

# Recruitment for College of Engineering researchers

## I Candidates and Eligibility

Position	Field	Expected number of people	Main Tasks, Eligibility and Preferences
Post-Doctoral Researcher	Quadruped robot, Soft robot (Prof. Joonbum Bae)	1	<p><b>[Main Tasks]</b></p> <ul style="list-style-type: none"> <li>- Quadruped robot, Soft robot</li> </ul> <p><b>[Eligibility]</b></p> <ul style="list-style-type: none"> <li>- Doctor's degree holder</li> </ul> <p><b>[Preferences]</b></p> <ul style="list-style-type: none"> <li>- Design and control of mechanical systems</li> </ul>
Post-Doctoral Researcher	3D Printing and Artificial Intelligence (Prof. Im Doo Jung)	1	<p><b>[Main Tasks]</b></p> <ul style="list-style-type: none"> <li>- 3D Printing Process Development</li> <li>- 3D Printing Material Development</li> <li>- AI for Machine</li> </ul> <p><b>[Eligibility]</b></p> <ul style="list-style-type: none"> <li>- Doctor's degree holder</li> </ul> <p><b>[Preferences]</b></p> <ul style="list-style-type: none"> <li>- Python Coding Experience over 3 years</li> <li>- Nano particle synthesis</li> <li>- 3D Printing Experience</li> </ul>
Post-Doctoral Researcher	System Control / Autonomous Driving / Smart Sensor Network (Prof. Cheolhyeon Kwon)	1	<p><b>[Main Tasks]</b></p> <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> <p><b>[Eligibility]</b></p> <ul style="list-style-type: none"> <li>- Doctor's degree holder</li> <li>- Publishing at least one paper during recent 3 years</li> </ul> <p><b>[Preferences]</b></p> <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>
Post-Doctoral Researcher	Control System of Unmanned Aerial Vehicles and Mechatronics (Prof. Hungsun Son)	1	<p><b>[Main Tasks]</b></p> <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> </ul>

			<ul style="list-style-type: none"> <li>- Mechatronics and control applications</li> <li>- Electric motor (blcd) and esc motordriver</li> <li>- Embedded hardware design and software development</li> </ul> <p><b>[Eligibility]</b></p> <ul style="list-style-type: none"> <li>- Holding or expected to hold a PhD degree at the point of appointment</li> </ul> <p><b>[Preferences]</b></p> <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>
Post-Doctoral Researcher	Autonomy, guidance and control of unmanned vehicles <b>(Prof. Hyondong Oh)</b>	1	<p><b>[Main Tasks]</b></p> <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> <p><b>[Eligibility]</b></p> <ul style="list-style-type: none"> <li>- Holding or expected to hold a PhD degree at the point of appointment</li> </ul> <p><b>[Preferences]</b></p> <ul style="list-style-type: none"> <li>- At least one paper published as the first author in internationally well-known (SCI/SCIE) journals in the relevant field</li> </ul>
Researcher	Neuromechanics, Rehabilitation Engineering, Robotics <b>(Prof. Sang Hoon Kang)</b>	1	<p><b>[Main Tasks]</b></p> <ul style="list-style-type: none"> <li>- Evaluation of rehabilitation robots and related studies in neuromechanics with an emphasis on rehabilitation</li> </ul> <p><b>[Eligibility]</b></p> <ul style="list-style-type: none"> <li>- Bachelors in Public health or Science and Engineering field</li> </ul> <p><b>[Preferences]</b></p> <ul style="list-style-type: none"> <li>- Physical Therapist with a license (bachelor and higher degrees)</li> <li>- PhD in science/engineering and in areas related to the rehabilitation engineering</li> <li>- Prior experience in studies evaluating rehabilitation robotic devices with subjects including patients</li> </ul>
Post-Doctoral Researcher	Chemical Engineering <b>(Prof. Hankwon Lim)</b>	1	<p><b>[Main Tasks]</b></p> <ul style="list-style-type: none"> <li>- Process design/optimization/modeling</li> <li>- Process analysis based on ML/AI/CPS</li> </ul> <p><b>[Eligibility]</b></p> <ul style="list-style-type: none"> <li>- Doctor's degree holder</li> </ul> <p><b>[Preferences]</b></p> <ul style="list-style-type: none"> <li>- Research experience in a closely related field</li> <li>- who can communicate in English</li> </ul>
Research Assistant	Geotechnical Earthquake Engineering <b>(Prof. Byungmin Kim)</b>	1	<p><b>[Main Tasks]</b></p> <ul style="list-style-type: none"> <li>- Collection and process of ground motion data</li> <li>- Numerical simulations</li> </ul> <p><b>[Eligibility]</b></p> <ul style="list-style-type: none"> <li>- B.S. degree holder</li> </ul> <p><b>[Preferences]</b></p>

			- Experience in numerical simulations
Researcher	Electrochemical water treatment (Prof. Kyung Hwa Cho)	1	<p><b>[Main Tasks]</b></p> <ul style="list-style-type: none"> <li>- Electrochemical water treatment</li> <li>- Water treatment modeling</li> </ul> <p><b>[Eligibility]</b></p> <ul style="list-style-type: none"> <li>- M.S. degree holder</li> </ul> <p><b>[Preferences]</b></p> <ul style="list-style-type: none"> <li>- Electrochemical water treatment</li> <li>- CDI</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

Field	Term	Working hours	Monthly Pay	Remarks
Quadruped robot, Soft robot (Prof. Joonbum Bae)	2021.01.01 ~ 2021.12.31	-The five-day week -Working Hour 9:00~18:00 -Recess 12:00 ~ 13:00	₩3,000,000	* Workplace: Main Campus of UNIST
3D Printing and Artificial Intelligence (Prof. Im Doo Jung)	2021.02.01 ~ 2022.01.31	-The five-day week -Working Hour 9:00~18:00 -Recess 12:00 ~ 13:00	₩3,000,000	* Workplace: Main Campus of UNIST
System Control / Autonomous Driving / Smart Sensor Network (Prof. Cheolhyeon Kwon)	2021.01.01 ~ 2021.12.31	-The five-day week -Working Hour 9:00~18:00 -Recess 12:00 ~ 13:00	₩4,000,000	* Workplace: Main Campus of UNIST
Control System of Unmanned Aerial Vehicles and Mechatronics (Prof. Hungsun Son)	2021.01.01 ~ 2021.12.31	-The five-day week -Working Hour 9:00~18:00 -Recess 12:00 ~ 13:00	₩3,000,000	* Workplace: Main Campus of UNIST
Autonomy, guidance and control of unmanned vehicles (Prof. Hyondong Oh)	2021.01.01 ~ 2021.12.31	-The five-day week -Working Hour 9:00~18:00 -Recess 12:00 ~ 13:00	₩3,000,000	* Workplace: Main Campus of UNIST
Neuromechanics, Rehabilitation Engineering, Robotics (Prof. Sang Hoon Kang)	2021.01.01 ~ 2021.12.31	-The five-day week -Working Hour 9:00~18:00 -Recess 12:00 ~ 13:00	₩2,200,000	* Workplace: Main Campus of UNIST
Chemical Engineering	2021.01.01 ~	-The five-day week	₩3,500,000	* Workplace: Main Campus

(Prof. Hankwon Lim)	2021.12.31	-Working Hour 9:00~18:00 -Recess 12:00 ~ 13:00		of UNIST
Geotechnical Earthquake Engineering (Prof. Byungmin Kim)	2021.01.01 ~ 2021.12.31	-The five-day week -Working Hour <b>9:00~16:00</b> -Recess 12:00 ~ 13:00	₩1,350,000	* Workplace: Main Campus of UNIST
Electrochemical water treatment (Prof. Kyung Hwa Cho)	<b>2021.02.01 ~ 2021.08.31</b>	-The five-day week -Working Hour 9:00~18:00 -Recess 12:00 ~ 13:00	₩2,000,000	* Workplace: Main Campus of UNIST

\* 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 .

\* For Research administration field, contract will be yearly basis and can be extended up to 2 years.

### III Document Receipt and Selection Method

○ Recruitment notice and documents submission period

- 2020.11.02 ~ 2020.11.17 @ 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(Korean Time)**

○ **Documents to be submitted**

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

- 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, name of advisor, 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	2020.11.02 ~ 2020.11.17	~24:00 on 2020.11.17
Documents review	2020.11.23 ~ 2020.11.25	Announcement of successful candidates: 2020.11.27
Interview	2020.11.30 ~ 2020.12.02	Announcement of successful candidates: 2020.12.04
Appointment	January on 2021	

\* Schedules are subject to change.

## V Contact

- Ulsan Institute of Science and Technology (UNIST) College of Engineering

- Tel: (052) 217-1802,1803 [invitation-ns@unist.ac.kr](mailto:invitation-ns@unist.ac.kr)

- Address: U203, Bldg.108, Unist-gil 50, Eonyang-eup, Ulju-gun, Ulsan