

State questions from subject: Automation and Automation Technology

Study programme: Mechanical engineering (Bachelor), Study specialization: Mechanical engineering

AY: 2023/2024

1. Describe and explain Control and Regulation
2. Describe and explain the main parts of an automated control system (input, output, control and controlled system, error)
3. Describe and explain Regulation Circuit
4. Describe and explain Logic Control and Logic functions
5. Describe the methods of logic function description (forms of description)
6. Describe the methods of logic function simplification
7. Describe and explain the Karnaugh map
8. Programmable logic controllers- characteristics, types, working cycle
9. Programmable logic controllers- programming languages
10. Based on signal types characterize the automatic control
11. Explain the logic control and the discrete control
12. Resistance potentiometric transducers (principle of the operation)
13. Difference between Sensors and Transducers(definition, example, application)
14. How would you describe the difference between Analog and Digital information
15. Condition monitoring and Predictive Maintenance
16. Industrial IoT (Internet of Things)
17. AGV
18. Industrial Robotics
19. Industrial Safety
20. Industrial Machine Vision

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