

NCS-Based KAIST Job Description – Research position

Recruitment area	Research (Post-Doc)	Classification system	Parent category	Sub-category	Sub sub-category	Sub sub-sub-category
			19. Electricity/Electronics	3. Development of Electronic Device	6. Development of Semiconductor	4. Semiconductor Materials
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"> ○ To manage common research project and make a products ○ To develop the methodology of scientific calculation and softwares ○ Research of electronic device related with energy/bio materials 					
Job performance details	<ul style="list-style-type: none"> ○ Perform the common project for the 1st principle/multiscale calculation for nano-material/-device and make a product ○ Independent research for the 1st principle/multiscale calculation for nano-material/-device 					
Knowledge required	<ul style="list-style-type: none"> ○ Density functional theory (DFT) based on the 1st principle theory and/or force field simulation ○ Research area of high-tech nano-materials/-devices 					
Required skills	<ul style="list-style-type: none"> ○ Technique of modeling and DFT-based simulation ○ Technique of programing using Fortran and/or Python 					
Attitude while performing duties	<ul style="list-style-type: none"> ○ Compliance with research ethics ○ Creative approach to a subject and tenacious and in-depth research ○ Attitude to communicate and cooperate with other colleagues and PI in the laboratory 					

Basic skills	○ Problem-solving ability, personal relationship, professional ethics, mathematics-information proficiency
Reference site	www.ncs.go.kr , www.kaist.ac.kr