

Transilvania University of Brașov, Romania
Study program: Advanced Systems in Automation and
Information Technologies

Curriculum for ERASMUS + students

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| Faculty: | Electrical Engineering and Computer Science |
| Study period: | 2 years (master) |
| Academic year structure: | 2 semesters (14 weeks per semester) |
| Examination sessions (two): | winter session (January/February) summer session (June/July) |

Courses per years (C= course; S = seminar; L = laboratory; P = project)

1st Year

| No. crt. | Course | Code | Language of instruction | 1 st Semester | | | | | 2 nd Semester | | | | |
|----------|---|-----------|-------------------------|--------------------------|----|---|---|------|--------------------------|----|---|---|------|
| | | | | C | S | L | P | Cred | C | S | L | P | Cred |
| 01 | Data Science | SAATI0101 | Romanian | 2 | | 2 | | 5 | | | | | |
| 02 | Soft-Computing in Control Engineering | SAATI0102 | Romanian | 2 | | 1 | 1 | 5 | | | | | |
| 03 | Embedded IT Systems | SAATI0103 | Romanian | 2 | | 1 | 1 | 5 | | | | | |
| 04 | Embedded Systems | SAATI0104 | Romanian | 2 | | 2 | | 5 | | | | | |
| 05 | Ethics and Academic Integrity | SAATI0105 | Romanian | 1 | | | | 2 | | | | | |
| 06 | Research 1 (partially assisted research activities) | SAATI0106 | Romanian | | 10 | | | 8 | | | | | |
| 07 | Software Systems Architecture | SAATI0207 | Romanian | | | | | | 2 | | 2 | | 5 |
| 08 | Multi-agent Systems | SAATI0208 | Romanian | | | | | | 2 | | 2 | | 5 |
| 09 | Deep Learning | SAATI0209 | Romanian | | | | | | 2 | | 1 | 1 | 5 |
| 10 | Project Management | SAATI0210 | Romanian | | | | | | | 2 | 1 | 1 | 5 |
| | Computer Aided Design for Products Lifecycle Management | SAATI0211 | | | | | | | | | | | |
| 11 | Research 2 (partially assisted research activities) | SAATI0212 | Romanian | | | | | | | 10 | | | 10 |

2nd Year

| No. crt. | Course | Code | Language of instruction | 3 rd Semester | | | | | 4 th Semester | | | | |
|----------|---|-----------|-------------------------|--------------------------|---|---|---|------|--------------------------|---|---|---|------|
| | | | | C | S | L | P | Cred | C | S | L | P | Cred |
| 01 | Natural Language Processing | SAATI0301 | Romanian | 2 | | 2 | | 5 | | | | | |
| 02 | Industrial Control using Service Oriented Architectures | SAATI0302 | Romanian | 2 | | 1 | 1 | 5 | | | | | |

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|----|--|-----------|----------|---|----|---|---|--|----|--|----|
| 03 | Cyber Security | SAATI0303 | Romanian | 2 | 1 | 1 | 5 | | | | |
| 04 | Variable Structure Systems | SAATI0304 | Romanian | | | | | | | | |
| | Modelling and Identification of Distributed Parameters Processes | SAATI0305 | | 2 | 1 | 1 | 5 | | | | |
| 05 | Research 3 (partially assisted research activities) | SAATI0306 | Romanian | | 10 | | 8 | | | | |
| 06 | Research 4 (partially assisted research activities) | SAATI0407 | Romanian | | | | | | 12 | | 10 |
| 07 | Practical Training for Dissertation Project | SAATI0408 | Romanian | | | | | | 12 | | 10 |
| 08 | Dissertation Project | SAATI0409 | Romanian | | | | | | 2 | | 10 |