A design-and-achievement-oriented approach to student's innovation in higher professional education of submersible robotics engineers

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The paper presents the innovative education technique, which is widespread abroad but virtually unknown in this country, when students are supposed to develop a submersible rectangular according to their assignment then to produce its prototype, to test it and to demonstrate it in operation just in one year and to participate in rating competitions under simulated extreme conditions. It confirms the competitiveness of BMSTU students well skilled in various computer-aided design techniques such as CAD, CAM, CAE, CASE, CALS and 3-D prototyping among the other professional teams from the leading foreign Universities. That a 10-year experience of the International Marine Advanced Technology Education Competition claims attention and national study carried out by higher professional education specialists in submersible robotic engineering is emphasized in the paper.

Keywords: *engineer, oceanic engineering, innovation, marine industry, ocean engineering, underwater mission, underwater accidents, submersibles, robotics.*

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