



Università degli Studi di Roma "Tor Vergata"

DEPARTMENT OF ELECTRONICS ENGINEERING

**SECOND LEVEL MASTER COURSE
IN PHOTOVOLTAIC ENGINEERING**

Academic Year 2015/2016

Director: prof. Aldo Di Carlo

The Department of Electronics Engineering announces the Second Level Master Course in Photovoltaic Engineering for the 2015/2016 Academic Year.

AIMS

Master Course has an international nature and it is addressed to both Italian and foreigner students. In case of foreign students' enrolment, the Course may be held in English language.

The proposed plan of study is aimed both to the training of recent university graduates (a Second Cycle Degree – Laurea Specialistica or Magistrale; an Italian undergraduate degree/ a 4 - year bachelor degree or other degree deemed equivalent by the Department Council this Master Course refers to) and to the updating of knowledge and skills of graduated already operating in private business and public administrations.

Master Course aims to training professionals with the following skills, not only in the specific photovoltaic field (both traditional and innovative):

- Analysis, study and design of photovoltaic systems, with skills in other renewable energy sources;
- Technological support in companies working in this sector;
- Private and public research
- Plant Management and maintenance;
- Interaction with managerial sectors working in the area of innovation.

The subjects proposed belong to different scientific and technical areas (physics, chemical, engineering, economics, etc..) but each of them is fundamental and contributes to the training of the professional character, that is the object of this Master Course. A full professional training will be given in the theoretical and technical aspects, starting from photovoltaic technologies, carrying on with topics related to the geopolitical strategy concerning the photovoltaic and the other renewable energy sources.

A particular attention will be dedicated to training at laboratories where theoretical skills will be checked through suitable practical experiences.

ARTICULATION

Master Course lasts one, two or three academic years depending on the individual student's plan of study.

Didactic plan provides 60 credits, equal to 1500 hours, indicatively distributed in:

400 face-to-face hours;

340 hours of stage and operational work, even in laboratory, supported by teachers and tutors. Operational work hours include stages in companies. Students will have to carry out 320 hours of stage in 100 days. Days and hours will be scheduled according to the companies' availability. The remaining 20

hours will be devoted to laboratory work and visits to facilities.

750 hours of individual study.

Classes will be held in the afternoons to favour worker students' attendance, as well.

The 400 face-to-face hours are organized as follows:

COURSE	ITALIAN UNIVERSITY TRAINING CREDIT (CFU)	FACE-TO-FACE HOURS
RENEWABLE ENERGY SOURCES	2	20
GEOPOLITICS OF RENEWABLE SOURCES	1	10
ENERGY SYSTEMS	3	30
ECONOMY AND PROJECT FINANCING OF ENERGY SYSTEMS	2	20
PHOTOVOLTAIC PHYSICS	3	30
CHEMICAL APPLIED TO PHOTOVOLTAICS	2	20
CONVENTIONAL PHOTOVOLTAIC TECHNOLOGIES	3	30
INNOVATIVE PHOTOVOLTAIC TECHNOLOGIES	2	20
MEASUREMENT, CHECKING AND CERTIFICATION SYSTEMS	3	30
ELECTRONICS FOR PHOTOVOLTAICS	2	20
POWER CONVERSION SYSTEMS	3	30
ENERGY NETWORKS	3	30
PHOTOVOLTAIC SYSTEMS PLANNING	3	30
BALANCE OF PLANT	2	20
ARCHITECTURAL INTEGRATION AND RENEWABLE SOURCES PLANT	2	20
ISOLATED PHOTOVOLTAIC SYSTEMS	2	20
PHOTOVOLTAIC PERMITTING	2	20
TOTAL	40	400
STAGE AND OPERATIONAL WORK IN LABORATORY UNDER THE SUPERVISION OF TEACHERS AND TUTORS	18	340
FINAL TEST	2	10
TOTALE	60	750

ENROLMENT REQUIREMENTS

Applicants for this Master Course must have a Second Cycle Degree – Laurea Specialistica (Italian Ministerial Decree n° 509 dated November 3rd, 1999) or Laurea Magistrale (Italian Ministerial Decree n° 270 dated October 22th, 2004); an Italian undergraduate degree (a 4 - year bachelor degree) or other degree deemed equivalent by the Council of Electronics Engineering Department this Master Course refers to. Such a Degree has to be owned at the date of enrolment, just before the starting of the Master activities

Enrolment of Foreign European or Non-European Community students, legally resident in Italy holding a regular residence permission for employment or study purposes, is admitted.

Enrolment of foreign non-European Community students resident abroad is ruled by current regulations.

In order to be admitted to the University Master Course, the evaluation of titles achieved in a foreign country, in European Union countries and Non-EU countries, and their equivalent is established by the relevant Department Council on the basis of the proposal made by the Council of the Teachers that may eventually indicate the titles required in the announcement.

Officially certified training and specialization activities (including teaching activities within Courses of Study), performed after achieving the study degree required by this call for applications, if coherent with the Master Course features, can be recognized by the Council of the Teachers.

Credits useful to the Master Course completion will be assigned to such activities, corresponding to a reduction of the due formative charge up to a maximum of 20 credits.

The enrolment in the Master Course is incompatible with the concurrent enrolment in any other University courses.

ENROLMENT

The admission request has to be done by January 12, 2016 following this procedure:

1. Visit the University website <http://delphi.uniroma2.it> and select AREA STUDENTI and then :A) CORSI POSTLAUREAM > 1) MASTER/CORSI DI PERFEZIONAMENTO” > 1) ISCRIZIONE ALLA PROVA DI AMMISSIONE MASTER/CORSI DI PERFEZIONAMENTO > a) COMPILA LA DOMANDA > select Facoltà di Ingegneria - Course Code PIF. The request has to be printed and validated using the AUTH Code that appears on the invoice generated with the request itself (also if the total amount to be paid is 0,00 Euros)

2. By the same date the following documentation has to be sent to the E-MAIL address carla.cenci@uniroma2.it or via fax to the number 06 7259 7935:

- Curriculum Vitae;
- Degree certificate on plain paper or self-certification listing the exam votations and the relevant final degree (D.P.R.281.12.200, n. 445).

The admission to the Master is subduced to a positive evaluation of the student’s curriculum done by the Council of the Teachers. A maximum number of 25 participants is foreseen, while the minimum one is fixed to 10. If the number of the admission requests exceeds 25, the admitted students will be chosen according to a ranking drawn up by the Council of the Teachers.

A lack of enrolment by the above mentioned date (January 12, 2016), will be considered as withdrawal and the next applicant in the ranking will be admitted to the Master Course.

The Admitted Students List will be published on the University web site (<http://www.uniroma2.it>) by January 19, 2016.

ENROLMENT FEES

Enrolment is subordinated to the payment of: a total amount of € 4.146,00 to be paid as following:

€ 2.146,00 to be paid by January 29, 2016 (including a 16,00 euros virtual revenue stamp and a contribution of 130,00 euros for the release of final Diploma Parchment)

€ 2.000,00 to be paid by April 29, 2016

Students who wishes to complete their studies in two or three years have to pay additional fees. More precisely

€ 516,00 by January 30, 2017 (including a 16,00 euros virtual revenue stamp) for the 2nd year registration

€ 516,00 by January 30, 2018 (including a 16,00 euros virtual revenue stamp) for the 3rd year registration

Admitted candidates have to enroll by January 29,2016, following the instructions indicated at:

PROCEDURA D'IMMATRICOLAZIONE - file "ISTRUZIONI PROCEDURE"- presents into the section ALLEGATI (attachments) of the web page Segreteria Master e Corsi di Perfezionamento: http://web.uniroma2.it/modules.php?name=Content§ion_parent=4133 Facoltà di Ingegneria - Codice Corso PIF

For the payment of the enrolment and/or registration fee Public and Private Organizations have to contact Segreteria Master: e-mail segreteriamaster@uniroma2.it Segreteria Master, Corsi di Perfezionamento, Scuole di Specializzazione area non sanitaria

FACILITATIONS

For students with a civil disability of 66% or more, proved by proper documentation, exemptions from Master Course enrolment fee and a reduced tuition fee of € 330,00 (5% of the regular total amount plus 130 euros for the release of the final Diploma Parchment) for the attendance of the whole Master Course are foreseen.

The entitled students have to notify their rights contextually to the admission request. After the admission, they have to give to the secretariat office, before the enrolment, all the documentation that proves the degree of their civil disability. Moreover, the Council of the Teachers has the right to decide, in cases and in the manner stated by the regulation, the granting of economic benefits in the form of full or partial coverage of the registration fee.

BEGINNING OF THE COURSE

Classes will start by the month of February 2016

ATTENDANCE AND FINAL DEGREE

Attendance is compulsory for at least 75% of classes and seminars. Moreover, the regular participation to practical work in the laboratories is similarly mandatory. The attendance and participation will be verified by the signature of a Register.

At the end of the Master, to the Students who are in order with the payments, have attended to the extent required, passed the tests for assessing the results and the final test, an University Second Level Master Degree in "Photovoltaic Engineering" is released. The final exam has to be taken by the last session of the second academic year following the last year of enrolment. After that period, the title is no more obtainable.

INFORMATION

For didactic information, interested parties may contact: Segreteria didattica del Master: dr.ssa Carla Cenci - tel. 06 7259 7254 – fax 06 7259 7935 e-mail carla.cenci@uniroma2.it Per tutte le informazioni di tipo amministrativo consultare la pagina web:

http://web.uniroma2.it/modules.php?name=Content&navpath=FUT§ion_parent=4133

Roma, 17/11/2015

Il Direttore Generale

f.to Dott. Ernesto Nicolai

Il Rettore

f.to Prof. Giuseppe Novelli