PROJECT ACRONYM AND TITLE: Digital Model of Selection and Professional Guidance of Students for Work at Port Container Terminals (DIGIMOS)

FUNDING PROGRAMME: Call for funding of Institutional research projects of the University of Rijeka financed from source 581 – Recovery and Resilience Mechanism (University of Rijeka, Institutional Research Projects)

PERSON RESPONSIBLE: Livia Maglić

Project total cost	29.235,39 EUR

SUMMARY AND OBJECTIVE: In contemporary industrial and business environments, personnel selection increasingly relies on digitized cognitive and psychological assessment methods to optimize recruitment processes and career guidance. Empirical research confirms that cognitive and psychomotor abilities are key predictors of job performance, particularly in sectors requiring high operational precision and decision-making in dynamic conditions. However, selection processes for specialized positions at port container terminals remain inadequately aligned with specific job requirements, highlighting the need for scientifically grounded predictive models of personnel selection and career orientation. This study aims to develop a selection and career guidance model for students pursuing employment at port container terminals, leveraging digital psychometric assessments tailored to job-specific requirements. The model will integrate test results obtained using the Vienna Test System (VTS), focusing on competencies relevant to digitized and automated operations at container terminals, including positions such as STS, RMG, and RTG crane operators, ship planners, and terminal dispatchers. The VTS will be utilized to evaluate cognitive and psychomotor abilities, including analytical thinking, reaction speed, decision-making under stress, visual-motor coordination, precision in handling specialized equipment, stress tolerance, concentration, focused reasoning, long-term memory, logical reasoning, resistance to distractions, vigilance, and spatial abilities. The study will involve testing 50 students from the Faculty of Maritime Studies in Rijeka, with data analyzed using descriptive statistics, analysis of variance (ANOVA), t-tests, and the Friedman test to identify key predictors of job performance. Based on the findings, a predictive selection model will be developed using the Analytic Hierarchy Process (AHP), enabling systematic and precise career guidance for students toward optimal job placements at container terminals.

Start date	End date
1 October 2025	30 September 2029

PROJECT TEAM

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