

## NCS-Based KAIST Job Description

			Parent category	Sub-category	Sub sub-category	Sub sub-sub-category
Recruitment area	Postdoctoral researcher	Classification system	*20. Communication	*01. Information Technologies	06. Information Security (Quantum Information Theory)	04. Cryptography
Mission	<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>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</li> <li>Hub for Fostering Knowledge Creation and Global Convergence Talents</li> <li>Center for the World-Leading New Knowledge and Technology)</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 in quantum communication protocols</li> <li>Collaborations within the research group</li> <li>Dissemination of the research outcomes in major conferences</li> </ul>					
Job performance details	<ul><li>Quantum cryptographic protocols</li><li>Analysis on quantum algorithms</li><li>Co-supervision of undergraduate or graduate students</li></ul>					
Knowledge required	<ul><li>Basics of quantum information theory</li><li>Quantum algorithms and quantum communication</li></ul>					
Required skills	<ul> <li>Quantum agorithms and quantum communication</li> <li>Matlab, Qiskit, Python</li> <li>Optimization</li> <li>Latex, PPT, and other presentation skills</li> </ul>					



Attitude while	Cooperative and collaborative interactions within the research group			
performing				
duties	○ 40 working hours per week			
Basic skills	○ Communication in English			
	Constructive interactions within the group			
Reference site	www.ncs.go.kr, www.kaist.ac.kr			