

Название публикации:

Risk based ecological economics to engineering students

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Аннотация:

Modern ecological crisis threatens the sustainability of human civilization. Awareness and education for probable disaster risk reduction give greater urgency to the issue of decreasing industrial failure rates associated with basic manufacturing activities and, consequently, improving the training in this area. The authors have highlighted the features of modern risk based approach in engineering training based on proximity of production entities to anthropogenic factors: allocation of risks and threats in professional and personal situations or tasks; critical analysis of any industrial process and considering its consequences; using professional and personal risk response strategies; risk-based thinking as the core professional activity. The paper considers the mechanism of risk-based thinking as a necessary part of engineering students training on the basis of diversionary analysis, and gives its algorithm adapted to their learning activities. A system of professional tasks and tools to be used in the students' future job has been developed to promote their readiness and willingness to work across trades within the sphere of their technical competency. The paper is intended for researchers, practitioners, managers of enterprises dealing with ecological and economic production activities, as well as for professional training of engineers. © Authors.

Ключевые слова:

Engineering students training, Professional and personal situations, Risk based approach, Risk based ecological economics, Risk-based thinking