



Universidad Politécnica de Puerto Rico
Graduate School
Master Program in Electrical Engineering



M.S.E.E. (Thesis Option)	M.Eng.E.E. (Non Thesis Option)
Core Courses: 9 credit-hours Electives: 15 credit-hours Thesis: 6 credit-hours Total: 30 credit-hours	Core Courses: 9 credit-hours Electives: 30 credit-hours Total: 39 credit-hours

Communication Systems

Area of Interest

Core Courses

EE 6010 – Math. Methods for Signal Processing
 EE 6020 – Stochastic Processes
 EE 6760 – Digital Communications

Elective Courses*

(Thesis option requires 15 credit-hours. Non-thesis option requires 30 credit-hours)

EE 6030 – Linear Systems EE 6720 – Pattern Recognition EE 6770 – Satellite Communication Systems EE 7712 – Image Processing EE 7714 – Satellite Remote Sensing	EE 7716 – Computer Vision EE 7730 – Speech Processing EE 7740 – Algorithms for Digital Signal Processing EE 7772 – Wireless Communications EE 7780 – Special Topics in Signal Processing
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The student may include up to 6 credit-hours selected from this list:

EE 5714 – Digital Communications Systems**
 EE 5720 – Digital Signal Processing**
 EE 5730 – RF Circuit Design

The student may include up to 6 credit-hours selected from this list:

CECS 6120 – Computer Architecture CECS 6130 – Data Comm. and Comp. Networks CECS 6150 – Object Oriented Design CECS 6510 – Software Engineering	CECS 6010 – Advanced Design and Analysis of Algorithms CECS 6240 – Technology-Based Start-Up CECS 7550 – Artificial Intelligence
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* In addition to the current list of elective courses, the student could select as an elective any course with GMP code that is not specified in this list.

** Must be taken if not completed during the undergraduate studies.

Thesis or Project

EE 7800 – Thesis
 EE 7801 – Thesis Extension
 EE 7790 – Project for Master in Electrical Engineering
 EE 7791 – Project Extension for Master in Electrical Engineering



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**Digital Signal Processing
Area of Interest**

Core Courses
EE 6010 – Math. Methods for Signal Processing
EE 6020 – Stochastic Processes
EE 6030 – Linear Systems

Elective Courses*

(Thesis option requires 15 credit-hours. Non-thesis option requires 30 credit-hours)

- | | |
|---|---|
| EE 6632 – Non-Linear Control | EE 7714 – Satellite Remote Sensing |
| EE 6660 – Advanced Robotics Manipulators | EE 7716 – Computer Vision |
| EE 6720 – Pattern Recognition | EE 7730 – Speech Processing |
| EE 6740 – Intelligent Control | EE 7740 – Algorithms for Digital Signal Processing |
| EE 6760 – Digital Communications | EE 7772 – Wireless Communications |
| EE 6770 – Satellite Communication Systems | EE 7780 – Special Topics in Digital Signal Processing |
| EE 7712 – Image Processing | |

The student may include up to 6 credit-hours selected from this list:

- | |
|--|
| EE 5714 – Digital Communications Systems |
| EE 5720 – Digital Signal Processing** |
| EE 5730 – RF Circuit Design |

The student may include up to 6 credit-hours selected from this list:

- | | |
|---|--|
| CECS 6120 – Computer Architecture | CECS 6010 – Advanced Design and Analysis of Algorithms |
| CECS 6130 – Data Comm. and Comp. Networks | CECS 6240 – Technology-Based Start-Up |
| CECS 6150 – Object Oriented Design | CECS 7550 – Artificial Intelligence |
| CECS 6510 – Software Engineering | |

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Thesis or Project

EE 7800 – Thesis
EE 7801 – Thesis Extension
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Contact Information:
Graduate School

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M.Eng.E.E.

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Electives: 30 credit-hours
Total: 39 credit-hours

**Power Systems and Renewable Energy
Area of Interest**

Core Courses

(3 credits each)

EE 6010 – Mathematical Methods for Signal Processing
EE 6400 – Direct Energy Conversion and Renewables
EE 6402 – Market, Environmental and Public Policy Issues of Energy Systems

Elective Courses

(3 credits each)

Student must complete the remaining 30 credit-hours by selecting courses from this list of electives, of which may include up to six (6) credit-hours of the Advanced Undergraduate Courses.

Oriented Electives

EE 6410 – Smart Grids and Distributed Generation
EE 6412 – Energy Management
EE 6420 – Power Systems Transients
EE 6422 – Power Systems Dynamic Stability

EE 6424 – Power Systems Operation, Control and Planning
EE 7410 – Drives and Controls for Energy Conservation and Alternate Sources
EE 7420 – Advanced Electrical Power Quality
EE 7422 – Grounding Systems

Advanced Undergraduate Electives

EE 4422 – Electric Power Quality
EE 4432 – Power System Protection
EE 4436 – Distribution System Design
EE 4464 – Generation Control Systems
EE 4502 – Power Electronics

* In addition to the current list of elective courses, the student could select as an elective any course with GMP code that is not specified in this list.

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