



DOCTORAL PROGRAMME

IN

SMART COMPUTING

Director prof. Stefano Berretti

Industrial Doctoral Programme

XXXVII cycle – academic year 2021/2022



UNIONE EUROPEA
Fondo sociale europeo



Regione Toscana

GIOVANI SI'



The Pegaso Scholarships are financed with the resources of the Region of Tuscany that can represent an advance of POR FSE TOSCANA 2021/27 funds. The Pegaso Scholarships are the Region of Tuscany's project to promote the autonomy of the youth falls within the sphere of "GiovaniSI" (www.giovanisi.it).

TECHNOLOGICAL AREA	
ADMINISTRATIVE OFFICE	Department of Information Engineering
REGIONE TOSCANA PEGASO PROJECT 2021	University of Florence University of Pisa University of Siena
<p>POSITIONS AVAILABLE: 11 Positions with scholarship: 10 Industrial doctoral position: 1 Positions without Scholarship: <i>not available</i></p>	
RANKING LIST FOR STANDARD POSITIONS SCHOLARSHIPS AVAILABLE: 8	<p>5 - University of Florence 3 - Regione Toscana Pegaso Scholarships 2021</p>
RANKING LISTS FOR POSITIONS WITH SPECIFIC RESEARCH TOPICS SCHOLARSHIPS AVAILABLE: 2	<p>2 - Regione Toscana Pegaso Scholarships 2021*</p> <ol style="list-style-type: none"> Thematic: "Deep learning for complex data". Thematic: "Applications and methods of quantitative evaluation for software intensive systems". <p><i>* A period of training/research in an enterprise, a public research institution or other public institution (not a university) of at least 3 months is mandatorily required.</i></p>
RESERVED POSITION INDUSTRIAL DOCTORAL PROGRAMME: 1	Reserved position for Vodafone S.p.A. employees

STUDY/RESEARCH PERIOD ABROAD	Mandatory only for recipients of standard positions “Regione Toscana Pegaso Scholarships 2021”
MANDATORY PERIOD REQUIRED	6 months
DOCUMENTS REQUIRED FOR THE ADMISSION (under penalty of exclusion)	<ul style="list-style-type: none"> • Copy of the Identification Document • Self-declaration for qualifications (bachelor’s/Master’s/combined cycle degree) obtained in Italy with a list of all exams taken and their mark, title of the thesis and graduation mark (download the form here make sure you fill in in all the fields) • Foreign qualification required to access with a list of all exams taken and their mark, title of the thesis and graduation mark. <p><i>The same documentation except for the final mark must be submitted by those who will graduate by 31/10/2021</i></p>
DOCUMENTS REQUIRED FOR THE EVALUATION	<p>MANDATORY</p> <ul style="list-style-type: none"> • Curriculum vitae • Abstract of the M.Sc. thesis • Research project <p>OPTIONAL</p> <ul style="list-style-type: none"> • List of publications and any other qualification document • PDF copy or a chapter of the M.Sc. thesis (if available)
REFERENCE LETTERS	A section is provided in the online application to specify the e-mail addresses of two professors/researchers willing to provide information about candidates training path and activities performed within a scientific field related to the Ph.D. course.
RESEARCH PROJECT	<p>The research proposal should be written in English and should be submitted as a PDF file. The length may not exceed 12,000 characters. The research proposal should describe a three years project having a high potential for a novel scientific contribution in any area related to smart computing. In the proposal, briefly summarize the state-of-the-art, identify one or more open problems, explain why solving these open problems is significant, and describe a research plan, possibly addressing the associated risk factors and strategies for dealing with them.</p> <p>The research proposal needs not to be directly related to one of the reserved research topics (see below) for which you may want to apply. In fact, this proposal will not be even used to bound you to do research in any particular area, it just serves the purpose of assessing your technical writing skills, your ability to envision sensible long-term research goals, and your ability to plan and evaluate research activities.</p>

EVALUATION PROCEDURE	<ul style="list-style-type: none"> • Shortlist based on the evaluation of curriculum vitae, academic career, research project, publications, and any further qualifications • Interview <p>As detailed in the section below “Evaluation Marks”.</p>																		
INTERVIEW LANGUAGE	English																		
INTERVIEW MODE	Remotely (videocall)																		
FURTHER INFORMATION	<p>Note on applications for the “specific research topic scholarships”: A subset of the available positions will be reserved to the specific research topics listed below. To be considered for one of these positions, please select one or more of them during the application process. Since we strive to fill as many of these positions as possible, by applying for one or more reserved positions you may significantly increase your chances of being accepted in the program. You may apply for as many reserved positions as you wish. During the interview, there will be one additional test for each reserved position you have applied for. Passing the test is a necessary (but not sufficient) condition for accessing the corresponding reserved position. Failing one or more of these tests will not reduce your chances of being accepted for the remaining (non-reserved) positions.</p> <p>There are additional thematic positions (not reserved) that do not require a specific test and they are listed at: smartcomputing.unifi.it/procedures.html#positions</p>																		
EVALUATION MARKS	<table border="1"> <thead> <tr> <th data-bbox="544 1256 1066 1339">Parameter</th> <th data-bbox="1066 1256 1233 1339">minimum score</th> <th data-bbox="1233 1256 1409 1339">maximum score</th> </tr> </thead> <tbody> <tr> <td data-bbox="544 1339 1066 1422">Curriculum vitae, academic career, publications, qualification documents</td> <td data-bbox="1066 1339 1233 1422">27/120</td> <td data-bbox="1233 1339 1409 1422">40/120</td> </tr> <tr> <td data-bbox="544 1422 1066 1464">Research proposal</td> <td data-bbox="1066 1422 1233 1464">27/120</td> <td data-bbox="1233 1422 1409 1464">40/120</td> </tr> <tr> <td colspan="3" data-bbox="544 1464 1409 1574">Applicants who obtain a mark of at least 54/120 according to the minimum score for each parameter will be admitted to the interview</td> </tr> <tr> <td data-bbox="544 1574 1066 1657">Interview (including a discussion of the research proposal) in English language</td> <td data-bbox="1066 1574 1233 1657">26/120</td> <td data-bbox="1233 1574 1409 1657">40/120</td> </tr> <tr> <td colspan="3" data-bbox="544 1657 1409 1700">Eligibility is achieved with a minimum score of 80/120</td> </tr> </tbody> </table>	Parameter	minimum score	maximum score	Curriculum vitae, academic career, publications, qualification documents	27/120	40/120	Research proposal	27/120	40/120	Applicants who obtain a mark of at least 54/120 according to the minimum score for each parameter will be admitted to the interview			Interview (including a discussion of the research proposal) in English language	26/120	40/120	Eligibility is achieved with a minimum score of 80/120		
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TOPICS FOR THE RESEARCH PROJECT AND THE INTERVIEW	<ul style="list-style-type: none"> • Artificial Intelligence • Computer Networking • Computer Vision • Computer Architectures • Conversational Agents • Data Analysis and Social Network Data Analysis • Fog/Edge computing in IoT 																		

	<ul style="list-style-type: none"> • Embedded and Cyber-physical Systems • Machine Learning • Neuroinformatics • Pervasive Sensing & Computing • Quantitative evaluation and verification of concurrent systems • Security and Privacy in Smart Systems • Software architectures and engineering methods
<p>Further information available at the following web page: http://smartcomputing.unifi.it/</p>	

EXAMINATIONS SCHEDULE		
	DATE	TIME
INTERVIEW	September 2 nd 2021	10:00 a.m.
<p>The list of the candidates admitted to the interview and the final ranking will be published at the following web page: https://www.unifi.it/p12018.html</p>		