PEDAGOGY

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Improving the training of mid-level specialists in the field of water transport in the field of information security: relevance, requirements, approaches

This article examines the current problem of the insufficient volume and depth of information security (IS) teaching in educational programs for the training of mid-level specialists (navigators, ship mechanics, electrical engineers, logisticians) for water transport. Against the backdrop of the rapid digitalization of shipping and the introduction of integrated automated control and navigation systems, the risks of cyberattacks on critical maritime infrastructure have increased significantly. The authors analyzed modern cyber threats in the maritime industry, examined the Federal State Educational Standards of Secondary Vocational Education for relevant specialties, and the requirements of key Russian and international regulatory documents (IMO Resolutions MSC.428(98), MSC-FAL.1/Circ.3, ISO/IEC 27001 guidelines, and classification society requirements). Based on the identified dissonance between the requirements of real-world operations and the content of educational programs, recommendations are proposed for integrating IS modules into curricula.

Key words: information security in water transport, cybersecurity of ships, training of mid-level personnel, secondary vocational education (SVE), Federal State Educational Standard of SVE, International Maritime Organization (IMO), cyber resilience.

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