

Allegato n.2

PHD COURSE IN “INFORMATION AND COMMUNICATION TECHNOLOGY AND ENGINEERING”	
Total number of Positions	<p><i>INTERNATIONAL CURRICULUM</i></p> <ul style="list-style-type: none"> - n. 6 positions with scholarship, of which 1 position financed by Istituto di Scienze Applicate e Sistemi Intelligenti "Eduardo Caianiello", del Consiglio Nazionale delle Ricerche - ISASI-CNR, and 1 position by Istituto Nazionale di Geofisica e Vulcanologia - INGV - n. 1 position with scholarship reserved to students that have gained their degree abroad - n. 2 position without scholarship <p><i>INDUSTRIAL CURRICULUM</i></p> <ul style="list-style-type: none"> - n. 1 position reserved to employees of Ali S.c.a.r.l.
Deadline for application	August 27th, 2021
International Curriculum	<ul style="list-style-type: none"> - n. 6 positions with scholarship, of which 1 position financed by Istituto di Scienze Applicate e Sistemi Intelligenti "Eduardo Caianiello", del Consiglio Nazionale delle Ricerche – ISASI-CNR, and 1 position by Istituto Nazionale di Geofisica e Vulcanologia - INGV - n. 1 position with scholarship reserved to students that have gained their degree abroad - n. 2 position without scholarship
Industrial Curriculum	<ul style="list-style-type: none"> - n. 1 position reserved to employees of Ali S.c.a.r.l.
Length of the course	Three years starting from November 1st, 2021
Foreign University (for the International Doctorate)	Xidian University, Xi'an, China
Academic disciplines related to PhD course	<ul style="list-style-type: none"> - ING-INF/01 (Electronics) - ING-INF/02 (Electromagnetics) - ING-INF/03 (Telecommunications) - ING-INF/04 (Automatic Controls) - ING-INF/05 (Computer Science Engineering) - ING-INF/06 (Bioengineering) - ING-IND/31 (Circuit Theory)
Educational objectives	<p>The PhD course in Information and Communication Technology and Engineering aims at training researchers in the ICT areas, with particular regard to:</p> <ul style="list-style-type: none"> - Nano-electronic technologies and devices, optoelectronic and photonic components for telecommunications, interconnections on chips, sensor networks; - Physical, chemical, biological sensors, biochips, lab-on-chip, micro and nanosystems for the environment, industrial processes, materials and structures, transport, space, security, food, biotechnology, medicine;

	<ul style="list-style-type: none"> - Diagnostic techniques and advanced imaging for cultural heritage, security, industrial processes, materials and structures, automotive and aerospace, biomedicine; - Methods and techniques for the formalization, extraction, and the management of information from large amounts of data (big data); - Software systems for simulation/emulation of the "human-like reasoning" and neuromorphic problem solving in medical field; - Techniques for "human-machine" interaction in medicine and cultural heritage; - Methods for processing large volumes of remote sensing data based on distributed computing infrastructures; - Development of methodologies for modeling and design of control systems for complex systems; - Advanced techniques for the synthesis of antennas; - Modeling of systems and micro and nano-scale magnetic materials, analysis of the magnetization dynamics for technological applications of spintronics and magnetic recording; - Multi-polarization of scattering models for applications involving remote sensing and electromagnetic diagnostics to microwaves; - Non-stationary signals with applications to communications, radar sonar and biological systems; - Signal and image processing; - Radar and microwave imaging; - Remote sensing. <p>The activities involve attending courses and seminars given by the faculty of the Department of Engineering, as well as by researchers of other institutions, both on basic topics and on more specific issues, related to the research activities of doctoral students. The training will also be carried out by attending courses offered in the framework of other PhD courses both in Italy and abroad.</p> <p>Per the International Curriculum it is expected a mandatory research period abroad of at least three months. It is possible to obtain the Double Doctoral Degree with Xidian University, Xi'an, China, following a training program agreed with the Doctoral College.</p> <p>Per il curriculum industriale specific objectives will be defined, to be agreed with the partner company, according to the research project to be carried out as part of the doctoral course.</p>
Coordinator of the PhD board	Prof. Vito Pascazio (vito.pascazio@uniparthenope.it)
Requirements for admission	<p>"Laurea specialistica" or "Laurea magistrale" or equivalent foreign Master's Degree.</p> <p>The validity of a foreign degree is assessed by the Examination board, in compliance with the regulations in force in Italy and in the issuing country.</p>
Documentation evaluation	<p>The evaluation of the examination committee will be based on the following criteria:</p> <ul style="list-style-type: none"> - candidate's curriculum and publications (maximum of 85 points); - publications (maximum of 10 points); - reference letters (maximum of 5 points). <p>Only the candidates who achieve a score of at least 60/100 are admitted to</p>

	the interview.
Oral test	<p>The interview will be held remotely on September 14th, 2021 starting from 10am. The way to connect to the remote meeting will be announced through publication on the University website.</p> <p>The interview will be based on the discussion of the candidate's curriculum and publications.</p> <p>During the interview, good knowledge of at least one foreign language of the European Union will be assessed.</p> <p>The maximum score for the interview is of 50 points. Only candidates scoring a minimum of 30 points will pass the interview.</p> <p>The interview can be held either in Italian or in English.</p>