project Management in the Naval Industry and Software Solutions in Logistics*.

2. General objective

Training and development of the ability (knowledge, skills, superior skills) to program and use computers to explain and interpret concepts, processes in the field of Engineering Sciences.

3. Specific objectives

- ✓ developing the capacity to use ICT tools;
- ✓ training the skills necessary for analysis and algorithmic thinking in approaching engineering problems;
- ✓ mastering various methods of information processing;
- ✓ understanding the differences and advantages of various types of programming languages and software applications;
- ✓ mastering the syntax and semantics of medium and high level programming languages;

- ✓ training the skills necessary to perform the structural analysis of three-dimensional models;
- ✓ training in solving small and medium complexity problems using computing techniques (including choosing the right work tools);
- ✓ training skills for creating 2D and 3D elementary and complex objects in AutoCAD;
- ✓ learning advanced drawing and editing techniques.

4. Facilities

- ⚓ 20 individual workstations equipped with state-of-the-art computers with Internet connection;
- ⚓ video projector and projection screen;
- ⚓ licensed software (Windows 10 Professional, Microsoft Office, AutoCAD, SolidEdge, Raptor, Dev-C ++, Odoo)

5. Laboratory work performed

- analysis of engineering problems and development of algorithms for their automatic solution;
- programming standard algorithms in various programming languages;
- 2D and 3D design and modeling;
- Structural analysis of three-dimensional models;
- Modeling of single-phase and biphasic, subsonic flows;
- Life cycle evaluation of a three-dimensional model;
- Process simulations in various fields.