



**ADDENDUM TO THE CALL FOR APPLICATIONS - PH.D. COURSES – XXXV CYCLE – UNIVERSITY OF CATANIA, ISSUED BY THE RECTOR WITH DECREE N. 2152 OF JUNE 29 2021**

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 Regulation on Ph.D. courses currently in force the University of Catania;
- The Call for applications–Ph.D. Courses XXXVII cycle, issued by the Rector with Decree n. 2152 of June 29 2021;
- Annex 8 of the aforementioned call concerning the Ph.D. course in “Computer Science”;
- Annex 9 of the aforementioned call concerning the Ph.D. course in “Systems, energy, computer and telecommunications engineering”;
- Annex 12 of the aforementioned call concerning the Ph.D. course in “Materials science and nanotechnology”;
- Article 14, pt. 1, of the aforementioned call, which stipulates that the administration considers the possibility of modifications, updates or integrations - to be exclusively advertised through [www.unict.it](http://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 the National Institute of Geophysics and Volcanology, received by the University of Catania after the publication of the Rector’s Decree 2152/2021, concerning the funding of an additional scholarship for the Ph.D. course in Computer Science;
- The note n.199/2021 containing the commitment of expenditure of the Department of Electric, Electronic and Computer Engineering concerning an additional scholarship for the Ph.D. course in Systems, energy, computer and telecommunications engineering;
- The agreement signed by the legal representative of the National Institute for Astrophysics – Catania Astrophysical Observatory, received by the University of Catania after the publication of the Rector’s Decree 2152/2021, concerning the co-funding of the abovementioned additional scholarship;
- The letter signed by the legal representatives of the National Council for Research and ST Microelectronics S.r.l. , received by the University of Catania after the publication of the Rector’s Decree n. 2152/2021, concerning the funding for the XXXVII cycle of the Ph.D. courses in “System, energy, computer and telecommunications engineering” and “Materials science and nanotechnologies” of the scholarships for the XXXVI cycle which were not assigned because of lack of eligible candidates;
- The necessity of redefining the number of places related to the Ph.D. courses in “Computer Science”, “Systems, energy, computer and telecommunications engineering” and “Materials science and nanotechnologies” in consideration of the supervened availability of additional scholarships;
- All this considered;

DECREES

The call for applications – Ph.D courses, XXXVII cycles of the University of Catania, issued with Rector’s Decree n. 2152 Of June 29 2021, is integrated as follows:

Art.1 The number of places with scholarships concerning the Ph.D. course in “Computer Science” is redefined as indicated in Annex 8, with the number of available places being increased by one (1) according to what stated in the premises.


Art.2 The number of places with scholarships concerning the Ph.D. course in “Systems, energy, computer and telecommunications engineering” is redefined as indicated in Annex 9, with the number of available places being increased by two (2) according to what stated in the premises.

Art.3 The number of places with scholarships concerning the Ph.D. course in “Materials science and nanotechnologies” is redefined as indicated in Annex 12, with the number of available places being increased by one (1) according to what stated in the premises.

CATANIA, 08/07/2021

(Prof. Francesco Priolo)

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 UNIVERSITÀ DEGLI STUDI DI CATANIA Protocollo Generale
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<b>Ph.D. course</b>	<b>COMPUTER SCIENCE (INTERNATIONAL)</b>
<b>Cycle</b>	XXXVII
<b>Scientific area</b>	Mathematics, physics and natural science
<b>Duration</b>	3 years
<b>Department</b>	Department of Mathematics and Computer Science
<b>Department website</b>	<a href="http://web.dmi.unict.it">http://web.dmi.unict.it</a>
<b>Ph.D. course Coordinator</b>	Prof. Sebastiano Battiato
<b>Partner Institution(s)</b>	University of Hertfordshire (U.K)
<b>Research themes</b>	<p>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 who can have career opportunities in the academic world as well as in the industry.</p> <p>The principal research themes concern:</p> <ul style="list-style-type: none"> <li>• Algorithms and Combinatorics</li> <li>• Artificial Intelligence</li> <li>• Assistive Technologies;</li> <li>• Autonomous Systems;</li> <li>• Big Data;</li> <li>• Computer Vision and applications;</li> <li>• Cryptography and Safety Information;</li> <li>• Information Forensics and Security;</li> <li>• Pattern Recognition and Machine Learning;</li> <li>• Smart Cities &amp; Communities;</li> <li>• Distributed systems;</li> <li>• Video Analytics (e.g. Retail, Security, etc.)</li> </ul>
<b>Available places</b>	<p>1) Places with scholarship financed by the University of Catania: <b>4</b></p> <p>2) Places with scholarship financed by the National Institute for Geophysics and Volcanology: <b>1</b></p> <p><u>Research theme:</u> Mega data and instruments for analytical visualization</p> <p>3) Places with scholarship financed by the Italian Association for Assistance to people with disabilities – Division of Acireale (Catania): <b>1</b></p> <p><u>Research theme:</u> Assistive Wearable Technologies for Rehabilitation</p> <p>4) Places without scholarship: <b>2</b></p> <p><b>TOTAL: 8</b></p>
<b>Selection procedures</b>	<p>1) Evaluation of qualifications;</p> <p>2) Oral examination (also in the form of videoconference interview)</p>
<b>Date, place, format and language of the oral examination</b>	<p>Date: September 16 2021, h. 09:30 (09.30 a.m. Italian time)</p> <p>Place: Department of Mathematics and Computer Science, via Santa Sofia n. 62, Catania</p> <p>Format:</p> <ul style="list-style-type: none"> <li>- Dissertation on the research project</li> <li>- General knowledge of the themes of the candidate's degree and/or the themes related to the Ph.D. course</li> </ul> <p>Language: English</p>

<b>Ph.D. Course</b>	<b>SYSTEMS, ENERGY, COMPUTER AND TELECOMMUNICATION ENGINEERING</b>
<b>Cycle</b>	XXXVII
<b>Scientific area</b>	Industrial and Information Engineering
<b>Duration</b>	3 years
<b>Department</b>	Department of Electric, Electronic and Computer Engineering
<b>Department website</b>	<a href="http://www.dieei.unict.it/">http://www.dieei.unict.it/</a>
<b>Ph.D. Course Coordinator</b>	Prof. Paolo Arena
<b>Partner Institution(s)</b>	None
<b>Research themes</b>	<p>The Ph.D. course learning paths concern Electronics, Automation, Complex Systems Engineering and Control, Instrumentation, Sensors and Wireless Networks of Sensors, Internet of Things, Big Data, Mechanics, Materials, Bio-engineering and Bio-Robotics, Microsystems, Generation, Transmission, Use, Management and Control of Energy, Information Systems, Systems of Telecommunications and Magnetic Fields with a focus on themes related to Smart Systems, Cities and Environment.</p> <p>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.</p>
<b>Available places</b>	<p>1) Places with scholarship financed by the University of Catania: <b>6</b></p> <p>2) Places with scholarship financed by T.I.M. S.p.A. : <b>1</b>  <u>Research theme:</u>  Cloud-native and edge-powered verticals in a 5G ecosystem</p> <p>3) Places with scholarship co-financed by the Department of Electric, Electronic and Computer Engineering of the University of Catania, Cisma Ambiente S.p.A. and ENEA: <b>1</b>  <u>Research theme:</u>  Processes and methodologies for the management and enhancement of industrial waste in business circular transition</p> <p>4) Places with scholarship co-financed by the Department of Electric, Electronica and Computer Engineering of the University of Catania and the Institute for Astrophysics – Catania Astrophysical Observatory: <b>1</b>  <u>Research theme:</u>  “Big Data Mining in modern infrastructures for control and monitoring related to the Cherenkov Telescope Array”.</p> <p>5) Places with scholarship financed by the Institute for Microelectronics and Microsystems of the National Council for Research (50%) and ST Microelectronics S.r.l. (50%) within the program “Industrial Doctorates” sponsored by the National Council for Research and Confindustria: <b>1</b>  <u>Research theme:</u>  Development of big data solutions for quality processes in the semi-conductors industry</p> <p>6) Places without scholarship: <b>1</b></p> <p><b>TOTAL: 11</b></p>
<b>Selection procedures</b>	<p>1) Evaluation of qualifications</p> <p>2) Oral examination (also in the form of video-conference interview)</p>
<b>Date, place, format and language of the oral examination</b>	<p>Date: September 13 2021 h. 9,00 (9,00 am Italian time)</p> <p>Place: Department of Electric, Electronic and Computer Engineering, viale Andrea Doria, n. 6, Catania</p> <p>Format:</p> <ol style="list-style-type: none"> <li>1. Dissertation on the research project</li> <li>2. General knowledge of the themes of the candidate’s degree and/or the themes related to the Ph.D. course</li> </ol> <p>Language: Italian or English</p>

<b>Ph.D. Course</b>	<b>MATERIALS SCIENCE AND NANOTECHNOLOGIES</b>
<b>Cycle</b>	XXXVII
<b>Scientific area</b>	Mathematics, Physics and Natural Science
<b>Duration</b>	3 years
<b>Department</b>	Department of Physics and Astronomy
<b>Department website</b>	<a href="http://www.dsc.unict.it/it/dottorato-scienza-dei-materiali-e-nanotecnologie">http://www.dsc.unict.it/it/dottorato-scienza-dei-materiali-e-nanotecnologie</a>
<b>Ph.D. Course Coordinator</b>	Prof. Giuseppe Compagnini
<b>Partner Institution(s)</b>	None
<b>Research themes</b>	Materials and nanotechnologies for the environment, energy, health, electronics and photonics
<b>Available places</b>	<p>1) Places with scholarship financed by the University of Catania: <b>6</b></p> <p>2) Places with scholarship financed by the Institute for Microelectronics and Microsystems of the National Council for Research and by ST Microelectronics S.r.l. within the program “Industrial Doctorates”: <b>1</b></p> <p><u>Research theme:</u> Materials and devices based on wide band-gap semi-conductors for electronic power</p> <p>3) Places with scholarship financed by the Institute for Microelectronics and Microsystems of the National Council for Research: <b>1</b></p> <p><u>Research theme:</u> Nanostructured heterogeneous catalysts for the electrochemical reduction of nitrogen and for the green ammonia synthesis</p> <p>4) Places without scholarship: <b>1</b></p> <p><b>TOTAL: 9</b></p>
<b>Selection procedures</b>	<p>1) Evaluation of qualifications;</p> <p>2) Oral examination. Candidates living abroad can take the oral interview in the form of video-conference interview</p>
<b>Date, place, format and language of the oral examination</b>	<p>Date: September 22 2021, h. 9,00 (9 am Italian time)</p> <p>Place: Dipartimento di Scienze Chimiche (Aula A), viale Andrea Doria n. 6, Catania</p> <p>Format:</p> <ul style="list-style-type: none"> <li>- Dissertation on the research project</li> <li>- General knowledge of the themes of the candidate’s degree and/or the themes related to the Ph.D. course</li> </ul> <p>Language: Italian and English</p>