

## NCS-Based KAIST Job Description – Fixed-term (Postdoctoral Researcher)

Recruitment area	Postdoctoral Researcher		Parent category	Sub-category	Sub sub-category	Sub sub-sub- category	
			Category : Quantum optics Sub-category : Ultrafast quantum optics and ultrafast quantum spectroscopy				
Mission	- Educati techno - Carrying compe	<ul> <li>Korea Advanced Institute of Science and Technology (KAIST) Act</li> <li>Educating outstanding talent proficient in theory and practice as required in the fields of science and technology for industrial development</li> <li>Carrying out the nation's mid- and long-term R&amp;D, and basic and applied research to foster national competitiveness in science and technology</li> <li>Providing comprehensive support to research conducted by other research centers and industries</li> </ul>					
KAIST's major businesses	<ul> <li>Research:</li> <li>Cooperation</li> </ul>	<ul> <li>Education: Fostering creative talent, strengthening convergence education, nurturing global leaders in science and technology, strengthening human resource capacity</li> <li>Research: Support for development of outstanding research projects, acquisition of specialized researchers, advancement of entrepreneurial culture, creation of high value-added intellectual property rights, promotion of technology transfer/commercialization, and development of large-scale, leading projects</li> <li>Cooperation: Creating a working environment to be at par with global standards, and multifaceted cooperation for global leadership</li> <li>Administration: Provision of administrative and technical service for international students/ faculty (Support for operation of a "Korean-English bilingual campus")</li> </ul>					
Growth engines	<ul> <li>Vision: Global Value-Creative World-Leading University <ul> <li>Hub for Fostering Knowledge Creation and Global Convergence Talents</li> <li>Center for the World-Leading New Knowledge and Technology)</li> </ul> </li> <li>Five innovation initiatives: Innovation in education, research, technology commercialization, globalization and future strategies</li> <li>3C Leadership: Change, Communication, Care</li> </ul>						
Duties and responsibilities	<ul> <li>Research / Educational support</li> </ul>						
Job performance details	<ul> <li>To perform research on ultrafast quantum optics and ultrafast quantum spectroscopy</li> <li>To develop new theoretical descriptions of novel ultrashort quantum states of light and their applications to study properties of highly entangled quantum systems</li> <li>To help to supervise a PhD student working on the same project</li> </ul>						
Knowledge required	• Theoretical quantum optics physics knowledge						
Required skills	<ul> <li>Broad general knowledge of analytical methods in quantum physics</li> <li>Numerical simulations skills</li> <li>Ability to present the research results in good English, including writing scientific papers</li> </ul>						



Attitude while performing duties	<ul> <li>Attitude for an analytical thinking and objective views</li> <li>Attitude for collaborating with the other group members</li> </ul>	
Basic skills	<ul> <li>Problem solving ability</li> <li>Ability to use mathematical methods</li> </ul>	
Reference site	www.ncs.go.kr, <u>www.kaist.ac.kr</u>	