

Course Title:	Mitsubishi Controllers Programming
Institute/Division:	Department of Automation and Computer Engineering Faculty of Electrical and Computer Engineering
Course code:	E-MCP
Erasmus subject code:	0714 Electronics and automation
Number of contact hours:	45
Course duration:	1 semester (Fall/Winter)
ECTS credits:	6
Course description:	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).
Course type:	Lectures (9h), Laboratory (27h), Project (9h)
Literature:	Erickson K.T.: Programmable logic controllers: an emphasis on design and applications, Dogwood Valley Press. Mitsubishi Training – https://emea.mitsubishielectric.com/fa/support/training MitsubishiFAEU (YouTube) – https://www.youtube.com/@MitsubishiFAEU/playlists
Assessment method:	Laboratory exercises and project
Prerequisites:	-
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