



ADVANCED INSTITUTE OF
INDUSTRIAL TECHNOLOGY

Professional Education System in Japan and New professional education system

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Contents

History

Japanese education system

- History
- Kosen System and Professional Graduate System

P-school

- New professional education system

History

<http://www.nier.go.jp/>

National Institute for Educational Policy Research,

Ministry of Education, Culture, Sports, Science and Technology, Japan

History of education in Japan 1600-1868(Edo period)

Japan closed to the outside world under the Tokugawa shogunate (1603-1868), the country enjoyed a long period of peace and social stability.

Hankô or fief schools for the samurai warrior class

- to learn classic Chinese literatures (Confucian Studies)

Shijuku or private academies

- open to all regardless of Social classes



<http://www.nier.go.jp/>

<http://www.tif.ne.jp/houjin/index.html>

History of education in Japan 1600-1868(Edo period)

Terakoya (a large number of popular learning houses)

- teaching the practical skills of reading and writing to the commoners

Apprenticeship training system

- the merchant and
the technician-worker classes

The other

- to learn the tea ceremony,
flower arrangement,
classical musical instruments
and other traditional arts



<https://www.1101.com/edo/2006-03-10.html>

<http://www.nier.go.jp/>

History of modern education in Japan 1868-1885

Opening of the country and the Meiji Restoration

In 1868, a political revolution took place in Japan (Meiji comes from the name of the Emperor Meiji)

Abolishing the feudal regime and turning Japan into a unified, modern nation-state

Adopting as its main slogans, “Civilization and Enlightenment” (Bunmei kaika), “Enrich the Country, Strengthen the Military” (Fukoku kyôhei),

Introducing modern social and economic systems to Japan

Educational reforms were also included within this modernization package.

<http://www.nier.go.jp/>

The concept of the Education System Ordinance 1868-1885

The Ministry of Education was established in 1871.

The American model, which consisted of three levels of schooling, elementary school, middle school and university.

The French administrative system model with strong central control by Ministry of Education.

All children were required to attend to elementary school, regardless of sex, parental occupation, or social sta



An elementary school in 1874

<http://www.nier.go.jp/>

The development and expansion of education 1886-1945

The first Minister of Education Mori's conception of the education system

In 1886, Mori issued four separate school orders for different parts of the educational system, namely, the Elementary School Order, the Middle School Order, the Normal School Order, and the Imperial University Order.

The Imperial University received both privileges and a considerable amount of academic freedom.

<http://www.nier.go.jp/>

The development and expansion of education 1886-1945

The middle schools were institutions that were designated to prepare students to enter the Imperial University.

The elementary schools were identified as the training centers responsible for bringing up children to become loyal subjects of the Emperor.

Through these measures, Education Minister Mori aimed to harmonize the twin objectives of, on the one hand, modernizing Japan and, on the other hand, realizing the spiritual unity of the people by strengthening the national morals.

<http://www.nier.go.jp/>

Education reforms after the end of World War II

The basic framework of the new education system was as follows:

a shift from the prewar, dual school system or multi track system to a single track system, known as the 6-3-3-4 system;

the extension of compulsory education to 9 years, including primary school and lower secondary school;

“In European countries, school systems developed on the "multi-track" basis. After completing elementary education, pupils have been divided into two groups, those who go on to institutions of higher education and those who go on to vocational schools or enter employment. Recently, however, there has been a marked movement toward the "single-track" system and so barriers between different types of schools at the secondary level are being increasingly removed.”

<http://www.nier.go.jp/>

Education reforms after the end of World War II

the adoption, in principle, of the co-education of boys and girls;

the establishment of boards of education at the prefectural and municipal levels;

the abolition of normal schools and the establishment of a university-based teacher training system.

<http://www.nier.go.jp/>

Japanese education system

3-6 Preschool education

- i. 3-6 Kindergartens

6-15 Compulsory Education

- i. 6-12 Elementary schools
- ii. 12-15 Lower secondary schools

15-18 Upper secondary schools

- General education schools
- **Technical education schools**
- **Commercial education schools**
- **Information education schools**

Japanese education system

15-20 and/or 22 **Kosen schools**

18-22 Universities (or 18-20 Junior colleges)

22-27 Graduate schools

- i. Five years Doctor course (2 years preliminary and 3 years advanced)
- ii. 22-24 Master's program
- iii. **Professional Graduate School**

The other: Senmon Gakko (Vocational School)

- There are part of Japan's higher education system. They are from two-year to four year schools.
- Many students study at after finishing high school.
- Car technology, Bookkeeping, IT, fashion and Language.

Kosen (College of technology)

KOSEN ? five-year engineering education from 15 years old - were established in 1961, in response to a strong demand from the industrial sector to foster engineers who sustained the high Japanese economic growth at that time.

Back to the multi track system

Associate Degree

The first 12 national colleges were founded in 1962

<http://www.kosen-k.go.jp/english/history.html>

Kosen (College of technology)

There are a total of 63 colleges of technology in Japan, of which 55 are national, five are public (established by local government) and three are private. There are approximately 60,000 students.

A two-year advanced course system was introduced in 1991.

- Bachelor Degree (awarded by the National Institution for Academic Degrees and University Evaluation)

Approximately 300,000 students have graduated so far, contributing actively not only in the industrial world but also in the academic sector, as engineers, researchers, managers and so on.

<http://www.kosen-k.go.jp/english/history.html>

Colleges of Technology

| Classification | Total | National | Public | Private |
|---|----------|----------|--------|---------|
| Number of Schools | 64 | 55 | 6 | 3 |
| Number of Students | 555, 853 | 50, 088 | 3, 803 | 1, 962 |
| Advance Rate to Universities or Upper Schools | 4, 504 | 4, 073 | 312 | 119 |
| Number of Full-time Teachers | 4, 525 | 3, 915 | 451 | 159 |

http://www.criced.tsukuba.ac.jp/keiei/kyozai_ppe_f1_27.html

As of May 1st, 2008

Professional Graduate School in Japan -Fostering high-level professionals-

Universities train advanced professionals with high-level knowledge and skills based on social needs such as the employment fields of various industries.

For example, **the medical faculty** is working to address the shortage of physicians by increasing their enrollments and training outstanding doctors who want to work in local communities.

The Ministry of Education, Culture, Sports, Science and Technology (MEXT)
<http://www.mext.go.jp/english/highered/1303561.htm>

Professional Graduate School in Japan -Fostering high-level professionals-

Professional graduate schools aim to provide new graduate programs (professional degrees) that specialize in **fostering high-level professionals to take leadership roles in all fields of society, as well as active international roles.**

Graduate law schools, which are institutionalized as the core of the new system to nurture legal professionals, and schools in such fields as business and **MOT (Management of Technology)** have been established.

The Ministry of Education, Culture, Sports, Science and Technology (MEXT)
<http://www.mext.go.jp/english/highered/1303561.htm>

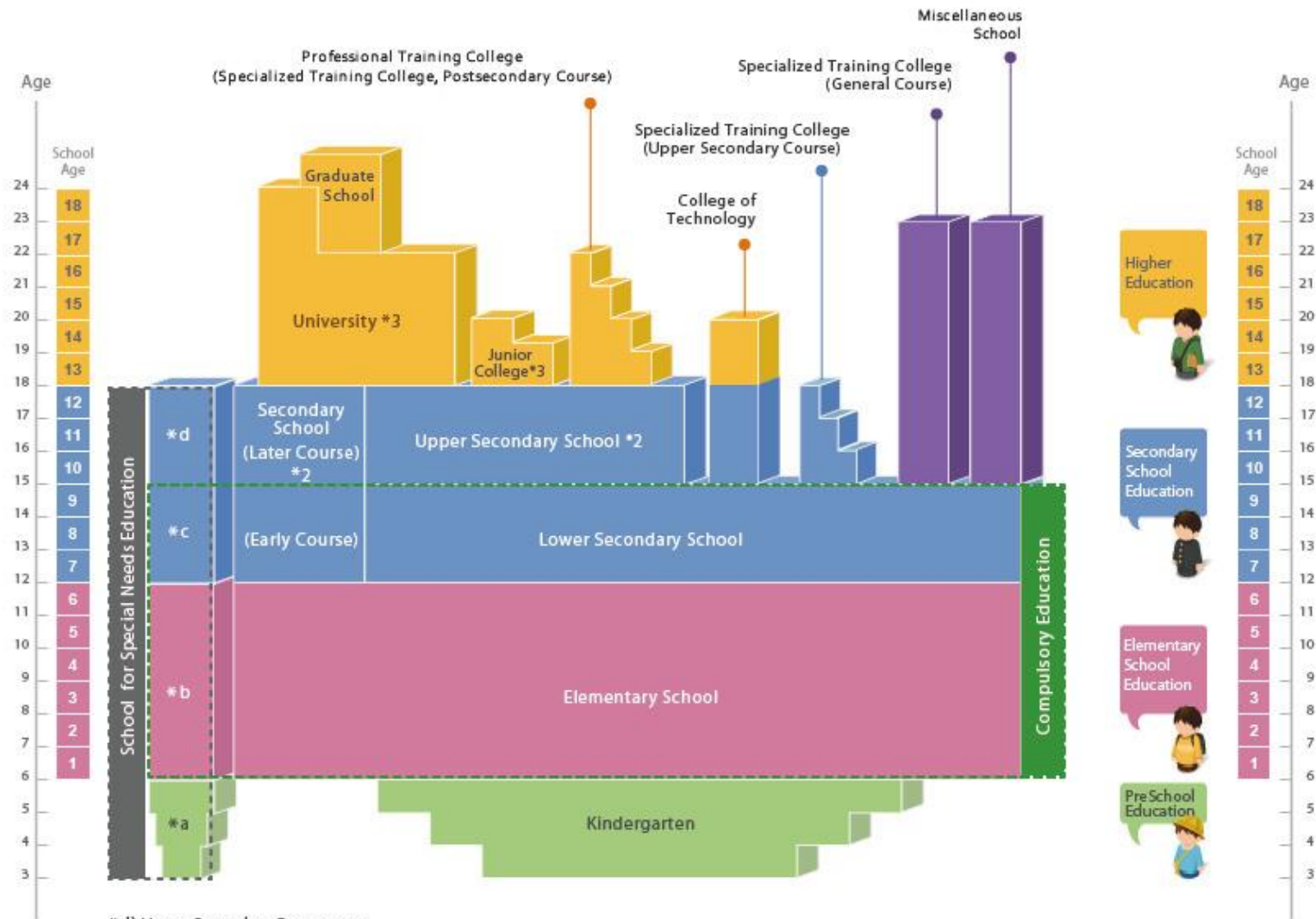
Professional Graduate School in Japan -Fostering high-level professionals-

In FY2008, **graduate schools of education** were established to provide more practical teacher training at the grad school level. It is hoped that they will become models for teacher training at the undergraduate and graduate level.

In this line, AllT was established.

The Ministry of Education, Culture, Sports, Science and Technology (MEXT)
<http://www.mext.go.jp/english/highered/1303561.htm>

Japanese School systems



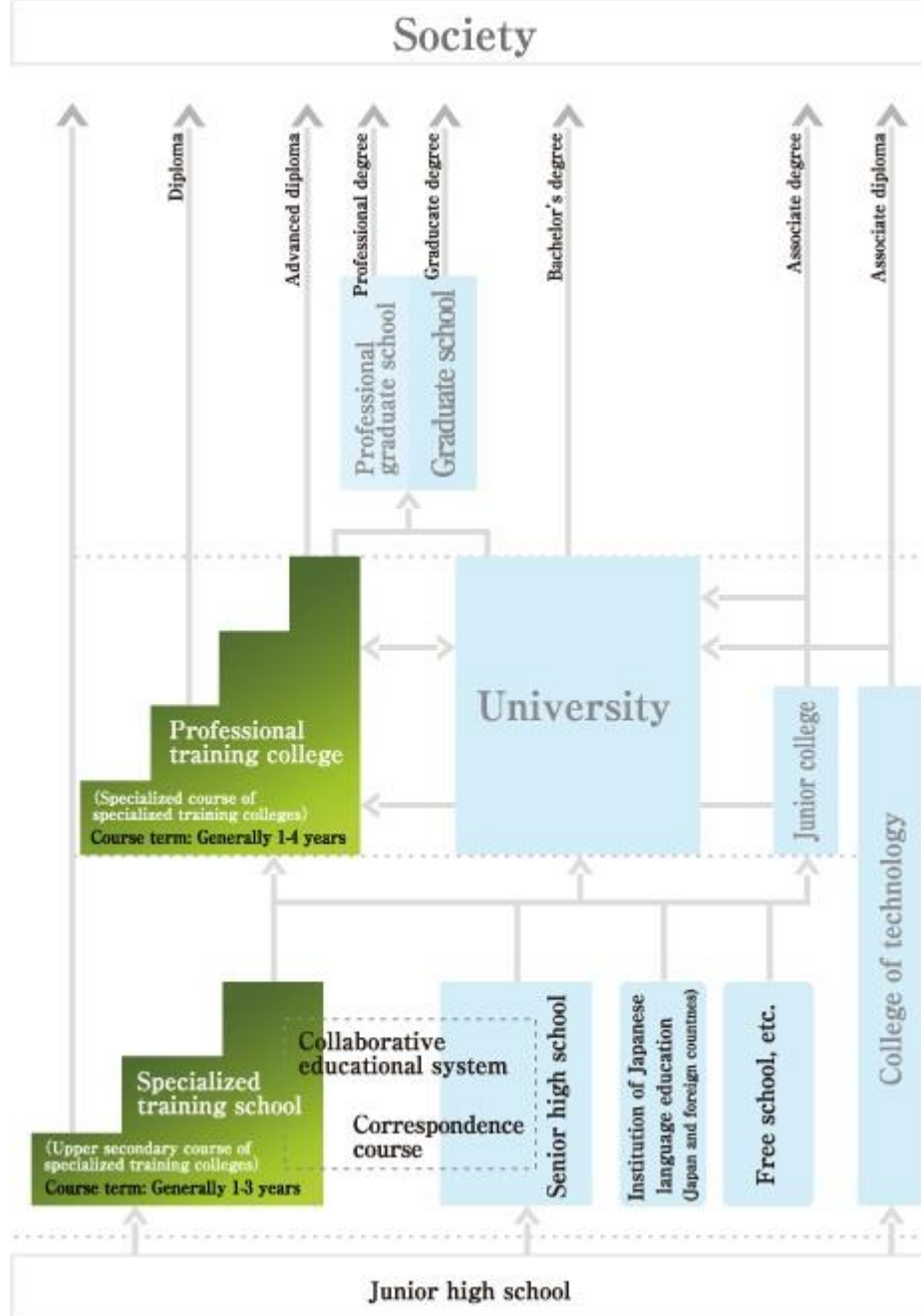
- *d) Upper Secondary Department
- *c) Lower Secondary Department
- *b) Elementary Department
- *a) Kindergarten Department

Notes

(*1) This chart shows the average years required for graduation from Japanese schools.

(*2) Includes schools that offer part-time or correspondence courses.

(*3) Includes schools that offer correspondence education.

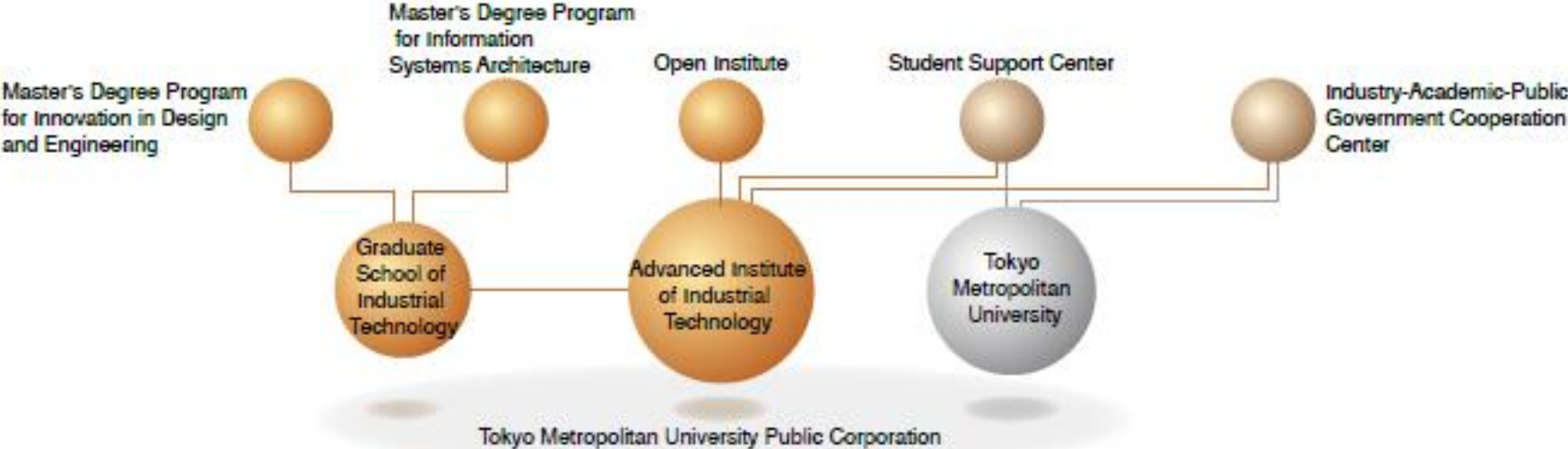


Characteristics of Advanced Institute of Industrial Technology

Our Mission

To develop advanced professional engineers with the motivation and skills to create new value and contribute to the revitalization of industries by leveraging expert knowledge and structured technical expertise.

Tokyo Metropolitan University Public Corporation



The Management Advisory Council

Management Advisory Council has been established to promote close collaboration with the business community.

SONY

TOSHIBA

TOPPAN



NEC

HITACHI
Inspire the Next

FUJITSU



LAC
Little eArth Corporation

Chairperson of the Management Advisory Council:
Mr. Takayuki Hashimoto, Chairman, IBM Japan, Ltd.

Competencies and Project-Based Learning (PBL) Education

Three Meta Competencies

Communication skills

Continuous learning and research capability

Team activities

Seven Core Competencies Necessary for Master's Degree Program for Information Systems Architecture

Ability to generate innovative concept and ideas

Social and market-oriented viewpoints

Ability to analyze needs

Modeling and systems proposal

Management skills

Negotiation skills

Documentation skills

Five Core Competencies Necessary for Master's Degree Program for Innovation in Design and Engineering

Idea generation ability (ability to plan and put into effect ideas, originality)

Ability to express ideas (ability to define requirements and make proposals, visualization skills)

Design skills (functional design skills, inspirational design skills, ability to integrate inspiration and function)

Development skills (development preparations skills, implementation skills, tests, problem solving ability)

Analytical skills (data analysis skills, usability assessment skills, market research skills)

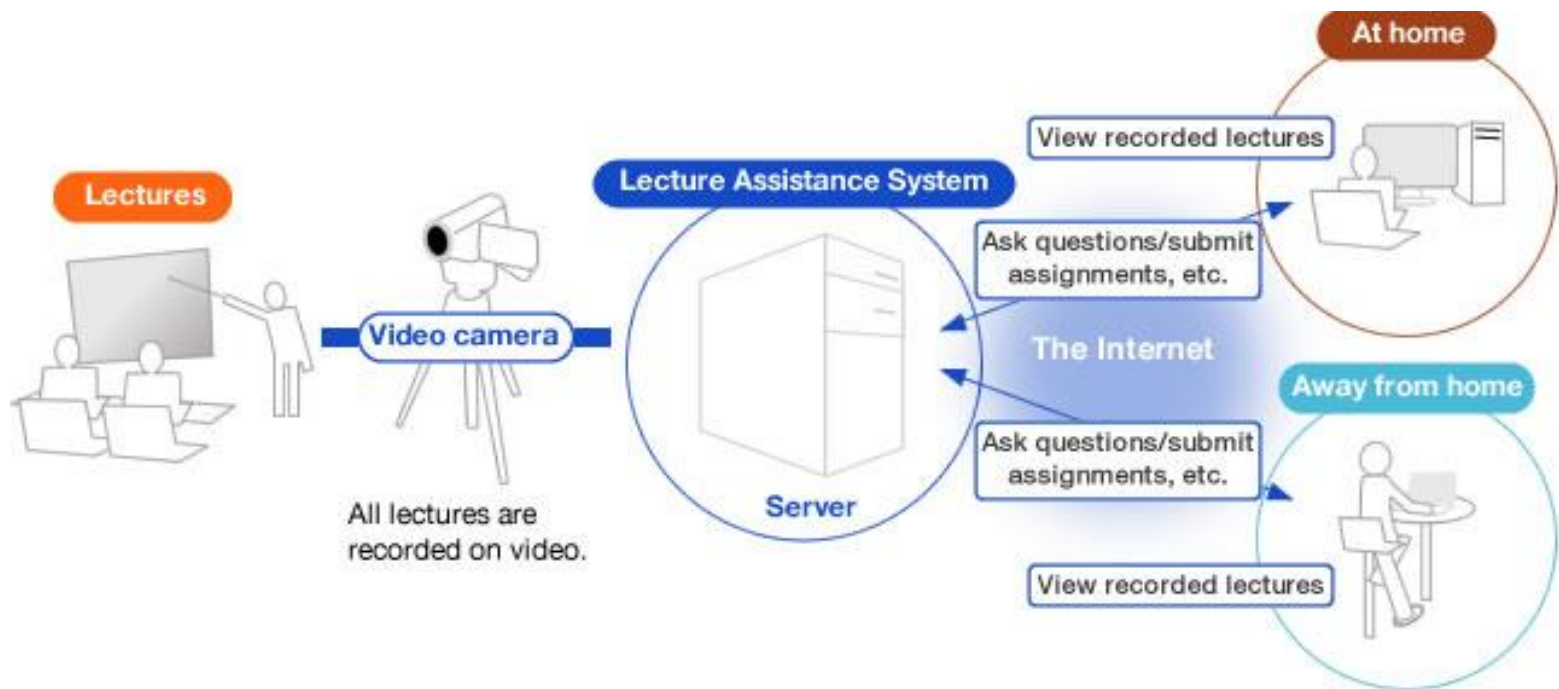
Education methods

In some educational situation, before introducing concepts, it is better to move to Application area.

The real world context comes first and the theory second to promote the student's grasp of the phenomenon, concept or event.

In such a case, it is better to use Problem based learning and Project based learning methods.

Lecture Assistance System and Introducing the Blended Learning System



Blended Learning System

Blended Learning as a fruitful effort in integrating live classroom activities including face-to-face instructions along with online learning and instructions so as to reap the maximum benefits by utilizing the best elements of all through effective planning by an ideal facilitator.
Babu M, Sameer (2009)

AIIT blended learning system started Academic Year 2104.

Diploma Supplement

This Diploma Supplement model is in conformity to the European Commission, Council of Europe and UNESCO/CEPES.

The purpose of the supplement is to provide sufficient independent data to improve the international 'transparency' and fair academic and professional recognition of qualifications (diplomas, degrees, certificates etc.).

It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended.

Diploma Supplement

It should be free from any value judgements, equivalence statement or suggestions about recognition.

Information in all eight sections should be provided.

Where information is not provided, an explanation should give the reason why.

1. HOLDER OF THE QUALIFICATION

1.1 Family name

SOZO

1.2 First name

HANAKO

1.3 Date (YYYY/MM/DD), country of birth

1960/10/10 China

1.4 Student ID number or code

11111111

2. QUALIFICATION

2.1 Name of qualification

Master of Technology in Innovation for Design and Engineering

Title conferred

Master of Technology in Innovation for Design and Engineering

2.2 Main field(s) of study

Kansei Design, Design Engineering, Management of Technology

2.3 Institution awarding the qualification

Advanced Institute of Industrial Technology

Status

Professional Graduate School

2.4 Institution administering studies

See 2.3

Status

See 2.3

2.5 Language(s) of instruction/examination

Japanese

3. LEVEL OF QUALIFICATION

3.1 Level of qualification

Master of Technology in Innovation for Design and Engineering

3.2 Official length of programme

2-3 years

3.3 Access requirement(s)

University graduate/ Those who have passed an examination of applicants' qualifications

4. CONTENTS AND RESULTS GAINED

4.1 Mode of study

Full time

4.2 Programme requirements / Qualification profile of the graduate

The number of credits: 40 credits or more

(at least 12 credits for required subjects, and 28 credits for electives)

Required courses: Advanced Exercises: Innovation for Design I (6 credits)

Advanced Exercises: Innovation for Design II (6 credits)

4.3 Programme details

【Class groups and Subject list in 2013】

I. Innovation for Design and Engineering Fundamentals Class Group

Introduction to the "monozukuri" architect, Global Communication, Dynamical Systems, Science and Engineering Simulation, Material Science, Management of Technology, Innovation Strategy, Organizational Capabilities in Product Development, Human Centered Design, Design Management, Advanced Exercises: Management of Technology

II. Industrial Materials Class Group

Advanced Material Science, Advanced Exercises: Industrial Materials

III. Product Innovation Class Group

Design Engineering, Prototyping, System Integration in Mechatronics, Service Engineering, Quality Engineering, Reliability Engineering, Conceptual Design Engineering, Advanced Exercises: Design Engineering and Prototyping

IV. Industrial Design Class Group

Product Design, Value Design, Design System Planning, Communication Design, Advanced Exercises: Industrial Design 1, Advanced Exercises: Industrial Design 2, Advanced Exercises: Industrial Design 3, Advanced Exercises: Industrial Design 4

V. Digital Technology Class Group

Intelligent Systems, Software Engineering for Embedded Systems, System Modeling, Computer Aided Product Development, Advanced Exercises: Embedded Software Development

VI. Advanced Exercises: Innovation for Design and Engineering

Advanced Exercises: Innovation for Design and Engineering 1, Advanced Exercises: Innovation for Design and Engineering 2

4.4 Grading scheme

Very good: GPA 4.0

Very good: GPA 3.0

Good: GPA 2.0

Acceptable: GPA 1.0

4.5 Overall classification

See the transcript of records for the credits acquired and performance. GPA is shown below.

4.00

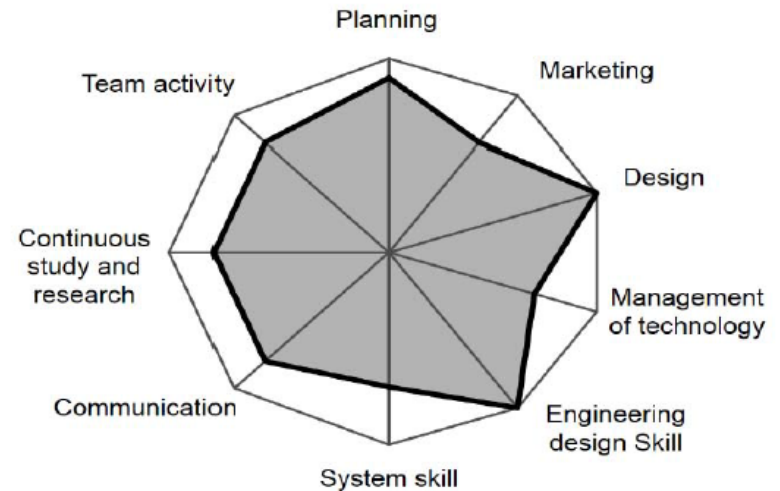
5. FUNCTION OF THE QUALIFICATION

5.1 Access to further study

Qualified to apply for admission to doctoral studies.
Have a right to access to AIIT Knowledge Home Port in 10 years.

5.2 Professional status

A Monozukuri specialist with emphasis on management ability in both kansei design and engineering design.



6. ADDITIONAL INFORMATION

6.1 Additional information

[Empty box for additional information]

6.2 Further information sources

Advanced Institute of Industrial Technology: <http://aiit.ac.jp>
Master Program of Innovation for Design and Engineering:
http://aiit.ac.jp/master_program/isa/index.html

7. CERTIFICATION

This Diploma Supplement refers to the following original documents:

7.1 Degree award certificate issued on [Date(YYYY/MM/DD)]

7.2 Diploma/Degree/Certificate awarded on [Date(YYYY/MM/DD)]

7.3 Transcript of records issued on [Date]

7.4 Certification date

7.5 Chairman of examination committee

7.6 Official stamp/seal

8. 日本の高等教育システム NATIONAL HIGHER EDUCATION SYSTEM

日本の高等教育システムに関して、その資格とタイプについて以下に示す。

The information on the national higher education system on the following pages provides a context for the qualification and the type of higher education that awarded it.

日本の高等教育システムに関する情報

The School Education Law is not translated into any other languages. Please refer to the original text as below.

8.1 機関のタイプと制度上の身分(学校教育法より抜粋) Types of institutions and institutional status

第一章 総則

第一条 この法律で、学校とは、幼稚園、小学校、中学校、高等学校、中等教育学校、特別支援学校、大学及び高等専門学校とする。

第二条 学校は、国(国立大学法人法(平成十五年法律第百十二号)第二条第一項に規定する国立大学法人及び独立行政法人国立高等専門学校機構を含む。以下同じ。)、地方公共団体(地方独立行政法人法(平成十五年法律第百十八号)第六十八条第一項に規定する公立大学法人を含む。次項において同じ。)及び私立学校法第三条に規定する学校法人(以下学校法人と称する。)のみが、これを設置することができる。

○2 この法律で、国立学校とは、国の設置する学校を、公立学校とは、地方公共団体の設置する学校を、私立学校とは、学校法人の設置する学校をいう。

第三条 学校を設置しようとする者は、学校の種類に応じ、文部科学大臣の定める設備、編制その他に関する設置基準に従い、これを設置しなければならない。

第四条 次の各号に掲げる学校の設置廃止、設置者の変更その他政令で定める事項(次条において「設置廃止等」という。)は、それぞれ当該各号に定める者の認可を受けなければならない。これらの学校のうち、高等学校(中等教育学校の後期課程を含む。)の通常の課程(以下「全日制の課程」という。)、夜間その他特別の時間又は時期において授業を行う課程(以下「定時制の課程」という。)及び通信による教育を行う課程(以下「通信制の課程」という。)、大学の学部、大学院及び大学院の研究科並びに第百八条第二項の大学の学科についても、同様とする。

Multiverstiy
-P-school system-

P-school system

- P-school system is not a vocational school.
- P-school system focus on professional education system from 15years old education level to Doctor level.
- P-school system includes suitable liberal arts education.
- P-school mind to produce high professional who has high level sense of ethics and awareness for environment and society.
- P-high school : 15year to 18year Non-degree
- P-university : 18year to 22 year Bachelor degree
- P-graduate school: 2years Master degree
- P-research school: 3 years Doctor degree

P-high school

- Conventional high school education program
- +
- Professional training program
- Collaboration with P-university

P-university

- Liberal arts

+

- High level professional education curriculum

- Competency acquisition program

- Introducing a Certified Evaluation and Accreditation system

P-graduate scholl

AIIT model

- Skill standards based curriculum
- PBL education methods
- Diploma supplement and Competence or Skill Diagram
- Active learning
- Research and Development for support SMC

P-research shool

- Doctor course for Professional in Indsutry

Thank you for
your attention!
