

Graduate School of Information Technology  
Kobe Institute of Computing

# Initiatives to address Africa's Social Innovation



15TH

JICA President Award Commendation

KIC contributed significantly to developing human resources and social development through international cooperation by ICT.



## Diversity KIC

The social problems of the day tend to be more and more complicated. Knowledge from experience and Knowledge of basic are not enough to respond to issues today. We are living a time when from manager to new employees are required to gain advanced knowledge and sharpen own skill to march the new business opportunities. So far, many personal from various parts of the world have completed the Innovator course at Kobe Institute of Computing and found valuable opportunities with the new skills they acquired. Won't you join then and broaden your knowledge in the ICT sector and consequently gain higher value as a human resource. KIC's diverse environment is the place where you can achieve ambitions and reach targets. The language of instruction and guidance of the Innovator course at KIC is English, but you will have the opportunity to use others while chatting with our students from various countries and areas.

Social innovation by ICT and Yourself



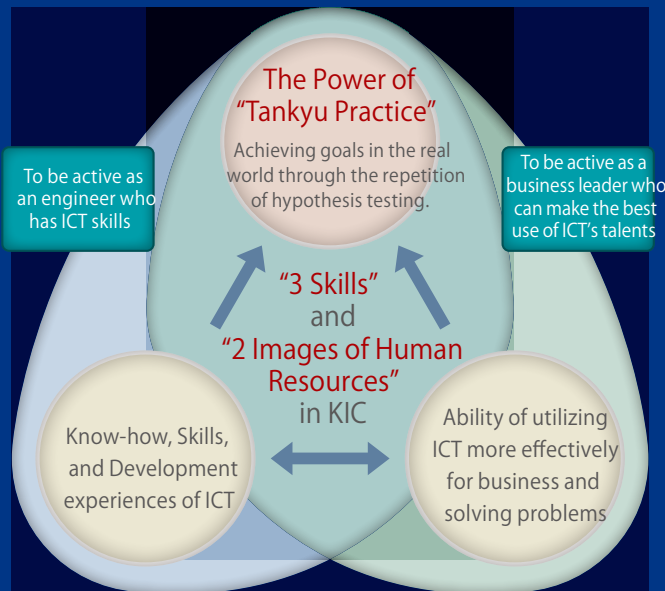
Kobe Institute of Computing

Graduate School of Information Technology  
Department of Information Systems

# About KIC

## KIC Strength

KIC graduates are professional human resources in the field of ICT, and they are ready to support their societies.



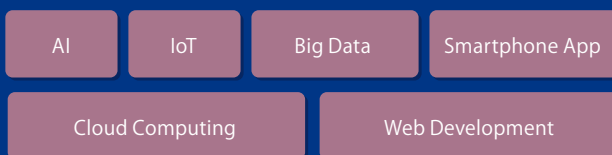
The curriculum adopted at KIC is designed to enhance the practical skills and develop the capacity of problem solving. It allows students to pick their research topics based on their hopes to contribute to society. The students' backgrounds are diverse and include humanitarian, science, and even IT engineers. All students are expected to master technology during two years master course.

The curriculum consists of fundamental, applied, and advanced subjects. KIC graduates can contribute in various contexts such as software development, telecom networks, embedded software, system architecture, and project management.

## Image of Human Resources and Activity Fields

### ✓ ICT field

Teachers with experience in technology, business, social development, and management prepare and deliver lectures starting from the foundation stage. You will learn the principle of computer and application operation through OSS innovative teaching materials, and then try to solve problems through practical projects.



### ✓ Business and Social Development field

We train the human resources to be able to decide what things are necessary for a specific solution to social problems and for providing new services through utilizing ICT.



## Research Topics of SDGs (Excerpt)



### NO POVERTY

Provision of Agriculture Related Information to Rural Farmers In Nigeria Using ICT



### QUALITY EDUCATION

Utilization of Cloud Technologies in Building a Virtual Programming Lab for Higher Education in Afghanistan



### DECENT WORK AND ECONOMIC GROWTH

Centralized Human Resource Management Information System



### ZERO HUNGER

Water Level Monitoring System in Agriculture using Open Hardware: A Case Study of Morobu South Sudan



### CLEAR WATER AND SANITATION

Utilization of SMS and Web Technology for Monitoring the Operation and Maintenance of Water Supply Facilities



### INDUSTRY, INNOVATION AND INFRASTRUCTURE

Data analytics and forecasting to improve the local content production rate in Rwanda



### GOOD HEALTH AND WELL-BEING

Remote Patient Diagnosing Using Health Care Sensor Network in Rural Areas, Rwanda



### AFFORDABLE AND CLEAN ENERGY

Effectiveness of applying IoT to Improve Biogas digesters in Rwanda



### SUSTAINABLE CITIES AND COMMUNITIES

Infill Development: A Smart (Re)development Approach for Promoting the Compactness of Urban Form

# Collaboration with private companies



## Contribution to the business exchange between Africa and Japan

KIC and Otowa Electronic exchanged MOU for business expansion and industrial human resource development for African countries. Many African countries are suffering from lightning damage in their society. Rwanda, for example, is the most affected country around the world by lightning. KIC accepted many students from Rwanda, and some of them participated in an internship program in Otowa Electronic. Mr. Amiri Mugarura was one of such students, and he was impressed by their high technology. He wished Otowa Electronic to support Rwanda technically and business expansion. His strong passion made



Otowa Electronics decide to support human resource development for restoration from lightning damage. The company is currently expanding business in Rwanda. A partnership agreement (MOU) between KIC and Otowa Electronics has become real thanks to encountering Rwandan student wishing to decline lightning damage. Mr. Amili has established his own ICT company and want to tack Rwanda's development challenges in collaboration with Otowa Electronic.

## Problem solving, private partnership, own and unique program

KIC fosters students having flexible thinking through various curriculum and private companies' observation. KIC's original lecture, "Practice of Creativity Development", is conducted by the President of KIC, Prof. Sumitani, in order to train students having flexible thinking and creativity required for problem finding and solution proposing. Students can learn various methods of idea creation by active learning style. During 15 times lectures, valuable guest lecturers from various fields of private sectors will be invited and the lecture will be conducted by omnibus form. "Leadership Innovation Program" for young staff training conducted by Chugai Pharmaceutical Co., Ltd. in Tokyo is one of the examples. KIC students from abroad and young staffs of Chugai-Seiyaku jointly discussed about challenges of students own countries such as Malaria, HIV/AIDS,



energy supply, preventing glucosuria and others. They suffered to create innovation to solve the issues, but proposed possible new solution through KIC's own Tankyu method for problem solving. KIC is connecting various partners such as private companies, institutions and individuals to provide oppotunities to find solution both for Africa and Japan interactively.

## Activities of the graduates



MAKONO, Esta Jackson  
Tanzania / completed in 2017

She found employment at G.E.S. in Osaka that received her as an intern during her study in KIC. CAD designing for environmental facilities is her task in the company and preparing a new project for water and housing in Africa together with learning the latest advanced technologies to solve environmental issues in the atmosphere, water, and soil.



MUGARURA Amiri  
Rwanda / completed in 2016

He established his own ICT Company, DATA EKI, after returning to Rwanda. He works together with Otowa Electronics that received him as an intern to solve lightning damage in Rwanda under JICA's partnership project.



# SDG's vision of KIC

1. Foster people to solve social issues by ICT and human skill
2. Creation of sustainable future society harmonizing human and technology
3. Realization of Society 5.0 of Japanese government and SDG's of the international community by all efforts



## Main programs for Africa

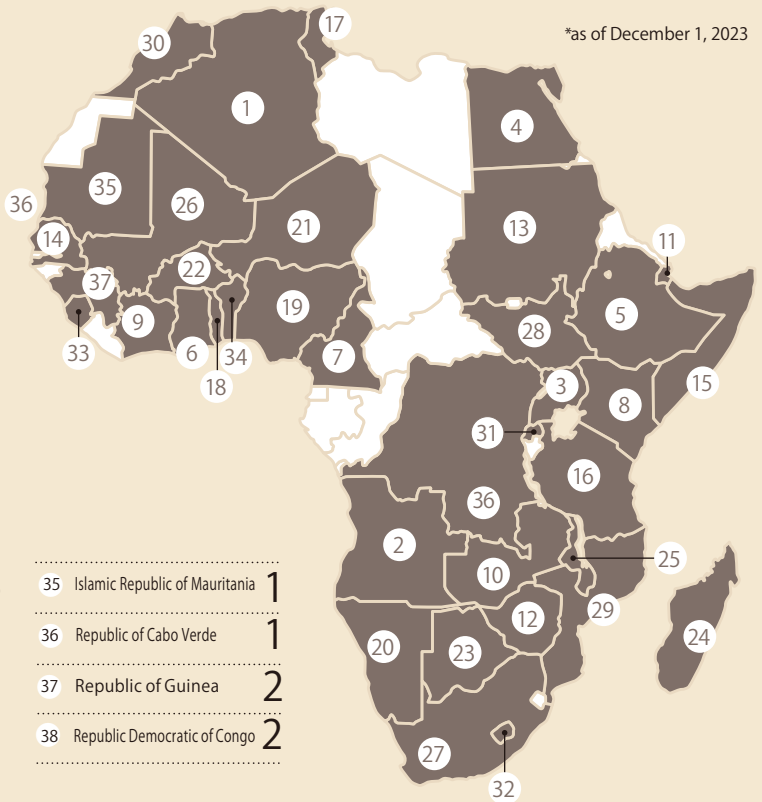
- JICA Knowledge creation program for Africa, "Solving development challenges utilizing ICT (Tankyu for Africa)", 2011
- Africa Business Education (ABE) Initiative, 2014~
- JICA Knowledge creation program, "Capacity Building for ICT Project Planning", 2015~
- JICA Partnership program, "ICT Human Resource Development Project in Kigali, Rwanda", 2017~2019
- General Information on Solving Social Challenges by ICT Training Program for Promotion of DX and X-TECH, 2021~2023

## Acceptance from African countries

1 People's Democratic Republic of Algeria	1	18 Republic of Togo	3
2 Republic of Angola	2	19 Federal Republic of Nigeria	15
3 Republic of Uganda	7	20 Republic of Namibia	2
4 Arab Republic of Egypt	2	21 Republic of Niger	1
5 Federal Democratic Republic of Ethiopia	32	22 Burkina Faso	1
6 Republic of Ghana	4	23 Republic of Botswana	15
7 Republic of Cameroon	2	24 Republic of Madagascar	2
8 Republic of Kenya	9	25 Republic of Malawi	9
9 Republic of Cote d'Ivoire	12	26 Republic of Mali	3
10 Republic of Zambia	3	27 Republic of South Africa	7
11 Republic of Djibouti	2	28 The Republic of South Sudan	2
12 Republic of Zimbabwe	2	29 Republic of Mozambique	11
13 The Republic of the Sudan	4	30 Kingdom of Morocco	6
14 Republic of Senegal	9	31 Republic of Rwanda	48
15 Federal Republic of Somalia	1	32 Kingdom of Lesotho	2
16 United Republic of Tanzania	20	33 Republic of Sierra Leone	1
17 Republic of Tunisia	4	34 Republic of Benin	12

**38** countries **262** students

\*as of December 1, 2023



\*Including short term students.

