

# Recruitment for Research positions at College of Engineering, UNIST

## I Recruitment Schedule

| Process            | Schedule             | Remarks  |
|--------------------|----------------------|--|
| Application Period | 2021.11.15. ~ 11.30. | ~24:00 on 2021.11.30.                              |
| Documents review   | 2021.12.02.          | Announcement of successful candidates: 2021.12.06. |
| Interview          | 2021.12.07.          | Announcement of successful candidates: 2021.12.09. |
| Appointment        | 2021.12.16. ~        |  |

\*Schedules are subject to change.

## II Application and Screening

- Application period: 2021.11.15. ~ 11.30., 24:00 (\*Korean time standard)
- How to apply
  - The submitted documents are converted into one PDF file (after scanning) and sent by e-mail([invitation-ns@unist.ac.kr](mailto:invitation-ns@unist.ac.kr))
  - File name: 「Position-Recruitment Area: OOO(Applicant name)」
  - Applications should be received by 24:00 on the due date(Korean time standard)

### ○ Documents to be submitted

| Position                       | Submission documents   | Remarks                                       |
|--------------------------------|--|---|
| Post-doc researcher            | 1) Applicant Form<br>2) Research Plan<br>3) Self introduction<br>4) Agreement to provide personal information to third parties                       | - Required documents<br>- Refer to attachment |
| Researcher /Research Assistant | 1) Applicant Form<br>2) Job and research performance report<br>3) Self introduction<br>4) 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, name of advisor, credit, family relationship, family name, date of birth, and physical condition.
- Selection: Document Screening, Interview Screening
  - 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.

## III Field and Eligibility

○ Mechanical Engineering

| Position            | Field   | Quota | Detailed information |  |
|---------------------|---|-------|----------------------|--|
| Post-Doc Researcher | Robotics and Rehabilitation Engineering<br>(Prof. Sang Hoon Kang) | 1     | <b>Main Tasks</b>    | Conducting research on rehabilitation robots and/or neuromechanics, including tests with subjects  |
|                     |   |       | <b>Eligibility</b>   | A PhD degree in related field (Science & Engineering, and Health Science)  |
|                     |   |       | <b>Preferences</b>   | - Ph.D. degree holders in fields related to robotics, rehabilitation engineering, or neuromechanics such as science and engineering<br>- Experience in conducting research on subjects with rehabilitation robots or engineering devices<br>- At least one paper published as the first author in internationally well-known journals in the relevant fields |
|                     |   |       | <b>Term</b>          | 2021.12.16. ~ 2022.12.15.  |
|                     |   |       | <b>Working hours</b> | - The five-day week<br>- Working Hour 9:00~18:00<br>- Break 12:00~13:00  |
|                     |   |       | <b>Monthly wage</b>  | 2,800,000 WON  |
| Post-Doc Researcher | 3D Printing and Artificial Intelligence<br>(Prof. Im Doo Jung)    | 1     | <b>Main Tasks</b>    | - 3D Printing Process Development<br>- 3D Printing Material Development<br>- AI for Machine  |
|                     |   |       | <b>Eligibility</b>   | Doctor's degree holder   |
|                     |   |       | <b>Preferences</b>   | - Python Coding Experience over 3 year<br>- Nano particle synthesis<br>- 3D Printing Experience  |
|                     |   |       | <b>Term</b>          | 2021.12.16. ~ 2022.12.15.  |
|                     |   |       | <b>Working hours</b> | - The five-day week<br>- Working Hour 9:00~18:00<br>- Break 12:00~13:00  |
|                     |   |       | <b>Monthly wage</b>  | ₩3,000,000   |

| Position            | Field  | Quota | Detailed information |  |
|---------------------|--|-------|----------------------|--|
| Researcher          | Manufacturing Engineering<br>(Prof. Namhun Kim)                              | 1     | <b>Main Tasks</b>    | <ul style="list-style-type: none"> <li>- Operate and monitor 3D printers and machining tools (Prototyping, Machines operation and management etc.)</li> <li>- Provide 3d printing technical support (Reverse Engineering, 3d modeling, Prototyping, etc.)</li> </ul> |
|                     |  |       | <b>Eligibility</b>   | Applicants who have earned B.S degree or higher in natural sciences and engineering.   |
|                     |  |       | <b>Preferences</b>   | Experience in 3D printers operation  |
|                     |  |       | <b>Term</b>          | 2021.12.16. ~ 2022.12.15.  |
|                     |  |       | <b>Working hours</b> | <ul style="list-style-type: none"> <li>- The five-day week</li> <li>- Working 9:00 ~ 18:00</li> <li>- Break 12:00 ~ 13:00</li> </ul>   |
|                     |  |       | <b>Monthly wage</b>  | ₩ 2,500,000  |
| Post-Doc Researcher | Micro-/Nanofluidics Lab.<br>(Prof. Taesung Kim)                              | 1     | <b>Main Tasks</b>    | Development of Nanofluidic Transport-based molecule sorting/concentrating/detecting technologies   |
|                     |  |       | <b>Eligibility</b>   | Ph.D holder in micro/nanotechnological research fields   |
|                     |  |       | <b>Preferences</b>   | Research experience and expertise in the micro-/nanotechnological fields aforementioned  |
|                     |  |       | <b>Term</b>          | 2022.01.01. ~ 2022.12.31   |
|                     |  |       | <b>Working hours</b> | <ul style="list-style-type: none"> <li>- The five-day week</li> <li>- Working 9:00 ~ 18:00</li> <li>- Break 12:00 ~ 13:00</li> </ul>   |
|                     |  |       | <b>Monthly wage</b>  | 3,500,000won (negotiable)  |
| Post-Doc Researcher | Nanotechnology / Soft Materials / Flexible devices<br>(Prof. Hoon Eui Jeong) | 1     | <b>Main Tasks</b>    | <ul style="list-style-type: none"> <li>- Development of soft adhesive materials/actuators/sensors</li> <li>- Development of wearable devices and soft robots</li> <li>- 3D printing of soft materials, nanofabrication</li> </ul>                                    |
|                     |  |       | <b>Eligibility</b>   | A PhD degree in related field  |
|                     |  |       | <b>Preferences</b>   | Research experience in closely related field   |
|                     |  |       | <b>Term</b>          | 2022.01.01. ~ 2022.12.31.  |
|                     |  |       | <b>Working hours</b> | <ul style="list-style-type: none"> <li>- The five-day week</li> <li>- Working Hour 9:00~18:00</li> <li>- Break 12:00 ~ 13:00</li> </ul>  |
|                     |  |       | <b>Monthly wage</b>  | 2,500,000-3,500,000 won  |
| Post-Doc Researcher | Computational Multiscale Solid Mechanics<br>(Prof. Sung Youb KIM)            | 1     | <b>Main Tasks</b>    | Research on the Numerical Analysis for 0 multiscale solid mechanics including DFT, MD, and FEM based on data   |
|                     |  |       | <b>Eligibility</b>   | A Ph.D. degree in Mechanical or Material Engineering   |
|                     |  |       | <b>Preferences</b>   | Research experience using DFT, MD, Multiscale simulations  |
|                     |  |       | <b>Term</b>          | 2022.01.01. ~ 2022.12.31.  |
|                     |  |       | <b>Working hours</b> | <ul style="list-style-type: none"> <li>- The five-day week</li> <li>- Working 9:00~18:00</li> <li>- Break 12:00 ~ 13:00</li> </ul>   |
|                     |  |       | <b>Monthly wage</b>  | 4,000,000 Won  |

| Position               | Field   | Quota | Detailed information |  |
|------------------------|---|-------|----------------------|--|
| Post-Doc<br>Researcher | Computational<br>Mechanics<br><br>(Prof. Hayoung Chung) | 1     | <b>Main Tasks</b>    | Research on multiphysics topology optimization   |
|                        |   |       | <b>Eligibility</b>   | <ul style="list-style-type: none"> <li>- Ph.D. degree</li> <li>- One or more publications in SCI journals as the first author within the past three years</li> </ul>   |
|                        |   |       | <b>Preferences</b>   | <ul style="list-style-type: none"> <li>- Proficiency in English</li> <li>- Three or more publications in SCI journals as the first author throughout the research career</li> <li>- Familiarity with stochastic topology optimization</li> </ul> |
|                        |   |       | <b>Term</b>          | 2021.12.16. ~ 2022.12.15.  |
|                        |   |       | <b>Working hours</b> | <ul style="list-style-type: none"> <li>- Five-day in a week</li> <li>- Working hours: 9:00 ~ 18:00</li> <li>- 1 hr break 12:00 ~ 13:00</li> </ul>  |
|                        |   |       | <b>Monthly wage</b>  | 2,800,000 KRW  |

○ Energy and Chemical Engineering

| Position            | Field  | Quota | Detailed information |   |
|---------------------|--|-------|----------------------|---|
| Post-Doc Researcher | Simulation on OER, ORR, HER<br>(Prof. Ji-Hyun Jang)  | 1     | <b>Main Tasks</b>    | Simulation regarding OER, HER, and ORR (DFT, MD)  |
|                     |  |       | <b>Eligibility</b>   | A PhD degree in related field   |
|                     |  |       | <b>Preferences</b>   | Research experience in closely related field  |
|                     |  |       | <b>Term</b>          | 2021.12.16. ~ 2022.12.15.   |
|                     |  |       | <b>Working hours</b> | - The five-day week<br>- Working 9:00~18:00<br>- Break 12:00 ~ 13:00  |
|                     |  |       | <b>Monthly wage</b>  | ₩2,700,000/month  |
| Post-Doc Researcher | Solar Cell Materials/Devices<br>(Prof. Sung-Yeon Jang)   | 1     | <b>Main Tasks</b>    | - Solar cell materials/devices<br>- Organic synthesis, organic solar cell material synthesis and device manufacturing                       |
|                     |  |       | <b>Eligibility</b>   | - Doctor's degree holder<br>- Publishing at least one paper during recent 3 years   |
|                     |  |       | <b>Preferences</b>   | - Organic synthesis, organic solar cell material synthesis and device manufacturing experience<br>- Solar cell materials/devices experience |
|                     |  |       | <b>Term</b>          | 2021.12.16. ~ 2022.12.15.   |
|                     |  |       | <b>Working hours</b> | - The five-day week<br>- Working 9:00~18:00<br>- Break 12:00 ~ 13:00  |
|                     |  |       | <b>Monthly wage</b>  | 2,500,000 KRW   |
| Post-Doc Researcher | Establishment of a foundation for commercialization of marine specialized power supply devices<br>(Prof. Yunseok Choi) | 1     | <b>Main Tasks</b>    | Improving the design of lithium-based marine specialized cells  |
|                     |  |       | <b>Eligibility</b>   | Ph.D in related research field  |
|                     |  |       | <b>Preferences</b>   | Fluent in English   |
|                     |  |       | <b>Term</b>          | 2022.01.01. ~ 2021.12.31.   |
|                     |  |       | <b>Working hours</b> | - The five-days in a week<br>- Working : 9:00~18:00<br>- Break : 12:00~13:00  |
|                     |  |       | <b>Monthly wage</b>  | 2,100,000 won   |
| Researcher          | Establishment of a foundation for commercialization of marine specialized power supply devices<br>(Prof. Yunseok Choi) | 1     | <b>Main Tasks</b>    | Design, synthesis and testing of organic / inorganic chemical-based materials   |
|                     |  |       | <b>Eligibility</b>   | a bachelor's degree   |
|                     |  |       | <b>Preferences</b>   | - Science, engineering, preferential treatment<br>- Preferential treatment for those who have experienced development.                      |
|                     |  |       | <b>Term</b>          | 2022.01.01.~2022.12.31  |
|                     |  |       | <b>Working hours</b> | - The five-day week<br>- Working 9:00~18:00<br>- Break 12:00 ~ 13:00  |
|                     |  |       | <b>Monthly wage</b>  | 2,000,000~3,000,000won  |
| Post-Doc Researcher | Center for Dimension Controllable Organic Framework<br>(Prof. Jong-Beom Baek)  | 1     | <b>Main Tasks</b>    | Research on Analysis and Synthesis of porous organic network polymers   |
|                     |  |       | <b>Eligibility</b>   | A PhD degree in related field   |
|                     |  |       | <b>Preferences</b>   | Research experience in closely related field  |
|                     |  |       | <b>Term</b>          | 2022.01.01.~2022.12.31.   |
|                     |  |       | <b>Working hours</b> | - The five-day week<br>- Working 9:00~18:00<br>- Break 12:00 ~ 13:00  |
|                     |  |       | <b>Monthly wage</b>  | 3,000,000won  |

○ Nuclear Engineering

| Position            | Field  | Quota | Detailed information |  |
|---------------------|--|-------|----------------------|--|
| Post-Doc Researcher | Heat transfer and CFD<br>(Prof. In Cheol Bang) | 1     | <b>Main Tasks</b>    | Research on heat pipe technology for innovative small modular reactors |
|                     |  |       | <b>Eligibility</b>   | A PhD degree in heat transfer and related field                        |
|                     |  |       | <b>Preferences</b>   | Research experience in heat transfer and closely related field         |
|                     |  |       | <b>Term</b>          | 2022.01.01. ~ 2022.12.31.  |
|                     |  |       | <b>Working hours</b> | - The five-day week<br>- Working 9:00~18:00<br>- Break 12:00 ~ 13:00   |
|                     |  |       | <b>Monthly wage</b>  | 3,000,000 WON  |

※ 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
- 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.
- 6) Salary can be changed depending on experiences in the field through discussion. Extra payment may occur.
- 7) Details of the contract can be revised by mutual consent with the Project PI

## IV Contact

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