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UNIVERSITÀ
degli STUDI
di CATANIA

Ph.D. Course information Sheet

40th cycle - A.Y. 2024/2025

NAME OF THE PH.D. COURSE	COMPLEX SYSTEMS FOR PHYSICAL, SOCIO-ECONOMIC AND LIFE SCIENCES
DURATION	3 anni
START DATE	01/10/2024
LANGUAGE(S)	Italiano, Inglese
COORDINATOR	Prof. Andrea Rapisarda
PLACES IN THE PH.D. COURSE	8
SELECTION PROCEDURE	Evaluation of qualifications and research project, oral examination

Places and scholarships

Number of scholarships	Financial support	Research topic associated to the scholarship (if any)
3	Funds of the University of Catania	-
1	NRRP M.D. n. 630/2024 in collaboration with NEODATA Group S.p.a.	Utilizzo di tecniche di Intelligenza Artificiale Generativa per l'interrogazione e interpretazione di strutture dati Complesse) <i>Use of Generative Artificial Intelligence techniques for the query and interpretation of complex data structures)</i>
1	NRRP M.D. n. 630/2024 in collaboration with Humanitas Istituto Clinico Catanese s.p.a.	Applicazione di tecniche di Intelligenza Artificiale per il miglioramento delle performance sanitarie <i>Application of Artificial Intelligence techniques to improve healthcare performance</i>
1	NRRP M.D. n. 630/2024 in collaboration with Ricca It S.r.l.	Hybrid AI -Local data analysis)
1	National Institute for Geophysics and Volcanology	Tecniche di reinforced AI per l'analisi in near real-time di dati acquisiti con tecniche di Distributed Fiber

Ufficio Dottorato di ricerca

Piazza Università 16 | 95131 Catania | Italia | Tel. + 39 0957307261 |



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		Optic Sensing (DFOS) Reinforced AI techniques for near real-time analysis of data acquired with Distributed Fiber Optic Sensing (DFOS) techniques
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One place without scholarship is available in addition to the places with scholarship reported in the table above

Selection procedure

	MODALITY	PUBLICATIONS OF THE RESULTS ON THE UNIVERSITY'S WEBSITE
Evaluation of qualifications and research project	Candidates' presence not required	From July 30th, 2024
Oral examination	Date: September 3rd 2024 9.30 am (Italian time) Place: In presence, presso Department of Physics and Astronomy (Dipartimento di Fisica e Astronomia) or online via Microsoft Teams Platform	From September 3rd, 2024

* * If the number of admitted candidates does not allow the oral test to be held on a single day, a calendar will be published on the website together with the results of the evaluation of qualifications and the research project.

* ** The results of the admission tests will be available on the website. Publication on the site has the value of notification. No communication will be sent to candidates via email.

Documents to be annexed to the application

Only documents drawn up in **Italian, English or French** will be considered valid and evaluated by the Commission. For identity documents and qualifications issued in a different language, a sworn and certified translation into Italian, French or English made by an authorized body or the University that issued the qualification must be attached.

MANDATORY DOCUMENTS TO BE SUBMITTED WITH THE APPLICATION FORM	
Identity document	Scan of a valid identity document in accordance with the provisions of Art. 35 c.2 D.P.R. 28 December 2000 n. 445 and subsequent amendments: "The passport, the driving license, the boat license, the pension booklet, the license to operate heating systems, the firearms license, the identification cards, provided that they have a photograph and a stamp or other equivalent signature, are equivalent to the identity card, issued by a state administration."
Curriculum Vitae	No specific format is required. The CV must be dated and signed (the signature will be valid only if handwritten or digital). Candidates who submit CVs without a signature will be excluded from the selection.
Qualifications	See Call for applications with particular reference to art. 3, paragraph 4



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Progetto di ricerca	<p>Research project</p> <p>a) divided into: state of the art; description of the project; expected results; articulation of the project and implementation times; proposed criteria for the verification of the results achieved; Concise bibliography.</p> <p>b) maximum length of 25,000 characters, including title, spaces, formulas, bibliography</p>
Publications	- List of any scientific publications (indicate DOI number, ISBN/ISSN)
Documents certifying the knowledge of the foreign language, if any	- Any certificate, attesting to the knowledge of a foreign language in the E.U., issued by a legally recognized institution (by way of example but not limited to: TEOFL, IELTS, Cambridge Exol, DELF, DELE, KEG, Goethe Institut, etc.)
Documents certifying computer skills	- Any documents certifying computer skills
Documents relating to further training courses	<ul style="list-style-type: none"> - University Master of I or II level - Specialization and/or Higher Education courses in subjects related to the research fields covered by the PhD Course - Scientific research, of any type (basic, oriented, finalized, translational, applied, etc.) and carried out in any capacity, including holding research grants and participation in research projects; - Additional Master's degree

Selection procedure criteria

The assessment is expressed through the attribution of an overall score, as established by art. 5 of the call for applications, to which reference should be made.

1. **Evaluation of qualifications and research project** : minimum score to be admitted to the oral examination: 40 points, maximum 60 points
2. **Oral examination** – minimum to pass the examination: 40 points, maximum 60 points