

# Recruitment for Research Professor at School of Mechanical, Aerospace and Nuclear Engineering, UNIST

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## I. Candidates and Eligibility / Contract

### A. Overview

Recruitment Area	Expect number of people	Eligibility and contract
Aerosol/Bioaerosol or Biosensor	1	<b>[Eligibility]</b> - Holding a Ph.D. degree - Three SCI papers of related fields over the last 5 years  <b>[Contract]</b> - <u>Contract Period: 2020.09.01. ~ 2021.08.31.</u> (with the possibility of extension up to 9 years upon research achievements / the starting date is subject to change) - Salary: 3,750,000 won per month (before tax)  <b>[Work hours &amp; Office Location]</b> - Full-time (Mon-Fri, 09:00~18:00) - TBD in UNIST
Nanomaterial-based gas and environmental sensors	1	
IoT Sensor Modules/Systems or Readout Integrated Circuits	1	
Control System of Unmanned Aerial Vehicles and Mechatronics	1	
Autonomy, guidance and control of unmanned vehicles	1	
Monitoring of trace level organic pollutants	1	

### B. Job Description

Main tasks can be all or part of the job descriptions listed below.

- 1) Aerosol/Bio-aerosol or Biosensor
  - Development of aerosol/bioaerosol instruments or biosensors
- 2) Nanomaterial-based gas and environmental sensors
  - Development of nanomaterial-based gas and environmental sensors
  - Synthesis and characterization of nanomaterials for use as sensors
  - Design and fabrication of micro/nano-sized sensors
- 3) IoT Sensor Modules/Systems or Readout Integrated Circuits
  - Development of smart sensor systems/platforms or CMOS readout integrated circuits for environmental monitoring

#### 4) Control System of Unmanned Aerial Vehicles and Mechatronics

- Development of operating software and control algorithm of Multicopter UAVs
- Mechatronics and control applications
- Embedded hardware design and software development

#### 5) Autonomy, guidance and control of unmanned vehicles

- Development of cooperative control methods using multiple unmanned vehicles for environmental monitoring
- Development of autonomous search planning and estimation algorithms using various approaches including machine learning, optimization, information theory, and estimation theory
- Algorithm verification through simulations or experiments

#### 6) Monitoring of trace level organic pollutants

- Instrumental analysis of trace level organic pollutants for monitoring of chemical accidents and environmental pollution

## II. Document Receipt and Selection Method

### A. Recruitment notice and documents submission period

- 2020.06.15.(Mon) ~ 2020.07.05.(Sun)

### B. How to apply

1) The submitted documents are converted into PDF files (after scanning) and sent by e-mail :

**mne@unist.ac.kr**

- Subject: 「**Research Professor-UNIST-OOO(Name of the Candidate)**」
- Note: Applications should be received by 18:00 on the due date

2) Documents to be submitted

- Application form (refer to attachment)
- C.V.(Including Publication list, primary author, corresponding author)
- Research plan
- At least one reference letter

※ According to blind employment, there is no entry of photograph, school name, credit, family relationship, family name, date of birth, and physical condition.

※ Successful applicants will be canceled due to erroneous input. All responsibility for harm lies with the applicant.

## C. Selection Method

- 1) Document review: Evaluate the suitability of recruitment area
- 2) Interview: Evaluation of research performance and specialties and job performance ability in recruitment area

## D. Recruitment Candidate

- 1) Job candidates are selected within the scope of the number of applicants in the order of the high score of the interview.
- 2) If there is no qualified person as a result of the interview, the original number of candidates may be reduced or not selected.
- 3) Criteria for Handling Successful Candidates by Ties  
In case of tie in each stage of the selection, (priority) veterans, (priority) persons with disabilities, (Priority 3) High school graduates, (Priority 4) Non-metropolitan area talents, (Priority 5) Higher English test scores (Priority 6)

## E. Final appointment

- 1) If there are no special matters after conducting an identity check and hiring examination for public officials, hiring candidates will be finally hired.
- 2) The appointment can be canceled if false facts are found in the documents submitted after the final appointment has been confirmed and appointed, or if the reason for disqualification under Article 33 of the National Civil Service Act is found.

## III. Recruitment Schedule

### A. Schedule (※There may be some changes to the schedule.)

- 1) Application submission: **2020.06.15. ~ 2020.07.05. 18:00 (21days)**
- 2) Screening of document: 2020.07.06. ~ 2020.07.08.
- 3) Announcement of successful applicants for document screening: 2020.07.09.
- 4) Interview: 2020.07.10. ~ 2020.07.14. (Online interview is possible considering COVID-19.)
- 5) Announcement of successful applications for interview: 2020.7.15
- 6) Appointment scheduled for: **After 2020.09.01.**



## IV. Contact

- A. Ulsan Institute of Science and Technology (UNIST) School of Mechanical, Aerospace and Nuclear Engineering administration office
- B. Tel: +82-52-217-3501, [mne@unist.ac.kr](mailto:mne@unist.ac.kr)
- C. Address: Room 401-13, Bldg. 112, UNIST-gil 50, Eonyang-eup, Ulju-gun, Ulsan, Korea