

<b>Course Title:</b>	<b>Mitsubishi Controllers Programming</b>
<b>Institute/Division:</b>	Department of Automation and Computer Engineering Faculty of Electrical and Computer Engineering
<b>Course code:</b>	<b>E-MCP</b>
<b>Erasmus subject code:</b>	0714 Electronics and automation
<b>Number of contact hours:</b>	45
<b>Course duration:</b>	1 semester (Spring/Summer)
<b>ECTS credits:</b>	6
<b>Course description:</b>	The course consists of lectures, laboratory exercises, and a project. The topics covered in the course include: the FBD/LAD (Functional Block Diagram/Ladder Logic) language, basic instructions, global and local variables, counters and timers, functions and block functions and so on, programming for visualization on HMI (Human Machine Interface): buttons and bit lights, navigation bar, numeric field, numeric slide, numeric objects, alarms, recipes, users, and parameterization and programming of drives: built in motion functions: one axis move functions, axis synchronization, sequences of movements, incremental and absolute movements, axis referencing, positioning, speed mode, the library PLC_Open, examples of application: cam, rotary knife and flaying shear. Intended software: GX Works 3 (MeISelect IQ-x, GOT 2000, Simple Motion).
<b>Course type:</b>	Lectures (9h), Laboratory (27h), Project (9h)
<b>Literature:</b>	Erickson K.T.: Programmable logic controllers: an emphasis on design and applications, Dogwood Valley Press. Mitsubishi Training – <a href="https://emea.mitsubishielectric.com/fa/support/training">https://emea.mitsubishielectric.com/fa/support/training</a> MitsubishiFAEU (YouTube) – <a href="https://www.youtube.com/@MitsubishiFAEU/playlists">https://www.youtube.com/@MitsubishiFAEU/playlists</a>
<b>Assessment method:</b>	Laboratory exercises and project
<b>Prerequisites:</b>	-
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