

CURRICULUM – 1<sup>st</sup> YEAR  
2023-2024

|                           |                                                                                                |                                              |                                       |
|---------------------------|------------------------------------------------------------------------------------------------|----------------------------------------------|---------------------------------------|
| UNIVERSITY                | GEORGE EMIL PALADE UNIVERSITY OF MEDICINE,<br>PHARMACY, SCIENCE, AND TECHNOLOGY OF TÂRGU MUREŞ | PROGRAMME OF STUDY                           | AUTOMATION AND APPLIED<br>INFORMATICS |
| FACULTY                   | FACULTY OF ENGINEERING AND INFORMATION<br>TECHNOLOGIES                                         | TITLE AWARDED                                | GRADUATE ENGINEER                     |
| FIELD OF STUDY            | SYSTEMS ENGINEERING                                                                            | OFFICIAL LENGTH OF THE PROGRAMME OF<br>STUDY | 4 YEARS                               |
| LEVEL OF<br>QUALIFICATION | 6 LEVEL CNC                                                                                    | NUMBER OF ECTS/SECT CREDITS                  | 60+2                                  |

| No.                 | Educational activities                               | Code/Type of course | 1 <sup>st</sup> Semester (14 weeks) |     |      |              |                                  |     |      |            | 2 <sup>nd</sup> Semester (14 weeks) |     |      |            |                                  |     |      |             | Total academic year |     |             |      |
|---------------------|------------------------------------------------------|---------------------|-------------------------------------|-----|------|--------------|----------------------------------|-----|------|------------|-------------------------------------|-----|------|------------|----------------------------------|-----|------|-------------|---------------------|-----|-------------|------|
|                     |                                                      |                     | 1 <sup>st</sup> Module (7 weeks)    |     |      |              | 2 <sup>nd</sup> Module (7 weeks) |     |      |            | 3 <sup>rd</sup> Module (7 weeks)    |     |      |            | 4 <sup>th</sup> Module (7 weeks) |     |      |             |                     |     |             |      |
|                     |                                                      |                     | Course                              | SLP | ECTS | Verif form   | Curs                             | SLP | ECTS | Verif form | Course                              | SLP | ECTS | Verif form | Course                           | SLP | ECTS | Verif form  | C                   | LP  | Indiv. Std. | ECTS |
|                     | Compulsory courses                                   |                     |                                     |     |      |              |                                  |     |      |            |                                     |     |      |            |                                  |     |      |             |                     |     |             |      |
| 1                   | Mathematical analysis                                | AIA101/DF           | 6                                   | 6S  | 6    | E            |                                  |     |      |            |                                     |     |      |            |                                  |     |      | 42          | 42                  | 66  | 6           |      |
| 2                   | Physics                                              | AIA103/DF           | 4                                   | 4SL | 5    | E            |                                  |     |      |            |                                     |     |      |            |                                  |     |      | 28          | 28                  | 69  | 5           |      |
| 3                   | English Language I                                   | AIA105/DC           | -                                   | 4S  | 2    | C            |                                  |     |      |            |                                     |     |      |            |                                  |     |      | -           | 28                  | 22  | 2           |      |
| 4                   | Physical Education I                                 | AIA106/DC           | -                                   | 2L  | 1    | A/R          |                                  |     |      |            |                                     |     |      |            |                                  |     |      | -           | 14                  | 11  | 1           |      |
| 5                   | Linear algebra, analytical and differential geometry | AIA102/DF           |                                     |     |      |              | 6                                | 4S  | 6    | E          |                                     |     |      |            |                                  |     |      | 42          | 28                  | 80  | 6           |      |
| 6                   | Computer Programming and Programming languages       | AIA104/DF           |                                     |     |      |              | 6                                | 4L  | 6    | E          |                                     |     |      |            |                                  |     |      | 42          | 28                  | 80  | 6           |      |
| 7                   | Electronics and Automation                           | AIA107/DD           |                                     |     |      |              | 4                                | 4SL | 5    | E          |                                     |     |      |            |                                  |     |      | 28          | 28                  | 69  | 5           |      |
| 8                   | Applied Informatics                                  | AIA110/DF           |                                     |     |      |              |                                  |     |      |            | 4                                   | 4L  | 5    | E          |                                  |     |      | 28          | 28                  | 69  | 5           |      |
| 9                   | Linear Electronic Circuits                           | AIA112/DD           |                                     |     |      |              |                                  |     |      |            | 6                                   | 4L  | 5    | E          |                                  |     |      | 42          | 28                  | 55  | 5           |      |
| 10                  | English Language II                                  | AIA113/DC           |                                     |     |      |              |                                  |     |      |            | -                                   | 4S  | 2    | C          |                                  |     |      | -           | 28                  | 22  | 2           |      |
| 11                  | Chemistry                                            | AIA114/DF           |                                     |     |      |              |                                  |     |      |            | 2                                   | 2L  | 3    | C          |                                  |     |      | 14          | 14                  | 47  | 3           |      |
| 12                  | Computer Aided Graphics                              | AIA108/DF           |                                     |     |      |              |                                  |     |      |            |                                     |     |      |            | 4                                | 2L  | 4    | C           | 28                  | 14  | 58          | 4    |
| 13                  | Special Mathematics                                  | AIA109/DF           |                                     |     |      |              |                                  |     |      |            |                                     |     |      |            | 6                                | 4S  | 5    | E           | 42                  | 28  | 55          | 5    |
| 14                  | Digital Electronics                                  | AIA111/DD           |                                     |     |      |              |                                  |     |      |            |                                     |     |      |            | 4                                | 6SL | 6    | E           | 28                  | 42  | 80          | 6    |
| 15                  | Physical Education II                                | AIA115/DC           |                                     |     |      |              |                                  |     |      |            |                                     |     |      |            | -                                | 2L  | 1    | A/R         | -                   | 14  | 11          | 1    |
| GENERAL TOTAL       |                                                      | 8DF, 3DD, 4DC       | 10                                  | 16  | 14   | 2E, 1C, 1A/R | 16                               | 12  | 17   | 3E         | 12                                  | 14  | 15   | 2E,2C      | 14                               | 14  | 16   | 2E,1C, 1A/R | 364                 | 392 | 794         | 62   |
| TOTAL HOURS/CREDITS |                                                      | 15 compulsory       | 27 hours/week ; 31 ECTS             |     |      |              |                                  |     |      |            | 27 hours/week ; 31 ECTS             |     |      |            |                                  |     |      |             | 756                 |     |             |      |

| Formative categories |                      | Activities |                    |
|----------------------|----------------------|------------|--------------------|
| DF                   | Foundamental course  | C          | Courses            |
| DD                   | Technical course     | S          | Seminars           |
| DS                   | Specialized course   | LP         | Practical exercise |
| DC                   | Complementary course | P          | Project            |

# CURRICULUM – 2<sup>nd</sup> YEAR 2023-2024

|                                   |                                                                                                            |                                                      |                                           |
|-----------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------------------|
| <b>UNIVERSITY</b>                 | <b>GEORGE EMIL PALADE UNIVERSITY OF MEDICINE,<br/>PHARMACY, SCIENCE, AND TECHNOLOGY OF TÂRGU<br/>MUREȘ</b> | <b>PROGRAMME OF STUDY</b>                            | <b>AUTOMATION AND APPLIED INFORMATICS</b> |
| <b>FACULTY</b>                    | <b>FACULTY OF ENGINEERING AND INFORMATION<br/>TECHNOLOGIES</b>                                             | <b>TITLE AWARDED</b>                                 | <b>GRADUATE ENGINEER</b>                  |
| <b>FIELD OF STUDY</b>             | <b>SYSTEMS ENGINEERING</b>                                                                                 | <b>OFFICIAL LENGTH OF THE<br/>PROGRAMME OF STUDY</b> | <b>4 YEARS</b>                            |
| <b>LEVEL OF<br/>QUALIFICATION</b> | <b>6 LEVEL CNC</b>                                                                                         | <b>NUMBER OF ECTS/SECT CREDITS</b>                   | <b>60+2</b>                               |

| No.                 | Educational activities                     | Code/Type of course       | 1 <sup>st</sup> Semester (14 weeks) |     |      |            |                                  |     |      |             | 2 <sup>nd</sup> Semester (14 weeks) |     |      |             |                                  |     |      |            | Total academic year |     |             |      |  |
|---------------------|--------------------------------------------|---------------------------|-------------------------------------|-----|------|------------|----------------------------------|-----|------|-------------|-------------------------------------|-----|------|-------------|----------------------------------|-----|------|------------|---------------------|-----|-------------|------|--|
|                     |                                            |                           | 1 <sup>st</sup> Module (7 weeks)    |     |      |            | 2 <sup>nd</sup> Module (7 weeks) |     |      |             | 3 <sup>rd</sup> Module (7 weeks)    |     |      |             | 4 <sup>th</sup> Module (7 weeks) |     |      |            |                     |     |             |      |  |
|                     |                                            |                           | Course                              | SLP | ECTS | Verif form | Course                           | SLP | ECTS | Verif form  | Course                              | SLP | ECTS | Verif form  | Course                           | SLP | ECTS | Verif form | Course              | LP  | Indiv. Std. | ECTS |  |
|                     | Compulsory courses                         |                           |                                     |     |      |            |                                  |     |      |             |                                     |     |      |             |                                  |     |      |            |                     |     |             |      |  |
| 1                   | Systems Theory I                           | AIA201/DD                 | 4                                   | 6SL | 6    | E          |                                  |     |      |             |                                     |     |      |             |                                  |     |      | 28         | 42                  | 80  | 6           |      |  |
| 2                   | Computer architecture                      | AIA202/DD                 | 4                                   | 4L  | 5    | E          |                                  |     |      |             |                                     |     |      |             |                                  |     |      | 28         | 28                  | 69  | 5           |      |  |
| 3                   | Designing algorithms                       | AIA203/DD                 |                                     |     |      |            | 4                                | 6SL | 6    | E           |                                     |     |      |             |                                  |     |      | 28         | 42                  | 80  | 6           |      |  |
| 4                   | Electrical measurements, transducers       | AIA204/DD                 |                                     |     |      |            | 6                                | 4SL | 6    | E           |                                     |     |      |             |                                  |     |      | 42         | 28                  | 80  | 6           |      |  |
| 5                   | English Language III                       | AIA205/DC                 |                                     |     |      |            | -                                | 4S  | 2    | C           |                                     |     |      |             |                                  |     |      | -          | 28                  | 22  | 2           |      |  |
| 6                   | Physical Education III                     | AIA206/DC                 |                                     |     |      |            | -                                | 2L  | 1    | A/R         |                                     |     |      |             |                                  |     |      | -          | 14                  | 11  | 1           |      |  |
| 7                   | Numerical Methods                          | AIA207/DF                 |                                     |     |      |            |                                  |     |      |             | 6                                   | 4S  | 5    | C           |                                  |     |      | 42         | 28                  | 55  | 5           |      |  |
| 8                   | Systems Theory II                          | AIA208/DD                 |                                     |     |      |            |                                  |     |      |             | 4                                   | 6SL | 5    | E           |                                  |     |      | 28         | 42                  | 55  | 5           |      |  |
| 9                   | English Language IV                        | AIA209/DC                 |                                     |     |      |            |                                  |     |      |             | -                                   | 2S  | 1    | C           |                                  |     |      | -          | 14                  | 11  | 1           |      |  |
| 10                  | Ethics and academic integrity              | AIA210/DC                 |                                     |     |      |            |                                  |     |      |             | 2                                   | -   | 1    | C           |                                  |     |      | 14         | -                   | 11  | 1           |      |  |
| 11                  | Physical Education IV                      | AIA211/DC                 |                                     |     |      |            |                                  |     |      |             | -                                   | 2L  | 1    | A/R         |                                  |     |      | -          | 14                  | 11  | 1           |      |  |
| 12                  | Automated system engineering               | AIA212/DD                 |                                     |     |      |            |                                  |     |      |             |                                     |     |      |             | 4                                | 4L  | 5    | E          | 28                  | 28  | 69          | 5    |  |
| 13                  | Databases                                  | AIA213/DD                 |                                     |     |      |            |                                  |     |      |             |                                     |     |      |             | 4                                | 4L  | 4    | E          | 28                  | 28  | 44          | 4    |  |
| 14                  | Electric machines and drive systems        | AIA214/DD                 |                                     |     |      |            |                                  |     |      |             |                                     |     |      |             | 4                                | 6SL | 5    | E          | 28                  | 42  | 55          | 5    |  |
| 15                  | Practical training                         | AIA215/DD                 |                                     |     |      |            |                                  |     |      |             | 90                                  |     |      |             |                                  |     | 4    | C          | -                   | 90  | 10          | 4    |  |
|                     | Optional courses                           |                           |                                     |     |      |            |                                  |     |      |             |                                     |     |      |             |                                  |     |      |            |                     |     |             |      |  |
| 16                  | Discrete - Event Dynamic Systems Modelling | AIA216/DD                 | 4                                   | 4SL | 5    | E          |                                  |     |      |             |                                     |     |      |             |                                  |     |      | 28         | 28                  | 69  | 5           |      |  |
| GENERAL TOTAL       |                                            | 1DF, 10DD, 5DC            | 12                                  | 14  | 16   | 3E         | 10                               | 16  | 15   | 2E,1C, 1A/R | 12                                  | 14  | 13   | 1E,3C, 1A/R | 12                               | 14  | 18   | 3E,1C      | 322                 | 496 | 732         | 62   |  |
| TOTAL HOURS/CREDITS |                                            | 15 Compulsory, 1 Optional | 26 hours/week; 31 ECTS              |     |      |            |                                  |     |      |             | 26 hours/week; 31 ECTS              |     |      |             |                                  |     |      |            | 818                 |     |             |      |  |

| Formative categories |                      | Activities |                    |
|----------------------|----------------------|------------|--------------------|
| DF                   | Foundamental course  | C          | Courses            |
| DD                   | Technical course     | S          | Seminars           |
| DS                   | Specialized course   | LP         | Practical exercise |
| DC                   | Complementary course | P          | Project            |

# **CURRICULUM – 3<sup>rd</sup> YEAR** **2023-2024**

|                        |                                                                                             |                                           |                                    |
|------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------|
| UNIVERSITY             | GEORGE EMIL PALADE UNIVERSITY OF MEDICINE, PHARMACY, SCIENCE, AND TECHNOLOGY OF TÂRGU MURES | PROGRAMME OF STUDY                        | AUTOMATION AND APPLIED INFORMATICS |
| FACULTY                | FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGIES                                         | TITLE AWARDED                             | GRADUATE ENGINEER                  |
| FIELD OF STUDY         | SYSTEMS ENGINEERING                                                                         | OFFICIAL LENGTH OF THE PROGRAMME OF STUDY | 4 YEARS                            |
| LEVEL OF QUALIFICATION | 6 LEVEL CNC                                                                                 | NUMBER OF ECTS/SECT CREDITS               | 60                                 |

| No.                 | Educational activities                     | Code/Type of course       | 1 <sup>st</sup> Semester (14 weeks) |     |      |            |                                  |     |      |            | 2 <sup>nd</sup> Semester (14 weeks) |     |      |            |                                  |     |      |            | Total academic year |     |             |      |   |
|---------------------|--------------------------------------------|---------------------------|-------------------------------------|-----|------|------------|----------------------------------|-----|------|------------|-------------------------------------|-----|------|------------|----------------------------------|-----|------|------------|---------------------|-----|-------------|------|---|
|                     |                                            |                           | 1 <sup>st</sup> Module (7 weeks)    |     |      |            | 2 <sup>nd</sup> Module (7 weeks) |     |      |            | 3 <sup>rd</sup> Module (7 weeks)    |     |      |            | 4 <sup>th</sup> Module (7 weeks) |     |      |            |                     |     |             |      |   |
|                     |                                            |                           | Course                              | SLP | ECTS | Verif form | Course                           | SLP | ECTS | Verif form | Course                              | SLP | ECTS | Verif form | Course                           | SLP | ECTS | Verif form | Course              | LP  | Indiv. Std. | ECTS |   |
|                     | Compulsory courses                         |                           |                                     |     |      |            |                                  |     |      |            |                                     |     |      |            |                                  |     |      |            |                     |     |             |      |   |
| 1                   | WEB technologies                           | AIA301/DD                 | 4                                   | 4L  | 4    | E          |                                  |     |      |            |                                     |     |      |            |                                  |     |      | 28         | 28                  | 44  | 4           |      |   |
| 2                   | Modeling, Identification and Simulation I  | AIA302/DD                 | 6                                   | 4L  | 5    | E          |                                  |     |      |            |                                     |     |      |            |                                  |     |      | 42         | 28                  | 55  | 5           |      |   |
| 3                   | Automata and Microprogramming              | AIA303/DD                 |                                     |     |      |            | 6                                | 4L  | 6    | C          |                                     |     |      |            |                                  |     |      | 42         | 28                  | 80  | 6           |      |   |
| 4                   | Operating systems                          | AIA304/DS                 |                                     |     |      |            | 6                                | 4L  | 6    | E          |                                     |     |      |            |                                  |     |      | 42         | 28                  | 80  | 6           |      |   |
| 5                   | Optimizations Techniques                   | AIA305/DD                 |                                     |     |      |            | 4                                | 2L  | 4    | C          |                                     |     |      |            |                                  |     |      | 28         | 14                  | 58  | 4           |      |   |
| 6                   | Design with Microprocessors                | AIA306/DD                 |                                     |     |      |            |                                  |     |      |            | 4                                   | 6LP | 4    | E          |                                  |     |      | 28         | 42                  | 44  | 4           |      |   |
| 7                   | Modeling, Identification and Simulation II | AIA307/DD                 |                                     |     |      |            |                                  |     |      |            | 4                                   | 4LP | 4    | E          |                                  |     |      | 28         | 28                  | 30  | 4           |      |   |
| 8                   | Computer networks                          | AIA308/DD                 |                                     |     |      |            |                                  |     |      |            |                                     |     |      |            | 4                                | 4L  | 4    | E          | 28                  | 28  | 44          | 4    |   |
| 9                   | Robotics                                   | AIA309/DD                 |                                     |     |      |            |                                  |     |      |            |                                     |     |      |            | 4                                | 4L  | 4    | C          | 28                  | 28  | 44          | 4    |   |
| 10                  | Automatic systems                          | AIA310/DD                 |                                     |     |      |            |                                  |     |      |            |                                     |     |      |            | 4                                | 4L  | 4    | E          | 28                  | 28  | 44          | 4    |   |
|                     |                                            | AIA311/DD                 |                                     |     |      |            |                                  |     |      |            |                                     |     |      |            | -                                | 2P  | 2    | C          | -                   | 14  | 36          | 2    |   |
| 11                  | On-site training                           | AIA312/DS                 | 90                                  |     |      |            |                                  |     |      |            |                                     |     |      |            |                                  |     |      | 4          | C                   | -   | 90          | 10   | 4 |
|                     | Optional courses                           |                           |                                     |     |      |            |                                  |     |      |            |                                     |     |      |            |                                  |     |      |            |                     |     |             |      |   |
| 12                  | Object oriented programming                | AIA313/DS                 | 4                                   | 4L  | 5    | E          |                                  |     |      |            |                                     |     |      |            |                                  |     |      | 28         | 28                  | 69  | 5           |      |   |
| 13                  | Software systems engineering               | AIA315/ DD                |                                     |     |      |            |                                  |     |      |            | 4                                   | 4L  | 4    | E          |                                  |     |      | 28         | 28                  | 44  | 4           |      |   |
| GENERAL TOTAL       |                                            | 10DD, 3DS                 | 14                                  | 12  | 14   | 3E         | 16                               | 10  | 16   | 1E,2C      | 12                                  | 14  | 12   | 3E         | 12                               | 14  | 18   | 2E,3C      | 378                 | 440 | 682         | 60   |   |
| TOTAL HOURS/CREDITS |                                            | 11 Compulsory, 2 Optional | 26 hours/week; 30 ECTS              |     |      |            |                                  |     |      |            | 26 hours/week; 30 ECTS              |     |      |            |                                  |     |      |            | 818                 |     |             |      |   |

| Formative categories |                      | Activities |                    |
|----------------------|----------------------|------------|--------------------|
| DF                   | Foundamental course  | C          | Courses            |
| DD                   | Technical course     | S          | Seminars           |
| DS                   | Specialized course   | LP         | Practical exercise |
| DC                   | Complementary course | P          | Project            |

## CURRICULUM – 4<sup>th</sup> YEAR 2023-2024

|                               |                                                                                                    |                                                  |                                           |
|-------------------------------|----------------------------------------------------------------------------------------------------|--------------------------------------------------|-------------------------------------------|
| <b>UNIVERSITY</b>             | <b>GEORGE EMIL PALADE UNIVERSITY OF MEDICINE, PHARMACY, SCIENCE, AND TECHNOLOGY OF TÂRGU MUREȘ</b> | <b>PROGRAMME OF STUDY</b>                        | <b>AUTOMATION AND APPLIED INFORMATICS</b> |
| <b>FACULTY</b>                | <b>FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGIES</b>                                         | <b>TITLE AWARDED</b>                             | <b>GRADUATE ENGINEER</b>                  |
| <b>FIELD OF STUDY</b>         | <b>SYSTEMS ENGINEERING</b>                                                                         | <b>OFFICIAL LENGTH OF THE PROGRAMME OF STUDY</b> | <b>4 YEARS</b>                            |
| <b>LEVEL OF QUALIFICATION</b> | <b>6 LEVEL CNC</b>                                                                                 | <b>NUMBER OF ECTS/SECT CREDITS</b>               | <b>60</b>                                 |

| No.                 | Educational activities                           | Code/Type of course          | 1 <sup>st</sup> Semester (14 weeks) |     |      |            |                                  |     |      |            | 2 <sup>nd</sup> Semester (14 weeks) |                        |      |            |                                  |     |      |            | Total academic year |     |             |      |   |
|---------------------|--------------------------------------------------|------------------------------|-------------------------------------|-----|------|------------|----------------------------------|-----|------|------------|-------------------------------------|------------------------|------|------------|----------------------------------|-----|------|------------|---------------------|-----|-------------|------|---|
|                     |                                                  |                              | 1 <sup>st</sup> Module (7 weeks)    |     |      |            | 2 <sup>nd</sup> Module (7 weeks) |     |      |            | 3 <sup>rd</sup> Module (7 weeks)    |                        |      |            | 4 <sup>th</sup> Module (7 weeks) |     |      |            |                     |     |             |      |   |
|                     |                                                  |                              | Course                              | SLP | ECTS | Verif form | Course                           | SLP | ECTS | Verif form | Course                              | SLP                    | ECTS | Verif form | Course                           | SLP | ECTS | Verif form | Course              | LP  | Indiv. Std. | ECTS |   |
|                     | Compulsory courses                               |                              |                                     |     |      |            |                                  |     |      |            |                                     |                        |      |            |                                  |     |      |            |                     |     |             |      |   |
| 1                   | Artificial intelligence                          | AIA401/DS                    | 6                                   | 4L  | 6    | E          |                                  |     |      |            |                                     |                        |      |            |                                  |     |      |            | 42                  | 28  | 80          | 6    |   |
| 2                   | Real Time Software Application Programming       | AIA402/DS                    | 4                                   | 4L  | 4    | E          |                                  |     |      |            |                                     |                        |      |            |                                  |     |      |            | 28                  | 28  | 44          | 4    |   |
| 3                   | Control Systems of Continuous Processes          | AIA403/DS                    | 4                                   | 4LP | 5    | E          |                                  |     |      |            |                                     |                        |      |            |                                  |     |      |            | 28                  | 28  | 69          | 5    |   |
| 4                   | Adaptive and robust systems                      | AIA404/DS                    |                                     |     |      |            | 4                                | 4L  | 4    | E          |                                     |                        |      |            |                                  |     |      |            | 28                  | 28  | 44          | 4    |   |
|                     |                                                  | AIA405/DS                    |                                     |     |      |            | -                                | 2P  | 2    | C          |                                     |                        |      |            |                                  |     |      |            | -                   | 14  | 36          | 2    |   |
| 5                   | Electric and electronic automation equipment     | AIA406/DS                    |                                     |     |      |            | 6                                | 4L  | 6    | E          |                                     |                        |      |            |                                  |     |      |            | 42                  | 28  | 80          | 6    |   |
| 6                   | Data transmission                                | AIA407/DS                    |                                     |     |      |            | 4                                | 2L  | 3    | E          |                                     |                        |      |            |                                  |     |      |            | 28                  | 14  | 33          | 3    |   |
| 7                   | Reliability and Diagnosis                        | AIA408/DS                    |                                     |     |      |            |                                  |     |      |            |                                     |                        |      |            | 4                                | 4L  | 3    | E          | 28                  | 28  | 19          | 3    |   |
| 8                   | SCADA - Supervisory Control and Data Acquisition | AIA409/DS                    |                                     |     |      |            |                                  |     |      |            | 4                                   | 4L                     | 4    | C          |                                  |     |      |            | 28                  | 28  | 44          | 4    |   |
| 9                   | Methodology of drafting projects                 | AIA410/DS                    |                                     |     |      |            |                                  |     |      |            | 4                                   | 4SP                    | 4    | C          |                                  |     |      |            | 28                  | 28  | 44          | 4    |   |
| 10                  | Diploma project practical training               | AIA411/DS                    | 70                                  |     |      |            |                                  |     |      |            |                                     |                        |      |            |                                  |     |      | 4          | C                   | -   | 70          | 30   | 4 |
| 11                  | Diploma project drafting                         | AIA412/DS                    |                                     |     |      |            |                                  |     |      |            | -                                   | 4P                     |      |            | -                                | 4P  | 4    | C          | -                   | 56  | 44          | 4    |   |
|                     | Optional courses                                 |                              |                                     |     |      |            |                                  |     |      |            |                                     |                        |      |            |                                  |     |      |            |                     |     |             |      |   |
| 12                  | Power Electronics                                | AIA413/ DS                   |                                     |     |      |            |                                  |     |      |            |                                     |                        |      |            | 4                                | 4L  | 4    | C          | 28                  | 28  | 44          | 4    |   |
| 13                  | Building automation                              | AIA415/DS                    |                                     |     |      |            |                                  |     |      |            | 4                                   | 4L                     | 4    | E          |                                  |     |      |            | 28                  | 28  | 44          | 4    |   |
| 14                  | Driving systems of robots                        | AIA418 /DS                   |                                     |     |      |            |                                  |     |      |            |                                     |                        |      |            | 4                                | 2L  | 3    | E          | 28                  | 14  | 33          | 3    |   |
| GENERAL TOTAL       |                                                  | 14 DS                        | 14                                  | 12  | 15   | 3E         | 14                               | 12  | 15   | 3E,1C      | 12                                  | 16                     | 12   | 1E, 2C     | 12                               | 14  | 18   | 2E,3C      | 364                 | 448 | 688         | 60   |   |
| TOTAL HOURS/CREDITS |                                                  | 11 Compulsory/<br>3 Optional | 26 hours/week; 30 ECTS              |     |      |            |                                  |     |      |            |                                     | 27 hours/week; 30 ECTS |      |            |                                  |     |      |            | 812                 |     |             |      |   |

| Formative categories |                      | Activities |                    |
|----------------------|----------------------|------------|--------------------|
| DF                   | Foundamental course  | C          | Courses            |
| DD                   | Technical course     | S          | Seminars           |
| DS                   | Specialized course   | LP         | Practical exercise |
| DC                   | Complementary course | P          | Project            |