



Allegato 1

POSITION NUMBER	N. 1
POSITION	Full Professor
Academic recruitment field	02/B2
Academic Discipline	FIS/03
Teaching requirements for the project proposal	The selected candidate will be required to carry out teaching activities related to the academic disciplinary FIS/03 for the the undergraduate courses and PhD courses of the University of Palermo. Eventual approaches of innovative and inclusive teaching are of interest.
Research and Third Mission requirements for the project proposal	<p>The research activities have to be of very high international impact. They must address the quantum technologies field, studied from both the theoretical and applicative sides. Specifically, they deal with: 1) quantum many-body effects in opto and electromechanics: from foundations to quantum technologies; 2) thermodynamics of quantum many-body systems for quantum information processing; 3) machine learning for quantum information processing.</p> <p>The proposed research has to evidence the scientific leadership in terms of independence and research management in an international framework.</p> <p>Is is required to evidence collaborations with stakeholders (research institutions, industries, companies operating in the field related to research) functional to the third mission (technology transfer, public engagement, other).</p>



POSITION NUMBER	N. 1
POSITION	Full Professor
Academic recruitment field	09/E4
Academic Discipline	ING-IND/12
Teaching requirements for the project proposal	The selected candidate will be required to carry out teaching activities related to the academic disciplinary ING-IND/12 for the undergraduate courses and PhD courses of the University of Palermo. Eventual approaches of innovative and inclusive teaching are of interest.
Research and Third Mission requirements for the project proposal	<p>The research must address high international impact issues concerning innovative studies and methodologies for monitoring structures and materials of interest in mechanical, civil and aerospace applications. Specifically, they deal with: 1) distributed strain sensing for structural monitoring; 2) ultrasonic testing for material/structural characterization and damage detection; 3) ultrasonic transducer development for imaging; 4) simulations of wave propagation in structural components; 5) identification of mechanical properties of solids; 6) "Out-put only" dynamic identification of structures; 7) studies on residual stresses.</p> <p>The proposed research has to evidence the scientific leadership in terms of independence and research management in an international framework.</p> <p>Is is required to evidence collaborations with stakeholders (research institutions, industries, companies operating in the field related to research) functional to the third mission (technology transfer, public engagement, other).</p>



POSITION NUMBER	N. 1
POSITION	Full Professor
Academic recruitment field	09/D3
Academic Discipline	ING-IND/25
Teaching requirements for the project proposal	The selected candidate will be required to carry out teaching activities related to the academic disciplinary ING-IND/25 for the the undergraduate courses and PhD courses of the University of Palermo. Eventual approaches of innovative and inclusive teaching are of interest.
Research and Third Mission requirements for the project proposal	<p>The research activities, of very high international impact, must address issues on environmental nanocatalysis and photoreaction engineering. Specifically, the research areas research deals with: 1) nanocatalysis and heterogeneous photocatalysts; 2) advanced disinfection, advanced water detoxification and reuse; 3) process intensification, photoreaction/solar engineering and advanced mathematical modeling. The research applications deal with environmental remediation, renewable energy, green H₂ production, CO₂ conversion, water treatment and reuse, solar fuels and so on.</p> <p>The proposed research has to evidence the scientific leadership in terms of independence and research management in an international framework.</p> <p>Is is required to evidence collaborations with stakeholders (research institutions, industries, companies operating in the field related to research) functional to the third mission (technology transfer, public engagement, other).</p>