

Process Quality Improvement Methods				
CTC-RI-02				
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CTC – Center for Cooperation and Training, University of Rijeka Faculty of Engineering, Vukovarska 58, 51000 Rijeka, Croatia				
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Recognizing customers' demands and expectations is a prerequisite for any successful business. The processes, that are established and maintained in order to meet and exceed the demands of customers, must be both effective and efficient. In this effort an important role have quality management and improvement models and systems. Introduction to the main principles of quality management, assurance and improvement models is the purpose of this module.				
University (master) degree, engineering studies				
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20 hours				
Upon completion of the module participants will be able to: <ul style="list-style-type: none"> • Describe approaches to quality management. • To interpret the establishment of quality management system and requirements of ISO 9001 standard • Describe models of excellence. • Distinguish between different approaches to quality improvement. • Analyze methods of statistical process quality control. • Apply the basic tools of quality assurance. • To interpret the results of statistical process control. • Explain the impact of the measurement system on to quality of processes, products and services. 				
1. Quality Systems 2. Quality Improvement Methods 3. Six Sigma Method 4. Design of Experiments				
Topic 1: Quality Systems			Hours	4
Participants will be trained for: <ul style="list-style-type: none"> • Distinguishing between different quality management system • Recognition of the basic requirements of ISO 9001 standard • Developing the structure of quality management system documentation 				
Topic 2: Quality Improvement Methods			Hours	4
Participants will be trained for: <ul style="list-style-type: none"> • Identifying the main differences of modern quality improvement methods • Application of basic quality improvement methods • Using the basic principles of Kaizen, Six Sigma, Lean and 20 keys methods 				
Topic 3: Six Sigma Method			Hours	8
Participants will be trained for: <ul style="list-style-type: none"> • Application of basic statistical tools • Interpretation of the statistical process control results • The calculation of basic indicators of process capability • Interpretation of the results of measurement system quality evaluation 				
Topic 4: Design of Experiments			Hours	4
Participants will be trained for: <ul style="list-style-type: none"> • Application of design of experiments methods • Design of experiments methods selection • Development of an experiment design matrix, for the full as well as for fractional experiments designs • Interpretation of the experiments results analysis 				
Acquired knowledge and skills will be checked by written exam. At the exam each correct answer is scored, while incorrect answers are not penalized. The exam can be repeated once.				

The final grade is obtained on the basis of collected points. The final grade is derived as follows:

- 80-100% of the collected points - PASSED
- 65-79% of collected points - GOOD
- 50-64% of collected points - EXCELLENT