| | Inter | national Univers | sity o | f Sa | rajevo | , Fac | ulty of En | gineering and Natural Sciences (FENS) | | | | |
|--|------------------------------------|------------------|--------|-------|----------------|-----------------------------------|------------|---------------------------------------|---------------|-----|-------|------|
| | Ma | aster Curriculum | - Ele | ctric | al and | l Elec | tronics E | ngineering Programme (2018 - 2019) | | | | |
| | | | | | | | | | | | | |
| | Semester I | | | | | | | Semester II | | | | |
| Code | Title | Prerequisites | Т | Р | ECTS | | Code | Title | Prerequisites | Т | Р | ECTS |
| MATH51 | Advanced Mathematics for Engineers | and Scientists | 3 | 1 | 6 | | EExxx | Program elective V | See Table1 | | | 6 |
| EExxx | Program elective I | See Table1 | | | 6 | | EE599 | Master Thesis | See Table1 | 2 | 20 | 24 |
| EExxx | Program elective II | See Table1 | | | 6 | | | | | | | |
| EExxx | Program elective III | See Table1 | | | 6 | | | | | | | |
| EExxx | Program elective VI | See Table1 | | | 6 | | | | | | | |
| | | | | | | | | | | | | |
| | Semester Total = 30 | | | | | | | Semester Total | | | tal = | 30 |
| Abbreviations: T (Theory), P (Practice), ECTS credit | | | | | | | No. of C | No. of Courses | | | | 7 |
| Total Credits Required for Graduation 60 | | | | | | Average ECTS Credits Per Semester | | | | | 30 | |
| Total Credits of Electives | | | 30 | | Elective Ratio | | | | | 50% | | |
| | | | | | | | | | | | | |

5 Program Electives are taken from Table 1. At most 2 undergraduate level courses in EEE can be taken as program elective with academic advisor's approval. Faculty Elective courses of level 500 and 600 can replace program elective with academic advisor's approval. This new curriculum is being implemented for the new students who entered the class in the year 2017/2018 or after.

| Table 1: Program electives of EEE * | | | | | | | | | | | | | |
|---|---|--|---|---|---|--|---|--|--|--|--|--|--|
| Title | Pre-requisites | ECTS | | | Code | Title | Pre-requisites | ECTS | | | | | |
| Energy management systems | | 6 | | | EE502 | Measurement Techniques and Instrumentation | | 6 | | | | | |
| Power system plant | | 6 | | | EE503 | Electromagnetic Fields | | 6 | | | | | |
| Transient & overvoltage phenomena | | 6 | | | EE504 | Applications of Complex Function Variable | | 6 | | | | | |
| Power system protection | | 6 | | | EE510 | Digital Control Systems | | 6 | | | | | |
| Power electronics & machines | | 6 | | | EE520 | Optical Communication Systems | | 6 | | | | | |
| Power markets & economics | | 6 | | | EE521 | Nonlinear Optics | | 6 | | | | | |
| Advanced Power Systems Technology | | 6 | | | EE530 | Electromagnetic Engineering | | 6 | | | | | |
| Renewable Energy and Clean Technolo | ogy | 6 | | | EE531 | Numerical Electromagnetics | | 6 | | | | | |
| Control of power systems | | 6 | | | EE540 | Advanced Antenna Theory | | 6 | | | | | |
| Industrial Automation | | 6 | | | EE541 | Planar Antenna Design | | 6 | | | | | |
| Advanced Digital Signal Processing | | 6 | | | EE550 | Microwave Filter Design | | 6 | | | | | |
| Signals, Sensors and Acquisition System | ns | 6 | | | EE551 | Microwave Amplifiers Design | | 6 | | | | | |
| Design of Embedded Systems | | 6 | | | EE555 | Wireless and Mobile Networks | | 6 | | | | | |
| State-Space and Multivariable Control | | 6 | | | EE563 | Digital Image Processing | | 6 | | | | | |
| Sliding Modes and Their Application | | 6 | | | | | | | | | | | |
| Optimal & Robust Control | | 6 | | | | | | | | | | | |
| Real Time and Distributed Systems | | 6 | | | | | | | | | | | |
| Special Topics in Engineering | | 6 | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | Title Energy management systems Power system plant Transient & overvoltage phenomena Power system protection Power electronics & machines Power markets & economics Advanced Power Systems Technology Renewable Energy and Clean Technology Control of power systems Industrial Automation Advanced Digital Signal Processing Signals, Sensors and Acquisition System Design of Embedded Systems State-Space and Multivariable Control Sliding Modes and Their Application Optimal & Robust Control Real Time and Distributed Systems Special Topics in Engineering | TitlePre-requisitesEnergy management systemsPower system plantTransient & overvoltage phenomenaPower system protectionPower system protectionPower electronics & machinesPower arkets & economicsAdvanced Power Systems TechnologyRenewable Energy and Clean TechnologyControl of power systemsIndustrial AutomationAdvanced Digital Signal ProcessingSignals, Sensors and Acquisition SystemsDesign of Embedded SystemsState-Space and Multivariable ControlSliding Modes and Their ApplicationOptimal & Robust ControlReal Time and Distributed SystemsSpecial Topics in Engineering | TitlePre-requisitesECTsEnergy management systems6Power system plant6Transient & overvoltage phenomena6Power system protection6Power system protection6Power electronics & machines6Power markets & economics6Advanced Power Systems Technology6Renewable Energy and Clean Technology6Control of power systems6Industrial Automation6Advanced Digital Signal Processing6Signals, Sensors and Acquisition Systems6Design of Embedded Systems6State-Space and Multivariable Control6Siding Modes and Their Application6Optimal & Robust Control6Special Topics in Engineering6Special Topics in Engineering6 | Table 1:TitlePre-requisitesECTsEnergy management systems6 | TitlePre-requisitesECTSEnergy management systems60Power system plant60Transient & overvoltage phenomena60Power system protection60Power electronics & machines60Power markets & economics60Advanced Power Systems Technology60Renewable Energy and Clean Technology60Industrial Automation60Advanced Digital Signal Processing60Signals, Sensors and Acquisition Systems60State-Space and Multivariable Control60Siding Modes and Their Application60Optimal & Robust Control60Special Topics in Engineering60Advance I Topics in Engineering60 | Table 1: Program electionTitlePre-requisitesECTSCodeEnergy management systems6EE502Power system plant6EE503Transient & overvoltage phenomena6EE504Power system protection6EE504Power system protection6EE504Power electronics & machines6EE520Power markets & economics6EE520Power markets & economics6EE530Advanced Power Systems Technology6EE531Control of power systems6EE531Control of power systems6EE550Signals, Sensors and Acquisition Systems6EE551Design of Embedded Systems6EE553State-Space and Multivariable Control6EE563Silding Modes and Their Application6EE563Silding Modes and Their Application6EE563Special Topics in Engineering6Advance Negres in Engineering6 | Table 1: Program electives of EEE *TitlePre-requisitesECTSCodeTitleEnergy management systems66EE502Measurement Techniques and InstrumentationPower system plant66EE503Electromagnetic FieldsTransient & overvoltage phenomena6EE504Applications of Complex Function VariablePower system protection6EE510Digital Control SystemsPower electronics & machines6EE520Optical Communication SystemsPower markets & economics6EE530Electromagnetic EngineeringRenewable Energy and Clean Technology6EE530Electromagnetic EngineeringRenewable Energy and Clean Technology6EE541Planar Antenna DesignAdvanced Digital Signal Processing6EE550Microwave Filter DesignSignals, Sensors and Acquisition Systems6EE553Digital Image ProcessingSignals, Sensors and Acquisition Systems6EE553Digital Image ProcessingSignals, Robust Control6EE553Digital Image ProcessingSiding Modes and Their Application6EE553Digital Image ProcessingSiding Modes and Their Application6EE563Digital Image ProcessingSiding Modes | Table 1: Program elective of EEE *TitlePre-requisitesECTSCodeTitlePre-requisitesEnergy management systems66EE502Measurement Techniques and InstrumentationPower system plant66EE503Electromagnetic FieldsTransient & overvoltage phenomena66EE504Applications of Complex Function VariablePower system protection66EE500Digital Control Systems6Power electronics & machines66EE520Optical Communication Systems6Power markets & economics6EE520Optical Communication Systems6Advanced Power Systems Technology6EE530Electromagnetic Engineering6Renewable Energy and Clean Technology6EE531Numerical Electromagnetics6Industrial Automation6EE530Microwave Amplifiers Design6Signals, Sensors and Acquisition Systems6EE555Wircless and Mobile Networks6Signals, Sensor and Acquisition Systems6EE555Wircless and Mobile Networks6State-Space and Multivariable Control6EE555Wireless and Mobile Networks6Siding Modes and Their Application6I6IOptimal & Robust Control66IIReal Time and Distributed Systems6IIISpecial Topics in Engineering6IIIIndustrial Automation6I | | | | | |

* Or Any new elective course offered later due to new technologies or new facilities in the university with academic advisor's approval