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UNIST

FIRST IN CHANGE



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**UNIST**

ULSAN NATIONAL INSTITUTE OF  
SCIENCE AND TECHNOLOGY

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UNIST's Symbolic Landmark - **Face the Future**

UNIST has established a new symbolic landmark to further enhance its global presence. Professor Yunwoo Jeong in the School of Design and Human Engineering at UNIST proposed the design. The key theme of this new landmark is "Face the Future". The theme encompasses UNIST's vision to contribute to the prosperity of humankind, as well as the light that illuminates the world with scientific and technological advances.

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## A Message from the President



### “UNIST has been reborn as a national research institute for science and technology.”

In respond to the upcoming Fourth Industrial Revolution,  
UNIST will play an active role as a national think tank, as well as a regional research hub

In its short history, UNIST has truly grown to become a world-class research intensive university, with a rapidly growing reputation for pioneering research and academic excellence. Leading scholars from all over the world have joined UNIST to deliver cutting-edge research and high-quality education in an unparalleled research environment.

UNIST has improved its global competitiveness, rising to 1st place nationally and 36th place (FWCI) worldwide in the 2017 CWTS Leiden Ranking, which evaluates the quality of scientific publications. In addition, in September of the same year, UNIST demonstrated evidence of research excellence by ranking 5th place nationally in the 2018 THE World University Rankings, appearing there for the first time since its establishment in 2009.

UNIST will undertake three main tasks to cultivate outstanding scientific and technological talents who will lead the future of the Korean industrial growth and bring about scientific and technological innovation.

**First, UNIST will incentivize high quality research by promoting excellence, diversity, and inclusion in science and technology.** In order to attain our goal of being ranked among the “World’s Top 10 Universities of Science and Technology by 2030”, UNIST will work diligently to deliver noteworthy research outcomes. We have been actively promoting the development of outstanding and useful research brands that well-represent UNIST in accomplishing our new goal of “Raising a \$10 Billion Development Fund by 2040”.

**Second, UNIST will establish successful models for startups and industry-university collaboration and startups.** UNIST will establish a one-stop support system not only to help promote entrepreneurship among students and faculty, but to help young startups succeed as they enter new international markets. We will also provide strong and continuous institutional support to promote an active collaboration between the university and industry.

**Third, UNIST will play an active role as the ‘Think Tank’ of Ulsan and Korea.** Today, we are living in an era where creativity and ideas can move the world. UNIST will play an active role as the ‘Think Tank’ of Ulsan and Korea through the cultivation of innovative minds who will lead the future of science and technology.

Our mission is to be a real force, capable of making a difference in the world by taking a leading role as a ‘First Mover’ to advance science and technology for the prosperity of humankind. UNIST, as a “Cradle of Innovative Talents in Science and Technology”, will continuously deliver cutting-edge research and prepare our students to tackle global challenges.

We ask for your continued support and encouragement, as we lay the foundation for an exciting future.

Thank you.

President of UNIST  
Mooyoung Jung



# HISTORY

## 'Challenges' for a Better World : UNIST's Ongoing Journey



### 2017

- Hosting of the 4th Industrial Revolution Forum in Ulsan
- Opening of UNISPARK
- Opening of the Industry-Academia Battery R&D Center

### 2015

- Declaration of Ulsan National Institute of Science and Technology Act.
- Official launch of UNIST, as a government-funded research institute for science and technology
- Inauguration of Dr. Mooyoung Jung, as the 3rd President of UNIST
- Official launch of the UNIST Global Innovation Campus at UC Berkeley

### 2009

- UNIST's 1st Entrance Ceremony (Founding President Dr. Moo Je Cho)
- 2 undergraduate schools, selected for World Class University (WCU) Nurturing Project



### 2010

- Opening of Hans Schöler Steam Cell Research Center

### 2011

- Selected as one of 4 national research institute of science and technology with special support by the Ministry of Education, Science and Technology.
- Vision 2030 Declaration Ceremony



### 2013

- UNIST's 1st Graduation Ceremony
- The office of the ministry concerned was changed to the Ministry of Science, ICT and Future Planning (UNIST, KAIST, GIST, DGIST)
- Official launch of IBS 'Center for Multidimensional Carbon Materials'



### 2014

- Official launch of IBS 'Center for Soft and Living Matter'
- Completion of construction work for IBS 'Center for Multidimensional Carbon Materials'
- Official launch of IBS 'Center for Genomic Integrity'



### 2016

- Completion of the 2nd phase expansion of research space
- Official launch of the UNIST Business Innovation Center
- Establishment of Korean Branch of Fraunhofer Research Group



President's Greeting

History

Introduction

Research

Globalization

Education

Endowment



# Vision Goals Strategies

## VISION

World-leading university to advance science and technology for the prosperity of humankind.

## GOAL

- To be ranked among the world's top 10 universities of science and technology by 2030
- Securing USD 10 billion Development Fund by 2040.

## STRATEGIES

 Education	<b>Creativity</b> Flipped Learning Self-directed Learning	<b>Interdisciplinary</b> Non-major Matriculation 2 or more interdisciplinary majors	<b>Globalization</b> 100% English-taught Courses
 Research	 Nurturing Research Brands (Interdisciplinary Group Research)	 Local and Industry Specific Research	 Domestic/International Research Collaboration
 Contribution to the National Economy	 Creation of New Industries Based on Original Core Technologies	 Development of One-Stop Startup Ecosystem	 Creation of Innovation-led Growth Engines





## WORLD CLASS FACULTY

**“Competitiveness of professors speaks to the competitiveness of a university”**

Footsteps of global scientists are headed towards UNIST.  
We are opening up the future of new science for mankind.



## DISTINGUISHED YOUNG SCHOLARS

Promising young scholars in their 40s are knocking at UNIST's door.



**Jae Sung Lee**

- World leading Scientist in Photo- Catalytic Water Splitting area
- Research on photo-catalytic hydrogen, fuel cell and Eco-friendly catalyst
- Author of over 340 SCI papers and a holder of over 100 registered patents
- Received 2007 Thomson Scientific Citation Laureate Award



**Steve Granick**

- Director of 'Center for Soft and Living Matter'
- Member of American Academy of Arts and Sciences (2016)
- Member of the U.S. National Academy of Science (2015)
- Received ACS (American Chemical Society) Award in Colloid (2013)



**Rodney S. Ruoff**

- Director of 'Center for Multidimensional Carbon Materials'
- No. 16 among world's material scientists selected by 'Thomson Reuters' (2007)
- Research papers cited over 42,000 times
- Reaching the H-index of 100 (2015)



**Christopher W. Bielawski**

- A Most Cited Researcher in Materials Science and Engineering according to Elsevier (2016)
- Fellow of the Royal Society of Chemistry (2014)
- Recipient of many awards, including PECASE (2009), Sloan Foundation (2008), etc.
- Author of over 250 publications in leading scientific journals



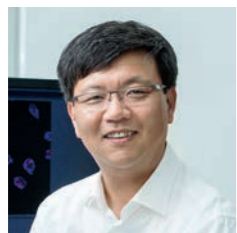
**Bartosz Grzybowski**

- Feynman Prize in Nanotechnology (Foresight Institute, 2016)
- Fellow of the Royal Society of Chemistry (2015)
- Nanoscience Prize (International Society for Nanoscale Science, Computation and Engineering) (2013)
- Sloan Fellowship (2007) & Pew Scholar in the Biomedical Sciences (2006)



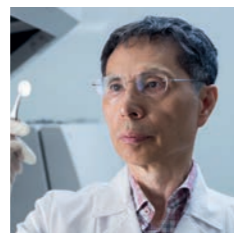
**Choi Eunmi**

- World-top research in THz source development
- First experiment in Remote radioactive material detection
- UNIST Rising-Star Distinguished Professor 2017
- KIEES Young Research Award 2017



**Kyungjae Myung**

- Director of 'Center for Genomic Integrity'
- Leader of anti-cancer medicine development
- Lifetime researcher of NIH, US
- Scientist of the Year Award from KSEA and KOFST (2017)



**Kwang Soo Kim**

- National scientist in chemistry field (2010)
- Korea's Best Scientist & Engineer Award (2010)
- The first Korean member of International Academy of Quantum Molecular Science
- Published about 400 SCI papers in 'Nature' and 'Science'



**Sang Il Seok**

- Korean Science-Engineering Award (2017)
- PVSEC Award (2015)
- Science and Technology Medal from Korean Government (2014)
- Author of over 200 articles in world-leading scientific journals (Nature, Science etc.)



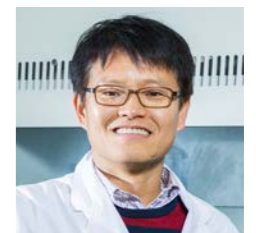
**Jaesik Choi**

- Director of Explainable Artificial Intelligence Center, Ministry of Science & ICT (2017-)
- POSCO Steel Fellow Professor (2017-)
- Winner of International Digital(AI) Curling Competitions (2017, 2018)
- State-of-the-art Research at Time Series Data Analysis



**Kyung Rok Kim**

- Selected for 'Next-generation Semiconductor' Project by Samsung Science and Technology Foundation (2017)
- Paper Presentation at IEEE Symposium on VLSI Technology (2017)
- IEEE-NANO Best Paper Award (3 Times in a Row)
- RSC Nanoscale Horizons Prize at IEEE-NANO (2015)



**Youngsik Kim**

- Established world's 1st seawater battery (2013)
- CEO of Energy Technology Startup "4 to One" (2015)
- Organization of an industry-academia-related consortium for promoting the technology commercialization of seawater batteries (2015)
- Author of over 92 SCI papers and a holder of 42 registered patents

# UNIST AT A GLANCE



Campus Area (m<sup>2</sup>, As of Mar. 2018)

**1,041,657**



Number of Undergraduates (As of Mar. 2018)

**3,471**



Number of Graduates  
(Enrolled Students, As of Mar. 2018)

**1,801**



Average Scholarship Per Student  
(1,000 won, Based on 2017 College Information Disclosure)

**6,222.6**



Dormitory Accommodation Rate  
(%, As of Mar. 2018)

**120.0**



Number of Full-time Faculty Members  
(As of Mar. 2018)

**322**



Average Age of Full-time Faculty Members  
(Western Age, As of Mar. 2018)

**43.1**



International Faculty/Student Ratio  
(%, As of Mar. 2018)

**16.0** **6.8**  
Faculty Student  
(Attending Students)



Attraction (Cumulative) of External Research Grant, 2017  
(100 billion won, IBS Included)

**1272.0**



## WORLD RANKINGS

### 'UNCERTAINTY' into 'CERTAINTY'

The rapid growth of UNIST is surprising the world.



### 2017 CWTS Leiden Ranking

#### No. 1 Nationwide, No. 36 Worldwide

- Ranked No. 1 in Korea based on the top 1% and 10% of highly cited publications
- Based on the Fractional Counting approach, UNIST is the only Korean university to be listed in the top 50 and ranked 36th in the world

Leiden Ranking by Top 10% Publications Ratio (Nationwide)					
16.3	1	UNIST	189	1155	
11.2	2	POSTECH	372	3311	
11.1	3	KAIST	632	5708	

- Proportion of top 10% publications
- Number of top 10% publications
- Total number of publications



### World University Rankings

#### 2018 THE World University Rankings : Reaching the rank of 5th nationwide

- With a score of 95.9 for Citations, UNIST ranked 1st nationwide and 45th worldwide
- UNIST placed in the 201-250 group of best universities, along with Seoul Nat'l University and Sungkyunkwan University

THE Ranking among Korean universities							
Rank	University	Overall	Teaching	Research	Citations	Industry Income	International Outlook
5	UNIST	50.1	22.9	30.7	95.9	66.0	47.9
6	Yonsei Univ.	50.0	48.6	50.2	46.1	99.2	54.6
7	Korea Univ.	48.5	44.7	47.7	49.0	97.7	49.0
8	Hanyang Univ.	41.0	35.6	38.1	41.9	84.7	56.4



### JoongAng Daily's 2017 University Assessment by Departments

#### Three of UNIST's Science-Engineering Departments Ranked in the 'Highest' Category

- UNIST's Electronic Engineering, Environmental Engineering, and Chemistry departments have been included in the list of highest-rated university groups.

Departments	Universities Ranked within top 10% of Total Scores
Electronic Eng.	UNIST • Korea University (Anam campus) • Yonsei University (Seoul campus) • POSTECH • Hanyang University (Seoul Campus) • KAIST
Environmental Eng.	UNIST • Seoul Nat'l University • Hanyang University (Seoul Campus)
Chemistry	UNIST • Korea University (Anam campus) • Seoul Nat'l University • Hanyang University (Seoul Campus)



### Highly Cited Researchers 2017

#### Three UNIST Scientists Named among the 'World's Highly Cited Researchers'



Rodney S. Ruoff



Jaephil Cho



Jin Young Kim

- Rodney S. Ruoff was ranked in the categories of materials science, chemistry, and physics.



### Nature Index 2016 Rising Stars

#### UNIST Named among 'Nature Index 2016 Rising Stars'

- Nature Index published a list of the Top 100 institutions for high-quality research publications based on the index between 2012 and 2015.
- Nature Index published a list of the Top 100 institutions showing the most significant growth in high-quality research publications.
- UNIST is the only Korean university on the list







# UNIST RESEARCH BRANDS

“Human-centered Science and Technology”

UNIST develops core technologies that will lead the future of science and technology.

## STEP 1

### Nurturing Research Brands



• Focused R&D for Original Core Technologies

• Interdisciplinary Group Research



## STEP 2

### Commercializing Developed Technologies



- Establishment of UNIST Technology Holding Company
- Revitalization of Industry-University Collaboration
- Technology Transfer & One-stop Startup Assistance



## STEP 3

### Creating New Industries



• New Growth Engines for the Nation

• Global Unicom Companies



## STEP 4

### Innovation-led Growth Engines



## Research Brands



### Next-generation Energy

- Seawater Batteries
- Perovskite Solar Cell
- Carbon Recycling
- Lithium-ion Secondary Batteries (LIBs)
- Offshore Wind Power



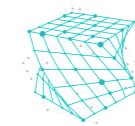
### Next-generation Materials

- Lightweight Composite Materials
- Graphene/2D Materials
- Smart Sensors



### Biomedical Science

- Photoacoustic Endoscopy (PAE)
- 3D Bioprinting
- Innovative Medicine
- Genome Korea in Ulsan Project



### ICT Convergence

- Ultra-Low Power Neuromorphic Chip
- Hyperloop
- Data Science
- Complex Disaster Response Technology



### 8 Main Research Laboratories

- Material Analysis Lab
- Nano Fabrication Center
- Environmental Analysis Center
- Design and Manufacturing Center
- In Vivo Research Center
- UNIST-Olympus Bio-med Imaging Center
- Radioisotope Safety Lab
- UNIST Synchrotron Radiation Center (USRRL)

### Major Research Equipment

- Advanced TEM
- E-Beam Lithography
- GC HRMS Spectrometer
- Nano Machine
- 7T MRI
- Super Resolution Microscope

Equipped with over **250** pieces of research equipment

### Hosting 3 IBS Campus Research Centers

Secured 300 billion KRW in research grants for up to 10 years.

- Research Center 1** Center for 'Soft Living and Matter' / Distinguished Prof. Steve Granick
- Research Center 2** Center for 'Multidimensional Carbon Materials' / Distinguished Prof. Rodney S. Ruoff
- Research Center 3** Center for 'Genomic Integrity' / Distinguished Prof. Kyungjae Myung

### Joint Research Centers with Germany's Major Research Institutes

#### Center for Jülich-UNIST joint Leading Institute for Advanced Energy Research (JULIA)

- Acceleration of Collaborative Research on Renewable Energy Sources
- Study of Energy Sources of Tomorrow, such as 3rd Generation Photovoltaics

#### Fraunhofer Project Center@UNIST (FPC@UNIST)

- Development of Mass Production Technologies for Low Dimensional Carbon Materials and their Applications
- Development of Carbon Nanomaterials/Polymer Nanocomposites

### Battery R&D Center

- World's Largest R&D Center for Secondary Battery Research
- Equipped with Leading-edge Research Equipment, including TEM/STEM, Direct Ion Beam Microscopy, Real-time Battery Analyzing Devices
- New Industry-Academia Cooperation Hub for Secondary Battery Research

### Center for Seawater Resource Technology

- Securing Seawater Resource Technologies
- Elevation and Commercialization of Seawater Resource Technologies

### KOrean Genomics Industrialization and Commercialization Center (KOGIC)

- Development of Core Technologies for Biomedical Information Processing through the Convergence of Omics and Genomics
- Development and Commercialization of Genome-based Personalized Medicine

### Government-Supported R&D Research Centers

#### Advanced Research Center (SRC)/ Basic Research Lab (BRL)

- Selected for NRF Advanced Research Center Project (2 SRC Centers, 1 CRC Center, 3 BRL Centers)

#### Explainable Artificial Intelligence Center (XAIC)

- Selected for the National AI Strategic Project

#### Self-Powered Mobile Tracker Research Center

- Selected for 2017 ITRC Project



# UNIST IN THE WORLD

**"Becomes the Center of the World"**

Delivering cutting-edge research that will lead to the future of science and technology

## UNIST, A Truly International University in Korea

- 100% English-taught Courses
- Over 2/3 of professors with world-renowned university degrees (Harvard, MIT, Stanford, Oxford, etc.)
- Recruiting and retaining excellent and diverse faculty with hands-on research experience in world-renowned organizations
- Global Scientific Talents: 404 international students from 43 countries have been educated at UNIST (Enrolled Students, As of Mar. 2018)



## Official Launch of UNIST Global Innovation Campus Program at UC Berkley, U.S.

6 teams (4 Faculty, 2 Student Businesses) have been sent out since the launch in October, 2015  
 Participation in UC Berkeley Entrepreneurship Boot Camp (2 Student Businesses)

## UNIST-Harvard SEAS 'Multicultural Internship Program'

A total of 10 students are picked, 5 each from UNIST and Harvard SEAS  
 Students will engage in various cultural and educational activities over the course of two weeks, which will help foster a collaborative mindset and develop a global mindset

## UCSD Global Startup Mentorship Program

Connecting UNIST startup companies with startup mentors in UCSD  
 1:1 customized mentoring programs, aimed at entering the U.S. market  
 (As of 2017, 2 faculty businesses participated)

## Networking with World's Best Universities

Networking with 74 world-leading universities and organizations from 26 countries





# EDUCATION MODEL

“Leading the Paradigm of Science & Technology Education”

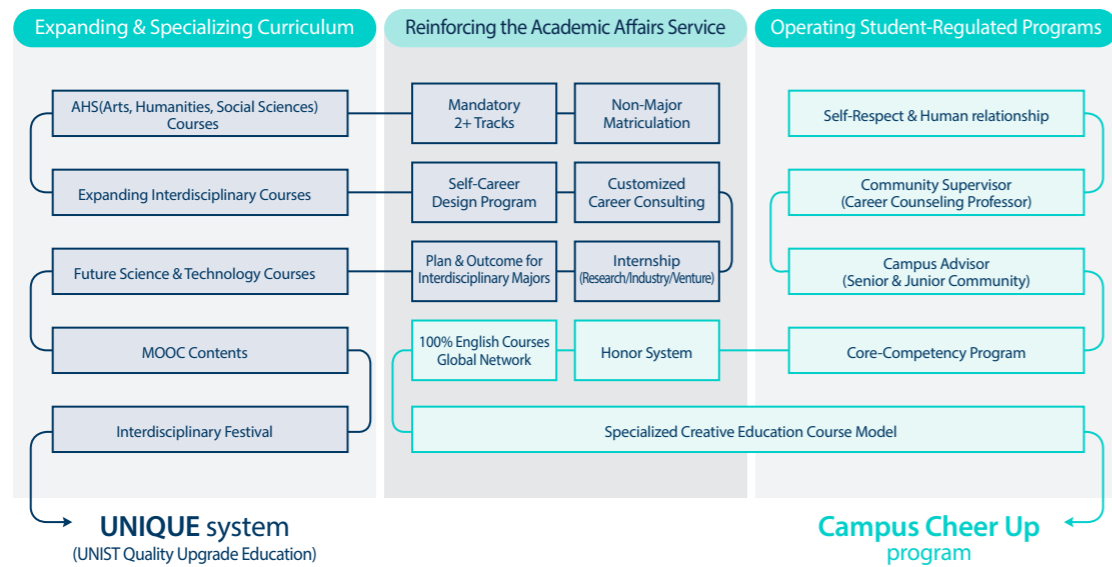
Implementation of Creative Interdisciplinary Education based on Project Experience

## UNIST Education Strategies



## UNIST Creative Interdisciplinary Education System

UNIST performs creative interdisciplinary education that equip UNIST students with critical thinking skills and problem solving abilities to creative new value.



## Self-directed Learning Environment

### Flipped Classroom

Group-centered learning environments, such as discussions, presentations, and group projects



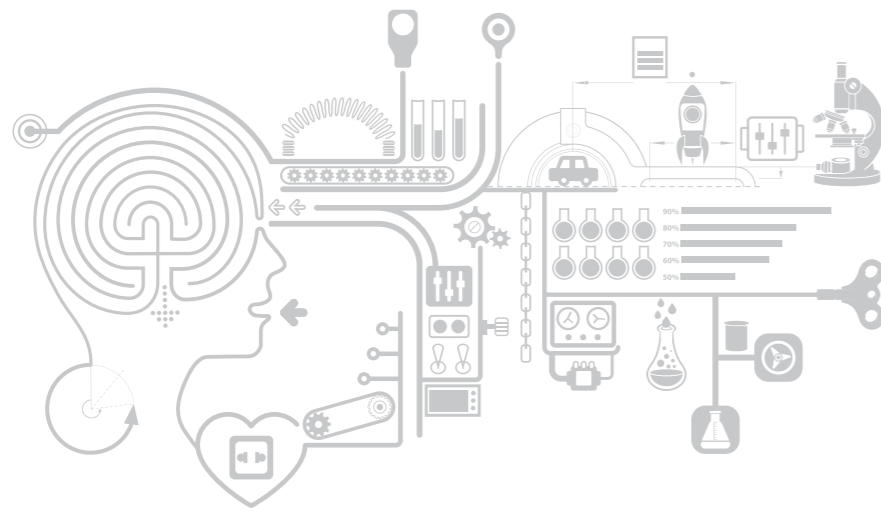
### Learning Commons

Self-directed learning through cloud computing technology



## UNDERGRADUATE STUDIES

UNIST offers a breadth of highly-regarded degree programs that allow students the freedom to explore their intellectual and personal passions.



10 Schools and 23 Tracks

### Division of General Studies

The Division of General Studies (DGS) is responsible for students' general cultural education during their freshmen year. DGS offers courses in Mathematics and basic sciences (Physics, Chemistry, Biology) as well as basic IT and management courses that provide a solid foundation for students when they study major fields of their choice. In order to cultivate a wide intellectual horizon, an innovative creativity, and a harmonious personality for each student we offer essential courses in humanities, social sciences, English, and arts.

### School of Natural Science

The School of Natural Science offers three tracks, namely, Mathematical Sciences, Physics and Chemistry. The School believes that the mutual synergy between science and technology will form the basis for an economically and politically sustainable society, and strives to contribute to our society in such a manner through academic excellence. The School pursues to train global leaders that will play a pivotal role in our society through advances achieved in natural sciences and their applications.

\*Track: Mathematical Sciences, Physics, Chemistry

### School of Electrical and Computer Engineering

The School of Electrical and Computer Engineering at UNIST is dedicated to educating students in interdisciplinary scholarship that will serve for our future society. Our teaching and research take places in interdisciplinary programs and institutes where traditional departmental boundaries are things of the past. Our mission is to provide enabling technologies for the future way of life through the convergence of electrical and computer engineering with new nano, bio, and environmental technologies.

\*Track: Electrical Engineering, Computer Science and Engineering

### School of Life Sciences

The School of Life Sciences aims to improve human health by interdisciplinary research and education in biomedical sciences and engineering through the convergence of fundamental biology, nanotechnology and various engineering principles. In order to meet the increased needs in healthcare and advanced medical theragnostics, The School of Life Sciences pursues to train creative global leaders through interdisciplinary research and education programs.

\*Track: Biological Sciences, Biomedical Engineering

### School of Energy and Chemical Engineering

The School of Energy and Chemical Engineering was designed for an emerging field combining chemical engineering principles with research about energy conversion and storage. The field of Energy and Chemical Engineering encompasses a wide range of interests including green chemical processes, chemical engineering, advanced materials, and energy conversion and storage. Students can achieve in-depth knowledge and hands-on experience on catalysts, nanomaterials and devices, polymers, fine chemicals, applied molecular chemistry, and other chemical and energy engineering-related subjects.

\*Track: Energy Engineering (Battery Science and Technology), Chemical Engineering

### School of Mechanical, Aerospace and Nuclear Engineering

The School of Mechanical, Aerospace and Nuclear Engineering (MANE) consists of three tracks such as Mechanical and Aerospace Engineering (MAE), Nuclear Science and Engineering (NSE), and System Design and Control Engineering (SDC). The MANE focuses on world-class research and education in order to nurture creative experts and scholars who can contribute to the development and advancement of cutting-edge industries. Although the MANE provides three disciplines with students, it together emphasizes the creativity and ingenuity of the education.

\*Track: Mechanical and Aerospace Engineering, Nuclear Science and Engineering, System Design and Control Engineering

### School of Management Engineering

The School of Management Engineering is dedicated to creating and disseminating advanced knowledge to plan and operate business strategies of corporations. Our teaching and research emphasize synthetic, interdisciplinary, and practical approaches by linking engineering, science, and management disciplines. We are currently playing the leading role in a wide array of areas including manufacturing, technology management, and financial engineering. Students are encouraged to be involved in a variety of academic and industry projects and to cultivate a global mindset.

\*Track: Management Engineering

### School of Design and Human Engineering

The School of Design and Human Engineering (DHE) produces graduates who will be able to use creatively new technologies, sciences and humanities for the design of solutions that are usable and functional for various applications from varying areas. DHE consists of two tracks, Industrial Design and Human Factors Engineering. You can choose to become a design engineer or a human factors engineer. Both disciplines become more and more important in current and future society.

\*Track: Industrial Design, Human and Factors Engineering

### School of Materials Science and Engineering

The School of Materials Science and Engineering is an interdisciplinary field which emphasizes the study of processing-structure-property relations in materials. In order to develop new materials and find their applications, it is important to understand the fundamental relationship between the structure, processing and properties. The School of Materials Science and Engineering covers conventional materials to most advanced materials including nano materials and beyond.

\*Track: Advanced Materials Science, Nano Materials Engineering

### School of Urban and Environmental Engineering

Envisioning a safe and sustainable society against various natural and man-made hazards, the School of Urban and Environmental Engineering(UEE) provides unique, interdisciplinary educational programs rooted from Environmental Science and Engineering, Urban Infrastructure Engineering, and Disaster Management Engineering. Our educational programs are driven strongly by top-notch research areas of the school focusing on advanced environmental analysis and pollution control for water and air, earth and climate studies for monitoring, prediction, and mitigation of global climate change, safe and resilient construction and material engineering technologies for building and infrastructure, disaster-resilient urban planning, and the policy and technologies for the natural and man-made disaster management and mitigation.

\*Track: Environmental Science and Engineering, Urban Infrastructure Engineering, Disaster Management Engineering

### School of Business Administration

The School of Business Administration offers various academic tracts in General Management, Information Systems, Entrepreneurship, Finance & Accounting, Marketing & International Business. By majoring in these tracks, students are provided with the frontiers of theory and practical knowledge in business and technology management.

\*Track: Management, Finance & Accounting, Entrepreneurship



## GRADUATE STUDIES

Equipped with world-class research and development equipment, UNIST graduate programs conduct cutting-edge interdisciplinary studies to nurture innovative convergent talents in design, technology, and management.

General Graduate Schools (19 Programs) / Professional Graduate Schools (2) / Specialized Graduate School (1)



Programs	Research Areas
Mechanical Engineering	Multiscale System and Materials, Bio & Intelligent Robots, Multiscale & Multiphysics Simulation, Smart Nano, Bio Mechanical Systems, Complex Systems Design, Smart Factory
Nuclear Engineering	Nuclear Materials Engineering, Nuclear Thermal Hydraulics, Radiation Science, Nuclear Reactor Theory, Nuclear Fuel and Fuel Cycle, PSA
Environmental Science and Engineering	Remote sensing, Comprehensive monitoring of environmental pollution, Water treatment, Forecasting of weather and climate change, capturing of greenhouse gases
Urban Infrastructure Engineering	Design of Infrastructure systems, Urban planning, Structure design and mechanics, Construction materials
Disaster Management Engineering	Natural and social hazard monitoring, Disaster risk reduction/prevention
Convergence of Science and Arts	Integrating arts(art, humanities, and economy) into Science for future welfare system and community
Human Factors Engineering	Physical-Cognitive Ergonomics, Human-Computer Interaction, Human Behavior Modeling, Human Centered Design
Materials Science and Engineering	Opto-Electronics Convergence Materials and Devices, IOT Sensor and Self-Powered Devices, Wearable/Flexible Electronics Materials and Devices, Extreme Environment Materials/Light Structural Materials, Programmable Materials (4D Printing, Meta Materials, and so on), Design-Building-Characterization for Low-Dimensional Materials, Materials Reliability
Battery Science and Technology	Next Generation Battery
Energy Engineering	Electrochemistry, Next Generation Solar Cells, Graphene, Energy Conversion Materials
Chemical Engineering	Nano-Convergence Devices, Catalysis, Green Chemistry, Biomolecular and Metabolic Engineering
Electrical Engineering	Communications and Networking, Control and Robotics, Image Processing and Computer Vision, Digital & Analog Circuit Design, Electromagnetics, Power Electronics, Electronic Devices, Optical Devices
Computer Science and Engineering	Cloud Computing, Network, Computer Science Theory, Artificial Intelligence, Visualization, System Software
Biomedical Engineering	Biosensing, Bioimaging, Genomics & Biophysics, Tissue Engineering & Bioprinting
Biological Sciences	Cancer, Metabolic Diseases, Neurodegenerative Diseases, Genome Instability
Chemistry	Inorganic Chemistry, Organic Chemistry, Physical Chemistry, Theory/Modeling Chemistry, Chemical Biology, Materials/Polymer Chemistry
Physics	Plasma/Beam/Astrophysics, Quantum Material/Optical Physics, Soft Matter/ Biological Physics
Mathematical Sciences	Algebra, Analysis, Topology, Probability, Computational Mathematics, Financial Mathematics, Mathematical Biology
Management Engineering	Management of Technology/Strategy/Entrepreneurship, Production management/Management Engineering, Management information systems, Marketing, Human Resource Management/Organizational Behavior, Finance/Accounting/Financial Engineering



**cde** 디자인-공학융합전문대학원  
Graduate School of Creative Design Engineering

E-mail : cde-gs@unist.ac.kr  
Office : +82-52-217-2791,4

The Graduate School of Creative Design Engineering aims at cultivating design practitioners who can lead the creative innovation and perform the whole product development process by understanding design thinking and technical realization.

※ Creative Design Engineering



**UNIST** Graduate School of Technology & Innovation Management

E-mail : mot@unist.ac.kr  
Office : 052-217-3709,3710,3711

The Graduate School of Technology & Innovation Management aims at fostering top technology management professionals who will play an important role in improving enterprise competitive power.

※ Technology and Innovation Management



**UNIST** Graduate School of Interdisciplinary Management

E-mail : psm@unist.ac.kr  
Office : +82-52-217-3703~11

The Graduate School of Interdisciplinary Management aims at nurturing global leaders with practical knowledge and skills. It specializes in the areas of Energy Commodity Trading & Financial Engineering (ECTFE), Business Analytics (Biztics), and Entrepreneurship & Innovation (E&I) programs. ECTFE is Korea's first PSM accredited program.

※ Energy Commodity Trading & Financial Engineering, Business Analytics, Entrepreneurship & Innovation



## STUDENT SUPPORT SERVICES

Equipped with world-class research and development equipment, UNIST graduate programs conduct cutting-edge interdisciplinary studies to nurture innovative convergent talents in design, technology, and management.



### ■ UNISPARK

Located in the Student Residence, UNISPARK is a 790-square-foot on-campus innovation space for student entrepreneurs to get inspired and actively undertake entrepreneurial activities, like striking sparks. This co-working hub encompasses shared office space, conference rooms, an investment consulting space, as well as an exclusive space for prototype production. Selected teams are allowed to use the exclusive space at no cost.



### ■ Leadership Center

UNIST Leadership Center offers community-wide science-gifted mentoring programs to cultivate outstanding scientific talents, thereby contributing to the local communities. With leading-edge facilities and world-class faculty, the center also aims at strengthening and deepening its linkages with specialized science high schools for the highly gifted.



### ■ Language Education Center (LEC)

The UNIST Language Education Center (LEC) offers a wide variety of language courses and education programs for all members of UNIST to help them gain linguistic competence, as well as cultural literacy. The center aims at providing more effective learning environment for students by implementing the learner-centered, personalized learning models.



### ■ UNIST Healthcare Center

Located in the Main Administration Building, the UNIST Healthcare Center provides a range of medical and mental healthcare services, including comprehensive medical examinations for faculty, health consultation, vaccinations, first aid treatment, as well as psychological counselling services.



### ■ UNIST Library

The UNIST Library is a four-story 10,000 square-meter building that includes instructional labs, group study rooms, reference rooms, preservation rooms, and exhibition space. It also includes space for over 130,000 paper books and 430,000 ebooks, as well as study space for up to a thousand students.



### ■ Student Residence

The UNIST Student Residence consists of 9 apartment-style residence halls, which can accommodate over 3,800 students. The apartments provided are comfortable with well-equipped facilities, such as a post office, lounges, laundry rooms, sport centers, and kitchenettes.



### ■ UNIST Sports Center

UNIST sports facilities and resources are available to staff, faculty, students, alumni, and eligible family members. The center with a floor area of 9,052-square-metre consists of an indoor swimming pool, squash court, indoor golf training court, and fitness center.



### ■ UNIST Human Rights Center

UNIST Human Rights Center is an institutional framework, designed to prevent any occurrence of improper conduct through abuse of authority. The establishment of this center is part of efforts by MSTI to promote the rights of young scientists. The center works closely with a broad spectrum of researchers and professional counselors, all of whom are committed to human rights and equality.



# INDUSTRY-UNIVERSITY CONVERGENCE CAMPUS

“Virtuous Cycle Structure of R&D-Manpower Cultivation-Employment”

## Industry-University Convergence Campus

The Industry-University Convergence Campus, established as part of the Ulsan Industry-University Convergence District Project, has spatially combined industrial complexes with the university. The new campus aims at establishing a virtuous cycle structure of ‘R&D-Manpower Cultivation-Employment’ via the implementation of field-oriented industry-academic convergence education system. A total of 8 organizations have been moved into the district: UNIST, Ulsan city, University of Ulsan, Ulsan College, Ulsan Technopark, the Ulsan Headquarter of Korea Industrial Complex Corporation (KICOX), the Korea Research Institute of Chemical Technology (KRICT), and the Korea Testing & Research Institute (KTR).



<b>Address</b>	10, Technosaneop-ro 55 beon-gil, Nam-gu, Ulsan 44776, Republic of Korea
<b>Building Scale</b>	Total floor area of 9,109m <sup>2</sup> / Four floors above ground and one basement floor
<b>Facilities</b>	Research laboratories, lecture rooms, prototyping room, business information analysis room
<b>Schools</b>	School of Management Engineering School of System Design and Control Engineering Graduate School of Technology and Innovation Management Graduate School of Interdisciplinary Management
<b>Website</b>	<a href="https://iucc.unist.ac.kr">https://iucc.unist.ac.kr</a>







# MAIN CAMPUS

50, UNIST-gil, Ulsan 44919, Republic of Korea  
www.unist.ac.kr T. +82 52 217 0114

## Campus Map

- 1 Bldg.102 Engineering Bldg.1
- 2 Bldg.104 Engineering Bldg.2
- 3 Bldg.106 Natural Sciences Bldg.
- 4 Bldg.108 Engineering Bldg.4
- 5 Bldg.110 Engineering Bldg.5
- 6 Bldg.111 Battery R&D Center
- 7 Bldg.112 Engineering Bldg.5
- 8 Bldg.114 Business Administration Bldg.
- 9 Bldg.101 Low Dimensional Carbon Materials Bldg.
- 10 Bldg.103 Advanced Material Research Bldg.
- 11 Bldg.105 Stem Cell Research Bldg.
- 12 Bldg.107 Machine Manufacturing Bldg.
- 13 Bldg.109 Special Experiment Bldg.
- 14 Bldg.201 Main Administration Bldg.
- 15 Bldg.202 Library
- 16 Bldg.203 Student Union Bldg.
- 17 Bldg.204 Community Center
- 18 Bldg.205 Gymnasium
- 19 Bldg.206 Cafeteria
- 20 Bldg.207 UNIST Daycare Center
- 21 Bldg.301-309 Student Dormitory
- 22 Bldg.403-404 Faculty Residence
- 23 Bldg.123 UNIST Composites Research Center

※ Industry-University Convergence Campus is located in Duwang-dong, Nam District, Ulsan, Republic of Korea





### How to Make a Gift

Donors may make one-time gifts or recurring gifts to UNIST using the Giving Form below. If you want to be a donor, please fill out the attached form, take a photo of the completed form, and send it to the following contact number: [+82-10-2503-9265](tel:+82-10-2503-9265)

By signing this agreement, you automatically pledge to contribute to the UNIST's Endowment, as stated below.

### Donation Form

Your Contact Information	
Name _____	Resident Registration No. _____ -
Mobile Phone _____	E-mail _____
Address _____	
Method of Duration	
Recurring Gift (Monthly)	<input type="checkbox"/> 10,000 (KRW) <input type="checkbox"/> 30,000 (KRW) <input type="checkbox"/> 50,000 (KRW) <input type="checkbox"/> (_____ KRW)
	Account holder _____ Account No. _____
	Automatic Transfer Service Account _____
One-Time Gift	Date(yyyy,mm,dd) _____, Depositor _____ (₩ KRW)
<b>Agreement on providing financial transaction information.</b>	
With respect to this application, I agree to provide financial transaction information to the above receiving agency starting from the date of request of withdrawal transfer till the cancellation of the request according to the law of real name financial transaction.	
I hereby pledge to contribute to the UNIST's Endowment as stated above.	
	Date(yyyy,mm,dd) _____
Applicant's Name _____	(Signature)

#### One-time Gifts Account for Deposit

- Kyungnam Bank 540-32-0001278
- Name of the Account Holder: UNIST

### Giving to UNIST

UNIST's Endowment supports infrastructure and networks necessary to undertake world-class research. Your gifts to UNIST can make a difference in the lives of our students and educators.

Help UNIST become the pioneering institute of science and technology that contributes to humanity.

### Inquiries on UNIST Endowment

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unist-gift@unist.ac.kr  
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