ICT Education Program for Future Global ICT Leaders
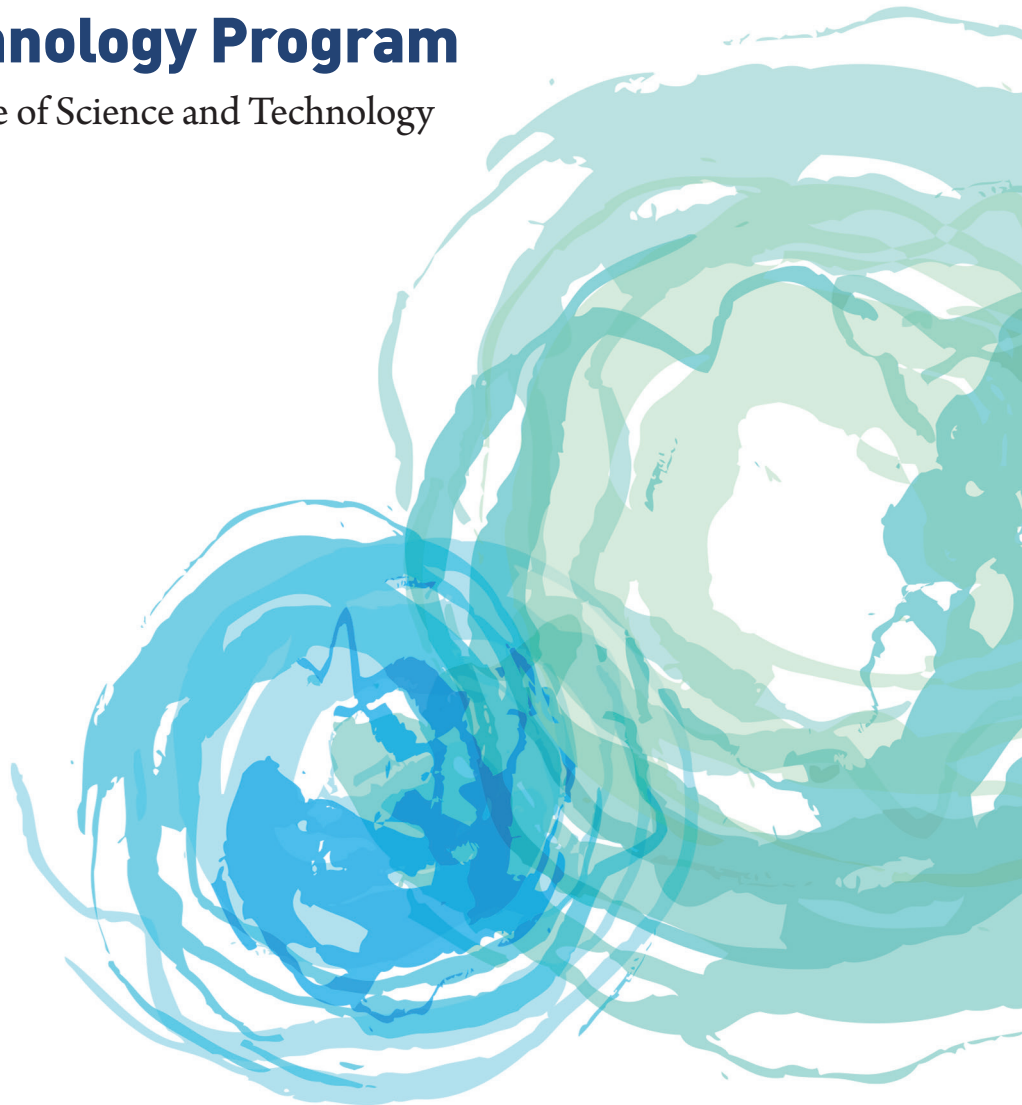
Together with the world, toward the future

Global IT Technology Program

Korea Advanced Institute of Science and Technology

http://ittp.kaist.ac.kr

Contents

Director's **Message**

Since the IT industry has become a key asset for the competitiveness of a nation, developing human resources is of great importance for a nation. The Republic of Korea, as one of the leading countries in the IT industry, seeks to play a more active role to meet this demand of the time.

One of the efforts to meet this challenge is Global IT Technology Program (ITTP) offered at Korea Advanced Institute of Science and Technology (KAIST), starting from 2006 with an aim to build global network of IT leaders around the world.

ITTP, sponsored by the Korean Ministry of Science, ICT and Future Planning, African Development Bank and other foreign governments, offers a customized master's and doctoral degree program for government officials, employees of public institutions or senior-level researchers at national research centers working in the IT fields of foreign countries. All the students will receive scholarships, up to 2 years for master's students and up to 3 years for doctorate students.

This program focuses on transferring advanced technologies and business strategies of Korea to the global IT leaders of the next generation. After the education at KAIST, a distinguished university, the ITTP students will acquire not only all the accumulated know-hows of the IT industry of Korea but also the creative abilities to apply learned knowledge and skills to their own countries.
The graduates of the program will receive updates of current developments in the IT fields of Korea through annual or biannual newsletters, and remain networked through regularly scheduled workshops and forums.

Until now 192 of IT-related government officials from 63 different countries from all over the world have joined this program, and experts from more countries are expected to join in time to come.
You are invited to become a part of this great opportunity and achieve your dreams here at ITTP.

January 2019

Jae Jeung Rho, **Director of ITTP**

Program Overview

ITTP, sponsored by the Korean Ministry of Science, ICT and Future Planning, African Development Bank and other foreign governments, offers a customized master's and doctoral degree program for government officials, employees of public institutions or senior-level researchers at national research centers working in the IT fields of foreign countries.

This program focuses on transferring advanced technologies and business strategies of Korea to the global IT leaders of the next generation. Until now 192 of IT-related government officials from 63 different countries from all over the world have joined this program.

Vision of ITTP

Vision	World's Top IT Education Program for Future Global IT Leaders
Mission	Educating IT experts, building a global ICT network and developing global collaborations among countries
Initiative	• To improve the living condition of all the countries. Information and Communication Technology (ICT) is a driving force of the 21st Century. • To enhance the Digital Opportunity of all the countries. ICT means sharing literally. • To provide mutual benefits to all the countries. Collaboration is a key paradigm in the future global stage.

History

2006. 2	Global IT Technology Program Opened
2006. 2	The 1st Batch of ITTP Fellows (2 Ph.D, 11MS)
2008. 2	The 1st ITTP Commencement Ceremony (9 MS)
2010. 2	'Next African Leader Program' with African Development Bank opened
2010. 9	Received KOAFEC 'Best Project Award'
2011. 2	The 1st Ph. D. graduated
2011.9	'Next Generation IT Leaders Program-Ghana' with Ghana Government
2012.3	'Next Generation IT Leaders Program-Indonesia' with Indonesia Government
2015. 5	'Future E-Transformation Leadership Program' with Oman government
2015. 8	'Next Generation IT Leader Program-Thailand' with Thailand government

International Student Status(as of 2019 August) 192 students from 63 countries
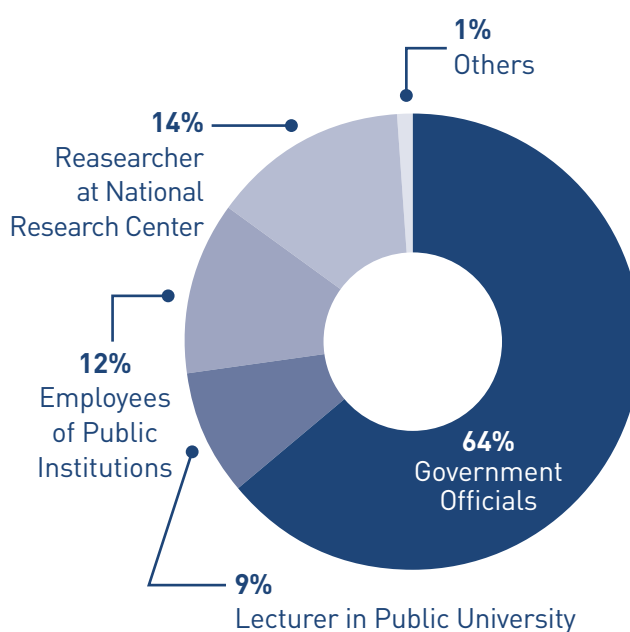
	Country(Number of Students)
Asia(58)	Bangladesh(4), Bhutan(4), Cambodia(2), Indonesia(7), Laos(3), Malaysia(1), Mongolia(9), Myanmar(2), Nepal(6), Pakistan(4), Sri Lanka(3), Thailand(6), Vietnam(5), Pilippines(1)
Africa(84)	Algeria(4), Botswana(2), Burundi(2), Egypt(2), Eritrea(1), Ethiopia(8), Gambia(1),Ghana(6), Guinea-Bissau(1), Kenya(5), Lesotho(1), Liberia(2),Libya(3), Malawi(1), Morocco(1), Nigeria(13), Rwanda(6), South Africa(2), South Sudan(2), Sudan(3), Swaziland(1), Tanzania(3), Tunisia(3), Uganda(7), Zambia(2), Zimbabwe(1)
The Middle East(10)	Afghanistan(2), Jordan(2), Oman(1), Qatar(1), Syria(1), Yemen(2), Iraq(1)
Eastern Europe/CIS(18)	Azerbaijan(3), Bulgaria(1), Czech Republic(1), Kazakhstan(4), Kyrgyzstan(2), Moldova(1), Uzbekistan(8)
Central and South America(20)	Brazil(3), Chile(2), Columbia(1), Costa Rica(4), Dominican Republic(2), Ecuador(2), Peru(4), El Salvador(1), Nicaragua(1)

By Region

10%
Central and South America

11%
Estern Europe/CIS

32%
Asia

41%
Africa

6%
The Middle East

By Workplace

1%
Others

14%
Reasearcher at National Research Center

12%
Employees of Public Institutions

64%
Government Officials

9%
Lecturer in Public University
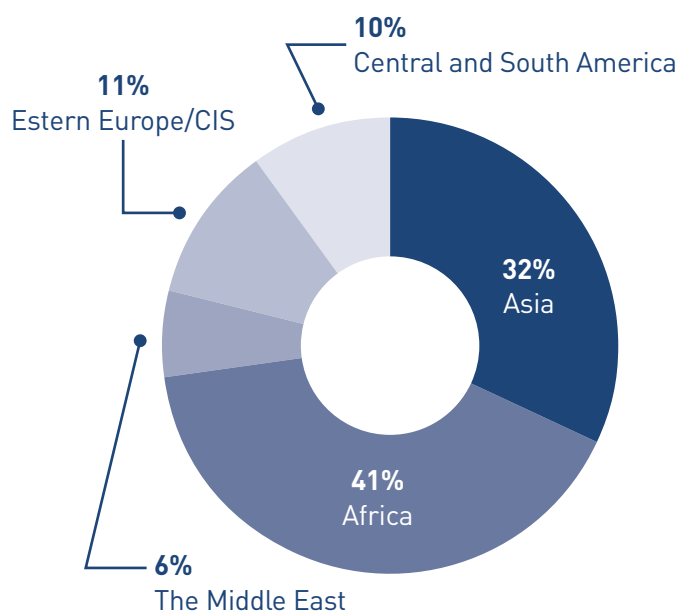
About KAIST

The Best Science and Technology University – moving the World from the Core
Korea Advanced Institute of Science and Technology(KAIST) was established to educate and foster elite human resources for science and technology. KAIST has gone beyond its initial mission for higher education and has served as a driving force for Korea`s economic take off by serving as gateway for innovative research in advanced science and technology. KAIST has grown into globally competitive institution by producing core scientists, engineers, and future leaders in research critical for the 21st century`s globalized economy and society

KAIST within Korea

KAIST was established in 1971 as a research-focused university to foster elite human resources in science and technology.

KAIST whithin the World

KAIST has successfully become a well-respected member of the global science cmmunity.

The World within KAIST

KAIST now strives to become a globally renowned institute by offering the best science and technology education to its students.

General Information

HISOTRY   established in 1971 as the Korea Advanced Institute of Science(KAIS)
CAMPUS   main campus located in the center of the largest R&D cluster in Daejeon
ORGANIZATION   6 colleges, 33 departments/divisions, 3 affiliated Institutes
FACULTY   1,241 faculties in total, 133 international faculties
STUDENTS   3,843 undergraduates and 6,012 postgraduates
RESEARCH   total of 109 research facilities and 35,418 SCI thesis publications

QS World University Ranking

The QS World University Rankings are published annually by Quacquarelli Symonds(QS), a British company specializing in science and technology education.

| KAIST on QS World University Rankings					
Year	2011	2012	2013	2014	2015
World University Ranking	90	63	60	51	43
Engineering&Technology	27	24	36	17	13
Natural Sciences	57	48	47	54	28

II. Education

ITTP specially designed a customized curriculum to meet the demands of multinational government officials and help them acquire extensive knowledge in all the IT fields which global IT leaders must have. Students are able to choose their major either Engineering or IT management according to their interests. ITTP provides not only abundant opportunities to build up a network with Korean IT companies but also master's course and doctor's course.

Degree Requirements

Degrees to be Granted
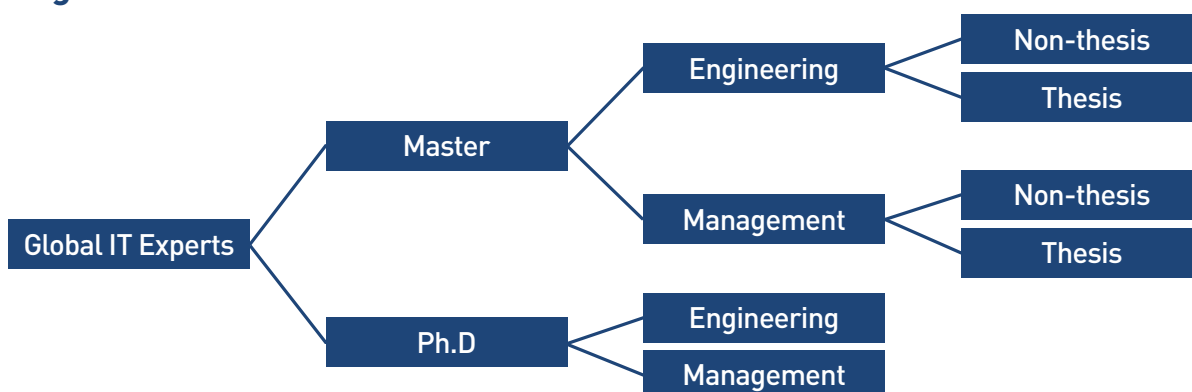
- Master of Science in Information and Telecommunication Technology
- Master of Art in Information and Telecommunication Technology
- Doctor of Philosophy in Information and Telecommunication Technology(Engineering)
- Doctor of Philosophy in Information and Telecommunication Technology(Management)

Degree Requirements

	Master's	Doctorate
Required Credits	47	77
Research Paper	Country report or Thesis	Dissertation
English Proficiency	TOEIC 720, TOFEL(IBT) 83, IELTS 6.5 or higher	TOEIC 720, TOFEL(IBT) 83, IELTS 6.5 or higher
GPA (Grade Point Average)	3.0 or better out of the maximum 4.3	

*Master`s students can choose to write a country report for non-thesis option or thesis for thesis option through discussion with their advisor

Curriculum

Course List

Classification	Course No/Course Title	L:E:C	Required Credits (Non-Thesis MS/ Thesis MS/Ph.D.)
Mandatory General	CC500 Scientific Writing	3:0:3	3/3/3
	CC020 Ethics and Safety I	1AU	
Major Requirements	L:E:C	3:0:3	6/6/6
Electives	**Engineering Major Field**	3(2):0 (3):3	24/18/24
	ITP700 Wireless Communications in Korea		
	ITP701 Ubiquitous Computing In Korea		
	ITP702 Software Engineering in Korea		
	ITP703 BcN Technology in Korea		
	ITP705 Research Design and Methods for Engineers		
	ITP810 Special Topics in Global IT (Engineering)		
	Management Major Field		
	ITP750 ICT Economics and Management		
	ITP751 Internet Business and Management		
	ITP752 Financial and Accounting Management in IT Industry		
	ITP753 IT Technology Management and Policy		
	ITP755 Digital Convergence Strategy		
	ITP756 IT Industry Research Design and Methods		
	ITP757 Method to Implement Information(e-Government) Project		
	ITP800 Special Topics in Global IT (management)		
	Liberal Arts Field	3(2):0:1	8/8/8
	ITP500 Korean Conversation (to take at 1st semester)		
	ITP505 Korean Reading (to take at 1st semester)		
	ITP510 Korean Grammar (to take at 1st semester)		
	ITP511 Intermediate Korean I (to take at 2nd semester)		
	ITP512 Intermediate Korean II (to take at 3rd semester)		
	ITP515 Advanced Korean (to take at 4th semester)		
	ITP525 Advanced English Conversation and Presentational Skills		
	ITP530 Advanced English Writing		
	ITP540 Korean Culture and History I		
	ITP541 Korean Culture and History II		
	ITP550 Taekwondo I		
	ITP551 Taekwondo II		
	ITP552 Taekwondo III		
	ITP553 Taekwondo IV		
Electives	**ITP960** Research for M.S. Thesis	0:0:0	9/12/36
	ITP965 Individual Study(for M.S. Non-Thesis)		
	ITP980 Research for Ph.D. Dissertation		
	ITP966 M.S. Seminar	2:0:1	
	ITP986 Ph.D. Seminar		
Total Required Credits			47/47/77

Features of ITTP Curriculum

Major Requirements are composed of two core subjects, one selected from the engineering field and one from the IT-business field to produce global IT leaders who are equipped with superior management capabilities as well as comprehensive technological skills in the field of IT.

Major Electives are representative courses of ITTP focusing on Korea's IT technologies and strategies. Professors from the Engineering and IT-Business tracks will jointly develop courses, creating a framework that combines Korea's IT technology and business models. In addition, two or three professors teach one course sequentially in order to effectively present various issues related to the specific field of technology in Korea's IT industry.

Common Basics are designed to enhance comprehensive understanding of other culture, history and languages. To further improve English language proficiency, various English courses are offered. Also the Korean traditional martial art, Taekwondo, will be taught.

Special Program

Invited Seminar

Every semester 7 or 8 Korean ICT professionals are invited and give a lecture on the current ICT issues covering a variety of practical topics which cannot be learned from classes. Also this seminar provides ITTP fellows with more network opportunities with Korean government or industries such as Samsung SDS, KT, LG CNS, ETRI, NIA etc.

Business Opportunity Creation Project(BOCP)

Business Opportunity Creation Project is mentoring program between Korean ICT companies and ITTP students aiming to develop their own collaboration project in the field of ICT. Final reports are presented to Korea International Cooperation Agency(KOICA), National IT Industry Promotion Agency(NIPA) specialists at the end of every year so that they may select the best report for next year`s feasibility study and/or master plan, which will be funded by the Korean government.

Alumni Requested Collaboration Study(ARCS)

Alumni Requested Collaboration Study is a collaboration program supporting ITTP alumni who want to solve their own country`s ICT program with collaboration study with Korean ICT companies and organization. ITTP make them to be connected and provide financial support to the alumni. Final reports are presented to Korea International Cooperation Agency(KOICA), National IT Industry Promotion Agency(NIPA) specialists at the end of every year so that they may select the best report for next year`s feasibility study and/or master plan, which will be funded by the Korean government.

Industry Visits and Korean Culture Tours

Industry visits are held to take a view of the scene of current ICT industry of Korea such. Also ITTP offers several field trips to Korea`s traditional sites to experience and understand Korean culture and history.

International Government Consigned Education

ITTP gained recognition of its academic excellence and was accepted as official education program of ITU(International Telecommunication Union) in 2006, the first year of ITTP. ITU dispatches official documents to member countries when selecting new students. Recently, requests of consigned education from foreign government and international organization

Next African Leader Program / 2010.2-2019.7, 44 students

- Started as a part of Africa-Korea human resource development, planned and selected by KOAFEC. In 2010, in earned the "Best Project Award" at the KOAFEC, which corresponds to the Awards of the Minister of the Ministry of Strategy and Finance.
- Sponsored by African Development Bank
- Total Budget: USD 3,539,440

Next Generation IT Leaders Program-Ghana
/ 2011.9-2013.8, 1 student

- Objectives: Creating a community of highly trained ICT professionals
- Sponsored by Ghana government
- Total Budget: USD 80,000

Next Generation IT Leaders Program-Indonesia
/ 2012.3-2014.2, 2 student

- Objectives: Building and developing a global ICT network among countries
- Sponsored by Indonesia government
- Total Budget: USD 78,000

Future E-Transformation Leadership Program-Oman
/ 2015.5.3-2015.5.14(for 12days), 29 students)

- Objectives: Preparing and qualifying Omani ICT workforce
- Sponsored by Oman Establishment for Press, Publication and Advertising(OEPPA)
- Total Budget: USD 143,100

Next Generation IT Leaders Program-Thailand
/ 2015.9-2017.8, 1 student

- Objectives: Sharing knowledge on ICT, building ICT human resources in Thailand
- Sponsored by KAIST, Office of the Administrative Courts in Thailand
- Total Budget: USD 36,264

III. Global Network

International Conference and Workshop

ITTP co-organizes an international conference with international institutions every year with an aim to expand its global ICT network and boost collaborations among countries while sharing ITTP research accomplishments with others. Since 2006, ITTP has continued to hold international conferences in Vietnam, Indonesia, Uzbekistan, Tunisia, Egypt and Ghana.

2007	International Workshop on ICT Development	Hanoi, Vietnam
	International Workshop on ICT Development	Tashkent, Uzbekistan
	Vietnam-Korea IT Policy Cooperation Forum	Hanoi, Vietnam
2008	International Workshop on ICT Development	Tunis, Tunisia& Cairo, Egypt
	Global IT Policy and Technology Seoul Conference 2008	Seoul, Korea
2009	Global IT Policy and Technology Seoul Conference 2009	Seoul, Korea
	International Workshop on ICT Development	Tunis, Tunisia
2010	SNU ITPP-KAIST ITTP International Conference	Baku, Azerbaijan
	SNU ITPP-KAIST ITTP International Conference	Tunis, Tunisia
2011	The 4th Global ICT Seoul Conference 2011	Seoul, Korea
	International Conference on ICT Development	Lombok, Indonesia
2012	2012 e-Government Workshop' with AfDB	Tunis, Tunisia
	International Conference on ICT Development	Lombok, Indonesia
	2012 Global Seoul Forum	Seoul, Korea
2013	2013 Global Seoul Forum	Seoul, Korea
2014	2014 e-Government Workshop' with AfDB	Tunis, Tunisia
	2014 Global ICT Seoul Forum	Seoul, Korea
2015	2015 Global Commercialization Workshop and Conference	Daejeon, Korea
	2015 Global ICT Seoul Forum	Seoul, Korea
2016	2016 Global Commercialization Workshop and Conference	Daejeon, Korea

Global ICT Seoul Forum

ITTP network will be tightly formed and strengthened through Seoul Global ICT forum which invites ITTP alumni to Korea even after graduation. In Global ICT Forum, ITTP alumni give presentation on their study and activities after they return to their country and students in school give presentation on their research.

MOU Contract Establishment

International Organization

- **ITU**: International Telecommunication Union
- **CERT:** Information Communication Institute under the Ministry of Information and Communication of Tunisia
- **SUPCOM:** National University under the Ministry of Information and Communication of Tunisia
- **UNU-IIST:** UN University in Macau
- **Unisinos:** Brazil State University
- **CITU :** Thammasat University
- **TUIT:** Tashkent University of Information Technologies
- **OAC:** Office of the Administrative Courts, Thailand
- **OEPPA:** Oman Establishment for Press, Publication and Advertising

Korean Organization

- **Public Procurement Service:** supporting export of "Korea On-line E-Procurement System"
- **National Information Society Agency:** supporting e-Government system promotion
- **National IT Industry Promotion Agency:** supporting for overseas expansion of Korean IT companies
- **Korea Association of RFID/USN Convergence:** supporting for overseas expansion of RFID/USN associated companies
- **Korea Information Technology Service Industry Association:** supporting for overseas expansion of Korean IT Software companies
- **Encore Korea:** A meeting of senior executives of the Ministry of Science and Technology supporting activities of developing countries.

IV. Scholarship

Global IT Technology Program scholarship

KAIST Global IT Technology Program(ITTP), sponsored by Korean Ministry of Science, ICT and Future Planning, offers a customized master`s and doctoral program for government officials in the ICT fields of developing countries. Staring from 2006 with an aim to build global network of ICT leaders around the world, it focuses on transferring advanced technologies and business strategies of Korea to the global ICT leaders of the next generation

* Schoarship Details

- • Tuition fee
- • One-way airfare
  Economy class, Mas 1,500,000 won
- • Living cost
  1,500,000 won per month
- • National medical insurance
- • Relocation expenses

  - 1,100 Korean won
    = (approximately) 1.00 US dollar (as of 2016)

  - All the students will receive scholarships,
    up to 2 years for master`s students and
    3 years for doctorate students

Next African Leaders Program scholarship

KAIST Next African Leaders Program(AITP), sponsored by African Development Bank, is a consigned education program providing master`s degree program for employees working in public and private sector in African countries. It has been running for 7 years since it`s establishment in Feb 2010 as a part of Africa-KOAFEC human resource development, planned and selected by KOAFEC(Korea-Africa Economic Cooperation Conference). AITP is one of the successful projects of KOAFEC, which won KOAFEC Award at 2010 KOAFEC Ministerial conference.

* Schoarship Details

- • Tuition fee
- • Round-way airfare
  Economy class, Mas 1,500,000 won
  per one-way trip
- • Living cost
  1,500,000 won per month
- • National medical insurance
- • Relocation expenses

  - 1,100 Korean won
    = (approximately) 1.00 US dollar (as of 2016)

  - All the students will receive scholarships,
    up to 2 years for master`s students

Qualification of Applicants

Global IT Technology Program scholarship

• Government officials, employees of public institutions or senior-level researchers at national research centers working in the ICT-related fields in developing countries

※ Employees from private institutions cannot apply.)

• Educational Background: A bachelor's or master's degree in the ICT-related area
• English Proficiency Test(EPT): TOEFL (iBT 83, PBT 560, CBT 220), IELTS 6.5, TEPS 599, TOEIC 720 or higher

*EPT should have been taken within two years from the deadline of the online application
*It can be replaced with English phone interview with ITTP director

Next African Leaders Program scholarship

• Employees working in public and private sector in the field of ICT in African countries
• Educational Background: A bachelor's degree in the ICT-related area
• English Proficiency Test(EPT): TOEFL (iBT 83, PBT 560, CBT 220), IELTS 6.5, TEPS 599, TOEIC 720 or higher

*EPT should have been taken within two years from the deadline of the online application
*It can be replaced with English phone interview with ITTP director

How to Apply

KAIST Online Application → Documents Submission → Application Review → Phone Interview → Notification of Final Result

*Please refer to ITTP hompage(http://ittp.kaist.ac.kr) and KAIST Admission Office(http://admission.kaist.ac.kr/international)

Timetable for ITTP Admissions

| ITTP recruits new ITTP fellows twice a year as follows;		
Admission Seasons	Spring Semester	Fall Semester
Application Deadline	End of September	End of April
Evaluation	October	May
Acceptance Notification	End of November	End of June
Start of Semester	March 2nd	September 1st

VI.Campus Life

Housing

KAIST operates 22 dormitories for students, 15 of which are male dormitories and 8 of which are female dormitories. Each type of dormitory features different type of room and facilities to meet student's various needs. All rooms are equipped with air conditioning, a desk, bed, chair, and closet for each student. Most KAIST ITTP students stay in Munji Hall located in Munji Campus. You can get more detailed information at the KAIST International Office webpage(https://io.kaist.ac.kr/index.do)

Facilities & Medical Service

For students' health, KAIST offers a variety of sports facilities including Sports Complex (with fitness center, spa, basketball court, dance practice rooms and running tracks), Undergraduate Field (Soccer Field), Futsal Stadium, Swimming pool, West Gym (with basketball courts and table tennis courts) and Tennis Courts. Additionally, most of dormitories have their own gym for weight-training which operates 24/7. All facilities can be utilized free of charge so that every student can enjoy sports life and improve their health freely. KAIST also provides medical service for students at KAIST Clinic and Health Care Center in the main campus. KAIST students can receive basic treatments and medications for minor illnesses such as headache, stomachache, cold without any payment from Health Care Center. KAIST Clinic supports students by primary medical service, mental health programs, health screening program and vaccination service.

Housing

Facilites

Medical Service
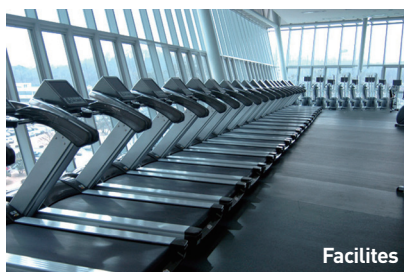
ITTP Facilities

ITTP provides the state-of-the-art facilities for ITTP fellows including laboratory, video-conference room, cyber classrooms and global lounge.

- Each fellow will be provided an individual desk and computer of best quality in the ITTP lab.
- Cyber classrooms are equipped with topnotch online education environment that offer students a chance to review lectures as needed even after graduation.
- Global lounge is specially arranged next to the ITTP lab as a space of rest and networking among ITTP fellows, and also as a exhibition place for traditional souvenirs from ITTP countries.

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