

*[참고] 아래 행정직(일반행정) NCS 분류체계 예시를 참고하여, 채용코자 하는 직무에 대한 NCS 분류체계(대분류-중분류-소분류-세분류)를 확인하여 작성하고 담당 업무, 직무수행내용, 필요지식, 필요기술, 직무수행태도, 직업기초능력을 추가 작성*

## NCS-Based KAIST Job Description – Researcher

Recruitment area	Researcher	Classification system	Parent category	Sub-category	Sub sub-category	Sub sub-sub-category
			Information and communication	Information technology	Information technology development	System software engineer
Mission	<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>					
KAIST's major businesses	<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>					
Growth engines	<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>					
Duties and responsibilities	<ul style="list-style-type: none"><li>○ Conduct research projects</li><li>○ Build and evaluate mobile communication systems</li><li>○ Develop a malfunction detection framework for autonomous vehicles</li></ul>					
Job performance details	<ul style="list-style-type: none"><li>○ Build and evaluate mobile communication systems<ul style="list-style-type: none"><li>- Build a mobile communication testbed based on open-source platforms</li><li>- Evaluate the reliability of 5G operations within the testbed</li><li>- Design a prototype security testing tool for 5G security assessment</li></ul></li><li>○ Develop a malfunction detection framework for autonomous vehicles<ul style="list-style-type: none"><li>- Perform static analysis of open-source autonomous driving software</li><li>- Contribute to the development of a malfunction detection framework</li><li>- Analyze the root causes of detected malfunctions</li></ul></li></ul>					

Knowledge required	<ul style="list-style-type: none"> <li>○ Knowledge of mobile communication systems <ul style="list-style-type: none"> <li>- Background in computer networks</li> <li>- Background in communication and signal processing</li> </ul> </li> <li>○ Knowledge of autonomous vehicle technologies <ul style="list-style-type: none"> <li>- Background in algorithms and optimization</li> </ul> </li> <li>○ Knowledge of programming principles and tools</li> </ul>
Required skills	<ul style="list-style-type: none"> <li>○ Mobile Communication Domain <ul style="list-style-type: none"> <li>- Ability to develop concurrent (multi-threaded) programs</li> <li>- Experience in projects involving RF (Radio Frequency) signal usage</li> </ul> </li> <li>○ Autonomous Vehicle Domain <ul style="list-style-type: none"> <li>- Knowledge of system optimization techniques, including genetic algorithms</li> </ul> </li> <li>○ Programming Skills <ul style="list-style-type: none"> <li>- Proficiency in C++, C, and Python</li> </ul> </li> </ul>
Attitude while performing duties	<ul style="list-style-type: none"> <li>○ Punctuality and attendance discipline</li> <li>○ Adherence to research ethics</li> <li>○ Proactive attitude and willingness to take on challenges</li> </ul>
Basic skills	<ul style="list-style-type: none"> <li>○ Major in Computer Science or a related field</li> <li>○ Bachelor's degree or higher</li> </ul>
Reference site	<a href="http://www.ncs.go.kr">www.ncs.go.kr</a> , <a href="http://www.kaist.ac.kr">www.kaist.ac.kr</a>