

# Top Global University Project (Type B) The University of Aizu

## 1. Outline

### 【 Name of project 】

Fostering Global ICT Innovators through the Combined Effects of Spirit, Technology, and Adaptability

### 【 Future vision of the university planned in the TGU project 】

The purpose of the proposal is to establish an environment, as a leading university in the ICT field, that continues to promote global education while taking into account practices in global education that have been continuing since the foundation of the university over 20 years ago. In order to achieve the goal mentioned above, the following three main concepts are principally utilized in this project.

- (1) "Spirit": Develop entrepreneurship through ICT innovation in order to play a leading role in the world.
- (2) "Technology": Foster strong competitiveness in ICT design, development, and application skills.
- (3) "Adaptability": Increase multicultural understanding, idea design, team coordination, and leadership skills.

Based on these three concepts, the university will produce excellent talent playing leading roles in the world, working for regional companies or ventures. By doing this, the university will contribute to the development of regional industry and post-disaster revitalization. In addition, the university will enhance its hub function in the international ICT field to act as a gateway bridging this region to the rest of the world.

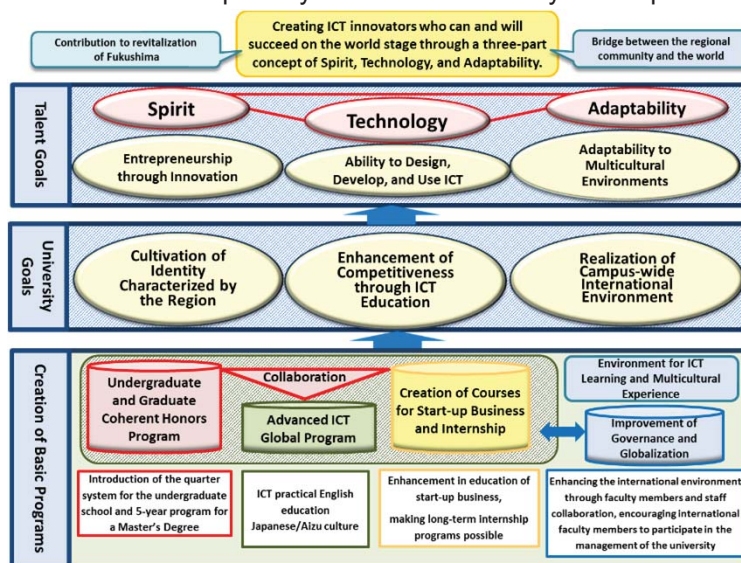
### 【 Summary of the Project 】

Through the development of a multicultural campus under the three-part concept of Spirit, Technology, and Adaptability, this project aims to create ICT innovators who can and will succeed on the world stage. The University of Aizu, a public university specialized in the ICT field, is dedicated to becoming a model advanced university. The concept of "Spirit, Technology, and Adaptability" represents the three elements essential to future ICT specialists. "Spirit" refers to the will to create innovation that reaches out worldwide. "Technology" refers to the highly-competitive technical skillset enabling one to design, develop, and innovate. "Adaptability" refers to the ability to adapt to and integrate into a multi-cultural environment.

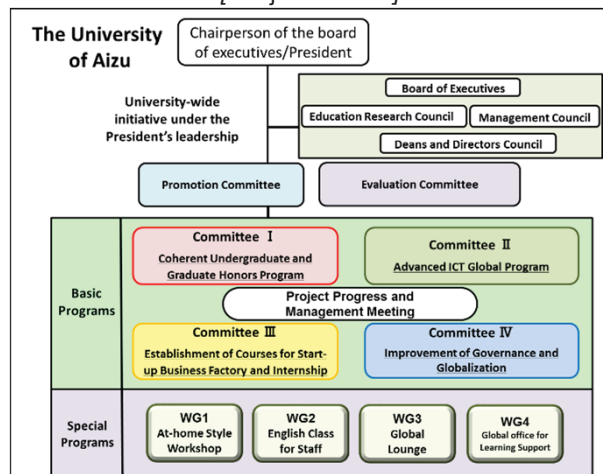
To foster specialists with the ability of " Spirit, Technology, and Adaptability", reform will be carried out with four Basic Programs under the university president's leadership. At the same time, "Special Programs" based on faculty and staff proposals will be implemented in parallel as a means of improving the motivation of faculty members and staff.

Under the leadership of the university president, a promotion committee (committee for promotion of the project) was established. The committee members are composed of faculty and administrative staff from all departments, divisions and centers. Furthermore, an evaluation committee (committee for evaluation of the project) was established. Most of these members are from regional communities and industries. This committee evaluates the direction, progress, and effects of the project implementation, and directly sends feedback to the promotion committee.

In addition, four committees were established corresponding to the four Basic Programs. Each regent of our university serves as the head of a committee. Furthermore, four working groups (WG) were established for the four Special Programs. The members of these groups mainly consist of faculty, administrative staff, students, and employees of regional companies and venture businesses.



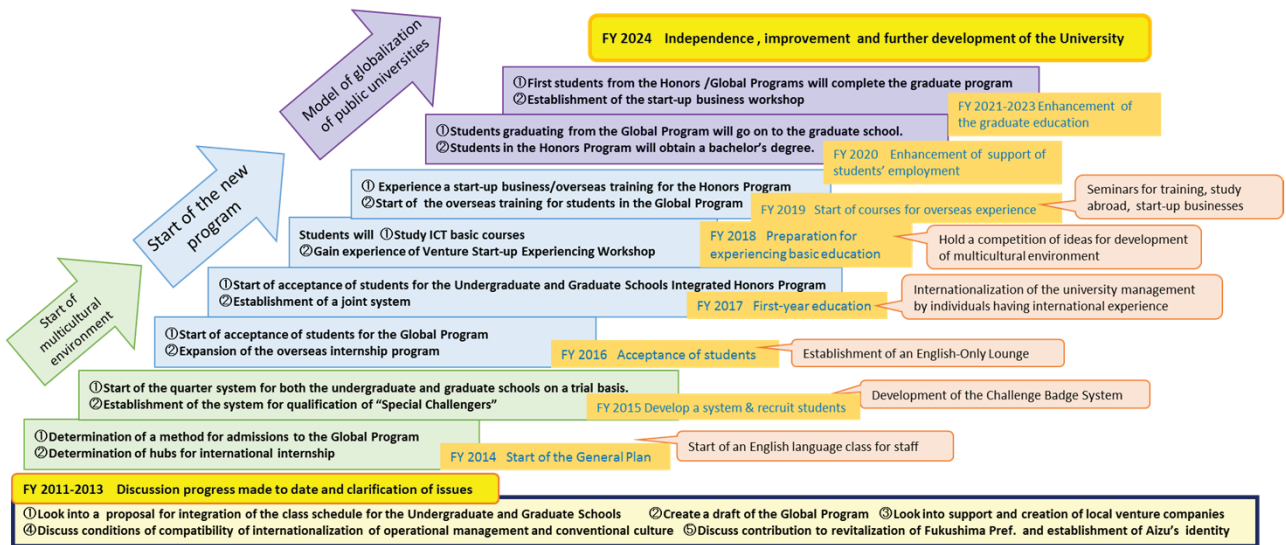
[ Project outline ]



[ Implementation system ]

## 【Summary of the 10-year plan】

Based on our potential for internationalization, and on problems recognized from past experiences, UoA has already started a reformation process. We will continue the reforms to realize a multicultural campus that fosters ICT talent.



[ 10-year schedule ]

## 【Featured initiatives (Internationalization, University reform, Education reform)】

The four "Basic Programs" are designed based on our experience of global ICT education. Further, the "Special Programs" aim to solve issues by supplementing the basic programs, such as by strengthening the function of the Office for Learning Support, and by creating English classes for administrative staff members, etc.

### <Four Basic Programs>

1. "Creation of an Integrated Undergraduate-Graduate School Honors Program." This program, through improvement of the curriculum composition, will realize consistency between the undergraduate and graduate programs, and allow a flexible course-taking path.
2. "Creation of a Leading-Edge ICT Global Program." This program will allow undergraduate students to enroll at our university and take all courses using only English, as is currently possible with the graduate school.
3. "Technical Innovation/Foundation for Creation of Overseas Training Courses." This program will provide project-based learning and business-creation education to foster students' entrepreneurship using high-tech skills.
4. "Improvement of Governance and Globalization." This program aims to increase the level of internationalization and work efficiency of all faculty members and administrative staff.

Additionally, in order to promote students' proactive participation in these programs, a "Challenger Badge" system will be introduced as a means of evaluating and encouraging students who have participated in these programs. Furthermore, students who have achieved superior results in the previously-mentioned activities will obtain "Special Challenger" certification. The system will help faculty, staff, and students work together to create a multicultural campus.

From the world to Aizu	The University of Aizu	UoA's Characteristics		Undergraduate and Graduate Coherent Honors Program	(Enhancement) Introduction of the quarter system for the undergraduate school (Enhancement) 5-year coherent program for a Master's Degree (New) Special one-year experiences for students, such as overseas training, business start-up, and internship	People who have Spirit, Technology and Adaptability, to play a leading role in the world From Aizu to the world
		University Goals	Advanced ICT education	Advanced ICT Global Program	(New) Graduation possible with coursework entirely in English (New) International standards adopted for the entrance examination (New) Deep understanding of Japanese and Aizu area cultures (Enhancement) Collaboration with overseas partner universities	
			Complete International Education	Creation of Courses for Start-up Business	(New) Foster entrepreneurship: not only to undergraduates, but also to graduate students	
			Outstanding Entrepreneurship	Internship	(Enhancement) Student education in cooperation with overseas partner universities (Enhancement) Internship in overseas companies and/or regional ventures (Enhancement) Adaptability to multicultural environments	
			Advanced ICT education	Improvement of Governance and Globalization	(Enhancement) Prompt and flexible decision-making (Enhancement) Smooth communications and administrative process in English (Enhancement) Employment of staff who have rich international experience	

[ UoA's characteristics and university goals ]

## 2. FY2014 Progress

### ■ Common indicators and targets

#### Internationalization

**ICT Global Program: All credits required for graduation can be earned in English.**

**-> It improves the UoA's diversity and international openness, and supports study abroad**

##### Overview of the ICT Global Program

A. Eligible individuals: Students capable of taking classes entirely taught in English

B. Schedule of enrollment: Acceptance of 3<sup>rd</sup> year transfer and 1<sup>st</sup> year students

C. Entrance examinations: adopting international standards.

##### Features of ICT Global Program

- Students can learn about traditional Japanese culture and the culture of Aizu.
- Students can study at the UoA using only English.
- Students can obtain more opportunities for overseas study and internships.
- Students can earn a Bachelor's and Master's degree through the Honors Program, a coherent five-year program.

A committee (committee II) was established for developing the ICT Global Program, which allows students to earn all the credits required for graduation in English. The main topics in this committee include student recruiting methods, admission system design, English-only curriculum development, and life support for students. To recruit excellent students, the members visited overseas universities such as Chinese and Vietnamese universities and built partnerships with them. 3<sup>rd</sup>-year transfer students are scheduled to be accepted from partner universities from Fall AY2016. Acceptance of 1<sup>st</sup>-year students will start from Spring AY2017.

To establish the program, the number of courses taught in English will be increased. Furthermore, we will establish courses for international students learning about Japanese and Aizu culture in English. In addition, Japanese language courses are designed to help students smoothly adapt to living in Japan.

Before starting the program, some discussions have been undergoing such as evaluation standard of English ability, international standards and external exams for admission, online admission system, and recruiting of excellent students. Moreover, to sufficiently handle the increased number of students, student support methods were discussed, such as tuition exemption and scholarships for international students, as well as the issue of student dormitories.

#### University reform

##### Investigations and discussion regarding governance reform

**→ Innovation to promote making quick administrative decisions, to hire staff having an international outlook, and to increase the ability of administrative staff**

Under the President's leadership, the University of Aizu has started various meetings like weekly Directors Meetings, where executives and managers including foreign faculty participate. A management system has been created for faculty members and staff to share the President's intensions and make quick decisions.

In order to promote further internationalization of the University of Aizu, the Governance Improvement Committee (Committee IV) was established in FY2014. It worked to tackle problems regarding the governance function and the duties of faculty members and staff. These problems were separated into three categories: problems where a policy had been set, those that have been solved, and those still being discussed. In particular, the following work was carried out in FY2014: 1) Enhancing efficiency of administration by improving the spoken English of admin. staff, 2) Adding English evaluations in new staff employment, and 3) Promoting a paperless office to improve resource saving.

#### Education reform

**A coherent five-year program, namely the Honors Program, will be established to improve our university.**

**→ To improve our education level, promote students' self-directed learning, and increase international openness.**

**→ To assure the international commonality of the educational program and to provide diversity of academic path.**

Honors Program	Honor	Opportunity	Support	Qualification
	Obtain certification of "Talented Students"	Obtain more experience in a shorter time	Obtain more support to improve skills	Obtain qualification of "Honors"

The Honors Program integrating the undergraduate and graduate schools is a specialized program for talented students. This program offers the bachelor degree and master's degree in five years. Students who join the program will be able to participate in long-term internships at venture companies and/or study abroad at foreign institutions during their academic enrollment term. This initiative will foster students' entrepreneurship and improve their ICT skills.

The Honors Program committee (Committee I) was established in FY 2014. The main work in FY 2015 is to create a practical regulation system and to decide on an applicant screening method for the program.

To help students earn master's degrees in only 5 years, Project-Based Learning (PBL) and Active Learning will be introduced as part of an effort to increase and secure high-quality learning hours.

Furthermore, to offer students a wide variety of opportunities in a shorter period of time, Committee I started discussion on establishment of a student support system. This initiative includes, for instance, introducing students to internships in companies, assigning students to laboratories at an earlier period, and offering official permission for extracurricular activities during lecture hours.

The current undergraduate school uses the semester system, but the graduate school uses the quarter system. The separated systems limit students from earning credits, even though undergraduate students can take courses at the graduate school.

To facilitate a coherent academic term system into both undergraduate and graduate schools, we started discussion on implementation of the quarter system in the undergraduate school.

Meanwhile, curriculum renewal was conducted to meet the ACM and IEEE Computer Society's international standards as written in CSC 2013, the Curriculum Guidelines for Undergraduate Degree Programs in Computer Science.

## ■ The university's own indicators and targets

### A. Challenger Badge System

### B. Special Challenger Qualification

#### Features of Challenger Badge System

This system will record students participating in multicultural activities conducted on and off campus. The system will help students acquire, record and display their badges, which can increase students' motivation to participate in relevant activities and encourage them to realize their individual aptitude.

In FY 2014, the basic platform for Challenger Badge development was introduced. In FY 2015, education requirements and system design will be discussed and proceeded. The capability of students qualified as Special Challengers and qualification requirements will be discussed as one of the new internal systems.

### C. Project related to support for revitalization

In order to conduct revitalization support activities in a systematic and continuous manner, the necessary environment has been provided to conduct and promote advanced ICT research. Revitalization projects have been conducted for the nurturing of ICT specialists.

### D. Participation in business idea contests



The student team "SpiritualDB" won the grand prize at "JPHACKS" in 2014, an event organized by the University of Tokyo.

One of our student teams, "AizukkYYY" participated in the Asia Regional Contest of ACM-ICPC and placed eighth in 2014.

### E. Activities for regional community rejuvenation

Students from the "Aizu Entrepreneurs Club" and Workshops for Start-up Ventures have made and implemented proposals aiming at the rejuvenation of Fukushima and the Aizu region.



A non-profit organization organized mainly by UoA students has introduced Fukushima food products by cooking dishes using recipes from different countries.



A team composed of Japanese and international students worked to spread information on the charms of "Nakagoya" (a community in Minami-Aizu-machi) through working on several different events together with members of the community.

### F. Students who participated in study abroad programs and overseas internship programs

18 students registered for "Global Experience Gateway," an intensive English language course for students to earn credits by participating in short-term study abroad programs, etc. In addition, some students participated in two/three-month study abroad programs (USA and New Zealand).



Dinner with host-family in NZ

### G. Education support in ICT developing countries

Our faculty members visited Myanmar, China, Nigeria, Vietnam, etc. to provide education support to foreign universities.



## ■ Featured initiatives based on characteristics of the university



Entrepreneurial Aspirations through ICT Innovation

**SPIRIT**

Universities in Silicon Valley (USA) and in Dalian (China) have been shortlisted as candidate hub sites of the University of Aizu. Short-term education programs and internships may be realized in Silicon Valley.



A hotline seminar was held with Silicon Valley Japanese Entrepreneur Network in the USA to discuss internships and the latest technologies.



Faculty members and staff visited one of the candidate hubs in Silicon Valley, USA.

Silicon Valley is expected to host short-term internships in FY 2015 as a trial basis. Students will acquire business-creation experience through the internships and entrepreneurial courses.



Ability in ICT Design, Development, and Application

**TECHNOLOGY**



Strengthen students' design and development abilities by offering new courses and existing Project-Based Learning (PBL) courses.

Curriculum revision was discussed so that students enrolled in AY 2016 or later can take a new curriculum, in compliance with the CSC 2013 standard set by ACM & IEEE Computer Society.

The Honors Program aims to support talented students. The students can acquire more advanced skills by enhancing their individuality and improving their professional skills.

We are continually discussing revisions to the curriculum system and opening new courses, etc., so as to offer professional learning at an internationally leading level.



Adaptability to multicultural environments

**ADAPTABILITY**



Established "Global Lounge" where students, faculty members, and staff can enjoy communication in English freely for removing language barrier between international students and Japanese students.

A multicultural exchange party was held and it was carried out in English.



SGU website of UoA was constructed to post SGU-related activities, information of entrance exams, etc.

An international environment has been facilitated on campus to promote proactive interaction between international faculty members/students and Japanese faculty members/students.

**From the Aizu Region to the World / From the World to the Aizu Region  
Nurturing Innovative ICT Talent**

## 3. FY2015 Progress

### ■ Common indicators and targets

#### Internationalization

##### 1. Establishment of the Entrance Examination Scheme for the Advanced ICT Global Program

Three types of entrance examination scheme were newly established for the Advanced ICT Global Program. Outline for selection of students was released, targeting for applicants of the AY2016-fall admission. These admission scheme accommodate diverse admission by installing international standard such as SAT and IELTS. Prior to acceptance of international students to the all English program in the AY2016-fall term, faculty members who will be in charge of classes in English; mainly about the Strongly Recommended Courses, were selected. This initiative is for course design which enables students to take all credits in English required for graduation from the first year undergraduate to their graduation. Meanwhile, for international students who will be transferred to the 3<sup>rd</sup> year undergraduate, we worked on academic credit transfer.

##### 2. Partnership Program with Universities Abroad

Between Hanoi University of Science and Technology and Neusoft Institute of Information, agreement was made for the enrollment scheme from designated schools under the scheme of 2+2 Undergraduate Program; a 3-year-undergraduate transfer program for students from partner universities.

##### 3. International Student Recruitment

In regards to recruitment of international students, PR campaigns were carried out toward foreign universities by our foreign faculty members and international students. Taking various opportunities, global PR was conducted widely. In particular, under alliance with educational institutions in the northeast China, top-level high schools were visited. Furthermore, international recruitment was organized proactively by hosting the "University of Aizu International PR Session" and the "Computer Contest" in Shenyang, China.

##### 4. Establishment of the Preparatory Office for the Establishment of Bases in Silicon Valley

In January, the preparatory office was settled. In the University of Aizu, this international site will be used for implementation of overseas training program and remote classes. In addition, information on the University of Aizu will be delivered through the office. Exchanges and collaboration with neighbor universities is planned to be widened, too.

#### University reform

##### 1. Initiatives Related to Administrative Efficiency and Improvement

Since last fiscal year, paperless meeting style has been adopted to internal meetings. The budget management support system was developed and installed for faculty members. Based on questionnaires implemented to all faculty members, the result appeared to show requests on administrative efficiency and improvement.

##### 2. English classes for administrative staff

13 personnel joined the lesson in the first term, and 2 classes were held for 15 personnel in the second term. Upon start and end of the English course, achievement-check test was placed. All participants showed increase of their English level. On the other hand, the "Lunch Meeting" which is a English class initiated by administrative staff themselves were held on every Friday. Moreover, taking opportunities for international business trip, administrative staff hired by the University of Aizu Public University Corporation were sent abroad.

##### 3. Deliberation on Efforts for Structural Improvement

As internal effort for improving structure of the University of Aizu, deliberation was promoted in terms of 1) increase of the ratio of female to male faculty member, 2) installation of annual salary system, and 3) sophistication of administrative personnel.

#### Education reform

##### 1. Implementation of the Quarter System

Starting from FY2016, the Undergraduate School will adopt the quarter system. By this transform, integrity between the Undergraduate and Graduate School will be tightened. The quarter system has been implemented at the Graduate School ever since the foundation of the University of Aizu. Furthermore, the academic administrative system was updated along with the quarter system.

##### 2. The Integrated Undergraduate and Graduate Honors Program

The course merits was arranged, and method of student assessment, new courses, examples of course registration, and support menu were deliberated. As part of support for students in the honors program, preparation of "honors maker room" is in progress. It will be newly established in FY2017.

##### 3. Development of challenger badge system

Basic feature of the challenger badge system was designed and developed. Utilizing demo system, test was conducted by students, faculty members, and ventures.

## ■ University's own indicators and targets

### 1. New establishment of entrepreneurial courses and implementation of remote Hotline seminar

ICT Global Venture Factory was newly established as an entrepreneurial course for the Graduate School. Preparation has been done for its opening in AY2016. The remote Hotline seminar with the silicon valley was held regularly (once a month.) Through that, information on the edgy technologies and business were exchanged.

### 2. Implementation of Training in Silicon Valley

As a model of international internship, the summer training was done in Silicon Valley. This training was formed under collaboration with Aizu-Wakamatsu City Municipal and the University of Aizu originated IT ventures. It was held in the HackerDojo, Silicon Valley for two weeks from September 13 to 27. Four graduates from the University of Aizu were participated. Contents included integration of software and hardware. IoT-related prototyping development was mainly featured, and presentation of developed products were implemented, as well. In addition, site visits were conducted to Stanford University, renowned companies, various facilities, startups, and investment companies.

### 3. Implementation of Fukushima Revitalization Support Program

From August 31 to September 8 2015, the Fukushima Revitalization Support Program was taken place. 5 students from Neusoft Institute of Information (China), 4 students from Taiyuan University of Technology (China), 1 student from Tam Kang University (Taiwan), and 4 students from the University of Aizu participated in it. In this program, four themes were brought out 1) Uniqueness of Aizu and Learning about Design-thinking, 2) Revitalization with ICT, 3) Circumstance learning about the victimized area, and 4) Creation of Fukushima's uniqueness. Exchange of students was deepened with partner universities and institutions abroad. Taking such opportunities, uniqueness of Fukushima prefecture and the University of Aizu were promoted toward international society.

## ■ Featured initiatives based on the characteristics of the university

### 1. The Top Global University Symposium

For two days from March 10 to 11, the Top Global University Symposium was held under the title of "Creating ICT innovators and entrepreneurs who can and will succeed on the world stage." In total, 210 individuals participated in those two days. In this event, speeches by presidents from foreign/domestic universities were offered. Achievement presentations and a panel discussion by four science engineering universities adopted by the Top Global University policy, presentation on ICT ventures by graduates from the University of Aizu, and international panel discussion for global human resources were also placed. In addition to the symposium, exchange activities with partner universities and other establishments were held.

### 2. World Culture Fair

International students and foreign faculty members' family from 8 countries coordinated the booth to introduce cultures of their mother countries. We had 250 visitors. In this occasion, collecting series of stamps and face painting and other various activities were held. Faculty members of the University of Aizu held a report presentation on support for ICT education in the development countries such as Vietnam, Nigeria, and Myanmar.

### 3. PR

The website was largely renewed. Pamphlets and leaflets were prepared in English and Chinese. Topics were provided to the press, and press inquiries were proactively handled.

## ■ Free description

In this fiscal year, securement of the global admission system and finalization of introduction of the quarter system were worked on in various aspects of internationalization and diversity of educational structure at the University of Aizu.

Overall circumstance is that almost all things are going well as planned. The base was created firmly for practical steps in the following years.

## 4. FY2016 Progress

【University of Aizu】

### ■ Common Indicators and Goals

#### Internationalization Projects

##### 1. ICT Global Program All-English Undergraduate Course

1) The following selection systems were organized in AY 2015 and have been implemented in AY 2016.

- (A) General Selection
- (B) Special Selection in China
- (C) Transfer Selection for Overseas Applicants

2) "Hong Kong Diploma of Secondary Education (HKDSE) Category A Special Selection" was established in AY 2016 and will be introduced in AY 2017.

3) International standards (IB, SAT, EJU and ACT) were introduced into Academic Proficiency of "General Selection".

4) Total 11 international students entered the course in October, AY 2016.

##### 2. New Courses of ICT Global Program All-English Courses

1) "Culture and History of Aizu", "Introductory Japanese I" and "Introductory Japanese II" were offered for the international undergraduate students.

2) Preparation for "Intermediate Japanese I / II" and "Advanced Japanese I / II" starting from AY 2017 was completed.

3) "Culture and History of Aizu" opened so that the students could learn the local history and culture in English. Several Japanese students also attended the class (4 international students, 7 Japanese students). The international students acquired various perspectives by comparing their culture with culture in Aizu while the Japanese students re-discovered attractiveness of Aizu.

##### 3. Silicon Valley Office for University of Aizu and Remote Lecturing

1) "Silicon Valley (SV) Office of University of Aizu (UoA)" (a satellite office for a training program) was opened at Hacker Dojo in Silicon Valley (SV, California State) on May 17 in 2016 where many world-leading IT companies located.

2) Graduate Course "ICT Global Venture Laboratory" was held by connecting SV Office and UoA with a remote conference system.

3) "Internship Program in Silicon Valley" was conducted with the contribution of SV Office.



#### Governance Reform

##### 4. Operational Improvement

1) "Declaration of Promotion of Diversity in the University of Aizu" was established.

2) In order to improve the work efficiency, the TGU project provides opportunities for our administrative staff member to take business trip to overseas universities to exchange opinions with the local staff member.

##### 5. AY 2016 English Class for Administrative Staff

1) English class for administrative staff member was offered in the first and the second semester in AY 2016 as well as AY 2015.

- The participants learned useful phrases of the conversation with international faculty members and students in the lesson.

- The participants took the level check test before and after the class to measure how much they improved their English abilities by attending the class.

2) Self-study session "Lunch Meeting" starting from AY 2016 was continuously held, and the participants were proactively learning English there.

#### Education reform

##### 6. Introduction of Quarter System

1) The quarter system was introduced into undergraduate school as same as graduate school, which enables undergraduate students to attend graduate courses.

2) Since undergraduate students can take graduate courses with this system, it is expected that students who are interested in higher education go to graduate school.

3) Since students are required to complete courses in a short period of time, it is expected that they can study effectively during the period.

4) The learning environment, which encourages the students to study abroad and join internship program, is well organized.

## ■ University's Performance Indicators and Goals

### 7. Honors Program

- 1) Implementation scheme of Honors Program was completed so that it could start in AY 2017.
- 2) Honors Program can provide activities and support measures according to the students' interest and motivation. The purpose of this program is to discover and nurture global and unique talents.
- 3) Trial new courses for Honors Program, "Basic Manufacturing Course" and "Programming Contest Preparation" were given. The participant students commented that they would like to take these courses continuously.

### 8. Challenger Badge System

- 1) The Challenger Badge System is used to evaluate students by giving the badges for achievements of extracurricular activities on the application.
- 2) The system was introduced into some students on a trial basis in AY 2016.
- 3) Development of English version of the system was implemented, and the new version was released in March, 2017.
- 4) The application is available to download from Google Play and iOS APP Store.
- 5) The explanatory meeting was held to all students.

## ■ Featured Initiatives Based on the University Characteristics

### 9. "Internship Program in Silicon Valley" Intended for Manufacturing

Objective: Students visit SV in the program and the students learn SV's enterprise culture, cutting-edge ICT technology and craftsman spirit.

Features: Students develop a certain product with a viewpoint of its commercialization and give a presentation in English to engineers and entrepreneurs working in SV.

Schedule: The program is a three-week program composed of a week prior training in Japan and two-week internship in SV including the presentation at the university.

<AY2016>

Period: August 15 ~ 19, 2016 (Prior training),

August 23 ~ September 6, 2016 (Internship)

Number of students: 9

Content: Students created a prototype in a campus craft center, "Aizu Geek Dojo" in the prior training. The students stayed in SV Office organized for a development hub and improved their prototype there. After that, they gave a presentation of their product to engineers and entrepreneurs. The students received opinions from two different perspectives, business and technology, which highly motivated them to keep working on manufacturing.



### 10. Opening Campus Craft Center "Aizu Geek Dojo"

- 1) Aizu Geek Dojo was opened inside of Research Quadrangles on August 10, 2016.
- 2) Machine tools such as 3D printer and laser cutter are installed in the space so that students and faculty members can freely work on craftworking.
- 3) A new course of Honors Program, "Basic Manufacturing Course" was held in Aizu Geek Dojo. The theme of this course is "Robot Production". The students realized their ideas in their products in a short period of time by integrating software, electric circuit and hardware.



## ■ Free descriptions

### 11. THE Japan University Rankings 23<sup>rd</sup>

"THE Japan University Rankings" published in March, 2017. The UoA is ranked 23<sup>rd</sup> among around 400 Japanese Universities. UoA's internationality and student satisfaction in education were highly evaluated.

### 12. Issue of AIZU SGU KAWARABAN

- AIZU SGU KAWARABAN starting from June, 2016 introduces activities of TGU projects and is distributed to students, faculty and staff members once in a month.
- KAWARABAN is updated on UoA website so that people outside of the university can access to the information.
- KAWARABAN can make an appeal of TGU activities inside and outside of the university, which makes it effective to earn public understanding and cooperation.



## ■ Common Indicators and Targets

### Internationalization

#### 1. ICT Global Program All-English Undergraduate Course

Since AY 2016, three types of examination system (General Selection, Special Selection in China, Selection for Overseas Residents) have been implemented. Additionally, the HKDSE (Hong Kong Diploma of Secondary Education) as the special selection was implemented in AY 2017 and was accredited as one of the application requirements as well as IB, SAT, EJU, ACT in AY 2018.

- Number of students enrolled in the ICT Global Program: 11 (AY 2016), 16 (AY 2017)
- Number of countries and regions of the ICT Global Program students: 4 (AY 2016), 9 (AY 2017), 10 (AY 2018)

#### 2. Public Relations Activities for Recruitment

We have visited international schools both in Japan and overseas, and went to overseas senior high schools when we exhibited at overseas study in Japan fairs. We also released the university news and the admissions information on multi-language recruiting site. Through above activities, we have received more inquiries on ICT Global Program than last fiscal year. As the result, the diversity of countries and regions, and the number of applicants have increased continuously.

#### 3. Study Abroad and Overseas Internship Program

- Short-term / Mid-term study abroad program: 19 students participated in the programs in the United States and New Zealand.
- Internship program: Silicon Valley: 8 students; Dalian: 3 students participated. These were re-designed for a credit course in AY 2017.

#### 4. International Exchange of International and Japanese Students

- "Culture and History of Aizu" has been offered in English so that both international and Japanese students take this course to encourage the students to communicate internationally. Furthermore, the course is designed for the local senior high school students to attend for exchange with the international students.
- The welcome parties were held for new students, faculty and staff members in the spring and autumn.
- The Buddy Program was implemented as well as AY 2016. In total, 18 Japanese students became the buddies to support 16 new international students from various aspects.
- An international circle named "Hello World!" was established by mainly Japanese students of the Buddy Program in AY 2017.
- The Global Lounge has been used for English conversation, the Buddy Program, Japanese language learning, and international communication circle.
- "International Talk" where international students introduce their culture was held for three times.

### University Reform

#### 5. Promotion Committee for SGU Project Independence

A promotion committee for SGU Project independence and its policy for the independence of affairs and budget were established.

### Education Reform

#### 6. ICT Global Program

In addition to the courses related to the ICT Global Program that we have offered, we newly started "Intermediate Japanese I", "Intermediate Japanese II", "Advanced Japanese I" and "Advanced Japanese II". Furthermore, new courses such as "Business Japanese" are under preparation.

#### 7. Usage of E-learning System

In order to improve students' English skills, we introduced e-Learning system for TOEIC course. By encouraging the students to use this system, it is expected that they will improve their English skills, which leads them to proactively communicate with international students and faculty members.



<Japanese students at Rose-Hulman Institute of Technology in the USA>



<A team presentation of international and Japanese students / high school students in "Culture and History of Aizu">

## ■ Achievement Indicators and Goals

### 8. Honors Program System

The Honors Program was created for promoting graduate school admission and for discovering and nurturing unique talents in an early stage. There are two types of the program: “Undergraduate-Master Integrated Program” and “Unique Talent Discovery Program”.

#### ● Undergraduate-Master Integrated Program

• The program is designed to complete the undergraduate and master courses in 5 years. Also, Honors' Year is available for up to one year.

• As of April 2018, there are 20 students qualified to enter this program

- ① Type A (4 years undergraduate course + 1 year master course)
- ② Type B1 (withdrawal at the end of 3rd years of undergraduate course + 2 years master course)
- ③ Type B2 (complete undergraduate course in 3 years + 2 years master course)

※ Honors Year: A period for students of “Undergraduate-Master Integrated Program” to study and research abroad, or join internship after entering the graduate school. Although the students need to take a leave of absence from the university, it is possible to obtain supports from the university during the period.

#### ● Unique Talent Discovery Program

• A program that supports various activities of undergraduate students with subsidies, etc. in order to discover and nurture unique talents.

### 9. Challenger Badge System

• Guidelines on the Implementation of the Challenger Badge was created in AY 2017, which enables students to apply for the badge acquisition and event accreditations.

• Students can receive evaluation from the university for extracurricular activities.

• From AY 2018, we will further expand cooperation with companies, etc. and encourage students to participate in various contests, events such as social contribution activities.

● Number of badges issued in AY 2017: Silver badge 8, Bronze badge 17, Coin 20

● There are event applications from companies, and three of those such as Hackathon and ideathon were accredited and implemented.

## ■ Featured Initiatives with the University's Characteristics

### 10. US Silicon Valley Internship Program

Silicon Valley Internship Program was implemented, and the students developed prototypes while interacting with local engineers. Their achievements were disclosed through the local mini maker fairs and newspaper. After the program, the students introduced the achievements by giving post-presentations at the university or in local events.

### 11. China / Dalian Internship Program

Dalian internship program was implemented in collaboration with the university in Dalian, Japanese company, and the University of Aizu. After studying and experiencing the latest ICT circumstances and product performance evaluation in China, the students planned and introduced a new ICT business proposal with members of a joint student team of Japan and China.

## ■ Free Description

### 12. Manufacturing Space "Aizu Geek Dojo"

In addition to establishment of systems and regulations for the management and user support of "Aizu Geek Dojo", SA / TAs system is introduced to regularly instruct students so that they can use the equipment safely. Further, the Dojo is a classroom of “Manufacturing Basic Course” of the Honors Program and one of the most popular sites in a campus tour.

● As of August, 2016, the number of users is 550 in total.

## 【The University of Aizu】



〈Screenshot of Challenger badge system application〉



〈A presentation of Hackathon for certifying challenger badge〉



〈Exhibition at Mini Maker Fair of San Jose〉



〈A news of local media released the results exhibition of the our students〉



〈Students at the Manufacturing Basic Course〉

## Common Indicators and Targets

### Internationalization, Education Reform

#### 1. ICT Global Program All-English Undergraduate Course (ICTG course) and improvement of educational quality

<Number of students for ICTG course>

	2016	2017	2018
1st	4	9	7
2nd	0	4	9
3rd	7	7	9
4th	0	7	7
<b>total</b>	<b>11</b>	<b>27</b>	<b>32</b>

- The buddy program: 29 Japanese students became the buddies to support 12 new international students and they built friendships.
- Six of the seven international students who graduated from the ICTG course in September 2018 advanced to our Master's Program.
- UoA offers the lectures for international students such as "Culture and History of Aizu", "Japanese Course for Beginners I, II", Intermediate Japanese I, II", "Advanced Japanese I, II", and "Business Japanese".
- We prepared English versions of all the strongly recommended courses by the end of AY2017 and began offering them from AY2018.
- We established English versions of 68 out of the 83 specialized courses.
- We expanded opportunities for English language learning by introducing ESL pedagogy methods that incorporate Task Based Learning, an ESL e-Learning system, conducting TOEIC preparation seminars, etc.

- Japanese students can join the ICTG course from April 2019.

-> **ICTG course will help the students build a global perspective and learn Computer Science (CS) technologies, and will improve UoA's educational level, and popularity.**

- |  |                   |
|--|-------------------|
| <ul style="list-style-type: none"> <li>- Learning CS knowledge in English with int'l students. Improving English communication skills.</li> <li>- Enhancing understanding of internationalization on a global environment.</li> <li>- Adapting to the English environment early for students who are interested in Master degree programs or Integrated Undergraduate-Master's Program.</li> <li>- Developing practical English skills and taking advantage of appealing in the applications and the interview of overseas studies and internships.</li> </ul> | <b>Advantages</b> |
|--|-------------------|

#### 2. Improving Overseas Programs

<Number of participants and applicants for overseas studies and internships>

	2016	2017	2018
Overseas studies	(participants/applicants)		
RHIT*	10 / 14	10 / 12	10 / 28
Univ. Waikato**	8 / 10	8 / 10	11 / 14
Overseas internships			
Silicon Valley	9 / 12	8 / 14	8 / 22
Dalian (DNUI***)	1 / 1	3 / 3	4 / 8

\*Rose-Hulman Institute of Technology in USA

\*\*Waikato University of Pathways College in New Zealand

\*\*\*Dalian Nuesoft University of Information

- We continuously implemented **overseas study programs**: This gave students experiences in different cultures and motivated them to work abroad.
- We continuously implemented **overseas internships**: This gave students the opportunity to increase their strengths in a specific field by visiting and working in advanced ICT hubs around the world.
  - **Silicon Valley Internship**: This program gives students an opportunity to gain planning skills and technical prowess through the act of making things as well as the improved English abilities and discussion skills through exchange with local engineers.
  - **Short-term Internship Program in Dalian, China**: Students were able to gain ICT business planning skills through market research in DNUI\*\*\* and an understanding of global strategy through an internship at a joint Sino-Japanese company.
  - **The Dalian Business Development Program (SOVO Program)** as a collaboration between UoA and Alpine Electronics, Inc. (Alpine) has started in March 2019. A team consisting of the students of UoA and DNUI proposed a car sharing service under the guidance of Alpine.

-> **Previous program participants took to the podium at information session where they directly answered the questions of attendees. By doing this, they were able to evoke the interest of attendees and create expectations in their minds.**

-> **This also leads to increasing students' recognition of the internationality of the UoA.**

-> **Having students who gained confidence in their English ability, technical prowess, etc. through an overseas program engaging in activities with other students causes them to have a positive influence on each other.**



<RHIT>



<Waikato Univ.>



<Discussed with local engineers in SV>



<ICT business plan in DNUI>



<Brainstorming in SOVO Program>

#### 3. Globalization of the Campus and Improvement of its Multicultural Environment: Establishment of International Exchange Activities

- The Global Lounge is being used every day of the week for activities such as lunchtime English conversation groups, English conversation clubs, and an English-language movie watching group. (Total annual users (including repeat users): about 600)
- Welcome Parties: Spring (5/31) 89 participants, Autumn (10/31) 100 participants.
- International Talk: (12/19) 30 participants, a student from German introduced German X'mas.

4. Starting the plan towards self-sustainment

- Discussion on self-sustaining process of TGU project has started.

■ Achievement Indicators and Goals

5. Fostering the talent with outstanding skills in technology through the Honors Program

<Number of students in Honors Program>

	2018
Students for Integrated Undergraduate-Master's Program	12
Type A (4-year UG + 1-year Master's Program)	2
Type B (3-year UG + 2-year Master's Program)	10
Candidated students for Integrated Undergraduate-Master's Program	16
Students for Unique Talent Discovery Program	6

- Preparation of the system was completed in AY2017 and it started operation from AY2018.
- **Integrated Undergraduate-Master's Program:** a program to obtain a Bachelor's and Master's degree in 5 years, and take an optional Honors Year for free learning to self-fulfillment.
- **Unique Talent Discovery Program:** a program to find and train students' unique talents. The supervisors foster students' unique talent from early stages.

<<Unique talent discovery program: three cases of receiving honors special expenses>>

- A student who has a rich knowledge of number theory, graph theory, algorithms, and programming skills, and is preparing ACM-ICPC and aiming for a prize.
- A student who has high skills of software developing through developing original rendering application and participating in international hackathons.
- A student who was studying abroad in DNUI and are active in language training and volunteering activities.

■ Featured Initiatives with the University's Characteristics

6. The Challenger Badge System facilitates enhancement of extracurricular activities and regional revitalization

<Number of granted Challenger Badges and authorized events>

	2017	2018
Granted Challenger Badges	41	133
Official events	2	5

- The system bestows digital badges to the students who have made outstanding achievements in extracurricular activities.
- We created opportunities for students to discover and solve regional issues together with regional companies and other entities through corporate-sponsored certified UoA Challenger Badge events.
- The students who participated in these authorized events contributed to an increase in the number of badges issued.

-> *The system is helping to broaden students' interests and ambitions as well as their technical prowess and inventiveness.*

-> *Students gained an understanding of the relationship between technology and the challenges facing regional and industrial revitalization.*



<Development for TDK Hackathon>



<Award ceremonies for authorized events>

7. Invigorating Activities at the "Aizu Geek Dojo" Campus Maker Space and Promotion of Student's Technical Abilities

<User Numbers and Tour Requests>

	2016	2017	2018
Users	120	256	480
Tour Requests	10	10	22



<Animation for "Products of Aizu Geek Dojo 2018">



<Students engaging in technical exchanges while fabricating a variety of objects>

- Students use the Dojo for their own enjoyment, a competition, a club activity, graduation research, and a lecture.
- SAs/TAs are continuously instructing users on the use of the dojo's devices and are also operating its facilities with consideration for safety.
- We made plans to make the Aizu Geek Dojo available during corporate-sponsored hackathons. Students used the facilities and equipment in the Dojo to fabricate their projects.
- Operation and Development of the Dojo by SAs/Tas
  - They developed an access control system that can record "When and Who" entering the Dojo by scanning students' ID cards.
  - An video for "Products of Aizu Geek Dojo 2018" was produced and uploaded to UoA's YouTube.
  - They made the Aizu Geek Dojo Webpage to post the information on open hours, training session, and how to use the Dojo.
  - A model of the asteroid Ryugu from the Hayabusa 2 project was fabricated using the 3D printers.

-> *The Dojo has become a place that leads to technical exchange between students.*

-> *The Dojo has become one of the UoA's well known facilities and is working to promote both students' technical ability to combine software and hardware as well as the UoA's education inside and outside the prefecture.*

## 7. FY2019 Progress

[The University of Aizu]

### Common indicators and targets

#### Internationalization / Education reform

##### 1. ICT Global Program All-English Undergraduate Course

###### Record Number of Applicants (Application for Admission in AY2020)

The number of total applicants more than doubled from last year. This is due to recruiting initiatives such as visits to high school and participation in fairs, remote briefings, and word-of-mouth promotion of students at their alma mater.

###### Diversification of Qualifications Allowed for Application

In addition to the 7 possible qualifications that could be counted for application in the previous year, 2 new ones were added in AY2019, expanding the range of countries from which we receive applicants. The new qualifications were taken advantage of immediately by applicants.

▼The list of possible application qualifications in AY2019

International Baccalaureate (IB) / SAT Subject Tests / EJU / ACT / National Higher Education Entrance Examination in China (Gaokao) / Cambridge International A-level / HKDSE / **[New] GCE A-level** / **[New] AISSCE**

###### A new initiative to replace face-to-face recruitment efforts

Because of disturbances in Hong Kong and the spread of COVID-19, some areas were not able to hold on-site briefings this year. Instead, we focused on online sessions and communication by e-mail, etc., so that the number of applicants increased.

###### The Japanese student enrollment system started to operate.

Japanese students have enrolled in this course and started taking classes together with international students. They are inspired by the attitudes of international students in the class, and they work hard to refine their sense of internationalism via friendly competition.



<Number of students in ICTG course>

	2016	2017	2018	2019
Freshman	4	9	7	2
Sophomore	0	4	9	16
Junior	7	7	9	16
Senior	0	7	7	9
<b>Total</b>	<b>11</b>	<b>27</b>	<b>32</b>	<b>34</b>

##### 2. Improving Overseas Programs

###### Internship Programs Funded by External Funds

The following two internship programs were able to be implemented using external funds:

- Silicon Valley Internship Program Course B was implemented by an entrustment development contract.
- SOVO Project was implemented by a scholarship donation.

They will be the basis of our future self-sustaining project plan.

###### New "Silicon Valley Internship Program Course B"; 1.5 Months at a U.S. Company

Two students were dispatched to a company in Silicon Valley and developed a manufacturing breakdown detection system with engineers. Furthermore, seven students participated in the existing Silicon Valley Course A. Internships in Silicon Valley are enriching.

###### Called off the Dalian SOVO Project in China => Implemented an Alternative Program on Campus

Two programs in Dalian, China were cancelled due to infection prevention of COVID-19 in March 2020, but eight applicants did a part of training in the university. (In summer 2019, another eight students participated in the short-term study abroad program in Dalian.)

###### Establishing a Three-stage Internship Program

A three-stage ("Local", "Domestic", "Overseas") program has started, and some students are participating in multiple stages.

###### Pioneering a New Internship Program for AY2020 Onwards

Some courses for a new internship program in Vietnam were developed thanks to the prospect of obtaining external funds in AY2020. (A decision on whether or not to implement the program will be made depending on the status of COVID-19.)

<Internships poster session was held in English>



<Scenes of internships>



##### 3. Globalization of the Campus and Enhancement of its Multicultural Environment:

###### Establishment of International Exchange Activities

###### Lunch Meetings & International Talks

Events to introduce the home countries and cultures of international students (International Talks), and opportunities for exchange in Japanese and the languages of the students' home countries (Lunch Meetings), have deepened multilingualism and multicultural understanding.



###### Creating a Multicultural Campus That Involves the Cafeteria and Support Association

A special lunch menu for introduction of world food culture was implemented every month, supported by the cafeteria and support association. More than 80 meals were provided each time there. In addition to arousing the interest of students and local residents in the world's cultures, we were able to obtain donations to support the lives of international students.

The number of applicants for study abroad programs and overseas internship programs is also increasing. In addition, a multicultural environment has been maintained, with Japanese and international students working as a team in external events.



<Number of participants in international exchange events, etc.>	2018	2019
Users of the Global Lounge	600	1,509
Participants in International Talks	30	115
Participants in briefing for Study Abroad	240	286
Participants in briefing for internship programs	120	154

## University reform

### 4. Progress Towards Self-sustaining Project Plan

Two external funds have been awarded this year for the self-sustaining project plan. Further, we prospect to receive external funds from five associations in AY2020 onwards.

## ■ University's own indicators and targets

### 5. Fostering the Talent with Outstanding Skills in Technology through the Honors Program

#### ■ Strong Growth in the Honors Program Participation

The number of participants of this program reached 92, approximately 1.3 times the target in AY2019 (70). The revised program is increasingly seen as attractive to students and has benefits for their own future.

#### ■ The First Students to Graduate Early from the Integrated Undergraduate Master's Program

This year was the first time that students has completed the Honors Program. Students who are early entrance to master actively made a presentation their thesis as a first author in the international competition.

#### ■ Student Success in the Unique Talent Discovery Program

Faculties' awareness for the Unique Talent Discovery Program due to explaining this program individually. In particular, one student, recognized as the "Unique Talent", was able to attend a summer camp in Wuhan, China.

He was selected from applicants from all over Japan.

<Posters displays in campus>  
Certified students are used as models.



(Number of students of the Honors Program)

	2018	2019
Integrated Undergraduate-Master's Program (Total)	12	9
Type A (4+1)	2	2
Type B1(3+2)	5	5
Type B2(3+2)	5	4
Candidates (Total)	16	25
The Unique Talent Discovery Program (Total)	6	5



## ■ Featured initiatives based on the characteristics of the university

### 6. The Challenger Badge System Facilitates Enhancement of Extracurricular Activities and Regional Revitalization

#### ■ The Number of Official Events and Challenger Badge Issues Increase Every Year

The number of Challenger Badge official events increasing every year (AY2017: 2 ⇒ AY2018: 5 ⇒ AY2019: 10). The number of Challenger Badge was also increased. There were a lot of active students in events such as participants in overseas internships winning the prize in national contests and hackathons.

#### ■ Promote Students' Understanding of Business and Society

Lots of events like hackathon organized by local companies were held.

By participating and learning companies' goal and work, students raised their awareness of business. Besides, the case that students participated in event as staff promoted their understandings needs of local society.

	2017	2018	2019
Number of Challenger Badge	41	165	336



### 7. Invigorating Activities at the "Aizu Geek Dojo" Campus Maker Space and Promotion of Student's Technical Abilities

#### ■ Strong Growth in the Number of Users

Due to promotion for using Aizu Geek Dojo including equipment usage lecture, the number of users reached 896. Aizu Geek Dojo has used effectively for personal products, class and research products, and so on and students' skill has been improving.

#### ■ Users Active in the Internship Program and Hackathon

Users of Aizu Geek Dojo have actively taken part in the internships, hackathons, and contests and won the prize. The students' spirit of challenge is being fostered.

#### ■ The Open Lecture for Local Elementary School Students

The local open lecture was held organized by students. They were able to technical exchange with local children and their parents.

#### ■ Collaboration with Local Medical Institution for Countermeasure of COVID-19

Prototypes of face shield at the request of a medical institution have been made by 3D printer at Aizu Geek Dojo. Further, we temporarily lent the 3D printer to the institution free of charge.

	2017	2018	2019
Number of users	256	480	896



### 8. Preparation for the Innovation and Start-up Education Program (starting in AY2020)

The Innovation Start-up Education Program supported by Local Ventures Creation and Support Foundation that students aim to foster a spirit of globalization and community contribution is prepared for AY2020.