
THE RECTOR

Having regard to the following:

- Ministerial Decree n. 45, 08/02/2013, “Regolamento recante modalità di accreditamento delle sedi e dei corsi di dottorato e criteri per la istituzione dei corsi di dottorato da parte degli enti accreditati”;
- The current Regulation of the University of Catania on Ph.D. courses;
- The Call for applications – Ph.D. Courses XXXII cycle - Academic Year 2017-2018, published on https://ateneo.cineca.it/bandi and on the University’s website http://www.unict.it/bandi/post-laurea/dottorati-di-ricerca;
- Annex 7 of the aforementioned call concerning the Ph.D. course in “Computer science”;
- Annex 8 of the aforementioned call concerning the Ph.D. course in “Systems, energy, computer and telecommunications engineering”;
- Article 14, pt. 1, of the aforementioned call, which stipulates that the administration considers the possibility of modifications, updates or integrations to the present call - to be exclusively advertised through www.unict.it (section “Bandi, gare e concorsi” > “Studenti e Post laurea” > “Dottorati di ricerca”) in case the number of places with scholarships, and consequently the number of places without scholarships, increases due to further funds made available after the issuing of this call, provided the respect of the terms of assignation of places to candidates on the pass list;
- The agreement signed by the legal representative of ST Microelectronics S.r.L. and delivered on 27 July 2017, concerning the grant of an additional scholarship for the Ph.D. course in “Systems, energy, computer and telecommunications engineering” – XXXIII cycle;
- The letter of intent signed by the legal representative of ST Microelectronics S.r.L. and delivered on 28 July 2017, concerning the grant of an additional scholarship for the Ph.D. course in “Computer science” – XXXIII cycle;
- The request of the Coordinator of the Ph.D. course in “Computer science” – XXXIII cycle to include an additional place without scholarship in accordance with the legislation in force;
- The necessity of redefining the number of places related to the Ph.D. courses in “Computer science” and “Systems, Energy, Computer and Telecommunication Engineering”, in consideration of the provisions of ST Microelectronics delivered after the date of publication of the aforementioned Call for applications and the request of the Coordinator of the abovementioned Ph.D. course;

DECREES

The call for applications – Ph.D courses, XXXII cycles – Academic Year 2017-2018 of the University of Catania, published on https://ateneo.cineca.it/bandi and on the University's website http://www.unict.it/bandi/post-laurea/dottorati-di-ricerca is integrated as follows:

Art.1 The number of places with scholarships concerning the Ph.D. course in “Systems, energy, computer and telecommunications engineering” is redefined as in the enclosed Annex 8, integral and substantial part of the aforementioned call.

Art.2 The number of places with scholarships and without scholarships concerning the Ph.D. course in “Computer science” is redefined as in the enclosed Annex 7, integral and substantial part of the aforementioned call.

CATANIA, ...03 AGO, 2017

THE RECTOR
(F. Basile)

IL PRORETORE
Prof. Giuseppe Muggiano Sapienza

UNIVERSITÀ' DEGLI STUDI DI CATANIA
Protocollo Generale
03 AGO, 2017
Prot. 6966 Tit. 11 Cl. 6
Regest n. 2850
### Title of the Ph.D. Course

**SYSTEMS, ENERGY, COMPUTER AND TELECOMMUNICATION ENGINEERING**

<table>
<thead>
<tr>
<th>Scientific area</th>
<th>Industrial and Information Engineering</th>
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</thead>
<tbody>
<tr>
<td>Duration</td>
<td>3 years</td>
</tr>
<tr>
<td>Department</td>
<td>Department of Electric, Electronic and Computer Engineering</td>
</tr>
<tr>
<td>Department website</td>
<td><a href="http://www.dieei.unict.it/">http://www.dieei.unict.it/</a></td>
</tr>
<tr>
<td>Ph.D. Course Coordinator</td>
<td>Prof. Paolo Arena</td>
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<tr>
<td>Partner Institution(s)</td>
<td>None</td>
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</tbody>
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#### Research themes


The course provides candidates with a skill profile that associates technical-scientific training with the development of a research project to be carried out at highly qualified institutions, both national and international, or enterprises. The academic board is integrated by foreign academics who support candidates in their training and research work.

#### Available places

1. Places with scholarship financed by the University of Catania: **3**
3. Places with scholarship financed by the Department of Electric, Electronic and Computer Engineering of the University of Catania: **1**
   - **Research theme:** “Power devices in Si, SiC and GaN, switching converters and their industrial applications”
4. Places with scholarship financed by Xenia Network Solutions S.r.L.: **1**
   - **Research theme:** “Analysis of network architecture and protocols based on SDN/NFV paradigm in a 5G ecosystem”
5. Places with scholarship financed by ENEL GREEN POWER: **1**
   - **Research theme:** “Characterization and maximization of the efficiency of plants for the production of electric power from renewable forces through use of distributed power electronics”
6. Places with scholarship financed by ST Microelectronics S.r.L.: **1**
   - **Research theme:** “Integrated circuits in technology CMOS FD-SOI for long-range radar sensor for automobile”
7. Places without scholarship: **1**
8. Places without scholarship reserved to graduates from foreign universities: **1**
**TOTAL: 12**

#### Selection procedures

Evaluation of qualifications
### Title of the Ph.D. course

COMPUTER SCIENCE (INTERNATIONAL)

### Scientific area

Mathematics, physics and natural science

### Duration

3 years

### Department

Department of Mathematics and Computer Science

### Department website

http://web.dmi.unict.it

### Ph.D. course Coordinator

Prof. Sebastiano Battiato

### Partner Institution(s)

- University of Hertfordshire (U.K)
- University of Malta (Malta)

### Research themes

The 3-year Ph.D. course in Computer Science is primarily aimed at training young researchers in the domains of Computer Science, both basic and applied, and developing professionals with career opportunities in the academic world as well as in the industry.

The principal research themes concern:

- Algorithms and Combinatorics
- Artificial Intelligence
- Assistive Technologies;
- Autonomous Systems;
- Big Data;
- Computer Vision and applications;
- Cryptography and Security
- Multimedia Forensics;
- Smart Cities & Communities;
- Video Analytics (e.g. Retail, Security, etc.)

### Available places

1) Places with scholarship financed through European Social Fund - Sicily 2014/2020 – Call 12/2017: 2
2) Places with scholarship financed by the Department of Mathematics and Computer Science: 1
   Research theme: “Computer Vision”
3) Places with scholarship financed by DWORD: 1
   Research theme: “Computer vision systems for localization”
4) Places with scholarship financed by ENEL GREEN POWER: 2
   Research theme 1:
   “Application of machine learning techniques and artificial intelligence to team control of remotely or autonomously piloted vehicles/robots for industrial applications such as automation of processes of building/maintenance/inspection of renewable energy production plants”
   Research theme 2:
   “Use of techniques of Big Data analysis and Io T infrastructures for applications such as maximization of operational efficiency/production and predictive maintenance of production plants of energy from renewable sources”
5) Places with scholarships financed by ST Microelectronics S.r.L.: 1
   Research theme:
   “Correlation between process parameters, machine parameters and electrical results from devices for the identification of algorithms capable of predicting potential failures of produced devices on the base of real-time data available on line”
6) Places without scholarship: 2
   TOTAL: 9

### Selection procedures

Evaluation of qualifications