

IDENTIFICATION

Course code : ESI-SPI-CI-AG4-S8-UE1-EC5
ECTS : 2

DURATION

Lectures : 4
Tutorial classes : 14
Labs : 8
Total : 26

Project :
Personnal work :

ASSESSMENT

TEACHING MATERIALS

LANGUAGE

English

CONTACT

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UE : UE8-PROD

COURSE : Automation and Maintenance

SCOPE OF THE COURSE

OBJECTIVES

For the Automation part : - Provide students with the fundamentals for implementing sequential control graphs for elementary systems

For the Maintenance part : - Discover different automation manufacturers for the agrofood industry - Understand the architecture of an electrical panel - Understand the input and output parts of an automation system

COMPETENCE AND SKILLS

For the Automation part : This course aims to enable the future agrofood engineer to - Design sequential control graphs for elementary systems using the GRAFCET formalism. - Understand specifications described by GRAFCETs for more complex systems

For the Maintenance part :

PROGRAM

For the Automation part, the proposed program is as follows : - Study of the standardized GRAFCET formalism and its hierarchical structure : - Basic elements and structures of GRAFCET - Structural and behavioral enhancements. - Developing a GRAFCET model based on specifications.

For the Maintenance part : - Analyze different industrial automation manufacturers in the agrofood industry, highlighting the strengths and weaknesses of each. - Analyze a photo of an electrical cabinet and identify the various components. - Know the different types of sensors and actuators in a machine.

BIBLIOGRAPHY

R DAVID and H. ALLA, From GRAFCET to Petri Nets, HERMES, 1989

REQUIREMENTS