VCCI DAYORI

No.119 2016.1

Contents

New Year Greetings

President of VCCI Council

Keiichi Kawakami

A happy new year –

The Japanese economy shows upward trend due to the easy-money policy, correction of high Yen trend and effects of so-called Abenomics. Turning to the world, however, the economic outlook is not necessarily so rosy as the Chinese economy is slowing down, oil price fluctuates and the outlook of the Federal Funds rate is on the higher side. Turning to the ITE industry of Japan, the stakeholder of VCCI, its managerial environment is facing with structural changes being brought about by CPS/IoT in the ever competitive market in the world.

Under such circumstance VCCI is entering the 8th year of reconstituted entity as General Incorporated Foundation “VCCI Council.” Since its inception VCCI has been engaging in activities at a broad front to protect Japanese users of electric and electronic equipment from interferences by ITE-emitted radio disturbances. We are thankful that VCCI is reputed highly in the society as a voluntary EMI control body whose scheme based on CISPR international standards is regarded as a de facto standard of Japan.

We appreciate the cooperation of members in keeping the voluntary system going by engaging in the registration of measuring facility, self-verification of product conformity with that facility and positive cooperation in the market sampling test carried out by VCCI. In order to ascertain the VCCI system is harmonized with the schemes in the world we have periodical meetings with industry associations and accreditation bodies in the world and feed the results of meetings back to stakeholders in Japan including prefectural industrial technology centers in the form of seminars and the like.

CISPR32 Ed.2 on emission from multimedia equipment was released in March 2015 which was endorsed in essence by Information and Communications Council of the Ministry of Internal Affairs and Communications in December last year. VCCI commits to align the VCCI technical requirements with this new standard by integrating EMC requirements on ITE with EMC requirements on Audio Visual Equipment.

In December 2015 we celebrated the 30th anniversary of VCCI and renewed our commitment to better serve VCCI members even in the future society where technical innovations are expected to be taking place based on CPS/IoT.

We hope year 2016 will be the year of big strides for Japanese society and economy.

Contribution

Heritage conservation of Japanese computer technology

Hiroshi Hatta
Fellow, Oki Consulting Solutions Co., Ltd
(Chairman, Special Committee for the History of Computing,
Information Processing Society of Japan)

Japanese research and development on computers started in around 1950, which bore abundant fruits including a relay based computer, parametron based computer, which was Japanese invention, and vacume tube based computer by FUJIFILM in 1956, first in Japan. After that Japanese computer research and development proceeded under the cooperation among government, industry and academia and eventually realized today's information society. There were many precious Japan unique technological outcomes resulted from that cooperative development process, but unfortunately almost all historical artifacts were discarded without efforts to preserve them. Precious remaining few artifacts are also being lost day by day. Under circumstances IPSJ has been making efforts to preserve those precious artifacts in a virtual computer museum.(http://museum.ipsj.or.jp/) Today displayed there are 1,100+ historical computers and 1,500+ photos accessed 73,000 times per month in average.

The problem with this virtual museum is that it cannot satisfy people who want to see real computers. In overseas, on the other hand, there are excellent real museums such as Computer History Museum of the US, Bletchley park of UK and Neinz Nixdorf Museum of Germany which all serve the purpose of preserving historical materials and of education of people at the same time. IPSJ has been appealing to related organizations to follow those examples overseas, but unfortunately there is little hope for the realization.

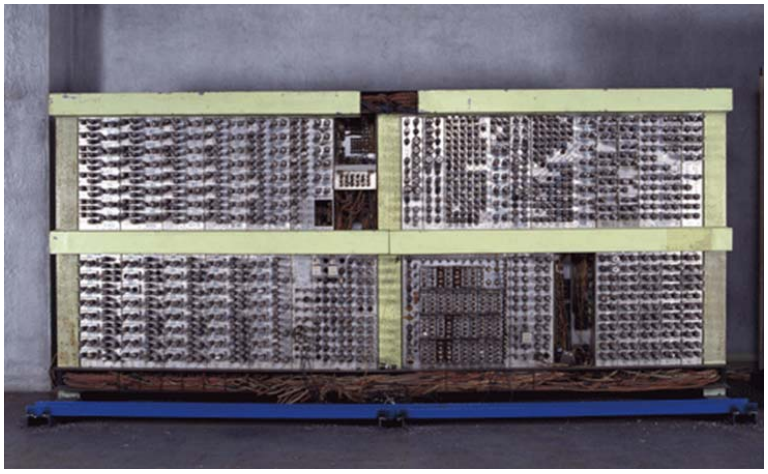
We consider that there are the following merits in a computer museum which preserves and exhibits real machines.

① It is essential to turn experiences to knowledge and add new experiences to it for the advancement of technology. Nothing is more effective than the museum for the realization of this cycle.

② Huge and simple computers of the past can better serve the education of people than minitualized and sophisticated modern computers for the hulistical understanding of principles of computers.

Having been convinced by this view the Special Committee for the History of Computing of the IPSJ initiated the program to designate the heritage of information processing technology. Fundamental purpose of the program is to motivate the owners of scarcely existing historical computers to preserve them and to disseminate the information to the world that precious historically worthy computers exist for the purpose of education and research. Track record of this program so far is that 10 or so items have been certified a year in average to make the total 78 items at this writing. The History Special Committee selects items recognized as distinctively influential from a viewpoint of the impact to technology, culture, economy and life style among others and recognizes them with a plaque and certificate handed down to their owners by the president of IPSJ at the annual convention of IPSJ held in March every year.

What follow is examples of the heritages thus recognized.



FUJIC: The first computer which ran in Japan. It was developed by Bunji Okazaki of Fuji Photofilm (Now FUJIFILM) for designing camera lenses. The machine was completed in 1956 as the fruits of development efforts in as long as 7 years. It is made of approximately 500 two-electrode vacuum tubes and 1,200 three-electrode vacuum tubes. Lens design in those years was done by many pairs of women workers using one hand to operate a hand calculator and the other hand to hold a logarithmic table. It is said that calculation by FUJIC was 2,000 times faster than manual calculations. Clock speed of the logic circuit was 30kHz, electric consumption was 7kW, speed of addition was 0.1ms and speed of division was 2.1ms.

Ichitaro: Japanese word processing software developed and marketed by Just System in 1985. It employed the excellent usability for Japanese to enter Japanese texts. Hitting the space key, for example, invokes the conversion of entered alphabetical strings to Japanese. Also “ATOK4,” a Japanese conversion software underpinning word processing job was designed to be operable in any MS-DOS applications. It was epoch-making as no competitor has ever realized such scheme before. Its pricing strategy was another factor to make ATOK4 synonymous with Japanese word processing software. It was released at 58,000 yen ($285 at the average rate in 1985) while similar software of competitors was about 100,000 yen ($490).

Information Processing Society Japan also runs a program to certify small scale exhibition rooms as distributed computer museum. Eight such facilities are certified up to now.

I hope that many people pay attention to the preservation of precious heritages in Japanese technology history.

Hiroshi Hatta

1940	Born in Tokyo
1963	Graduated from Electronics engineering department, Tokyo University
	Joined NEC. Engaged in the development of computers, product planning and others
2002	Retired from NEC
	Joined Oki Electric
Today	Fellow, Oki Consulting Solutions Co., Ltd
	Honorary member of Information Processing Society of Japan
	Chair, History special committee, Information
	Processing Society of Japan

Committee Activities

● Board of Directors

Date	October 28, 2015
Report given	● 1. 1H FY2015 Business report ● 2. Programs for the 30th anniversary of VCCI

● Steering Committee

Dates	September 28 and October 21, 2015
Agenda items	● 1. Report on the summary of the 25th Board of Directors ● 2. New members admitted in July – September ● 3. Problem driven taskforce
Pending business	● Agenda item 3. Discussion on the problems concerning the draft of revised VCCI rules based on CISPR32 and challenges for VCCI
Decisions made or report given	● Agenda item 1. Approved ● Agenda item 2. New members admitted ● Reporting item 1. Activity report for the months of July through September by subcommittees (Technical Subcommittee, International Relations Subcommittee, Market Sampling Test Subcommittee, Communication Subcommittee and Education Subcommittee) ● Reporting item 2. Secretariat report on membership changes and the number of conformity verification reports filed for the period of July – September ● Reporting item 3. Budgetary execution status (on membership fees and expenditure of each project) for the period of July – September period ● Reporting item 4. Report on the attendance to the Joint IEEE International Symposium on Electromagnetic Compatibility and EMC Europe, Dresden 2015 ● Reporting item 5. Report on the attendance to ECMA/TC20 Ehningen meeting in September

● Technical Subcommittee

Date	September 2, 2015
Agenda items	● 1. Proposed structure of the new technical requirements and proposed revision of the current technical requirements ● 2. Site evaluation method suitable for CISPR32 ● 3. Measurement method using FAR added in CISPR32 Ed.2 ● 4. In-situ testing ● 5. Proposal on CISPR draft standard for VHF-LISN
Pending business	● Agenda item 1 through 5 except 4
Decisions made or report given	● Agenda item 4. ● Report item 1. Report on the participation in Joint IEEE International Symposium on Electromagnetic Compatibility and EMC Europe held in Dresden, Germany ● Report item 2. Report on the participation in CISPR SC-1, SC-A and SC-H held in Stresa, Italy for the period of September 21 – October 2, 2015

● International Relations Subcommittee

Dates	July 10, August 5, September 11 and October 9, 2015
Agenda items	● 1. Preparatory work for the VCCI International Forum 2015 in celebration of VCCI's 30th Anniversary ● 2. Development of a common system for information sharing on international standards ● 3. Study on the international regulations on EMC
Pending business	● Agenda item 1 ● Agenda item 2 ● Agenda item 3
Decisions made or report given	● Agenda item 2. Start the common system from January 2016 ● Agenda item 3. Implement the study in Korea

● Market Sampling Test Subcommittee

Dates	September 4 and October 9, 2015
Agenda items	● 1. Document inspection ● 2. Revision of technical requirements ● 3. Test result - Failed tentative ● 4. VCCI marking on products of non-VCCI members ● 5. Actions taken on missing marking by VCCI members ● 6. Others
Pending business	● Agenda item 3. Test result of EUT of company A was on “failed” level in general but sometimes it marked “Passed” level when combined with different LCD. Will continue the investigation of the cause of the fluctuations in the noise level. It should be noted that the change of firmware further improved the noise reduction in observed testing.
Decisions made or report given	● Agenda item 1. Of 16 document inspections performed 12 passed including those applied corrective actions against insufficient description of testing conditions etc. Of the 4 failed cases one was asked for additional testing as it was not tested on telecommunication port as the spec was assumed to be the same as a similar equipment before VCCI rules applied. Responses awaited on the remaining three cases. ● Agenda item 2. (change some terms in Japanese only and rectify some missing English translations). Internal rules and job flows to be reconfirmed in passing and report them to the steering committee and the revision WG. ● Agenda item 4. One product of non-VCCI member was found with the VCCI mark borne. It was of a foreign company made by a Japanese company who is a VCCI member. The product in question was even with a test report based on the VCCI rules. A decision was made to do purchase based testing on the product in question. ● Agenda item 5. Reviewed the text of a draft letter to be sent to the manufactures who, being VCCI members, sell ITE subject to VCCI ruling but bear no VCCI mark. It was decided to deepen the investigation into the similar cases observed in the past. ● Agenda item 6. 1. This subcommittee plans to participate in a workshop scheduled early next year in Singapore and an information exchange meeting in Taiwan. 2. Also will participate in a round-table talk planned on November 11 as a program for the VCCI 30th anniversary project.

● Education Subcommittee

Dates	September 10 and 14, 2015
Agenda items	● 1. Responses to questionnaire on the 2nd Operation course and the 33rd basic course for measurement engineers ● 2. Homogenization of hands-on training by KEC, TELEC and JQA ● 3. Plan on the course for the application of automatic/manual measurement
Pending business	● Agenda item 3. Continue discussions toward the opening of the course
Decisions made or report given	● Agenda item 1. Responses to the questionnaire were positive ● Agenda item 2. As the first step it was agreed to do mutual participation by lecturers of the three organizations in others' hands-on training in this fiscal year ● Reporting item 1. Track record on training and education courses in FY2015 • 15 trainees attended in the 33rd basic course for measurement engineers held on September 18 • 15 trainees attended in the 42nd course for measurement engineers held on October 8 – 9 and 15 – 16 • 7 trainees attended in the 14th Antenna calibration and NSA measurement course held on October 29 – 30

● Communication Subcommittee

Dates	September 11 and October 2, 2015
Agenda items	● 1. Activity plan for the next term ● 2. Renewal of the website ● 3. Calendar for the next year ● 4. Media for public relations
Pending business	● Agenda item 1. Determine the target of PR and assess proposals by agents ● Agenda item 2. Revisit the Website for sweeping revision. Create new pages on the electromagnetic interference
Decisions made or report given	● Agenda item 3. Create a desktop calendar to commemorate the 30th anniversary of VCCI for distribution in the memorial party on November 20, 2015 and technical symposium in January 2016 ● Agenda item 4. Continue illuminated ad board in Akihabara and Osaka stations

● Measurement Facility Registration Committee

Date	September 7, 2015
Agenda items	Reviewed the result of deliberations by the Measurement Facility Examination WG and concluded as follows
Decisions made and items completed	Conformity certified (including cases certified with qualification comments after checking of supplementary papers); 23 companies • Radiated EMI measuring facilities; 9 • Mains ports conducted EMI measuring facilities; 10 • Telecommunication ports conducted EMI measuring facilities; 16 • Radiated EMI measurement facilities above 1GHz: 13 Applications returned with comments; none Applications carried over to the next meeting; none
Date	October 27, 2015
Agenda items	Reviewed the result of deliberations by the Measurement Facility Examination WG and concluded as follows
Decisions made and items completed	Conformity certified (including cases certified with qualification comments after extra paper checking); 18 companies • Radiated EMI measuring facilities; 7 • Mains ports conducted EMI measuring facilities; 11 • Telecommunication ports conducted EMI measuring facilities; 7 • Radiated EMI measurement facilities above 1GHz: 10 Applications returned with comments; none Applications carried over to the next meeting; none

● LIST OF ABBREVIATIONS used in Committee Activities section

Abbreviation	Full Name
AAN	Asymmetric Artificial Network
AMN	Artificial Mains Network
ANSI	American National Standards Institute
APD	Amplitude Probability Distribution
APLAC	Asia Pacific Laboratory Accreditation Corporation
AQSIQ	General Administration of Quality Supervision , Inspection and Quarantine of the People's Republic of China
BSMI	Bureau of Standards, Metrology and Inspection
CALTS	Calibration Test Site
CB	Certification Body
CB	Competent Body
CCC	China Compulsory Product Certification
CD	Committee Draft
CDN	Coupling Decoupling Network
CDNE	Coupling Decoupling Network for Emission
CDV	Committee Draft for Vote
CEMC	China Certification Center for Electromagnetic Compatibility
CEN	European Committee for Standardization
CENELEC	European Committee for Electro Technical Standardization
CISPR	International Special Committee on Radio Interference
CMAD	Common Mode Absorbing Device
CQC	China Quality Certification Center
CSA	Classical (Conventional) Site Attenuation
CSA	Canadian Standards Association
DAF	Dual Antenna Factor
DC	Document for Comment
DoC	Declaration of Conformity
DOW	Date of Withdrawal
DTI	Department of Trade and Industry
DUT	Device Under Test
ECANB	EC Association of Notified Bodies
Ecma	European association for standardizing information and communication systems
EICTA	European Information, Communications and Consumer Electronics Technology Industry Association
EMCC	Electro Magnetic Compability Conference
EMCAB	Electromagnetic Compatibility Advisory Bulletin
EMF	Electromagnetic Field
EMF	Electromotive Force
ETSI	European Telecommunication Standards Institute
EUANB	European Union Association of Notified Bodies
EUT	Equipment Under Test
FAR	Fully Anechoic Room
FDIS	Final Draft International Standard
GB	guo jia biao zhun（National Standard of China）
ICES	Interference-Causing Equipment Standards
ICNIRP	International Commission on Non-Ionizing Radiation Protection
IS	International Standard
ISM	Industrial Scientific and Medical
ISN	Impedance Stabilization Network
ITE	Information Technology Equipment
LCL	Longitudinal Conversion Loss
MOU	Memorandum of Understanding
MP	Magnetic Probe
MRA	Mutual Recognition Agreement/Arrangement

Abbreviation	Full Name
NCB	National Certification Body
NICT	National Institute of Information and Communications Technology
NIST	National Institute of Standards and Technology
NP	New Proposal
NSA	Normalized Site Attenuation
NWIP	New Work Item Proposal
OFDM	Orthogonal Frequency Division Multiplex
PAS	Publicly Available Specification
PLT	Power Line Telecommunication
R&TTE	Radio & Telecommunications Terminal Equipment
RBW	Resolution Band Width
REF	Reference
RRA	Radio Research Agency
RRT	Round Robin Test
RSM	Reference Site Method
RVC	Reverberation Chamber
SAC	Semi Anechoic Chamber
SN	Signal to Noise ratio
TF	Task Force
TG	Tracking Generator
UPS	Uninterruptible Power Supply
VBW	Video Band Width
VHF-LISN	Very High Frequency-Line Impedance Stabilization Network
VSWR	Voltage Standing Wave Ratio
WP	Working Party

Serial Article – 3

The history of CISPR – Part 2

By Masamitsu Tokuda

4. The current formation of CISPR

Figure 2 indicates today's organization of CISPR. There are steering committee and six SCs (A, B, D, F, H and I) in charge of the respective responsible area under the Plenary Assembly. Working groups are organized under them as necessary.

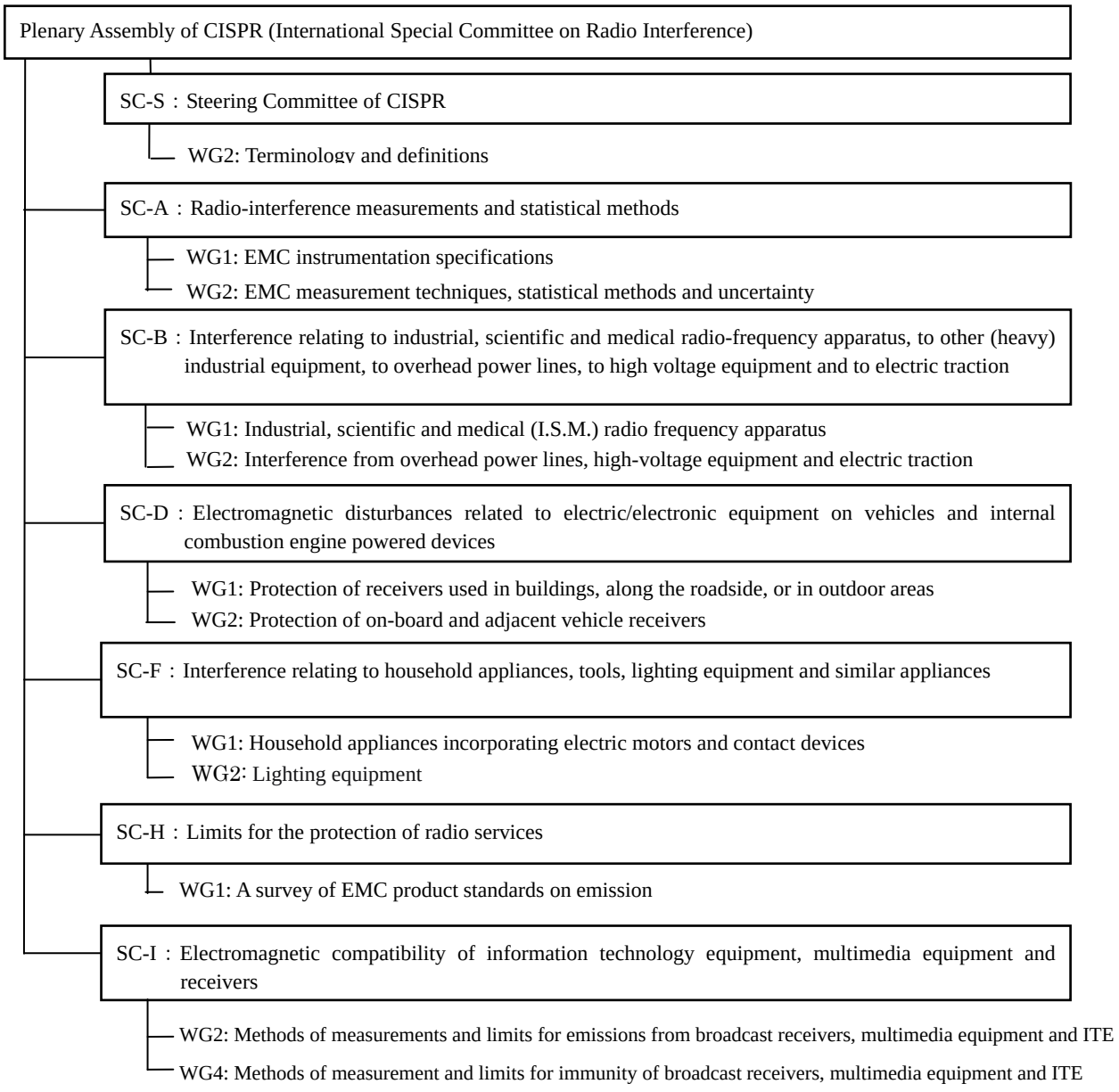


Figure 2 Organizational structure of CISPR as of June 2015

In 2011 WG1 on Smart Grid was established under the Steering Committee but it was disbanded in February 2014 after releasing CISPR/1270/INF* “CISPR Guidance document on EMC of equipment connected to the SmartGrid.

5. Activities of Japanese members in CISPR international meetings

The first CISPR international meeting in which Japanese members participated was London meeting in 1939. After that no attendance by Japanese members was recorded except that related NHK people attended from time to time. However, because the importance of CISPR was gradually recognized in Japan as Japanese industry grew, Committee 3 of the MPT radio technology consultative committee started participation in CISPR international meetings by dispatching Japanese team to the West Long Branch meeting in 1973. This could not have been realized without the devotion of late Humio Minotsuma, ex-MPT official and a member of Committee 3 in the environment in which the supporting structure was not established yet in Japan. He was elected a co-opted member of the CISPR Steering Committee in 1983. Since then representatives of Japan have continually been participating in the CISPR Steering Committee. In 1988 Japan was elected the Secretary country of SC-B. This was because late Mr. Masuo Okamura of Japan Quality Assurance Organization was highly respected in CISPR meetings. He assumed the international secretary of SC-B for the first time as Japanese. Furthermore, Japan assumed the secretary country for SC-I inaugurated in 2001 with Mr. Kenji Okazaki (then Sony) as the international secretary and Mr. Fujio Amemiya (then NTT Advanced Technology) as the assistant secretary. Behind all these contribution by Japan to CISPR were activities of Mr. Akira Sugiura of then NTT Advanced Technology.

6. Changes in Japanese deliberative system regarding CISPR

The deliberative body of Japan for CISPR today is The Radio Wave Utilization Environment Subcommittee (“RWUES” in short for this article) chaired by Professor Masao Taki of Tokyo Metropolitan University. The secretariat of “RWUES” is International Affairs and Telecommunications Bureau under MIC. It is RWUES which is responsible for evaluation of CISPR standards and for their adaptation in Japan.

The origin of RWUES is the Radio Technology Committee established in June 1, 1949 in accordance with the Telecommunication Bureau Formation act. The first responsibility given to the committee was “Countermeasures to disturbance to radio reception.” This theme was consulted to the 3rd subcommittee. Initially the 3rd subcommittee had little to do with CISPR, so they developed Japan unique standard on disturbances measuring equipment in 1955. Later in 1960’s additional responsibility “contribution to CISPR” was added to the terms of reference of the 3rd subcommittee. Motivated by this change Japan increased its contributions to CISPR and made efforts to reflect CISPR standards in Japanese standards. In 1985 the 3rd subcommittee was reorganized as “CISPR committee” under the Telecommunication Council as indicated in Figure 3 below. The original process of aligning the deliberative formation of Japan with the radical revision of CISPR in 1973 was such that each subcommittee was given the coverage of two SCs of CISPR except for later formed SC-G and SC-H each of which was allocated with a single SC. In 2000 the responsible organization was further changed to the CISPR Committee, Information

Communication Technology Subcommittee, under the Information and Communications Council. In January 2011 there further was extensive reorganization implemented on the Information Communication Technology Subcommittee in such a way that the CISPR Committee and the Local Field Absorption Committee were merged together into today's RWUES (chaired by the then-Professor Osamu Fujiwara of the Nagoya Institute of Technology).

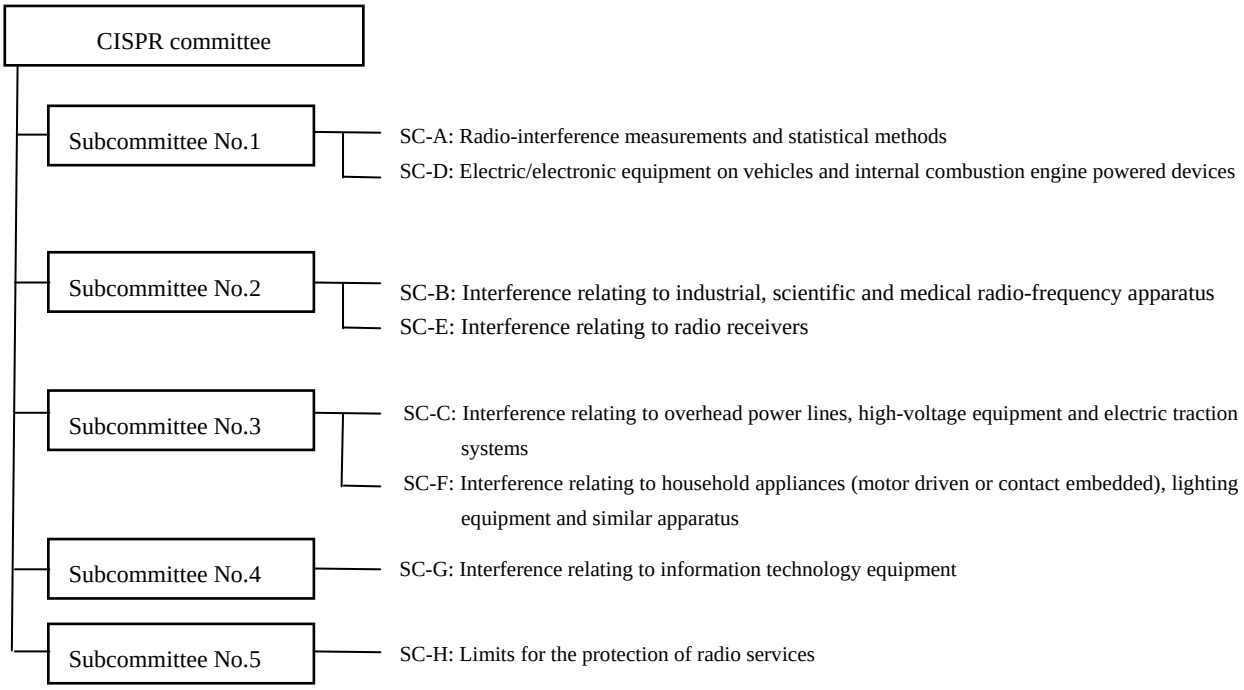


Figure 3 Formation of the CISPR Committee – Japan before December 1998

References: (Only those in English)

* CISPR/1270/INF: CISPR Guidance document on EMC of equipment connected to the Smart Grid, Further information, Scope, CISPR;

http://www.iec.ch/dyn/www/f?p=103:7:0::::FSP_ORG_ID,FSP_LANG_ID:1298,25

Masamitsu Tokuda

1967 Graduated from Electronics Engineering Department of Hokkaido University
1969 Joined NTT, assigned to the Electrical Communications Laboratories
1987 Leader of EMC study group
1996 Professor of Electric Engineering Department , Kyushu Institute of Technology
2001 Professor of Electronic communication department, Musashi Engineering University
2010 Professor emeritus of Tokyo City University, Visiting co-researcher of the department of new region creation science of the graduate school of Tokyo University

Major prize received
1986 Merit award – IEICE (on the design theory and evaluation method for optical fiber cables)
1997 Information communication merit award by MPT (on EMC technology development)
2003 Industrial standard merit award by the minister of METI
2004 IEICE fellow
2007 Promoted to IEEE fellow

Report on VCCI Seminar

By Steering Committee

Sponsored by VCCI

Under the joint auspices of

the Industry Technology Center of Miyazaki Prefecture

1. The gist of the seminar

Date/Time: October 2, 2015 13:30 – 17:00hr

Venue: Industry Technology Center of Miyazaki Prefecture

No. of Attendees: 17 persons

VCCI speakers**:** Mr. Oda, Senior Managing Director

Mr. Hoshi, Chairman of Technical Subcommittee

(Hitachi Information & Telecommunication Engineering , Ltd.)

Mr. Yamaguchi, Technical Subcommittee and Education Subcommittee

Mr. Muramatsu, VCCI Technical Director

2. Program

Time	Content	Speakers
13:30-13:35	Greetings	Host
13:35-14:15	(1) Introduction of VCCI and future direction on EMC regulations • Activities of VCCI and their feature • EMI regulations in the future (Den-an law, multimedia standards)	Mr. Oda
14:15-15:15	(2) Points in EMI measurement to meet VCCI requirements • Practical hints • Use of VHF-LISN to reduce the dispersion by test site (actual results in tests in VCCI and deliberation status in CISPR/I) • Procedure to calculate uncertainty in measurement	Mr. Hoshi
15:30-16:00	(3) How to create VCCI test report • Submission of conformity verification report • Guideline on test report creation	Mr. Muramatsu
16:00-16:45	(4) A simple way to determine bad EMI spots	Mr. Yamaguchi
16:45-17:00	Q & A	All speakers

3. Remarks

The Industry Technology Center of Miyazaki Prefecture we had a seminar this time for is a public testing and research machinery for the prefectural industry with expertise to support R&D, technical training and commissioned analysis etc. open to the local community.

Judged from the background information about participants this time and their positive feedback in the comment sheets EMC regulation was new to almost all of them who are generally engaged in the development and manufacturing of electric or electronics equipment in the prefecture.

VCCI initiated this kind of seminar circuit in 2006 to familiarize local industry personnel with EMC. It is our intention to continue this program for the future.

Lastly we would like to thank people of the Industry Technology Center of Miyazaki Prefecture for their support and cooperation.

A scene of the seminar

Industry Technology Center of Miyazaki Prefecture

Report on Joint IEEE International Symposium on Electromagnetic Compatibility and EMC Europe, Dresden 2015

By Technical Subcommittee and Communication Subcommittee

We from VCCI Technical Subcommittee participated in the subject event and ran a poster session. The Communication Subcommittee also joined the event with the VCCI booth for public relations activities.

Venue:	International Congress Center Dresden, Germany
Period of symposium:	August 16 – 22, 2015
VCCI Participants:	Mr. Kuroda, Chair, Communication Subcommittee
	Mr. Okuyama, Technical Subcommittee
	Mr. Makino, Technical Subcommittee
	Mr. Oda, Senior managing director
	Mr. Tsurumi, Manager of general affairs
	Mr. Muramatsu, Technical manager
	Mr. Shimasaki, Deputy technical manager

1. The gist of the symposium

The symposium was composed of the following elements.

They are Technical Sessions, Keynote Sessions, Tutorials, Workshops, Poster Sessions, Demonstrations, Experiments and Technical Committees. The number of participants from Japan was 53. The number of poster sessions by Japanese was 6 of total 72 sessions.

(1) Workshop and tutorials

Held on Monday (August 17) and Friday (August 21) as usual which covered 55 papers in 14 sessions. Tutorial was held in 5 days of August 17 through 21 (longer than the average year), in which 77 papers were given in 14 sessions.

① Tutorial: Measurement uncertainty – Challenges and solutions

The initial edition of GUM (Guide to the expression of Uncertainty in Measurement) was published in 1993. Release of the second edition to cover some important changes is planned in 2016. The Monte Carlo method covered in the supplement of the initial edition is effective for the evaluation of uncertainty of antenna calibration. The second edition will include the Monte Carlo method.

② Poster sessions

Mr. Okuyama and Mr.Makino of the Technical Subcommittee ran a poster session in the afternoon of August 18 with their paper titled “Investigation on the Effect of Impedance Changes in Broadband Antennas with Varying Antenna Height on Radiated Emission Below 1 GHz.”

The session seemed to have attracted the attention of many audiences as the contents was fairly

comprehensible on basic characteristics of antennas. Questions asked included “It is understandable that vertical polarization may be less susceptible to the changes in impedance, but may it be more susceptible to the influence of cables?” and “Did you check the effects of the coupling of two antennas?” These questions by audience engaged in antenna calibration were good for the furtherance of the experiments. The point which drew strong attention of people among others was about the estimation of the height of the free space. Question on this problem went “When will you able to announce the results of experiments using high antenna mast?” We felt the name recognition on VCCI was improved by this session because it was indicated that the paper was based on the experiments actually done by VCCI Technical Subcommittee.

③ Workshop：WS10 Calibration of EMC TEST Facilities and Measurement Instrumentation

There was a presentation on the calibration method for the electric field probe titled “Calibration of Field Probes for EMC Measurements” in WS10. This workshop provides a good reference for calibration above 1GHz using a special jig to increase reproducibility of calibration.

(2) Technical sessions

Held in a whole day on August 18 to 20 with major topics including the following.

TS-A：Shielding, TS-B：Low frequency EMC

TS-E：EMC management, EMC in communication, EM environment, EM information security and countermeasures, Basic EMC measurements

TS-F：System EMC prediction, Filters and conducted coupling

TS-G：Reverberation testing, Emission measurements

TS-H：Advanced models and time domain methods, Modeling applications, including reverberation chambers

TS-L：Immunity measurements, Antennas, Measurement Analysis

TS-M：Modeling applications and uncertainty analysis in simulations,
Practical applications of numerical modeling

Also the following sessions were held as Special Session.

SS1：EM information security and countermeasures

SS2：Shielding measurements: From LF to microwave

SS3：EMC diagnostics of complex systems

SS4：EM field interaction with transmission lines

SS5：Intentional EMI (IEMI) protection of critical infrastructures

The following table was prepared to tally the number of technical sessions (including poster sessions) by country by year.

Year and place ↓	US	Japan	Italy	Germany	France	UK	Canada	Korea	Taiwan	China	Others	Total
2001 Montreal	64	16	9	11	7	8	18	1				
2002 Mineapolis	67	27	13	10	3	7	3	7				
2003 Boston	61	18	19	9	5	6	4	4				
2004 Santa Clara	68	7	12	7	6	6	2	9				
2005 Chicago	40	12	15	13	1	4	4	1				
2006 Portland	63	20	15	6	2	5	3	9	2	9	12	146
2007 Hawaii	85	29	12	22	1	6	0	7	4	11	17	194
2008 Detroit	59	18	15	16	4	8	1	10	3	10	21	165
2009 Austin	52	19	9	19	10	5	0	4	3	12	12	145
2010 Fort Lauderdale	50	13	16	9	7	2	0	6	5	6	17	131
2011 Long Beach	72	22	11	10	4	3	4	8	8	10	17	169
2012 Pittsburg	73	16	11	4	4	4	4	9	2	12	18	157
2013 Denver	75	18	9	9	3	7	2	7	4	12	19	165
2014 Raleigh	97	14	8	6	3	5	3	8	2	9	15	170
2015 Dresden	56	25	30	103	24	31	2	11	5	20	106	413

What follows is a paper which specially drew our attention in a session titled “Measurement".

That was a paper discussing 19 proficiency testing sessions held in Italy. It discusses how to analyze the results of measurement with FAR 3m, SAC 3m and SAC 10m by using the robust method. In Q&A session we commented that VLAC is engaged in proficiency testing in Japan. To that the presenter responded that they knew papers released by VLAC well. Proficiency testing is serviceable for judging the capability of own sites. So we felt that it would be good if VCCI offers proficiency testing service for members and discuss the results in a symposium like this one.

(3) Exhibition

EMC exhibition participated by 75 companies was held in the Exhibition hall in the same venue for August 18 – 20. It is customary for the VCCI Communication Subcommittee to participate in COMPUTEX Taipei for public relations activities addressing VCCI members and potential members in Asia in the past, but not in other conventions (except for IEEE EMC 2005 and 2007). This time it was decided that VCCI participate in this convention for wider name recognition, potential member acquisition and communication with overseas VCCI members. Almost all other exhibitors were from the US and Europe. From Japan there was only one company participating other than VCCI. VCCI’s decision to run its booth in this event was made based on the consideration that VCCI’s name recognition may be improved among many visitors from western countries, which may lead to the acquisition of more overseas members. In the booth of CSA (Canadian Standards Association) there exhibited were certification logo marks of various countries including VCCI’s. We in VCCI booth were asked about what’s new in Japan, regulatory scopes, lab accreditation and conformity verification reporting etc.

Activities of VCCI Communication Subcommittee supported by a hired local interpreter included the following.

- Repeated projection of a video to introduce VCCI in English
- Posted a panel in English on the objectives, activities and admission to VCCI
- Prepared materials for pickup and distribution. All gone in 3 days.

VCCI guide in English	20 copies
Annual report in English	20 copies
Table of VCCI standards in English	300 copies
Invitation fliers in English	300 copies
Fliers introducing VCCI in Germany	400 copies
Fliers introducing VCCI in English	400 copies

- We asked passing-by exhibition visitors, “Do you know VCCI mark?” as a starter. If the response was positive we explained the content of the flier.
- We showed visitors the VCCI mark affixed on a digital camera we brought and explained the purpose of the marking.
- Some visitors dropped in for greeting and told they are CISPR members, or they once participated in VCCI International Forum, etc.
- Our explanation was interpreted by the hired German interpreter so visitors better understand VCCI.
- We asked booth visitors for their business cards so we may be able to contact them later.

(4) Others

A meeting with exhibitors was held on August 20 in which the General Chair explained the future schedule of IEEE EMC as follows.

- 2016 - Ottawa
- 2017 - Washington DC

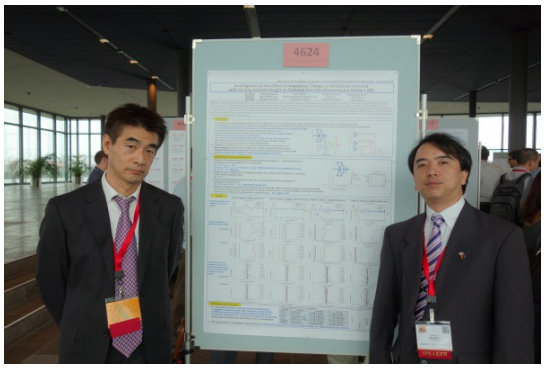
2. Remarks

Majority of participants in the convention was from academia and R&D department of private companies. Exceptional were participants from autonomous regulatory body like VCCI and measurement department of private companies. Under such circumstances it is very honorable that our paper was adopted this time.

As to the exhibition, which was centered around Europe-made EMC testing equipment, was flourishing with many exhibitors. The VCCI booth was lively along the way, which we took advantage of in terms of public relations.

Schedule for 2016 is as follows. IEEE EMC will be convened in Ottawa, Canada for July 25 – 29 and EMC Euro in Wroclaw, Poland for September 5 – 9. It is our intention to extend our continual presence to EMC Euro for our global PR activities.

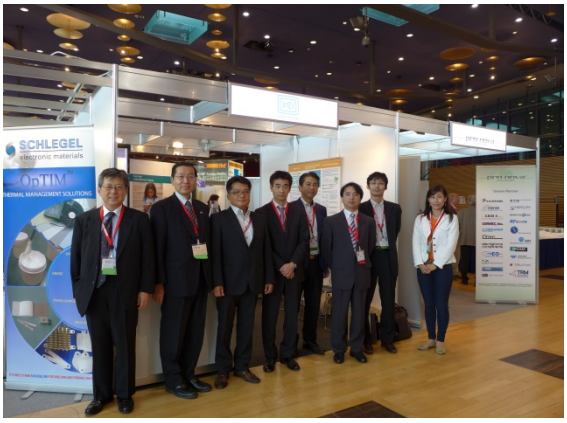
In front of International Congress Center Dresden



In the site for poster sessions

Mr. Okuyama explaining the poster

Mr. Makino explaining the poster



In the VCCI booth area

Exhibition site

Status on FY2015 Market Sampling Test Operations

Market Sampling Test Subcommittee

As of October 31, 2015

Planned number of market sampling tests	Loan-based	50	110
	Purchase-based	60	

Sampling test Grand total	Selected	Cancelled (unrealized shipment, etc)	Owner's consent pending	Testable samples	Test completed	Judgment awaited	Judgment			
							Passed	Failed - tentative		
								Finally passed	Finally failed	Pending
Grand total	88	1	3	84	62	11	47	0	0	4
Previous month grand total	83	1	6	76	51	8	40	0	0	3
Loan-based testing total	38	1	1	36	30	5	24	0	0	1
1st Quarter	14	1	1	12	12	0	12	0	0	0
2nd Quarter	24	0	0	24	18	5	12	0	0	1
3rd Quarter	0	0	0	0	0	0	0	0	0	0
4th Quarter	0	0	0	0	0	0	0	0	0	0
Purchase-based testing total	50	0	2	48	32	6	23	0	0	3
1st Quarter	20	0	1	19	19	1	16	0	0	2
2nd Quarter	10	0	0	10	10	2	7	0	0	1
3rd Quarter	20	0	1	19	3	3	0	0	0	0
4th Quarter	0	0	0	0	0	0	0	0	0	0

Final Result

Passed	Failed	Pending
47	0	4

* One sample in Loan-based testing was realloted to document inspection.

Document inspection	Selected	Cancelled (withdrawal, etc)	Owner's consent pending	Inspectable samples	Inspection Completed	Judgment awaited	Judgment	
							Cleared	Problems identified
	31	1	1	29	28	6	19	3

Report from the Secretariat

● List of Members (August ～ October 2015)

New Members

Membership	Member No.	Company Name	Country
Regular	3682	AOPEN JAPAN INC.	JAPAN
Regular	3674	Apacer Technology Inc.	CHINESE TAIPEI
Regular	3679	Celestica Technology Consultancy (Shanghai) Co., Ltd.	CHINA
Regular	3678	Cellstar Industries Co., Ltd.	JAPAN
Regular	3672	Elatec GmbH	GERMANY
Regular	3661	FireEye, Inc.	USA
Regular	3684	GLOBAL NETWORKS ZEN-EI CO., LTD	JAPAN
Regular	3686	Godspeed. Co., Ltd	JAPAN
Supporting	3677	Guangzhou Quality Supervision And Testing Institute (GQT)	CHINA
Regular	3671	HOYA Service Corporation	JAPAN
Regular	3670	IGEL Technology GmbH	GERMANY
Supporting	3685	ITC Engineering Services, Inc.	USA
Regular	3683	Kaonmedia Co., LTD.	KOREA
Regular	3681	MOAI ELECTRONICS CORPORATION	CHINESE TAIPEI
Regular	3663	Onkyo & Pioneer Corporation	JAPAN
Regular	3662	Onkyo & Pioneer Innovations Corporation	JAPAN
Regular	3658	Pulse Secure, LLC	USA
Regular	3673	Shinsei Corporation	JAPAN
Regular	3676	Soltec. Japan. Limited	JAPAN
Regular	3668	Veritas Technologies Corp.	USA
Regular	3666	Weifang GoerTek Electronics Co., Ltd	CHINA

Withdrawal Members

Membership	Member No.	Company Name	Country
Regular	2463	Atech Flash Technology, Inc.	USA
Regular	3514	CASWELL, INC.	CHINESE TAIPEI
Regular	66	FUJITSU TELECOM NETWORKS LIMITED	JAPAN
Supporting	1739	IST Co., Ltd. (International Standard Technology)	KOREA
Regular	2388	Meiko Electronics Co., Ltd.	JAPAN
Regular	281	Sonus Networks, Inc.	USA
Regular	1215	Tributary Systems, Inc.	USA
Regular	3203	Vitec Multimedia	FRANCE

Request : In case of any change in your company name, please kindly advise VCCI.
Use the “Notice of Change” at VCCI Website.

Change of Company Name

Membership	Member No.	Company Name	Country	Former Company Name
Regular	687	AVAGO Technologies	USA	LSI
Regular	585	Avocent Corporation	USA	AVOCENT CORPORATION
Regular	3326	DMX, LLC. d/b/a Mood Media	USA	DMX, Inc.
Supporting	657	Element Materials Technology Warwick Ltd.	U.K.	TRaC Global Ltd.
Regular	704	Fujikura Solutions Ltd.	JAPAN	Syscom Co., Ltd.
Regular	3595	Hyve Solutions Corporation	USA	Synnex Corporation
Regular	1090	Intel Security	USA	McAfee, Inc.
Supporting	1980	KCTL Inc.	KOREA	EMC compliance., Ltd.
Regular	2481	Lifesize, Inc.	USA	LifeSize Communications
Regular	1469	OKIdata・Infotech Inc.	JAPAN	Seiko I Infotech Corporation
Regular	3371	Rakuten Kobo Inc.	CANADA	Kobo Inc.
Regular	3122	SanDisk Corp.	USA	Fusion-io, Inc.
Regular	3673	Shinsei Corporation	JAPAN	Huizhou 10moons technology development co., ltd

● VCCI Events Calendar

FY2015

April
- VCCI Basic Course for Measurement Engineers

May
- VCCI Course for Measurement Engineers
- Exhibition at TECHNO FRONTIER

June
- VCCI Cource Telecommunication Ports Conducted EMI Measurement
- VCCI Business Reporting Meeting
- Release VCCI Dayori No.117

July
- VCCI Course of Rules for Voluntary Control Measures (tentative)
- VCCI Course on Radiated EMI Measurement Above 1GHz
- Release Annual Report

August

September
- VCCI Basic Course for Measurement Engineers
- VCCI Course for Measurement Engineers
- Release VCCI Dayori No.118

October
- VCCI Course for Measurement Engineers
- VCCI Cource on Antenna Calibration and NSA Measurement

November
- VCCI Course on Radiated EMI Measurement Above 1GHz

December
- VCCI Course of Rules for Voluntary Control Measures (tentative)
- Release VCCI Dayori No.119

January
- VCCI Rules Explanatory Meeting Combined with Technical Symposium

February

March
- Release VCCI Dayori No.120

● State of Conformance Report Submitted

August ～ October 2015

Classification		Corresponding Month / Class	August 2015			September 2015			October 2015		
			A	B	Total	A	B	Total	A	B	Total
Mainframe Computer (Super Computer, Server, etc)			11	1	12	17	5	22	20	4	24
Personal Computer	Desk-top type, etc		1	21	22	1	30	31	2	37	39
	Note type, etc		0	52	52	2	52	54	0	27	27
	Palm top type, etc		0	0	0	0	1	1	0	1	1
Office Computer, Mini-Computer, Workstation, etc			3	4	7	5	2	7	4	4	8
Peripherals/Terminals Equipment	Auxiliary Memory (Storage Device)		6	16	22	7	15	22	9	26	35
	Printer		3	7	10	11	4	15	4	8	12
	Display (LCD, CRT Display, etc.)		5	33	38	8	48	56	13	36	49
	Input/Output Device (excluding Auxiliary Memory, Printer, and Display)		6	29	35	3	31	34	7	27	34
	General Purpose Terminal (Display, Typewriter Terminal, etc.)		0	0	0	0	4	4	0	3	3
	Exclusive Terminal (POS, Terminal for Medical, Financial, and Insurance use, etc.)		4	2	6	7	2	9	22	1	23
	Others Peripherals		17	20	37	15	25	40	9	17	26
Copying Machine			6	0	6	1	1	2	2	0	2
Communications Equipment	Telephone Equipment (Fax, PBX, Telephone, Key Telephone System, etc)		2	2	4	13	4	17	2	4	6
	Network Channel Terminating Equipment (Modem, Digital Transmission Equipment, DSU, Terminal Adapter, etc)		0	2	2	3	4	7	4	5	9
	LAN Equipment (HUB, Repeater, Switching-node, Rooter, etc)		45	15	60	38	17	55	50	15	65
	Other Communications Equipment (Switching Equipment in a Telecom Center, etc)		5	5	10	7	9	16	17	6	23
Others (Digital-camera, Navigator, toy, MP3 Player, etc)			7	23	30	13	18	31	24	34	58
Total			121	232	353	151	272	423	189	255	444

● State of Registration of Measurement Facilities (Newly registered or renewed)

The following table indicates the status on registration of measuring facilities in the most recent three months.

Facilities listed here are only those made open by registering members in principle. Members with those facilities whose valid period expired are kindly advised to contact VCCI to inform of the status they are in. Status to choose from are, renewal application being filed, new application being filed, waiting for the next issue to carry, or terminating the registration (all facilities are posted in the Web site).

Facilities in Japan are listed in Japanese.

List of newly registered or renewed facilities (August – October 2015)

R: Field strength measuring facility C: Mains Port Conducted interference measuring facility T: Communication Port Conducted interference measuring facility G: Radiated EMI measurement facilities above 1GHz

No	会社名	設備名	3 m	10 m	30 m	暗 3m	暗 10m	登録番号	有効期限	設備所在地	問い合わせ先 TEL
11215	Hermon Laboratories Ltd.	OATS	-	-	-	-	-	G-869	2018/6/28	Ha Takhana road, P.O.B. 23, Binyamina, Israel	972-4626-8440
11281	UniLab (Shanghai) Co., Ltd.	No.1 3m SAC Shanghai Unilab	-	-	-	○	-	R-4281	2018/7/26	No.1350 Lianxi Road Pudong. Shanghai, China	86-21-50275125 805
11282	UniLab (Shanghai) Co., Ltd.	No.1 Shielded Room Shanghai Unilab	-	-	-	-	-	C-4763	2018/7/26	No.1350 Lianxi Road Pudong. Shanghai, China	86-21-50275125 805
11283	Lab-T, Inc.	Building-T 10m Semi-anechoic chamber	-	-	-	-	○	R-4282	2018/7/26	2182-42, Baegok-daero, Mohyeon-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea	82-31-3226767
11284	Lab-T, Inc.	Shield Room	-	-	-	-	-	C-4764	2018/7/26	2182-42, Baegok-daero, Mohyeon-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea	82-31-3226767
11285	Lab-T, Inc.	Shield Room	-	-	-	-	-	T-2276	2018/7/26	2182-42, Baegok-daero, Mohyeon-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea	82-31-3226767
11286	Lab-T, Inc.	Building-T 10m Semi-anechoic chamber	-	-	-	-	-	G-886	2018/7/26	2182-42, Baegok-daero, Mohyeon-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea	82-31-3226767
11287	Lab-T, Inc.	Building-L 3m Semi-anechoic chamber	-	-	-	-	-	G-887	2018/7/26	2182-42, Baegok-daero, Mohyeon-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea	82-31-3226767
11288	SK Tech Co., Ltd.	SK Tech Co., Ltd.	-	-	-	-	-	T-2277	2018/7/26	820-2, Wolmoon-Ri, Wabu-eup, Namyangju-si, Gyeonggi-do, Korea	82-31-576-2204
11318	Audix Technology (WuJiang) Co., Ltd.	No.2 Shielded Room	-	-	-	-	-	C-4772	2018/9/6	No.1289, Jiang, Xing East Rd., The Eastern Part of Wujiang Economic Development zone, Jiangsu, China	86-512-63403993 ex:1050
11319	Audix Technology (WuJiang) Co., Ltd.	No.2 Shielded Room	-	-	-	-	-	T-2284	2018/9/6	No.1289, Jiang, Xing East Rd., The Eastern Part of Wujiang Economic Development zone, Jiangsu, China	86-512-63403993 ex:1050
11320	Shenzhen TCT Testing Technology Co., Ltd.	843 Shielded Room	-	-	-	-	-	C-4773	2018/9/6	1F. Building 1, Yibaolai Industrial Park, Qiaotou Village, Fuyong Town, Baoan District, Shenzhen City, Guangdong Province, China	86-755-33961008

No	会社名	設備名	3 m	10 m	30 m	暗 3m	暗 10m	登録番号	有効期限	設備所在地	問い合わせ先 TEL
11338	地方独立行政法人 岩手県工業技術センター	電波暗室	-	-	-	○	-	R-4292	2018/9/6	岩手県盛岡市北飯岡 2 丁目 4-25	019-635-1115
11339	地方独立行政法人 岩手県工業技術センター	電波暗室	-	-	-	-	-	C-4777	2018/9/6	岩手県盛岡市北飯岡 2 丁目 4-25	019-635-1115
11340	地方独立行政法人 岩手県工業技術センター	電波暗室	-	-	-	-	-	T-2294	2018/9/6	岩手県盛岡市北飯岡 2 丁目 4-25	019-635-1115
11341	地方独立行政法人 岩手県工業技術センター	電波暗室	-	-	-	-	-	G-900	2018/9/6	岩手県盛岡市北飯岡 2 丁目 4-25	019-635-1115
11342	Shenzhen TCT Testing Technology Co., Ltd.	966 Chamber	-	-	-	○	-	R-4293	2018/10/18	1F, Building 1, Yibaolai Industrial Park, Qiaotou Village, Fuyong Town, Baoan District, Shenzhen City, Guangdong Province, China	86-755-33961008
11343	International Standards Laboratory Corp.	Conduction 04	-	-	-	-	-	C-4778	2018/10/18	No.120, Lane 180, Hsin Ho Rd., Lung-Tan Dist., Tao Yuan City 325, Taiwan	886-2-26462550 ext23
11344	International Standards Laboratory Corp.	Conduction 04	-	-	-	-	-	T-2295	2018/10/18	No.120, Lane 180, Hsin Ho Rd., Lung-Tan Dist., Tao Yuan City 325, Taiwan	886-2-26462550 ext23

Contents of VCCI Dayori No.115 - No.118

No.115 2015.1

No.116 2015.4

No.117 2015.7

No.118 2015.10

Before putting down a pen

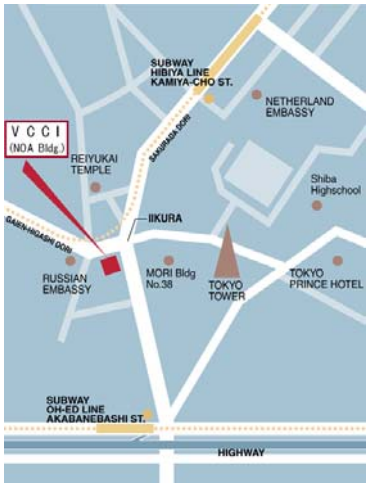
Often times I am asked by people for direction to a certain place on my way back home, while strolling about on holidays and even during overseas trips. Surprisingly I was even asked by a man standing next to me in a crowded train where to change the train for a certain destination. This may be because I always look unguarded, but on the other hand, I even started thinking this may be my merit I can take a pride of.

A couple of days before there was an announcement by the tourist bureau of Japanese government that the number of tourists to Japan in the period of January – September this year recorded the highest in the history. It is even expected among people that the target of the government to attain 20 million visitors by 2020 may even be attained earlier. I tend to agree with this projection because I see more foreign tourists in the street of Tokyo than ever. It means that the probability that I will be asked for direction by foreigners will increase. The impression of the country you visited is very sensitive to how you were treated by the local people among others. With this motto in my mind I myself make it a practice to treat visitors from other countries as kindly as possible. (At one time when I was asked for direction by a lost foreigner I showed him a wrong direction. I was depressed when I noticed it later.)

"Omotenashi" spirit (offering hospitality) is oftentimes praised as in the core of Japanese people. Now that main purpose of the trip of foreign people to Japan is to enjoy "Washoku," hot springs, shopping among other things, I think "Omotenashi" spirit has great potential as the soft core of tourism industry of Japan. By the same token dressing-down "Omotenashi" hospitality of ordinary people will be remembered by visitors as a core of Japanese culture.

There are not a small number of overseas countries I have visited in which people were so, or even overly, kind as I felt sorry about it. Some of those countries are good example for Japan to follow. No question about the importance of appealing the excellence of our "Omotenashi" culture to the world, but at the same time, we all have to be careful not to take it that it is inherent in Japanese culture which keeps going without our efforts. We may need not only efforts of Government and businesses but also of our self-government, for example, to keep town guides in bulletin boards clean and updated.

Not to change the subject, but I am often asked to take photos of people with their cameras in the street. My skill to take pictures is so poor I often end up with pictures in wrong angles and out of focus and feel sorry about it. I feel ill at ease as I may be contributing to the damage of Japan with my clumsy photo taking skills. (T.I.)



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