



 POLITECNICO DI MILANO



Double Master Degree in Electrical Engineering between PoliMI and Beihang University (BUAA), P. R. China

Sergio A. Pignari, Flavia Grassi

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The programme supports the exchange of students between BUAA and PoliMI, and is aimed at integrating the unique education resources of each University to promote faculty construction and improve graduate students quality.

After successful completion of the study program, exchange students will receive **the following titles:**

◆ ***Laurea Magistrale***, equivalent to the Master of Science degree, delivered by PoliMI

◆ ***Master of Engineering***, equivalent to the Master of Science degree, delivered by BUAA

A ***Diploma Supplement*** will be issued together with the degrees describing both systems and explaining the equivalence.



This agreement applies to PoliMi students who:

- have **successfully completed a Bachelor degree in Engineering** or in a related field at similar Italian University, and are **fully enrolled in the Master class in Electrical Engineering at PoliMi**, and
- are **well versed in the English language.**



- ❑ Students will be admitted to the present program on the basis of selection rules jointly defined by the partner Institutions.

- ❑ Both Parties guarantee that participants of the DD program will be selected according to their *academic, personal, and linguistic qualifications, inter-cultural competences, and capability for inter-cultural learning to be proved through previous international experience (exchange visits), motivation letters and in interviews.*



- ❑ Both programs to be established at PoliMI and at XJTU will run *three years* for a total of *180 ECTS credits (according to T.I.M.E. requirements)*.
- ❑ All credits acquired under this program will be mutually recognized. Academic credits will be transferred by the host Institution to the home Institution after the exchange period.



SINGLE EXAM GRADES

PM	BUAA
30 – 30L	90 – 100
26 – 29	80 – 89
22 – 25	70 – 79
18 – 21	60 – 69
Fail	0 – 59

FINAL EXAMINATION GRADES

PM	BUAA
100 – 110	90 – 100
89 – 99	80 – 89
78 – 88	70 – 79
66 – 77	60 – 69
Fail	0 – 59



It is acknowledged that semesters at PoliMi and BUAA are not synchronized, and organized as follows.

□ @ *PoliMi*

- Summer semester: early March to late July
- Winter semester: early October to early February

□ @ *BUAA*

- Summer semester: late February to mid July
- Winter semester: early September to late January

It has been decided to allocate adequate buffer time before and after each exchange of students.



- The diploma thesis is required to be written in English and an abstract with one page in Chinese and Italian for students from PoliMI.
- The diploma thesis is required to be written in English and an abstract with one page in Chinese and Italian for students from BUAA.
- The diploma thesis shall be presented at both Institutions.



- ❑ All exchange students **must register and pay tuition and other fees to the home Institution.**
- ❑ They will **not be required to pay registration fee, examination fee, tuition fees or other fees to the host Institution.**
- ❑ Exchange students **will be responsible for**
 - overseas student health cover
 - travel expenses
 - accommodation and food costs at host University
 - passport and visa costs
 - textbooks, clothing and personal expenses
 - other compulsory medical insurance (if necessary)
 - all other incidental and non-compulsory fees incurred during the period of exchange.



- ❑ **At BUAA:** The School of Automation Science and Electrical Eng., School of Instrumentation Science and Opto-electronics Eng. and the Int. Division at BUAA is responsible for the exchange program in BUAA.
- ❑ **At PoliMi:** The Studesk 8 Office at PoliMi is responsible for the exchange program in PoliMi.
- ❑ These offices will be in contact with exchange students for the entire exchange period, and will verify, upon students' return, that the procedures for academic recognition of activities developed at the partner Institution have reached successful conclusion.
- ❑ The host Institution will support students in preparing the documents for the visa and in finding accommodation.



Both BUAA and PoliMI students will spend the first academic year in PoliMI, attending the following courses:

First Semester Courses	Credits (ECTS)
Measurement Oriented Digital Signal Processing	10
Electric Power Systems	10
Science and Technology of Electrical Materials	8
European Culture and Italian Language (BUAA students only)	6

Second Semester Courses	Credits (ECTS)
Power Electronics	10
Electromagnetic Compatibility B	10
Electrical Switching Devices (*)	8
Applied Statistics (*)	6

(*) These two courses can be replaced by other courses chosen by the students among those offered by PM at the Master of Science.



Both PoliMI and BUAA students will spend the second academic year of Master in BUAA.

During this year, both PM and BUAA students will:

- start their M.Sc. thesis project under the guidance of the Chinese supervisor;**
- attend the courses reported in the tables hereunder.**



First Semester: Mandatory and Elective courses

First Semester – Mandatory Courses	Credits (ECTS)
Modern Technology on Power Electronics	8
AC speed regulation and system analysis	10
Foundation and Application of Electromagnetic Compatibility (**)	5
One among the three elective courses reported in the table below	10

First Semester – Elective Courses	Credits (ECTS)
Modern Circuit Theory	10
Linear system control	10
Electromagnetic field and electromagnetic wave	10



Second Semester: Mandatory and Elective courses

Second Semester – Mandatory Courses	Credits (ECTS)
Special Electrical Machine	8
Intelligent Apparatus	8
Control System for Electrical Drive	5
Power System Analysis (***)	3
Chinese Culture (PM students only)	6
One among the three elective courses reported in the table below	5

Second Semester – Elective Courses	Credits (ECTS)
Optimal Control	5
Robust Control	5
Computer Control System	5



First semester

- BUAA students (30 credits)
will complete the thesis project at BUAA
- PM students (20 credits)
will be involved in a Project Work or Internship at PoliMI or BUAA

Second semester

- BUAA students (20 credits)
will be involved in a Project Work or Internship at PoliMI
- PM students (30 credits)
will complete the thesis project at BUAA



Project Work vs Internship

- ❑ In the case of the **Project Work**, the students will be involved in project activity, conducted under the guidance of a supervisor, and related to one of the research projects ongoing in that time frame at that University.
- ❑ As an alternative, students may be involved in an **internship** in a company or a research center.
- ❑ PoliMI students may decide to stay at BUAA for an additional semester (first semester of the third year).