FINAL MEMORANDUM | EFFECTIVE DATE: 01. 10. 2026

MEMORANDUM OF SCIENTIFIC AND EDUCATIONAL COOPERATION

Unitest Marine Simulators Ltd. · Maritime and Technical/Vocational Education

PARTICIPANTS

Unitest Representative	Dr. inż. Rafał Pawletko Technical Director & Board Member, Unitest Marine Simulators Ltd., Gdynia, Poland
Education Counselor	Dr. Efstathios Zogopoulos Mechanical Engineer, Ph.D. (National Technical University of Athens); Education Counselor for Mechanical Engineering
Marine Engineering Educator	Nikolaos Diakakis Mechanical and Marine Engineering Educator, Vocational High School of Keratsini, Piraeus, Greece

ARTICLE 1 | CONTEXT & PURPOSE

This Memorandum establishes a formal framework for academic, scientific, and educational cooperation among the participants identified above, in their stated professional capacities.

Its purpose is to strengthen maritime engineering education through simulation technologies, transfer of technical know-how, pedagogical research, and the educational use of advanced 3D, virtual reality (VR), and artificial intelligence (AI) applications in technical and vocational education.

ARTICLE 2 | AREAS OF COOPERATION

2.1 Pedagogical Research & Simulation Methodology

- Joint development, pilot testing, and evaluation of STEM/STEAM learning scenarios in virtual engine-room environments.
- Educational research on Engine Room Resource Management (ERRM), decision-making, leadership, and teamwork, with reference to STCW Code Tables A-III/1, A-III/2, and A-III/6.

2.2 Emerging Technologies: VR & AI

- Pilot educational use of the Tugboat3D Multi-User Simulator, including interactive 3D environments and the ASK AI Virtual Instructor.
- Evaluation of multi-user avatar interaction, situational awareness, team coordination, and closed-loop communication during engine-room operations.

2.3 Professional Development & Educator Certification

- Design and delivery of structured training comprising six modules of three hours each for marine and mechanical engineering educators.
- Provision of instructor-competence certification (Train-the-Trainer) by Unitest Marine Simulators Ltd., subject to its applicable assessment and approval procedures.

2.4 Software Access & Academic Licensing

Provision of free educational/instructor software licenses, demonstration versions, and ULM server access to support educational, training, and pedagogical research activities, specifically covering:

- LNG DIESEL ELECTRIC ENGINE ROOM SIMULATOR (LNG-DE3D) — User Manual v.1.5.2024
- Medium-sized Engine Room Simulator (MER3D - PC based) — User Manual v.1.5.2024
- Engine Room Simulator W-X92 FPP (PC based) — User Manual v.1.5.2024
- POLYTECH W-X92 and Tugboat3D simulators
- Utilization of these licenses for instructor preparation, curriculum enhancement, and scenario testing within Greek Maritime Vocational High Schools (EPAL).

2.5 Educational Content Development & Pedagogical Materials

- Joint creation, adaptation, and translation of pedagogical materials, lab exercise guides, instructional scenarios, and simulator operation manuals tailored for technical and vocational maritime education.
- Development of open or structured educational resources for instructors and students, facilitating the integrated use of Unitest simulators in the curriculum of Maritime Vocational High Schools (EPAL).

2.6 Academic Publications & Dissemination

- Joint scientific publications and presentation of research results at international conferences on maritime education, simulation engineering, and vocational training.

ARTICLE 3 | DURATION

This Memorandum shall remain in effect for two (2) years from the date of signature and may be renewed by mutual written agreement.

ARTICLE 4 | FINANCIAL TERMS & INTELLECTUAL PROPERTY

4.1 Financial Provisions: This Memorandum is an intent of academic and educational cooperation and does not create any financial obligations, budgetary commitments, or commercial guarantees for any of the participants. All activities detailed herein shall be conducted subject to the availability of resources and mutual agreement.

4.2 Intellectual Property & Software Rights: All proprietary rights, copyrights, trademarks, and patents concerning the software, simulators, and technical documentation provided by Unitest Marine Simulators Ltd. remain the exclusive property of Unitest Marine Simulators Ltd. Educational scenarios, exercise guides, and academic research papers co-developed under this collaboration may be freely used by all participants for non-commercial educational and scientific research purposes.

SIGNATURES

IN WITNESS WHEREOF, the undersigned have reviewed and approved this Memorandum of Scientific and Educational Cooperation.

Unitest Marine Simulators Ltd.	**Education Counselor**	**Marine Engineering Educator**
Dr. inż. Rafał Pawletko Technical Director & Board Member UNITEST MARINE SIMULATORS dr inż. Rafał Pawletko członek zarządu Dokument podpisany przez RAFAŁ PAWLETKO Data: 2026.10.01 12:54:39 CEST	Dr. Efstathios Zogopoulos Ph.D. (NTUA); Education Counselor	Nikolaos Diakakis Teacher, Vocational High School of Keratsini
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