VILNIUS TECH
Lithuanian Maritime Academy

BIP for STUDENTS

at VILNIUS TECH LITHUANIAN MARITIME ACADEMY

Port energy equipment and automated control systems

📍 Physical part: 13-17 April 2026
💻 Virtual part: 20-24 April 2026
⏳ Registration deadline: **1 March 2026**
👉 📝 Registration form >>>

VILNIUS TECH
LITHUANIAN MARITIME ACADEMY
I. Kanto str. 7, Klaipėda, LT-92123, Lithuania

Dear Students,

VILNIUS TECH Lithuanian Maritime Academy (Klaipeda) warmly invites you to take part in the **Blended Intensive Programme (BIP): "Port energy equipment and automated control systems"** 🌍⚡

By participating in this BIP, you will:

- gain practical knowledge of **port energy systems** and **automated control solutions** for sustainable port operations *(detailed BIP description below)*,
- earn **an additional 3 ECTS credits**,
- meet students from different countries and build international connections 🤝,
- experience **Lithuanian culture** and student life in Klaipeda LT.

Programme dates

📍 **Physical part:** 13–17 April 2026 (Klaipeda, Lithuania)
💻 **Virtual part:** 20–24 April 2026

🏠 **What is covered during the physical part?**

VILNIUS TECH Lithuanian Maritime Academy will cover:

- accommodation at the **LMA dormitory**
  Dormitory address Karklų g. 2 / Kalvos g. 8, LT-92242, Klaipėda
- **lunch breaks**,
- selected **social and cultural events**.

Important information

⏳ **Registration deadline: 1 March 2026**
👉 📝 **Registration form >>>**

P*lease fill in the application form and upload the Erasmus+ Coordinator approval for this BIP.*

Seize the chance to expand your horizons, gain valuable international experience, and immerse yourself in a truly European learning community!

🖥️ ⚙️

You are very welcome to join us!

BIP description

Topic: Port energy equipment and automated control systems
Blended Intensive Programme ID: 2024-1-LT01-KA131-HED-000195730-2
Type of Participants (Learners): Students
Objectives and Description:
The objective of the course:
1. Describe energetic systems of the port using of the fundamental and applied knowledge of technologies according to sustainable development strategies.
2. Analyse ways to improve ship loading and unloading using automated control systems.
3. Evaluate the impact of automation on operational efficiency, safety, and sustainability in port environments.
4. Develop models and strategies for integrating automated control systems into existing port infrastructure.

Description:
Modern port operations are increasingly influenced by technological innovation, sustainability requirements, and global trade dynamics. This subject introduces students to the design and operation of port energy systems, emphasising their role in supporting sustainable development strategies. It examines advanced methods for enhancing ship loading and unloading processes through automated control systems, highlighting their impact on operational efficiency, safety, and environmental performance. Students will analyse the integration of automation technologies within existing port infrastructure, considering energy optimisation, digitalisation, and resilience. Practical modelling exercises and case studies will enable students to develop strategies for implementing automated solutions that improve productivity while meeting sustainability objectives.

Methods and outcomes:
Teaching Methods
Lectures and Discussions: Core concepts of port energy systems, sustainable development strategies, and automation technologies will be delivered through interactive lectures supported by multimedia presentations and open discussions.
Case studies: Real-world examples of automated ship loading/unloading systems and energy-efficient port operations will be analysed to understand best practices and challenges.
Guest speakers: Industry professionals and technology experts will share insights on the latest trends in port automation, energy management, and sustainability.
Team works and research project task: Students will collaborate in teams to design and propose an integrated automated control system for a hypothetical port scenario, including energy optimisation and data cybersecurity strategies.
Field visits: Visits to ports or logistics hubs will provide practical exposure to operational processes, energy systems, and automation technologies in real-world settings.
Technology demonstration: Hands-on sessions showcasing automated control systems, sensor technologies, and digital platforms used in modern port operations.

Upon completion of the course, students should be able:

1. Describe the design and functioning of port energy systems aligned with sustainable development strategies.
2. Analyse methods for improving ship loading and unloading operations using automated control systems.
3. Evaluate the impact of automation on operational efficiency, safety, and sustainability in port environments.
4. Develop models and strategies for integrating automated control systems into existing port infrastructure.
5. Apply theoretical knowledge to practical scenarios through case studies, field visits, and project work.
6. Demonstrate teamwork, problem-solving, and decision-making skills in designing resilient and efficient port operations.

Field of Education: 0713 Electricity and energy / 0716 Motor vehicles, ships and aircraft
Level of Study: First cycle / Bachelor's or equivalent level (EQF-6)
Physical start and end dates: 13/04/2026 – 17/04/2026
Virtual Component Timing: After physical part
Virtual Component Description: The virtual component focuses on the modelling and analysis of port energy systems and automated control solutions using applied research and case studies. Students will work with AI tools to analyse scientific databases, prepare references, and develop short research-based projects. Guest speakers from different countries will share insights on port automation, energy management, and future development trends. The virtual component will conclude with final project presentations. Dates of virtual meetings: 20/04/2026 – 24/04/2026
Venue: Lithuania, Klaipeda
Main Teaching/Training Language: English
Number of ECTS Credits Awarded: 3 ECTS

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