

## KAIST NCS Job Description

<b>Recruitment area</b>	Research (Post-Doc)				
<b>Mission</b>	<ul style="list-style-type: none"> <li>○ Korea Advanced Institute of Science and Technology (KAIST) Act           <ul style="list-style-type: none"> <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> </li> </ul>				
<b>KAIST's major businesses</b>	<ul style="list-style-type: none"> <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>				
<b>Growth engines</b>	<ul style="list-style-type: none"> <li>○ Vision: Global Value-Creative World-Leading University           <ul style="list-style-type: none"> <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>				
<b>Duties and responsibilities</b>	<ul style="list-style-type: none"> <li>○ Perform research and create knowledge as a post-doctoral researcher in the KAIST Institute of Natural Science (Department of Physics, Multi-Dimensional Atomic Imaging Lab: <a href="mailto:mdail.kaist.ac.kr">mdail.kaist.ac.kr</a>)</li> </ul>				
<b>Job performance details</b>	<p>* To be determined within the following topics, considering the applicant's research experience and interest.</p> <ul style="list-style-type: none"> <li>○ 3D atomic structural study on non-crystalline materials</li> <li>○ Atomic-scale material properties such as magnetism, ferroelectricity, multiferroelectricity</li> <li>○ Metal, semiconductor surface/interface 3D atomic structural analysis and related physical properties</li> <li>○ Development of new methods regarding multi-dimensional electron tomography</li> </ul>				

<p><b>Knowledge required</b></p> <p><b>Required skills</b></p> <p><b>Attitude while performing duties</b></p>	<p>Basic knowledge as a Ph.D. researcher in the field of condensed matter physics and materials science</p> <p>* Experience with some of the techniques below is preferred, but not necessarily required.</p> <ul style="list-style-type: none"> <li>○ Structural characterization using aberration-corrected transmission electron microscope</li> <li>○ Tomography experiment / analysis</li> <li>○ Scientific coding skill (Matlab, Python, etc) for 3D volume data analysis</li> <li>○ Nanoparticle / Nanowire synthesis and characterization</li> <li>○ TEM Specimen preparation using FIB</li> </ul> <ul style="list-style-type: none"> <li>○ Compliance with research ethics</li> <li>○ Active attitude and willingness to challenge</li> </ul>
<p><b>Basic skills</b></p>	<p>Candidates and holders of Ph.D. degrees in science and engineering</p>
<p><b>Reference site</b></p>	<p><a href="http://www.ncs.go.kr">www.ncs.go.kr</a>, <a href="http://www.kaist.ac.kr">www.kaist.ac.kr</a>, <a href="http://physics.kaist.ac.kr">physics.kaist.ac.kr</a>, <a href="mailto:mdail.kaist.ac.kr">mdail.kaist.ac.kr</a></p>