

# Recruitment for College of Engineering researchers

## I Candidates and Eligibility

Position	Field	Expected number of people	Main Tasks, Eligibility and Preferences
Post-Doc Researcher	Calculation of ferroelectric HfO2 (Prof. JunHee Lee)	1	<b>[Main Tasks]</b> <ul style="list-style-type: none"> <li>- Construction of ferroelectric Hamiltonian</li> </ul> <b>[Eligibility]</b> <ul style="list-style-type: none"> <li>- Doctor's degree holder</li> </ul> <b>[Preferences]</b> <ul style="list-style-type: none"> <li>- Experience in DFT and effective Hamiltonian</li> </ul>
	System Control / Autonomous Driving / Smart Sensor Network (Prof. Cheolhyeon Kwon)	1	<b>[Main Tasks]</b> <ul style="list-style-type: none"> <li>- Autonomous driving key technology development including but not limited to perception, motion planning, and control</li> <li>- Integrated autonomous driving platform implementation and main S/W &amp; H/W module integration</li> <li>- A.I. and control theory integrated algorithm development and demonstration</li> <li>- Smart sensor module development and design</li> </ul> <b>[Eligibility]</b> <ul style="list-style-type: none"> <li>- Doctor's degree holder</li> <li>- Publishing at least one paper during recent 3 years</li> </ul> <b>[Preferences]</b> <ul style="list-style-type: none"> <li>- Smart sensor module and/or autonomous vehicle related research and development experience</li> <li>- A.I. related research experience</li> <li>- Journal/conference publication record and/or patent</li> <li>- S/W development experience with diverse programming Language</li> </ul>
	Control System of Unmanned Aerial Vehicles and Mechatronics (Prof. Hungsun Son)	1	<b>[Main Tasks]</b> <ul style="list-style-type: none"> <li>- Main tasks can be all or part of the job descriptions listed below</li> <li>- Development of operating software and control algorithm of Multicopter UAVs</li> <li>- Mechatronics and control applications</li> <li>- Electric motor (bldc) and esc motordriver</li> <li>- Embedded hardware design and software development</li> </ul> <b>[Eligibility]</b> <ul style="list-style-type: none"> <li>- Holding or expected to hold a PhD degree at the point of appointment</li> </ul> <b>[Preferences]</b> <ul style="list-style-type: none"> <li>- At least one paper published as the first author in internationally well-known journals in relevant the field</li> </ul>

	Autonomy, guidance and control of unmanned vehicles (Prof. Hyondong Oh)	1	<b>[Main Tasks]</b> <ul style="list-style-type: none"> <li>- Development of cooperative control methods using multiple unmanned vehicles</li> <li>- Development of autonomous decision making, path planning or estimation algorithms using various approaches including machine learning, optimization, information theory, and control/estimation theory</li> <li>- Algorithm verification through simulations or experiments</li> </ul> <b>[Eligibility]</b> <ul style="list-style-type: none"> <li>- Holding or expected to hold a PhD degree at the point of appointment</li> </ul> <b>[Preferences]</b> <ul style="list-style-type: none"> <li>- At least three paper published as the first author in internationally well-known (SCI/SCIE) journals in the relevant field</li> </ul>
	Processing and characterization of electroceramics (Prof. Wook Jo)		<b>[Main Tasks]</b> <ul style="list-style-type: none"> <li>- Research project management, Processing and characterization of new functional materials</li> </ul> <b>[Eligibility]</b> <ul style="list-style-type: none"> <li>- Ph.D. degree</li> </ul> <b>[Preferences]</b> <ul style="list-style-type: none"> <li>- Majored in the processing and the characterization of ceramics</li> <li>- Experienced in postdoctoral positions</li> </ul>
	Structural Dynamics (Structural Health Monitoring) (Prof. Young Joo Lee)		<b>[Main Tasks]</b> <ul style="list-style-type: none"> <li>- Research on structural analysis and monitoring against earthquakes and collaborative research with other institutions in the field of smart construction</li> </ul> <b>[Eligibility]</b> <ul style="list-style-type: none"> <li>- Ph.D. degree in science and engineering</li> <li>- At least 3 SCI papers in the field of structural dynamics or structural health monitoring in the last 3 years</li> </ul> <b>[Preferences]</b> <ul style="list-style-type: none"> <li>- Research experience in structural dynamics, structural health monitoring, and smart construction</li> <li>- Language skill (speaking and writing in English)</li> </ul>
Researcher	Seawater Resources Technology Research Center (Prof. Youngsik Kim)	1	<b>[Main Tasks]</b> <ul style="list-style-type: none"> <li>- Research on Material Design and Analysis based on the Organic / Inorganic Chemistry</li> <li>- Developing novel materials and designing devices</li> </ul> <b>[Eligibility]</b> <ul style="list-style-type: none"> <li>- A B.S degree in related field</li> </ul> <b>[Preferences]</b> <ul style="list-style-type: none"> <li>- Research experience in a closely related field</li> </ul>

※ **Notice**

- 1) No preference given to age or sex;
- 2) A Ph.D. for Postdoctoral Researcher is required;
- 3) Applicants can apply to only one field;
- 4) Candidates may be selected for employment and may be hired according to their rankings if other vacancies in the same field become available within six months of appointment; and

5) Career or qualifications in each fields' requirement or preferred conditions must be supported with proofs such as certificates. In case submitted proofs are confirmed as false documents, acceptance can be cancelled.

## II Contract

Position	Term	Working hours	Monthly Pay	Remarks
Calculation of ferroelectric HfO <sub>2</sub>	2020.11.01 ~ 2021.10.31	-The five-day week -Working Hour 9:00~18:00 -Recess 12:00 ~ 13:00	₩2,500,000	* Workplace: UNIST School of Mechanical and Nuclear Engineering
System Control / Autonomous Driving / Smart Sensor Network	2020.11.01 ~ 2021.10.31	-The five-day week -Working Hour 9:00~18:00 -Recess 12:00 ~ 13:00	₩4,000,000	
Control System of Unmanned Aerial Vehicles and Mechatronics	2020.11.01 ~ 2021.10.31	-The five-day week -Working Hour 9:00~18:00 -Recess 12:00 ~ 13:00	₩3,000,000	
Autonomy, guidance and control of unmanned vehicles	2020.11.01 ~ 2021.10.31	-The five-day week -Working Hour 9:00~18:00 -Recess 12:00 ~ 13:00	₩3,000,000	
Processing and characterization of electroceramics	2020.11.01 ~ 2021.10.31	-The five-day week -Working Hour 9:00~18:00 -Recess 12:00 ~ 13:00	₩2,500,000	
Structural Dynamics (Structural Health Monitoring)	2020.11.01 ~ 2021.10.31	-The five-day week -Working Hour 9:00~18:00 -Recess 12:00 ~ 13:00	₩2,600,000	
Seawater Resources Technology Research Center	2020.11.01 ~ <b>2021.02.28</b>	-The five-day week -Working Hour <b>9:00~14:00</b> -Recess 12:00 ~ 13:00	₩1,000,000	

\* Salary can be changed depending on experiences in the field through discussion. Extra payment may occur.

\* Details of the contract can be revised by mutual consent with the Project PI .

## III Document Receipt and Selection Method

○ Recruitment notice and documents submission period

- 2020.09.18(Fri) ~ 2020.10.04(Sun) @ 24:00

○ **Document Receipt Method:** Recruiter E-mail([invitation-ns@unist.ac.kr](mailto:invitation-ns@unist.ac.kr))

### ※ How to apply

- The submitted documents are converted into PDF files (after scanning) and sent by e-mail.
- **Subject: 「Position-Recruitment Area: OOO(Applicant name)」**
- **Note: Applications should be received by 24:00 on the due date**

### ○ Documents to be submitted

Position	Submission documents	Remarks
Post-doctoral researcher	Applicant Form, Research Plan, Agreement to provide personal information to third parties	Refer to attachment
Researcher	Applicant Form, Self introduction, Job and research performance report, Agreement to provide personal information to third parties	

- When filling out the application form, the relevant documents must be prepared in advance. Successful applicants will be canceled due to erroneous input. All responsibility for harm lies with the applicant
- According to blind employment, there is to be no submission of photograph, school name, credit, family relationship, family name, date of birth, and physical condition.

### ○ Selection Method: Document Screening, Interview

- If there is no qualified person, the original number of candidates may be reduced or not selected.
- Those who are eligible for work protection are given additional points according to related laws (5% or 10% of the perfect scores by stage)
- Additional points are granted to the disabled in order to promote employment of persons with disabilities (5% of perfect scores by stage)

### ○ Final appointment

- Under article 33 of the National Civil Service Act regarding the disqualification conditions of the appointment of national civil services, successful candidates who are applicable of the disqualification conditions or failed in physical examination will be excluded from appointment.
- Persons whose identity has been identified as a result of an inquiry and a survey of candidates for recruitment (final interview candidates) in accordance with the original rules may be canceled through discussion.

- If a person is found to have a final appointment and has been found to have submitted false information, application forgery, or fraudulent employment, the appointment may be canceled as per Article 33 of the Civil Service Act.
- If an unsuccessful candidate wishes to retrieve one's application document, request can be made within 2 weeks of announcement.

## IV Recruitment Schedule

Step	Schedule	Remarks
Application Period	2020.09.18 ~ 2020.10.04	~24:00 on 04th October
Documents review	2020.10.05 ~ 2020.10.08	Announcement of successful candidates: 2020.10.12
Interview	2020.10.13 ~ 2020.10.16	Announcement of successful candidates: 2020.10.19
Appointment	November on 2020	

\* Schedules are subject to change.

## V Contact

- Ulsan Institute of Science and Technology (UNIST) College of Engineering
- Tel: (052) 217-1802, [invitation-ns@unist.ac.kr](mailto:invitation-ns@unist.ac.kr)
- Address: U203, Bldg.108, Unist-gil 50, Eonyang-eup, Ulju-gun, Ulsan