



International studies of the second level in Electrical Engineering  
**Master of Science**  
**in Electrical Engineering**  
**CONTROL IN ELECTRICAL POWER ENGINEERING**

**Double-Degree (DD) Programme\***  
 in cooperation with  
**Ryerson University (RU) Toronto, Canada**



\*option for a limited number of best students

<b>Entry Requirements</b> B.Sc./B.Eng. diploma (preferably in electrical engineering or related field)	<b>Mode of study</b> Full time	<b>Duration</b> 2 years
<b>Start data</b> 01.10.2012 at WrUT 01.09.2012 at RU (DD*)	<b>Application Deadline</b> 15.07.2012 for studies at WrUT 31.03.2012 for DD option	<b>Language of Instruction</b> English



Wrocław University of Technology



**Wroclaw University of Technology:**

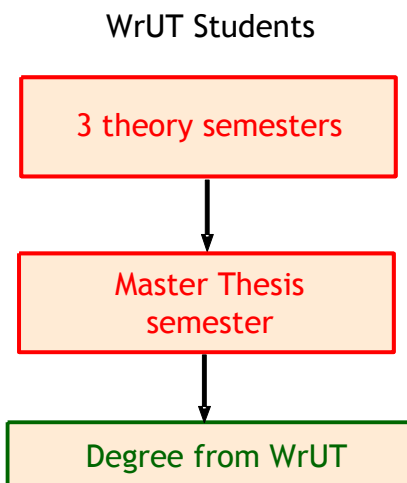
- one of the best and largest universities in Poland ranked as the top university in the region and always among the best three universities in the country
- more than **32 000 students** studying at **12 Faculties** of the University
- **2000 academic teachers**
- <http://www.pwr.wroc.pl>

**Faculty of Electrical Engineering:**

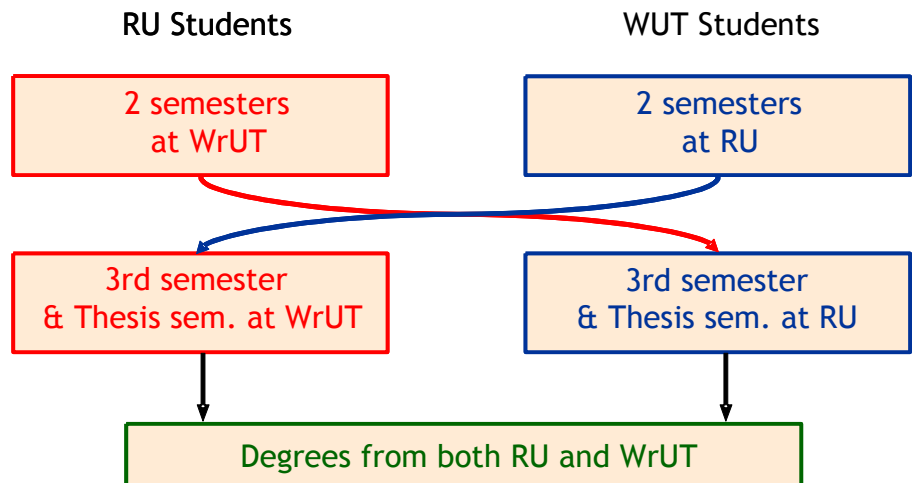
- 66 years of history
- more than 1500 full-time and part-time students
- 97 academic teachers
- students benefit from a range of international programmes
- the academic staff recognized as leading in research & teaching in the country
- [http://www.weny.pwr.wroc.pl/informacje\\_ogolne.52.dhtml](http://www.weny.pwr.wroc.pl/informacje_ogolne.52.dhtml)



**WrUT Basic Program Structure (4 sem.)**



**RU- WrUT Joint Program- Students' Exchange Flows (option for limited number of best students, from 2008/09)**



## **Admission and registration**

### Candidates

- candidates with the B.Sc./B.Eng. diploma from EU/EFTA and non-EU countries (preferably B.Sc. in electrical engineering or related field)
- graduates of B.Sc./B.Eng. studies in Poland
- students of 5-year M.Sc. studies at the FEE, WrUT, after fully completed 3<sup>rd</sup> year of studies

### Linguistic demands

- students and alumni of WrUT – passed English exam at the B1E level
- EU and non- EU candidates – TOEFL (550 points) or IELTS (6 points) language certificate

### Tuition fees

- non-EU candidates – 4000 EUR/year
- home and EU candidates – free of charge
- no tuition fee at the partner university in case of DD option

### Admission procedures

- Admission procedures are defined by the International Office of WrUT.

*The following documents should be submitted to the International Office of WrUT:*

- a complete application form available on website [www.pwr.wroc.pl](http://www.pwr.wroc.pl),
- a notarised and, if necessary, translated into English or Polish copy of the B.Sc./B.Eng. diploma and transcript
- a photocopy of the passport, 4 passport photos
- the original receipt of the admission fee payment

### Admission fees

- 20 EUR for EU and EFTA citizens
- 200 EUR for other candidates

### Important enrolment deadlines

- submission of application forms – by July 15<sup>th</sup>, 2012 (for the full Master Programme at WrUT, Poland)
- acceptance decision (studies in Wroclaw) – by the end of August 2012
- paying fee for the 1<sup>st</sup> year of studies – by September 30<sup>th</sup>, 2012

### Organisation of studies

- the four-semester duration of the M.Sc. studies is split into three theory semesters and a Master's Thesis semester
- the programme includes a 4-week internship (industrial placement)

### International Office of Wroclaw University of Technology

Phone: +48-71-320-3170, fax: +48-71-320- 320-3570

e-mail: [admission@pwr.wroc.pl](mailto:admission@pwr.wroc.pl)

### **Double-Degree Programme**

Exchange with Ryerson University (RU), Toronto, Canada is available for a limited number of best students (in acad. year 2012/12 for Polish citizens only).

- admission and registration at the WrUT
- first year of studies at the RU, Canada, second year at the WrUT, Poland
- B.Eng./B.Sc. Degrees from WrUT and RU (after successful completion of degree requirements at both universities)
- submission of applications – by March 31<sup>st</sup>, 2012
- acceptance decision – by mid-April 2012

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## **List of courses**

### I Semester

- ✓ Power quality assessment
- ✓ Numerical and optimization methods
- ✓ Digital control systems
- ✓ Power system faults
- ✓ Dynamics and control of AC/DC drives
- ✓ Advanced technology in electrical power generation
- ✓ Foreign language A2/E

### II Semester

- ✓ Electrical power system operation and control
- ✓ Power system protection
- ✓ Simulation and analysis of power system transients
- ✓ Digital signal processing for protection and control
- ✓ Fiber optics communication and sensors
- ✓ Renewable energy sources
- ✓ Selected problems of circuit theory
- ✓ Diploma placement 4 weeks

### III Semester

- ✓ Electrical power systems management
- ✓ Power system automation and security
- ✓ Electromagnetic compatibility
- ✓ Artificial intelligence techniques
- ✓ Advanced high voltage technology
- ✓ Advanced measurements in electrical engineering
- ✓ Elective courses (min. 2 courses)

### IV Semester

- ✓ Diploma project
- ✓ Diploma seminar
- ✓ Master's Thesis

## **List of courses**

### Compulsory courses at the Ryerson University, Canada (Double-Degree Programme)

- ✓ Applied optimization technologies
- ✓ Power system stability and control
- ✓ Electric motor drives
- ✓ Selected topics in electrical engineering

While at Ryerson, the students have to take the above four courses plus minimum two others selected from the list of Power/Control Engineering Courses offered at RU (see separate file).

More information can be found at the web site of the FEE [http://www.weny.pwr.wroc.pl/podwojny\\_dyplom\\_toronto,52.dhtml](http://www.weny.pwr.wroc.pl/podwojny_dyplom_toronto,52.dhtml)

Any **questions** concerning the studies may be addressed to the International Office of WrUT ([admission@pwr.wroc.pl](mailto:admission@pwr.wroc.pl)) or directly to:

### **Waldemar Rebizant, Ph.D., D.Sc., Assc. Prof.**

Vice-Dean for Faculty Development

and International Co-operation

Faculty of Electrical Engineering

Wroclaw University of Technology

Wybrzeze Wyspianskiego 27, 50-370 Wroclaw, Poland

Phone: +48-71-320-4401 or +48-71-320-320-4458

Fax: +48-71-320-2619

e-mail: [waldemar.rebizant@pwr.wroc.pl](mailto:waldemar.rebizant@pwr.wroc.pl)