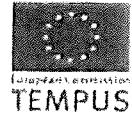




Reform of Education THru
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Double Degree Agreement

on

**Master in Energy and Environmental
Engineering/Master in Environmental Protection
(in power engineering)**

between

Polytechnic Institute of Leiria, Portugal

and

National Polytechnic University of Armenia

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The Polytechnic Institute of Leiria, hereinafter referred as IPL, represented by the President **Nuno André Oliveira Mangas** Pereira and the National Polytechnic University of Armenia, hereinafter referred as NPUA, represented by the Rector **Vostanik Zaven Marukhyan**.

Agree on the following terms regarding a **DOUBLE DEGREE PROGRAMME** on Master in Energy and Environmental Engineering/Master in Environmental Protection (in power engineering).

1. PURPOSE OF THE AGREEMENT AND RELEVANCE FOR THE RETHINKe PROJECT

The aim of this agreement is to establish a double degree programme with regard to these official degrees:

- a) Master in Energy and Environmental Engineering, official degree of the current academic offer of IPL.
- b) Master in Environmental Protection (in power engineering), official degree of the current academic offer of NPUA.

By means of this agreement, students enrolled in one of these programmes could be awarded with both degrees, providing that they fulfil the conditions and requirements established in the following clauses.

The double degree set up by this agreement is intended to be a relevant academic tool to achieve the following basic objectives of the RETHINKe project in the field of Environmental Sciences:

- a) To promote the reform and modernisation of higher education in Armenia.
- b) To enhance the quality and relevance of higher education in Armenia
- c) To build up the capacity of higher education institutions in Armenia and Portugal, in particular for international cooperation and for a permanent modernisation process, and to assist them in opening themselves up to society at large, the world of work and the wider world.
- d) To foster the reciprocal development of human resources in both institutions.
- e) To enhance networking among IPL and NPUA.
- f) To enhance mutual understanding between peoples and cultures of Portugal and Armenia.

2. MUTUAL CREDIT RECOGNITION UNDER THIS AGREEMENT

Students taking part in this double degree programme will have to get a total of 120 ECTS credits to be awarded with both degrees. Part of those total ECTS credits must be earned at the student's home institution and other part at the other Higher Education Institution (HEI) involved in this double degree programme.

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All the ECTS credits and grades awarded by one HEI to students taking part in this double degree programme will be fully recognized by the other institution, according to the terms and conditions established in the Annex to this agreement.

3. DOUBLE DEGREE STUDY PROGRAMME

Students participating in the double degree programme must follow the study programme set out in this agreement's Annex in order to be awarded with both degrees.

The administrative procedure to obtain each official degree after having completed the study programme is defined and managed by the issuing institution.

A new edition of the double degree programme will take place every academic year, only provided that both titles are officially implemented during that year at the partner institutions.

It is agreed and understood that each HEI has the right and responsibility to make changes to its curricula to meet accreditation standards. Any such changes that impact upon the Double Degree program will be promptly and duly communicated to the other HEI in writing.

4. NUMBER OF STUDENTS

Every year a maximum number of 5 students from each party will take part in this double programme. Each partner institution will reserve the necessary places for these students in the programmes affected by this agreement.

This number may be increased by mutual written consent.

5. ENROLMENT CONDITIONS

Both institutions will set up a proper internal procedure to select the students that will take part in the double degree among those enrolled in the degrees affected by this agreement. The conditions of access to the double degree will be stipulated by each institution.

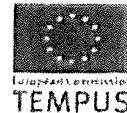
A) ENGLISH LEVEL

In any case, every student taking part in this programme must, at least, accredit a CEFRL «B1» level in English language.

Students will accredit their language level by means of internationally wholly recognised certificates (Cambridge, TOEFL, IELTS, TELC, etc.) or official certificates at the students' home country.

Students without one of the aforementioned certificates could be exceptionally admitted to the double programme, provided that both universities agree on an assessment procedure to ensure that they have the proper language level.

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B) REGISTRATION PROCEDURE

NPUA will communicate to IPL by 30th July a list with the name, passport and other relevant data of all the students taking part in this programme each year. All the students included in this list will be also registered as ordinary degree seeking students at IPL institution in September.

IPL will communicate to NPUA by 30th July a list with the name, passport and other relevant data of all the students taking part in this programme. All the students included in this list that fulfil the master's requirements will be also registered as ordinary degree seeking students at NPUA in September.

The dates established in the previous paragraphs could vary. Each institution will give notice to its partner of any change regarding those dates as soon as they happen.

C) TUITION FEES

a) Fees and taxes when the same number of students from each HEI takes part in the programme

As long as an equal number of students from each HEI take part in the double programme during the same period, these students will pay only their regular tuition fees and taxes at the home institution. No further tuition costs will be charged by the host institution, except for the following:

- At IPL, students from NPUA will have to pay 125.00 € for the application fee plus 1.80 € for the school student insurance.
- At IPL, students from NPUA will have to pay 30.00 € when they finally request the official certificate from IPL.

b) Fees and taxes when there are more students from NPUA than from IPL taking part in the programme

Each additional students coming from NPUA will pay the following fees at IPL at the beginning of the first year of the double programme:

- Tuition fees corresponding to official local regulations for 1 year master: 1140.00 € per year.
- 125.00 € for the application fee plus 1.80 € for the school student insurance.
- 30.00 € when they finally request the official certificate from IPL.

The prices and fees could vary from year to year due to governmental or both institutions decisions. IPL undertakes to communicate to NPUA any change regarding fees and taxes as soon as it is officially published.

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c) Fees and taxes when there are more students from IPL than from NPUA taking part in the programme

Each additional students coming from IPL will pay the following tuition fees at NPUA at the beginning of the second semester of the first year of the double programme:

- Tuition fees corresponding to official local regulations for 60 credits (currently: 1200 €).
- Additionally students will have to pay a «degree issuance tax» in accordance with the tax diploma graduation year, when they finally request the official diploma from the HEI authorities.

These prices and fees could vary from year to year due to governmental decisions. NPUA undertakes to communicate to IPL any change regarding fees and taxes as soon as it is officially published.

For all purposes, students will be considered as students enrolled at the two HEI.

6. MANDATORY STUDENT MOBILITY

Mobility in accordance to this agreement's clauses is mandatory for every student taking part in the double degree programme. Teaching staff mobility could be eventually required as well.

Whenever available, student and teaching staff mobility will be carried out under the Erasmus+ programme. The parties agree on establishing a specific Erasmus+ exchange agreement suitable to implement this provision.

Should the Erasmus+ programme be not available to finance the mobility, this double degree agreement, in itself, is considered by both parties a valid agreement for exchanging students and staff. These exchanges will take place according to the following terms:

6.1. Duration of student exchanges

The exchange period shall not exceed the provisions of the learning programme included in the Annex.

6.2. Exchange conditions

- a) Exchanges students will conform to the requirements established in this agreement and will be subject to all the rules and procedures of the home and the host institutions.
- b) Exchange students will be enrolled as regular degree seeking students in the programme of the host institution affected by this agreement. During the exchange

period all of them will be registered and attend the courses and activities established in the learning programme included in the Annex.

- c) Exchange students will be provided with the same academic resources and supporting services as normally provided to regular students at the host institution of the same academic level.
- d) Exchange students shall take out appropriate health, life and non-life insurance.
- e) Both institutions undertake to award official transcripts of academic records to the students. These transcripts shall be communicated to the other party in order to get the full academic recognition established in section 2.
- f) The host institution will help exchange students in the search of accommodation by providing all the available information.

6.3 Financial Responsibilities

Exchange students will be responsible for the payment of housing-related costs, transportation, food, life, non-life and medical insurance, medical treatment and all other personal expenses.

7. FACULTY EXCHANGES

Both parties agree on the possibility of exchanging Faculty. This mobility will be governed by specific arrangements between the parties. The details of such arrangements will be negotiated at the appropriate time, according to the academic needs of the double programme and the available funding.

8. ACADEMIC COMMISSION

In order to ensure the good development of the double degree programme, an Academic Commission will be formed including the coordinators of both degrees and one additional representative named by each institution.

This Academic Commission will be responsible to examine the efficiency of the learning programme and the academic results achieved by the students, as well as the resources supplied by both institutions.

The Academic Commission will also be in charge of suggesting modifications suitable to improve the programme quality. The members of this Commission will meet, either personally or on-line, at least once a year.

9. FINANCIAL CONDITIONS

The signature of this agreement does not mean any financial commitment for any of the parties.



10. PROCEDURE FOR DISPUTE RESOLUTION

The parties agree to resolve any dispute arising from the interpretation or performance of the present agreement by common consent. In case that the dispute could not be solved that way, it will be resolved by arbitration of a technical commission formed by three members. Each party will designate a member of the arbitration commission and the third member will be agreed by both parties.

11. ENTRY IN FORCE AND DURATION OF THE AGREEMENT

The present agreement shall entry in force after being signed by both parties.

The agreement is valid for a period of 5 years and may be renewed for identical periods with the express written consent of the two parties.

The parties may terminate this Agreement with immediate effect, due to the determinations of national authorities.

12. CONTACT DATA FOR NOTICES REGARDING THIS AGREEMENT:

Polytechnic Institute of Leiria

Contact: Rui Filipe Pinto Pedrosa

Position: Vice-president of Polytechnic Institute of Leiria

Address: Rua General Norton de Matos, Apartado 4133, 2411-901 Leiria – Portugal

Phone: + 351 244 830 010

E-mail: presidencia@ipleiria.pt

National Polytechnic University of Armenia:

Contact: Mery Ghazaryan

Position: Head of Chair of Thermal Power Engineering and Environmental protection

Address: Teryan 105,campus 2 , 0009, Yerevan, Republic of Armenia

Phone: +37410520521

E-mail: mery.gg@mail.ru, mery_gg@seua.am

In witness whereof, the present agreement is signed in duplicate by the official representatives of both institutions.

11 de novembro de 2015

Vostanik Marukhyan

Rector

National Polytechnic University of Armenia

Date: _____



Nuno Mangas

President

Polytechnic Institute of Leiria

Date: _____

ANNEX

STUDY PROGRAMME

Section 1

- The study programme for the students participating in the Double Degree whose home institution is **NPUA**, are provided in the following table:

Semester	Chairs	ECTS
1 (NPUA)	Science history and methogology	2
	Foreign language	2
	Information technology	4
	Mathematics	4
	Elective Chair 1	5
	Scientific seminar	4
	Research Work	4
	Research Internship	3
	Final Thesis Completion	2
2 (IPL)	Electives Chair 2	15
	Electives Chair 3	15
3 (NPUA)	Influence of technical water supply systems of TPP and NPP on environment	5
	Economics and prediction of nature management	4
	Estimation of water resources use in power engineering	4
	Energy saving and power management	4
	Scientific seminar	4
	Research Work	6
Final Thesis Completion*	5	
4 (NPUA)	Radiation Safety Basics	3
	Environmental impact assessment	4
	Human ecology	3
	Scientific seminar	4
	Research Work	6
Final Thesis Completion*	8	
TOTAL		120

*Co-supervision by IPL Professor and Defence in NPUA

Elective chairs 1 (NPUA): the students should pick one of the following chairs	ECTS
Environmental problems of fuel combustion	5
Ecological problems of power systems	5
Actual problems of nuclear power plants radioactive waste storage	5

Elective chairs 2 (IPL): The students should pick two of the following chairs	ECTS
Water Quality Management	7.5
Waste Management	7.5
Energy and Environment in Transports	7.5

Elective chairs 3 (IPL): The students should pick two of the following chairs	ECTS
Rational Use of Energy	7.5
Heating, Ventilation and Air-Conditioning Systems	7.5
Renewable Energies Technology	7.5

- The study programme for the students participating in the Double Degree whose home institution is **IPL**, are provided in the following table:

Semester	Chairs	ECTS
1 (IPL)	Decision and Optimization Methods	7.5
	Thermofluids	7.5
	Electives Chairs 2	15
2 (NPUA)	The ecological legislation and law problems of environmental engineering protection	5
	Environmental impact assessment	4
	Influence of technical water supply systems of TPP and NPP on environment	5
	Estimation of water resources use in power engineering	4
	Energy saving and power management	4
	Radiation Safety Basics	3
	Elective Chair 1	5
3 (IPL)	Dissertation or Internship or Project*	60
4 (IPL)		
TOTAL		120

* The student should pick from Dissertation, Project or Internship. Co-supervision by NPUA Professor and Defence in IPL

Elective chairs 1 (NPUA): the students should pick one of the following chairs	ECTS
Environmental problems of fuel combustion	5
Ecological problems of power systems	5
Actual problems of nuclear power plants radioactive waste storage	5

Electives chairs 2 (IPL): the students should pick two of the following chairs	ECTS
Environmental Management Policies	7.5
Energy Policy and Sustainable Development	7.5
Evaluation of Environmental Parameters	7.5
Air Quality Management	7.5

- Entrepreneurship: Each student taking part in the double programme will be offered, in IPL, for free, a course on International of Entrepreneurship. This course will be considered as an option part of the double programme. It is intended to strengthen the students' skills and competences to plan, design, develop and manage business activities related to environmental sciences.

- The Master in Energy and Environmental Engineering takes place at the School of Technology and Management of IPL, from Monday to Friday, according to schedules established for every academic year.

- The Master in Environmental Protection (in power engineering) takes place at the Faculty of Power Engineering Chair of Thermal Power Engineering and Environmental Protection, Armenia, from Monday to Friday, according to schedules established for every academic year.

Section 2

The learning programmes described in the previous section follow these criteria:

1. Students enrolled at NPUA

- IPL gives recognition to 30 ECTS obtained by the student in Master in Environmental Protection (in power engineering) at NPUA, during the first semester of the first year, for the 30 ECTS corresponding to first semester of the first year of the Master in Energy and Environmental Engineering.



- NPUA gives recognition to 30 ECTS obtained by the student in Master in Energy and Environmental Engineering at IPL, during the second semester of the first year, for the 30 ECTS corresponding to the second semester of the first year of the Master in Environmental Protection (in power engineering).

- IPL gives recognition to 60 ECTS obtained by the student in Master in Environmental Protection (in power engineering) at NPUA, during the second year, for the 60 ECTS corresponding to the second year of the Master in Energy and Environmental Engineering.

2. Students enrolled at IPL

- NPUA gives recognition to 30 ECTS obtained by the student in Master in Energy and Environmental Engineering at IPL, during the first semester of the first year, for the 30 ECTS corresponding to first semester of the first year of the Master in Environmental Protection (in power engineering).

- IPL gives recognition to 30 ECTS obtained by the student in Master in Environmental Protection (in power engineering) at NPUA, during the second semester of the first year, for the 30 ECTS corresponding to second semester of the first year of the Master in Energy and Environmental Engineering.

- NPUA gives recognition to 60 ECTS obtained by the student in Master in Energy and Environmental Engineering at IPL, during the second year, for the 60 ECTS corresponding to second year of the Master in Environmental Protection (in power engineering).

Section 3

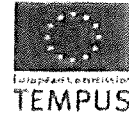
The weighted average of the students' grades obtained at NPUA will be assigned, as its grade, to each of the IPL courses passed by means of recognition according to the following table.

Grade description	NPUA	IPL
<i>Excellent</i>	81-100	19-20
<i>Very Good</i>		17-18
<i>Good</i>	61-80	14-16





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<i>Satisfactory</i>	40-50	10-13
<i>Unsatisfactory</i>	0-39	0-9
<i>Failed to appear</i>	No grade	No grade

Any possible conflicts about the mechanism of grade conversion shall be solved by the Academic Commission of the Double Master Degree and accepted by both parties.

Section 4

Students from NPUA and IPL taking part in the double programme must successfully complete a master thesis at NPUA and IPL. Any master thesis presented and defended under this programme must fulfil the requirements for such works established by both institutions, and each institution will provide the necessary mechanisms for evaluation of the master thesis.

Section 5

Students enrolled in the Double Master degree will have to be awarded, directly or by recognition:

- A minimum of 120 ECTS at IPL to obtain the title of Master in Energy and Environmental Engineering, and
- A minimum of 120 ECTS at NPUA to obtain the title of Master in Environmental Protection (in power engineering).

Students will receive both degrees in two years, after they have successfully finished all the courses of the Double Master Degree.

Section 6

NPUA reserves the right to establish other national and /or international agreements related to the Master in Environmental Protection (in power engineering).

IPL reserves the right to establish other national and /or international agreements related to the Master in Energy and Environmental Engineering.

