Global standard education for ICT

April 25, 2103

Graduate School of Global Information and Telecommunication Studies (GITS) in Waseda University

Takuro Sato

Over view of standard education in Waseda University

☐ GITS in Waseda University began standard educations entitled Business and Global standardization supported by Ministry of Economy, Trade and Industry and entitled Information Communication and standard supported by Ministry of Internal Affairs and Communication for the purpose of knowledge acquisition about standardizations and human recourse development of standardization activities from 2008. The both lectures are directed at master course students.

☐ The lecture has been given by Japanese for Business and Global standardization and by bilingual of English and Japanese for Information Communication and standard.

☐ Both lectures have been distributed for Honjo Waseda campus and 29-7 bldg. campus in Tokyo through distance learning system.

☐ In 2010, both lectures has provided for school of fundamental science and engineering students in Waseda. Nishi-Waseda campus was added for distance learning system. In 2010, since Osaka and Waseda made credit transfer contact about standardization lectures, both lectures also began to distributed for campus in Toyonaka campus in Osaka University from 2010 and Suita campus was newly added in the lectures from 2012.

☐ The Information Communication and standard lecture will provided for JAIST (Japan Advanced Institute of Science and Technology) located in Ishikawa prefecture due to credit transfer contract and also both lecture will provided for MJIIT (Malaysia Japan International Institute of Technology) in Malaysia by off-line network as web. education through the contact between Osaka University and MJIIT.

☐ Both lectures will begin for under graduate students form 2014 and both lectures will be included in regular curriculum from 2014.

Report of lecture entitled Business and Global standardization

Economy: Japan
University: Organized by Waseda University
Department: Graduated school of Global Information and Telecommunication Studies in Waseda University
**Credit:** 2 credits (Total lecture are 90min*15 (=13 lectures +2 group discussions)=22.5 hours)
Course Title: Business and Global standardization
Evaluation: paper examination and group discussion

Executive Summary entitled Business and Global standardization

❑ This course was offered to the students belonging to undergraduate course and graduate course majoring in information and telecommunication. Students belong to Graduated school of Global Information and Telecommunication Studies and Computer Science and engineering of Waseda University and Osaka University. The lecture has been transmitted through internet video teleconference system because the campuses are distributed in wide area in Japan. The locations of the lecture are two campuses in Tokyo, one campus in Saitama prefecture and one campus at Osaka University in Osaka prefecture.

❑ The total attendance of student are shown as following Figure.
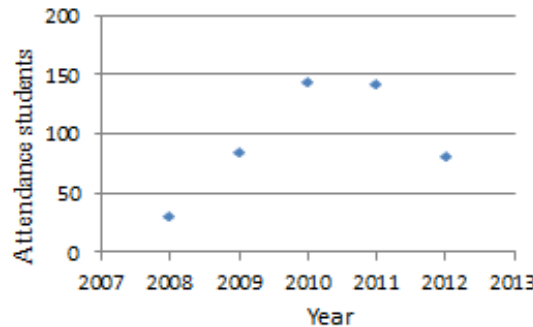
❑ The lecture was given by professors of Waseda University, and Japanese Standard Association.

❑ The main objectives of the course was to give students overall aspects of standards of domestic and international standard institutes, fundamental knowledge, process of standardization activities, relation between IPR and standardization and the relation between business and standardization. In the lecture, specific examples of cellular communication, iPS and IPTV were also introduced.

Syllabus Course Objective

- ☐ This lecture intelligibly presents the activities of the international standardization committees and the patent pools of the IPR issues.
- ☐ This lecture also clarifies the role of the standardizations on influence of the economics and the business activities.
- ☐ This lecture invites lecturers who are leaders contributing to the standardization committees about the information communication technology, the next generation Blu-ray, Securities, Semiconductor, IPTV, iPS or Batteries etc.
- ☐ This lecture is authorized by credits earned before matriculation and subjects of other graduated schools.
- ☐ This lecture is also programmed for the objective of the planning/IPR/standardization, the engineering and business departments of the companies.

Course Period and Characteristics

- ☐ Start April 1st to end July every year
- ☐ Times of class : two credits (each class is 90 minutes)

Class Planning

No	Lecture title	Lecturer	Outline
1	Importance of standardization in the society	Dr.Hiroaki Ikeda 〔Japanese Standard Association〕	Understanding importance of standardization the organization and study.
2	Principle of standardization	Dr. Kiich Fukuda〔Japanese Standard Association〕	Understanding the standardization activities as well as the role of standardization and the fundamental knowledge .
3	Standardization and Certification rule	Dr. Masaya Tanaka 〔Japanese Standard Association〕	Understanding the outline, role and application of certification system for the activity of standardization.
4	Standardization and IPR	Dr. Sadao Takeda 〔Japanese Standard Association〕	Proposing the example of relation between IPR and standardization.
5	Business strategy and Standardization	Dr. Hitoshi Yoshida 〔 Japanese Standard Association〕	Understanding of standard utilization in business society.
6	Business strategy and Standardization(Cellular system)	Dr. Takuro Sato〔Waseda University〕	Understanding examples of study for business strategies supported by standardization activities.
7	Business strategy and Standardization n (iPS）	Dr. Kouich Sumikura 〔 National Graduate Institute for Policy Studies〕	
8	Business strategy and Standardization (IPTV）	Dr. Wataru Kameyama 〔 Waseda University〕	
9	Standardization in new study items（CSR,BCP etc.）	Dr. Shouichi Kurosawa 〔 Waseda University〕	Presentation of CSR, BCP (Security) as new study items in ISO
10	Outline of Consortium・Forum standard	Dr. Sadahiko Kano 〔Waseda University〕	Understanding relation of ISO IEC and JIS in De jure and forum standards about information communication technology.
11	Standardization organization in foreign countries	Dr. Takaharu Nakakuki and Tomoko Nomura 〔 Japanese Standard Association〕	Understanding standardization activities in Europe and USA and allocation of standardization given by administration
12	Certification rule （ ISO9000 , ISO14000,etc）	Dr. Kyouko Sato〔Japanese Standard Association〕	Understanding current status of ISO9000, ISO14000 etc. and standard application by private sector
13	Application of standardization by administration	Dr. Hajime Arai 〔Waseda University〕	Understanding the examples of administration and importance to use private self-management.
14/15	Group discussion and presentation	Dr. Masaya Tanaka, Dr.Hiroaki Ikeda and Dr. Takuro Sato,	Presentation of specific standard subjects.

Operation Strategy

- Operation strategy was to give fundamental and wide knowledge about standardization through the lecture style. Theme of each lecture and speaker were changed every class because standardizations have links with wide business field and standardizations have relation with many institutes.

- In the lecture, many guests who have or had a lot of experience of standardization were invited as lecturers. This lecture is announced for undergraduate students as well as master course student. This class was opened for business people. Therefore, the contents of class are preliminary or middle class educations.

- The students were attending this lecture in several campuses with different locations. Therefore, the distance learning system was prepared for lecture. There are four campus located in Nishi-Waseda campus in Tokyo, Waseda campus in Tokyo, Honjo-campus in Saitama prefecture and Osaka University in Osaka prefecture. Head center to provide the distance learning is IT center located in Waseda campus in Tokyo. The grading was based on report evaluation by each speaker.

Text book (Top of two pages) total is 272 pages.

企業ビジネスと国際標準化

Enterprise Business and International Standardization

早稲田大学国際情報通信研究科 出版
Waseda University Global Information and Telecommunication Institute

Contents

Scene of lecture

Photo of Business and Global standardization lecture in Nishi-Waseda campus

Photo of TV monitor used for distance learning.
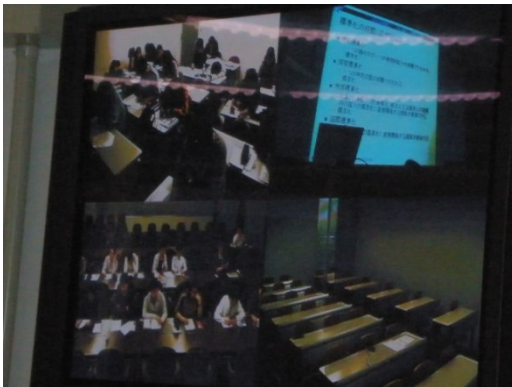
Report of lecture entitled Business and Global standardization

July 14
2011

Report of lecture entitled Information Communication and standard

Economy: Japan
University: Organized by Waseda University
Department: Graduated school of Global Information and Telecommunication Studies in Waseda University
Credit: 2 credits (Total lecture are 90min*15 (=13 lectures +two group discussions)=22.5 hours)
**Course Title:** Information Communication and standard
Evaluation: paper examination and group discussion

Executive Summary entitled Information Communication and standard

☐ This course was offered to the students belonging to undergraduate course and graduate course majoring in information and telecommunication. Students belong to Graduated school of Global Information and Telecommunication Studies and Computer Science and engineering of Waseda University and Osaka University. The lecture has been transmitted through internet video teleconference system because the campuses are distributed in wide area in Japan. The locations of the lecture are two campuses in Tokyo, one campus in Saitama prefecture, two campuses at Osaka University in Osaka prefecture and one campus of Japan Advanced Institute of Science and Technology in Ishikawa prefecture (JAIST). JAIST will begin the lecture from this fall semester 2013.

☐ The total attendance of student was
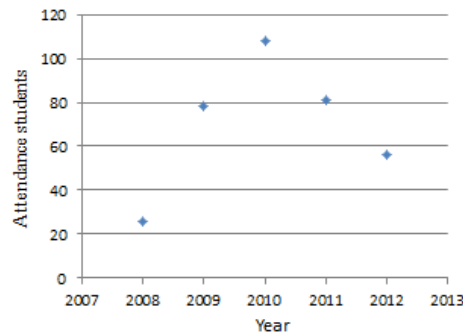
☐ The lecture was given by Japanese and/or English. The lecturers are professors of Waseda University, Kougakuin University, JAIST ,TTC, NTT, Toyota. InfoTechnology Center, ARIB standard accusation, and Oki.

☐ The main objectives of the course was to give students overall aspects of standards of domestic and international standard institutes, fundamental knowledge, process of standardization activities in ITU, IEEE, ETSI, TTC and ARIB,

Syllabus Course Objective

- This lecture intelligibly presents the activities of the international standardization committees ITU and the IPR issues.
- This lecture also clarifies the role of the standardizations on influence of the information communication technology business.
- This lecture invites lecturers who are leaders contributing to the standardization committees about the information communication technology, the network, wireless communication, and audio codec,
- This lecture is authorized by credits earned before matriculation and subjects of other graduated schools.
- This lecture is also programmed for the objective of the planning/IPR/standardization, the engineering and business departments of the companies.

Course Period and Characteristics

- Start September 1st to end January every year as fall semester.
- Times of class : two credits (each class is 90 minutes)

Class Planning

No	Lecture title	Lecturer	Outline
1	General remarks of standardization	Dr. Hideo Fuseda〔Ministry of Internal Affairs and Communications〕	Understanding importance of ITU standardization organization and Standardization strategy in Japan.
2	Introduction of Each Standard Organizations	Dr. Takuro Sato〔Waseda University〕	Understanding the organizations and standard activates of standardization committees as example IEEE/TIA/IETF/ISO/IEC and etc..
3	Standardizations on NGN	Dr. Koichi Asatani [KougakuinUniversity〕	Understanding the Next Generation Networks and their standardizations.
4	TTC New Activities in a New Paradigm The Telecommunication Technology Committee	Dr. Yuji Inoue〔Toyota Info technology center〕	For Public Happiness and for members benefit through Inter/Intra-Regional collaborations.
5	Information Communication and Global Standard Example SG16 & MPEG	Dr. Hiroshi Watanabe〔Waseda University〕	Understanding of Information Communication and Global Standard of example SG16 & MPEG
6	Telecommunication and International Standardization: IPTV	Dr. Tanaka Kiyoshi〔NTT Lab.〕	Understanding the standardization of IPTV includes the explanation of IPTV technology, and IPTV standard.
7	Research & Development and Standardization activities —NICT	Dr. Yasuo Koga〔NICT〕	Introducing Research & Development and Standardization activities —NICT
8	Overview of HATS	Dr. Kenji kouro〔OKI〕	Understanding the activates to assume interoperability and between info-communication equipment's of different manufactures.
9	Progress in home-network standards	Dr. Yasuo Tan〔JAIST〕	Understanding the standardization of home bus, home shopping, home reservation, home banking and home security.
10	Present and Future Mobile Communications Systems	Dr. Kouhei Sato〔ARIB〕	Understanding present and future Mobile Communications Systems from the Perspective of Standardization.
11	How to engage in International Conferences	Dr. Tsunekazu Matsudaira〔Waseda University〕	Understanding international conference comprising a long process, including the pre-conference and post-conference phases.
12	How to engage in International Conferences	Dr. Takuro Sato〔Waseda University〕	Understanding international conference comprising a long process, including the pre-conference and post-conference phases.
13	Examination	Dr. Takuro Sato〔Waseda University〕	Examination for understanding ITU/IEEE/ETSI/Japan and other std. activities.
14/15	Group discussion and presentation	Dr. Hideo Fuseda, Dr. Hiroshi Watanabe and	Presentation of specific standard subjects.

Operation Strategy entitled Information Communication and standard

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- ☐ In the lecture, many guests who have or had a lot of experience of standardization were invited as lecturers. This lecture is announced for undergraduate students as well as master course student. This class was opened for business people. Therefore, the contents of class are preliminary or middle class educations.
- ☐ The students were attending this lecture in several campuses with different locations. Therefore, the distance learning system was prepared for lecture. There are four campus located in Nishi-Waseda campus in Tokyo, Waseda campus in Tokyo, Honjo-campus in Saitama prefecture, Osaka University in Osaka prefecture and JAIST campus in Ishikawa prefecture. Head center to provide the distance learning is IT center located in Waseda campus in Tokyo. The grading was based on report evaluation by each speaker.

Questionnaire entitled Information Communication and standard

Your comments don't involve you score. But your answering survey questionnaire will be additional score.

Total rate %	very bad	bad	neutral	good	very good
Q1: Is this lecture useful for your study ?	0	1	21	50	26
Q2: Is this lecture useful for your work after entering company in the future?	0	1	21	50	26
Q3: Is the lecture easy to understand?	1	17	48	23	9
Q4．Is the lecturer's speech clear and were you able to hear the lecture?	0	13	46	30	9
Q5．Are the texts and materials easy to understand for you?	0	30	40	23	5
Q6．Are the contents of this lecture interesting for you?	0	1	23	53	21
Q7. Will you introduce this lecture for other students?	0	3	32	42	21

Comments from students

1. Difficult understand for Japanese because English lecture is main.
2. Add more hot topics in lecture.
3. Text should be complete English and Japanese.
4. Arrange text to be separate for English and Japanese.
5. Difficult understand for bilingual lecture.
6. Difficult understand for English slide
7. Etc.

Text book (Top two pages) total is 318 pages.

2012年度 「情報通信と国際標準化」
Information Communication and Global Standard

早稲田大学国際情報通信研究科　出版
Waseda University Global Information and Telecommunication Institute

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Reference

[1] T.Sato, "Report of lecture entitled Business and Global standardization," APEC, Education Guideline On Standards and Conformance for APEC Member Economies, Teaching Standardization in Universities: Lessons Learned from Trial Program ,July 14, 2011

[2] T.Sato, W.Kameyama, H.Watanabe, "To grapple with standard education by Waseda in Japan," ITU Journal, January 2013

[3] T.Sato, H.Tominaga, and N.Fujisiro," The corroborated subject entitled Company Business Strategy and Global Standardization supported by Ministry of Economy, Trade and Industry," Annual conference, Japan Societ for Engineering Education, August 2009.

[5] T.Sato," The corroborated subject entitled Company Business Strategy and Global Standardization supported by Japanese Standard Association and Ministry of Economy, Trade and Industry," Annual conference, Japan Society for Engineering Education, August 2010.

[6] http://www.sato.gits.waseda.ac.jp/page/ics