



Gwangju Institute of
Science and
Technology

A Global Frontier for Science & Technology



Gwangju Institute of
Science and Technology

VISION

We_Are_GIST

Inclusive R&D
together with people
and local communities

Enhance quality of life by carrying out research projects solving social problems

Lay a foundation for national/local job creation by expanding technology entrepreneurship led by students, faculty, and residents

G
I
S
T

R&R
Set best practices
in GIST operations
that can contribute to
the country and
society

Nurturing
global leaders
for an S&T centered
society

Take the lead in social contribution as an S&T institute by innovations within local communities that are dedicated to the country

Operate GIST in an open, horizontal, and autonomous manner for improved communication, happiness, and growth of its members

Foster specialists with knowledge in basic science and humanities for the 4th Industrial Revolution

Nurture GIST members to lead the world and the future by having a global campus

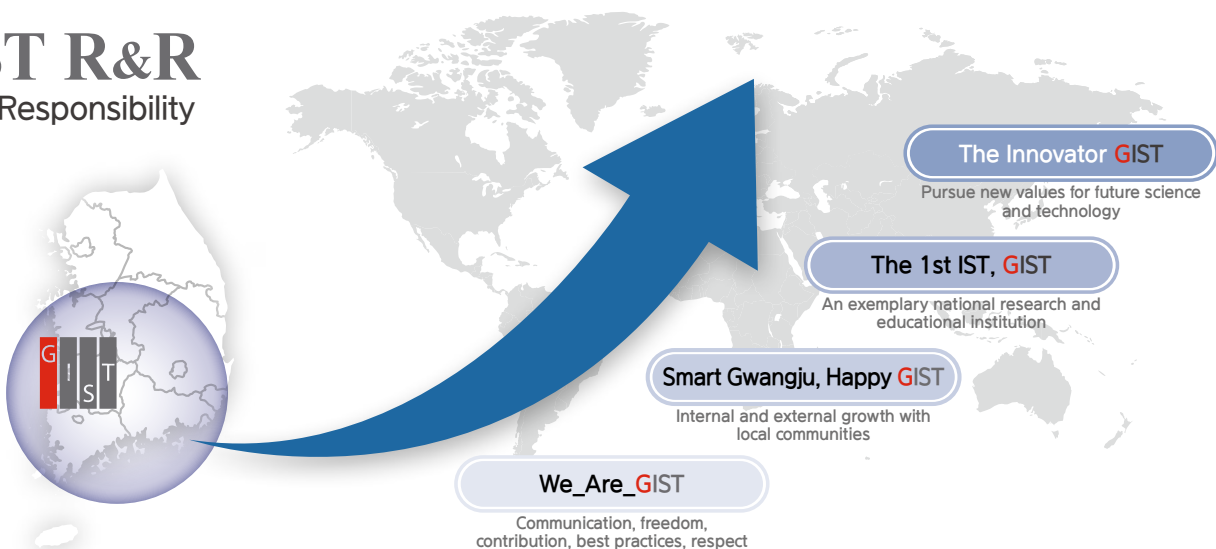
Human rights management

Innovation management

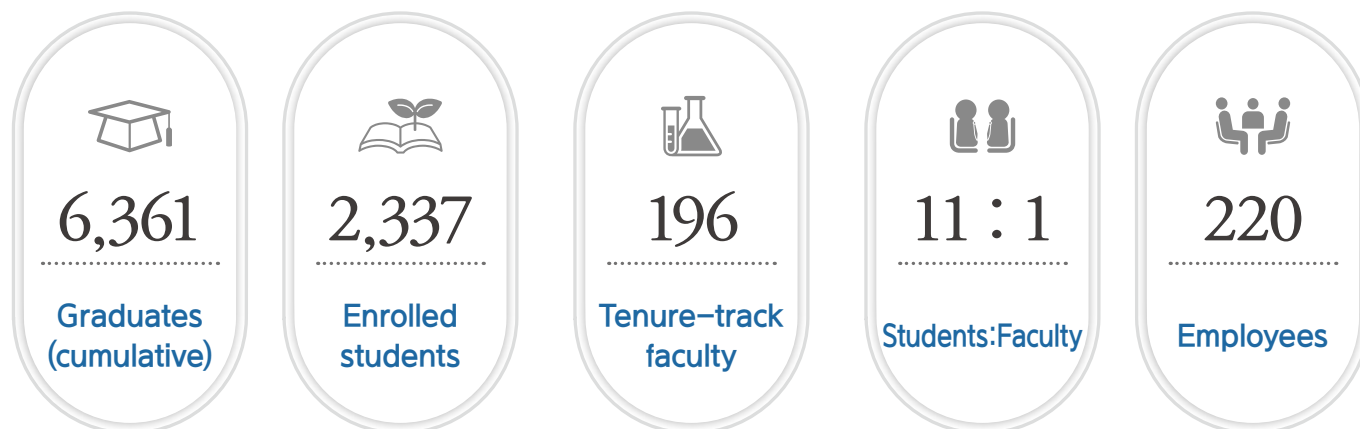
Horizontal operation

Open organization

GIST R&R Role & Responsibility



Overview



Enrolled students	Enrollment Breakdown				Total	() refers to Internationals
	Bachelor's	Master's	PhD	Combined MS/PhD		
	969(1)	374(41)	584(66)	410(17)	2,337(125)	

Staff	Staff Breakdown			Total	
	Faculty	Researcher	Employee		
	196	29	220	445	

Facility	Area Breakdown		Total	
	Total area	Building		
	630,741.9㎡ (495,865.9㎡ for graduate school, 134,876㎡ for college)	257,411.16㎡ (including 2,314㎡ for APT complex outside GIST)		

No. of graduates	Graduation Breakdown			Total	() refers to Internationals
	Bachelor's	Master's	PhD		
	672	4,286(301)	1,403(137)	6,361(438)	

※ As of Mar. 1, 2020

Global GIST

An exclusive partner with Caltech among universities in Korea

- Signed a GIST-Caltech MoU for exchange and cooperation (Oct. 11, 2012)
- Established the GIST Caltech Research Institute(GCRI), a joint research center
- Student exchange programs, credit granted for Caltech regular courses/Caltech tenure-track faculty invitation
- Presentation of research outcomes at annual GIST-Caltech Workshop
- GIST-Caltech student exchange programs during summer session
- Caltech SURF

Global Campus

- Erasmus Plus
- Global Lounge
- Global Intern Program (GIP)
- Student Exchange (Mobility) Program
- Mandatory submission of graduation thesis in English
- The percentage of foreign students and faculty has exceeded 10% of the total since its inception
- Supported students to complete their studies at world renowned universities in S&T (Caltech · UC Berkeley · Boston University (US), University of Cambridge (UK), Technion - Israel Institute of Technology, etc.)

Main Achievements

TOP5






in QS World University Rankings 2020

Ranked the world's 5th in Citations per Faculty by Quacquarelli Symonds (QS)/1st in Korea for 12 consecutive years

4th Industrial Revolution Convergence

Startup Technology Commercialization

Social Contribution & Community Engagement

Rank	Name of Institute	Country
1	King Abdullah University of Science and Technology	 Saudi Arabia
2	Indian Institute of Science	 India
3	Princeton University	 USA
4	California Institute of Technology	 USA
5	Gwangju Institute of Science and Technology	 Republic of Korea

- Ranked 46th in the Times Higher Education (THE) Young University Rankings (under 50 years)/ 4th in Korea
- Ranked 33rd in Asia in the World's Most Innovative Universities 2019/11th in Korea (by Thomson Reuters)

• A project to build an AI-based industrial convergence complex has been finalized

– KRW 406,1B will be spent over the next 5 years to establish an AI-based startup cluster in the Gwangju Science Valley District 3

• Develop core technologies to lead the 4th Industrial Revolution

– Carry out GIST Innovative (G.I.) 4.0 studies

• Establish and operate Institute of Integrated Technology

Best entrepreneurial index of 4-year colleges in Korea for 3 consecutive years (2017–2019 MK Economy)

- 1st in entrepreneurial infrastructure/performance (2019, entrepreneurial index of 4-year colleges by MK Economy)
- 1st in technology transfer/student startup rate (2019, engineering college assessment by Korea Economic Daily)

• Grand Prize for Korea Social Contribution Awards in 2018

– Established a social contribution group and carried out programs for community engagement both in Korea and overseas

NRC Nobel Research Center

- Nobel laureates serve as heads of NRCs to conduct joint studies with GIST researchers
- Improve research capabilities through constant exchanges with great scholars of the world



Heeger Center for Advanced Materials

Alan J. Heeger
Nobel Prize in Chemistry (2000)



**THE Ertl Center
Ertl Center for Electrochemistry and Catalysis**

Gerhard Ertl
Nobel Prize in Chemistry (2007)



Steitz Center for Structural Biology

Thomas A. Steitz
Nobel Prize in Chemistry (2009)



Grünberg Center for Magnetic Nanomaterials

Peter A. Grünberg
Nobel Prize in Physics (2007)



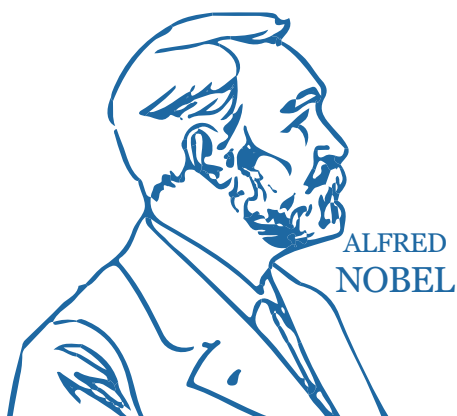
Amano Center for Advanced LEDs

Hiroshi Amano
Nobel Prize in Physics (2014)



Grubbs Nobel Research Center

Robert H. Grubbs
Nobel Prize in Chemistry (2005)





GIST Research Institute

APRI

Advanced
Photonics
Research
Institute

- Established in 2001, to develop science and technology by focusing on outstanding R&D in photonics and photonic technologies and fostering photonics experts
- Built on the world's best research facilities that includes a 4,2 PW laser system, conduct basic studies on laser-plasma interactions, elec trons, par ticle acceleration, x-ray generation, femtosecond laser spectroscopy, and THz optics

RISE

Research
Insitute for
Solar and Sustainable
Energies

- Established in 2009 to secure original technologies for new and renewable energies and to promote their commercialization
- Respond to climate change, future energy crisis and environmental problems, carry out R&D activities and convergence study for next-gen smart energy community including next-gen solar cells, energy storage/operation system as essential technologies for the future

KCTI

Korea
Culture
Technology
Institute

- Established in 2013
- To conduct research and development activities on combined technologies with cultural industries based on interdisciplinary exchange and convergence among science and technology, design, culture and arts, humanities and social sciences in accordance with article 17-5 (Designation, etc. of Supervising Institute for Research of Cultural Technology) of the Framework Act on the Promotion of Cultural Industries

ARI

Aging
Research
Institute

- Life Aging Convergence Research Institute was founded in 2013 and was renamed as Aging Research Institute and its organization was expanded in 2015
- Uses extensive and multidisciplinary approaches to identify aging symptoms and pathology of senile disorder to respond to challenges of a super aging society, control the aging process, and develop original technologies for age-friendly business

IERI

International
Environmental
Research
Institute

- Established in 2001 as a UN University Institute at GIST
- IERI has conducted multiple joint international environmental studies to foster environmental experts, support the development of technologies to tackle challenges of climate change at home and abroad, and contributed to the improvement of the global environment and human well-being

GIAI

GIST Institute for
Artificial Intelligence

- Established in 2017 to serve as a leading research institute in future AI R&D efforts
- GIAI leads global R&D in the era of 4th Industrial Revolution and aims to solve various social issues based on AI research and drive innovative growth of Korea and local communities by successfully completing the 'creation of an AI-based industrial convergence complex (national agenda for local communities)'

GTI

GIST
Technology
Institute

Technology
Commercialization Center

GIST
Business Incubator

Business
Support Center

- Established in 2005, GIST Technology Institute supports IPRs and R&D for commercialization of promising technologies owned by GIST, technology transfer and commercialization, and serves as a hub for startups to contribute to the national economy and industrial development by spreading GIST research outcomes,

CoReLS

Center for
Relativistic Laser
Science

- Established 2012, Center for Relativistic Laser Science (CoReLS) of IBS has studied femtosecond PW laser technologies, relativistic laser-material interaction, physical symptoms transcending in time and space
- In 2016, CoReLS developed a 4PW laser system for the first time in the world, resulting in remarkable progress in research, including high-energy particle acceleration of electrons and photons, and attosecond atom and molecule kinetics

GIST College

Liberal Arts College

Curriculum

Freshman: Division of Liberal Arts and Sciences (no major selected) > sophomore–senior (major courses)

Concentrations

Physics

Chemistry

Life
Science

Electrical
Engineering
and
Computer
Science

Mechanical
Engineering

Materials
Science and
Engineering

Earth
Sciences
and
Environmental
Engineering

Minors (sophomore–senior)

Mathematics

Humanities
and Social
Sciences

Energy

Biomedical
Science and
Engineering

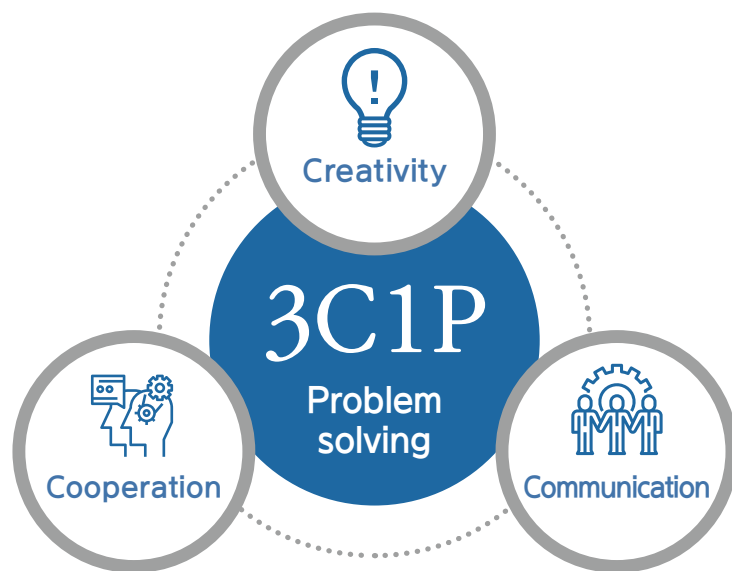
Culture
Technology

Intelligent
Robot

other
concentration
as a minor

※Students may select a double major among the 7 concentrations listed above

Key Features



- Self-directed experiences and challenges, learning centered on discussion and presentations
- AI·SW education in preparation for the 4th Industrial Revolution
- Opportunity to minor in extensive areas including humanities and social sciences, enhanced art education
- In-depth education of basic science, including mathematics and physics
- Research opportunities in conjunction with graduate school programs (G-SURF, Caltech SURF)
- Student-driven creative activity program (Infinite Challenge Project)
- Campus-based mentoring program for learning and career development
- All lectures including basic science subjects and major courses are provided in English
- Support students to complete their studies at world renowned universities in S&T
(Caltech · UC Berkeley · Boston University (US), University of Cambridge (UK), Technion – Israel Institute of Technology, etc.)

Scholarships and student welfare programs



- Support for tuition and school fees
- Provides for educational expenses and school lunch subsidies
- Various scholarship programs including dean's scholarship and national scholarship



- 'Dorm-based' community on campus

Section of Undergraduate Admissions

W

<https://www.gist.ac.kr/uadm/>

T

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uadmission@gist.ac.kr

Graduate Schools

GIST Leads the 4th Industrial Revolution of Science and Technology in Korea

Schools and Departments



Schools of
Electrical
Engineering
and Computer
Science



School of
Materials
Science and
Engineering



School of
Mechanical
Engineering



School of Earth
Sciences and
Environmental
Engineering



School of
Life Sciences



School of
Physics and
Chemistry



Institute of
Integrated
Technology



Artificial
Intelligence
Graduate
School

Key Features

Small group learning

Ratio of
students to
professors

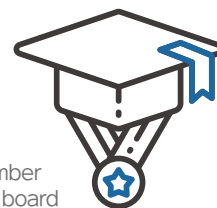
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Provide
short/long-term
overseas
research
programs



Certification of
thesis for
graduation

Includes a foreign
researcher as a member
of PhD thesis review board



**Dual
Degree
Program**

An average of
SCI journal papers per PhD
graduate for the first half of 2020

5.39

10% of PhD graduates are hired
as tenure track faculty in
major universities
both in Korea
and overseas



Scholarships and student welfare programs



- Admission and other educational expenses are fully covered by the government with scholarships
 - Payment of KRW 680,000 admission fee



- Dean's scholarship
 - For outstanding new students taking PhD (combined) programs, admission fees are exempted and GPF scholarships (KRW 1.5M per semester) are provided for 3 years



- Accommodations available to all enrolled students
 - Dormitory (for 1–4 persons) or apartments (for married students)

Section of Graduate Admissions



<https://www.gist.ac.kr/gadm/>



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admission@gist.ac.kr

Working together with local communities

GIST is building stronger bonds with the local community through various outreach programs.



Cultural Events



- Providing popular high-quality cultural performances in various genres (talk concerts, classical performances, plays, etc.)
- Expanding relations with local communities through cultural content
- Performances are open to the GIST community and local residents

Science School



- Learn about interesting science stories at GIST and the Gwangju National Science Museum
- Held on the third Wednesday of every month at 7:00 pm at GIST Oryong Hall & at the Gwangju National Science Museum Sangsang Hall
- Science School Homepage (<http://scienceschool.gist.ac.kr>)

Social Contribution



- Promoting values of social responsibility and involvement through activities of the GIST Social Contribution Team
- Community service (Learning Zone, GSOP, SCIENCE CAMP, book donations, etc.)
- Overseas humanitarian activities (Hope Water Purifier, ICT volunteer groups, etc.)

Start-up Support



- Discovers and nurtures startups in the artificial intelligence field
- Operates the Academy of Entrepreneurship Education and Leadership for those in Gwangju and South Jeolla Province
- Revitalizes the local economy by creating new jobs through start-ups

Your support is an important part of GIST's continued growth.
Give a gift that will support a dream.

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