

NCS-Based KAIST Job Description

Recruitment area	Postdoctoral researcher	Classification system	Parent category	Sub-category	Sub sub-category	Sub sub-sub-category
			*20. Communication	*02. Information Technologies	02. Transmission system development	03. Design of transmission systems
Mission	<ul style="list-style-type: none"> ○ Korea Advanced Institute of Science and Technology (KAIST) Act <ul style="list-style-type: none"> - Educating outstanding talent proficient in theory and practice as required in the fields of science and technology for industrial development - Carrying out the nation's mid- and long-term R&D, and basic and applied research to foster national competitiveness in science and technology - Providing comprehensive support to research conducted by other research centers and industries 					
KAIST's major businesses	<ul style="list-style-type: none"> ○ Education: Fostering creative talent, strengthening convergence education, nurturing global leaders in science and technology, strengthening human resource capacity ○ 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 ○ Cooperation: Creating a working environment to be at par with global standards, and multifaceted cooperation for global leadership ○ Administration: Provision of administrative and technical service for international students/faculty (Support for operation of a "Korean-English bilingual campus") 					
Growth engines	<ul style="list-style-type: none"> ○ Vision: Global Value-Creative World-Leading University <ul style="list-style-type: none"> - Hub for Fostering Knowledge Creation and Global Convergence Talents - Center for the World-Leading New Knowledge and Technology) ○ Five innovation initiatives: Innovation in education, research, technology commercialization, globalization and future strategies ○ 3C Leadership: Change, Communication, Care 					
Duties and responsibilities	<ul style="list-style-type: none"> ○ Research on error correction codes ○ Machine learning based decoder for error-correcting codes ○ Low-complexity high speed hard-decision error correction techniques ○ Supervise and collaborate with PhD students 					
Job performance details	<ul style="list-style-type: none"> ○ Develop machine learning based decoding algorithms ○ Propose efficient error correction techniques ○ Supervise and collaborate with PhD students 					
Knowledge required	<ul style="list-style-type: none"> ○ Advanced knowledge of communication systems ○ Background knowledge of machine learning ○ Professional skill and knowledge of error-correcting codes 					

Required skills	<ul style="list-style-type: none">○ Matlab, Python○ Probability and random processes○ Latex, PPT, and other presentation skills
Attitude while performing duties	<ul style="list-style-type: none">○ Proactive to solve technical problems○ Compliant to the research ethics○ Cooperative and collaborative interactions within the research group○ 40 working hours per week
Basic skills	<ul style="list-style-type: none">○ holding PhD degree and ready to start the research○ Constructive interactions within the research group in KAIST
Reference site	www.ncs.go.kr , www.kaist.ac.kr