


ULSAN NATIONAL  
INSTITUTE OF  
**UNIST**  
SCIENCE AND  
TECHNOLOGY





Nestled in the heart of Ulsan, UNIST is a young and fast-rising university that has garnered worldwide acclaim. Since 2009, UNIST has shattered barriers and has emerged as a fearless trailblazer in cutting-edge research, innovation, and excellence in education. Our remarkable growth stems from an unwavering commitment to fostering creativity, convergence, and internationalization—embodying the spirit of ‘First in Change.’

At UNIST, traditional education is transcended to create an extraordinary learning environment that sets us apart. With innovation ingrained at our core, we push boundaries and challenge expectations, pursuing excellence relentlessly. This propels us forward as pioneers in science and technology. We provide unparalleled opportunities for hands-on research along with renowned faculty members. From artificial intelligence to renewable energy solutions, such as carbon neutrality initiatives, and advanced semiconductor technologies to cutting-edge biomedical sciences—within UNIST’s nurturing ecosystem groundbreaking discoveries—have come alive.

Join us on this remarkable journey where possibilities know no bounds!

*First Mover, UNIST*

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# UNIST BY THE NUMBERS

4,659  
STUDENTS

324  
FACULTY

8,400+  
ALUMNI

3  
COLLEGES

21  
MAJORS

No. 3  in the World

UNIST's achievement of securing the prestigious No. 3 spot in the Times Higher Education **World's Best Small Universities** of 2022 highlights its esteemed position alongside Caltech, solidifying its reputation as a **top-tier institution** in the world of academia.

**\$196+ MILLION** IN FUNDED RESEARCH IN 2023

UCRF

473

RESEARCH  
EQUIPMENT

40

PROFESSIONALS

11,840 ft<sup>2</sup>  
NANOFAB

CLEANROOM

Enabling **6-Inch**  
Wafer-scale Fabrication

No. 10  in the World

UNIST, ranked **No. 1 in Korea**, is a **young** and **fastest-rising** university, as evidenced by its inclusion in the Times Higher Education Young University Ranking of 2023. This accolade solidifies UNIST's position as an emerging **powerhouse in academia**



Founded in **2009**

**10 HCRs\***

Highest Number in Korea

\* Clarivate Highly Cited Researchers 2022

87

STUDENT  
STARTUP

68

FACULTY  
STARTUP



“Daunting,  
Yet Incredibly  
Rewarding!”



Gwangrok Kim (Dept. of Mechanical Eng.) excelled in POL lectures, achieving a remarkable 5th place in the prestigious 11th F1-TENTH Autonomous Grand Prix for autonomous 1/10th-scale F1 race cars.

## “Learning by Doing”

UNIST is a trailblazer in engineering education innovation, leading the way with the development of 29 Prototype-Oriented Lectures (POL) and 9 One Day Lecture series over just three years.



**POL**, a flagship program under UNIST's S&T Education 2.0 initiative, offers an immersive learning experience that cultivates problem-solving skills through captivating activities, such as designing 'self-driving cars' and discovering 'genetic scissors' from a campus pond.

## One Day Lecture Series

empowers junior-level students to delve into cutting-edge research topics while gaining hands-on expertise. The completion of these programs enables students to form their own research or startup clubs with the support of dedicated teachers, assistants, and valuable research funds at UNIST.

With our transformative hands-on education at UNIST, students have achieved remarkable international success by transcending boundaries and attaining unparalleled excellence on a global scale.

**UNIST AVATAR Robot**  
No. 1 in Asia,  
No. 6 in the World  
from ANA Avatar XPRIZE



**Secured No. 1 & No. 2 Positions**  
from ECCV 2022 Challenge  
on HBHA, 'Top-tier AI-related  
Conference'



HMCAR Takes 5th Place  
at the 11th F1TENTH Grand Prix  
at ICRA 2023, London

# “ Unleashing Brilliance at UNIST ”

## Our Commitment to Cutting-Edge Research and Innovation

UNIST, a research university like no other, is a dynamic powerhouse that propels groundbreaking discoveries and pushes the boundaries of knowledge toward new frontiers. Our institution is home to visionary experts who not only lead their respective fields, but also forge uncharted paths of exploration across diverse disciplines.

Research lies at the core of UNIST's mission, with an allocation exceeding \$833 million for 2023 alone. Complementing this commitment, UCRF proudly houses 429 units, comprising 288 types of cutting-edge equipment, worth \$58 million USD. This dedication has permeated all 21 schools and departments within our institution, fostering collaboration and inspiring interdisciplinary initiatives among scholars from every corner of the campus.

At UNIST, brilliant researchers have harnessed state-of-the-art facilities to pioneer transformative technologies poised to revolutionize the world for the betterment of humanity. Our impact reaches far beyond than just innovation, as we excel at transforming pioneering ideas into thriving startup ventures. The ripple effects of our research activities resonate profoundly within our university walls while extending throughout the Ulsan region at large, significantly contributing to national economic vitality.



## X+AI

UNIST, a trailblazer integrating AI into the constraints of engineering problems, plays a pivotal role in driving regional digital transformation in manufacturing. Cutting-edge AI technology is harnessed to overcome strategic challenges and drive innovation across industries.

Nestled in Ulsan, renowned hub for shipbuilding, automobiles, and petrochemical plants, UNIST revolutionizes the region's manufacturing industry through AI. As a pioneer in this field, we established the AI Innovation Park in 2021. Through industry education, industry-academic cooperation research, and start-up support projects, the park has emerged as an innovation hub for industry-academic collaboration. With the successful training of over 219 individuals from 135 companies over two years, we drive transformative change and innovation at every level.

At our Graduate School of Artificial Intelligence, we cultivate groundbreaking solutions while nurturing experts who spearhead advancements in their respective fields.



# SEMICONDUCTOR : MATERIALS to SoC\*

UNIST's exceptional strength in Materials Science and Condensed Matter Physics is evident through our impressive rankings of 32<sup>nd</sup> and 34<sup>th</sup>, respectively in the U.S. News & World Report of 2022. Our cutting-edge NanoFab cleanroom, capable of nano-patterning a wide range of materials on wafers up to 6 inches in size, firmly establishes us as a frontrunner for next-generation semiconductor technology development for the future AI computing. Building on this strength, our semiconductor-related divisions (Department of Electrical Engineering and the Graduate School of Semiconductor Materials and Devices Engineering) focuses on developing high-performance AI chips, future 3D logic, and post-silicon materials, thereby pushing the boundaries of semiconductors even further. In addition, we have forged an impactful strategic partnership with Samsung Electronics Co., Ltd., a world-leading semiconductor company, to launch a new department dedicated to nurturing future talents in the field of semiconductor engineering.

# CARBON NEUTRALITY

UNIST is at the forefront of carbon neutrality. Our extensive research areas include Carbon Capture, Utilization, and Storage (CCUS), hydrogen, renewable energy, and environmental management policies.

UNIST has consistently made groundbreaking advancements in perovskite solar cells (PSCs), setting new efficiency records through multiple breakthroughs. In addition, UNIST has won a significant \$8.3M national project focused on the development of tandem solar cells.

The UNIST Carbon Neutrality Demonstration and Research Center, established in 2022, serves as a hub for empirical research applicable to carbon-emitting companies in the region. In close collaboration with the Graduate School of Artificial Intelligence, UNIST has pioneered digital carbon-neutral research. Since late 2022, our active partnership with the UAE has advanced global initiatives toward achieving digital carbon neutrality. In this endeavor, we have forged collaborations with industry leaders, such as ADNOC to develop cutting-edge AI-based processes that efficiently reduce carbon emissions.



# ADVANCED BIOHEALTH

UNIST is reshaping translational medical research by cutting-edge technologies and groundbreaking collaborations. We have pushed the boundaries of healthcare innovation through regenerative rehabilitation and advanced precision medicine. From establishing the Smart Healthcare Research Center to launching Korea's first M.D.-Ph.D. cultivation program, dubbed 'Health and Sciences Technology (HST),' in partnership with the University of Ulsan College of Medicine—one of Korea's top-notch medical schools—our mission is clear : to drive transformative advancements at the intersection of engineering, science, and medicine.





# “ Join the Ranks of Exceptional Innovation at UNIST ”

UNIST believes in translating groundbreaking discoveries into real-world impacts. Our 68 faculty-led startups, including RecensMedical Inc., exemplify our commitment to fostering innovation for societal improvement. RecensMedical has garnered significant investment and is the first South Korean medical company to receive De Novo clearance from the US FDA for its OCU-COOL device, which delivers rapid cooling anesthesia for eye injections.

These startups collectively exceeded a value of \$833 million with 5-year survival rates above 79.2%, surpassing the domestic average of 29.2%. Such exceptional achievements reflect UNIST's dedication to driving economic growth through science-based innovations. Join us to shape a future where bold ideas become transformative realities at UNIST, where breakthroughs are made and extraordinary entrepreneurs thrive.



68 Startups Founded by

**20** Approx. %  
of UNIST Faculty

Clinomics Listed on KOSDAQ

RecensMedical Triumphs with \$5M Export Tower Award

1st in Korea to Receive De Novo FDA Clearance

Value of UNIST Startups Exceed



**833** Million Dollar

5-Year Survival Rates

**79.2** %

Higher than the Domestic Average of 29.2%

## CONTACT US

If you are considering studying at UNIST, we would love to hear from you online or meet you on campus.

Prospective students are encouraged to visit the campus and experience life at UNIST firsthand. For more information, please refer to [adm-u.unist.ac.kr](http://adm-u.unist.ac.kr)

To learn more about our courses and offerings, kindly visit our website at [www.unist.ac.kr](http://www.unist.ac.kr)

50 UNIST-gil, 44919  
Ulsan, Republic of Korea

**+82 52 217 0114**



# CONNECT WITH US



# UNIST

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