

VCCI DAYORI

No.123 2017.1

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New Year Greetings

President of VCCI Council

Keiichi Kawakami



A Happy new year!

We are facing with the 4th industrial evolution brought about by Big Data and AI toward CPS/IoT society departing from “information society.” The Japanese electronics industry deeply associated with VCCI is facing with the time of big changes from “Information society” to “CPS/IoT” based society. Japanese IT & electronics industry deeply associated with VCCI is expected to take the pivotal role in the Japanese industry through the process of developing a platform passable in the global market while solving Japan unique problems towards the pivotal industry to move Japan forward.

Since its inception 30 years ago 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 owe the longevity of our organization a lot to the cooperation of related people and organization.

In March 2015 CISPR 32 Ed.2, the emission standard for multimedia equipment, was released and followed by MIC Information Communication Committee for its endorsement for Japan. The multimedia EMC standards encompass standards for both ITE and AV equipment which have so far been two independent standards. VCCI has developed the new VCCI standards based on CISPR 32 with which to continue its reputed voluntary self-regulation.

Our self-regulation scheme has successfully been sustained since its inception through members’ positive engagement in the registration of measuring facility, dependable self-verification of product conformity with that facility and positive cooperation in the market sampling test carried out by VCCI. In the front of international cooperation VCCI is engaged in periodical meetings with industry associations and certification bodies overseas. In October 2016 VCCI ran its booth in CEATEC, the biggest and most influential CPS/IoT exhibition in the world, convened a VCCI International Forum there as a parallel conference which attracted many participants.

It is our commitment to maintain VCCI activities indispensable for keeping clean radio environment in Japan while appropriately harmonizing VCCI schemes with technical innovation and social implementation of promising technologies represented by CPS/IoT.

We hope year 2017 will be a promising and quantum year for all.

Enigma of the Japanese Smile

Lincoln Bell

From days of old, there have been times when Westerners are not able to grasp the meaning of Japanese smiles. Lafcadio Hearn wrote an essay entitled “The Japanese Smile” back in the Meiji Period (1868-1912). In it, he endeavored to explain the nature of the Japanese smile for the edification of the Western community in the port city of Yokohama. Calling it a “silent language,” he said that an effort to interpret the Japanese smile based on Western notions of expression would be like “interpreting Chinese characters by their real or fancied resemblance to shapes of familiar things.” The “polite” yet-mysterious smiles of Japanese workers and servants often raised the ire of foreign residents, who according to Hearn spoke of them with “strong contempt,” suspecting that they signified “insincerity.” In an attempt to disabuse the Westerners of such thinking, Hearn described the Japanese smile as “long-cultivated etiquette,” meant to not burden others with one’s “moments of pain, shame, disappointment.” This explanation, because it was precisely at such times that the foreigners considered smiling and laughing to be not only inappropriate but infuriating. (This interesting article can be Googled by entering “Hearn ‘Japanese smile.’”)

The sociologist Chie Nakane (first woman to be given a professorship at the University of Tokyo) spoke about the cultural roots of language, including nonverbal language, in her 1972 book *Tekio no Joken* (Conditions of Adaptation). In it, she wrote that it is not an easy thing for a person born and raised in one culture to communicate smoothly with a person of another culture, stating that language is inseparable from culture. She gives an example from experience to demonstrate this point. “Once when talking with an American he suddenly got a serious look on his face and said, ‘Though I didn’t say anything funny, the Japanese man with whom I was talking started to smile’, and asked me, ‘why he could be so rude’.” Given the cultural differences at play, Nakane said that it was with great perplexity that she attempted to explain the smile.

I can count some 50 words and expressions in Japanese meaning smile or laugh (both written with the same *kanji* character (笑)), along with a colorful assortment of onomatopoeia. These expressions convey a vast array of meanings, some of which with nuances that defy precise English translation. Not all Japanese smiles and laughs are happy ones. While some are friendly, jovial even boisterous in nature, others connote such sentiments as bashfulness (shying away), discomfort (with a situation or person), bereavement, muffled pain, even hatred.

Starting on the positive side, Japanese love to gather in groups to drink and party. Differing from Americans, their repertoire of humor does not include the telling of jokes (which they’re apt to call “old-fogey gags”); nevertheless, they are seen to laugh more animatedly. In fact, there can be as many laughs as words as a conversation rotates around the group. Laughing itself becomes language. This sort of communication punctured with cascading laughter is, I believe, uncommon among Westerners. What’s even more unique than the Japanese ability to insert rolling laughter between sentences is their ability to insert laughs between words within a sentence.

If you're a Westerner, give it a try.

Speaking of communication, from ancient times the Japanese have used laughter as a means of communicating with their gods. Kazunori Higuchi recently wrote a very interesting book about this aspect of Japanese culture, titled *Holy Foolery in the Life of Japan*. (Japanese edition titled: *Warai no Nihon Bunka* (The Japanese Culture of Laughter).) In it, he describes how at local Shinto shrines the elders gathers in ceremonies to consecrate laughter to the ancestral gods. "As if to reach the heavens, they raise their voices in a loud "a-ha-ha-ha" roar of laughter offered to please the gods. In return, the gods laugh back—bestow blessings." Did you know that among the Seven Gods of Luck only one is Japanese: Ebisu, none other than the god of laughter?

On the reverse of this jovial coin is a darker side. There's a Japanese expression "A sword in a smile"—painting a smile on one's face while harboring distain for the person in one's heart. The term *reisho* (translated as but not necessarily perceived as an "icy smile") connotes such sentiment. Smiles of this sort can engender miscommunication, as foreigners, who generally believe that smiling radiates positive feelings, have difficulty reading them. If I may use a personal example: I used to be a department head with several section managers, one of whom was a Japanese woman—let's call her Sumiko. For reasons of her own, she hated my Filipina secretary, threatening to quit if I didn't fire her. The secretary, on the other hand, would tell me how nice a person Sumiko was, saying "whenever we talk she always smiles." The secretary was unable to perceive the *reisho* smile pasted on Sumiko's face.

Revisiting Yokohama in that Meiji Era, one wonders whose perception of the Japanese dockworkers and servants' smiles was correct, Lafcadio Hearn's or the foreign residents'. Or, could it be that there was some accuracy and inaccuracy in both their positive and negative perceptions. As Chie Nakane says, laughter and smiling are culturally rooted. Superimposing Western motifs of laughter and smiling on the Japanese tapestry can be as it's said in Japanese like "grafting bamboo on a tree."

Being a Westerner myself, I am operating under a fragmented understanding derived from a half-baked knowledge of the Japanese culture, including of course the mystifying yet-fascinating Japanese smile, so I am more than happy to leave the venturing of any final conclusions to the reader.

Lincoln R. Bell



Many moons ago, Mr. Bell was born in San Francisco. He graduated from UC Berkeley with degrees in Japanese language and Oriental history. In various venues, he has taught Japanese language, culture, and history.

A long-term resident of Japan, Mr. Bell works as a translator, editor and writer. Over the years, he has played an active role in promoting tourism in Japan. Early on he created a tour program for US military people and their families residing in Japan. Besides sightseeing, the program featured mountain climbing and hiking, including more than a 1,000 people a year on Mt. Fuji climbs. He later served for five years as the only foreign member on national committees to promote international tourism in Japan. He has also prepared questions for the National Guide-Interpreter Exam and served as a test examiner. Having a great love for studying and experiencing the mountain religions of Japan, he has over a couple of decades participated in the activities of Japanese mountain ascetics (*yamabushi*), and, though no more than a mascot, was given the priestly title "Rinshobo" (forest-peak temple bell).

Mr. Bell resides in Kamakura with his wife Setsuko.

Committee Activities

● Board of Directors

Date	November 9, 2016
Report given	● Business results in 1H FY2016

● Steering Committee

Dates	September 21 and October 19, 2016
Agenda items	<ul style="list-style-type: none"> ● 1. Review of reports of the 28th Board of Directors ● 2. Admission of new members applied in July to September ● 3. Contents of the revision of VCCI rules based on CISPR 32
Decisions made or report given	<ul style="list-style-type: none"> ● Agenda item 1. Approved ● Agenda item 2. Approved ● Agenda item 3. Approved as presented ● 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 by project) for the period of July – September ● Reporting item 4. On business trip to participate in IEEE EMC International Symposium held in Ottawa ● Reporting item 5. On business trip to EMC EURO held in Wroclaw

● Technical Subcommittee

Date	September 12, 2016
Agenda items	<ul style="list-style-type: none"> ● 1. Activities plan of each working group under the Technical Subcommittee for FY2016 ● 2. Interpretation of the VCCI technical requirements and rules based on CISPR 32 ● 3. Guidance on EUT tables ● 4. Verification of the new functions added in CISPR 32 ● 5. Study of calibration of antenna factors in free space ● 6. Proposal on the standardization of VHF-LISN in CISPR
Pending business	<ul style="list-style-type: none"> ● Agenda items 3 through 6
Decisions made or report given	<ul style="list-style-type: none"> ● Report given: Presented VCCI paper at the IEEE EMC International Symposium 2016 Ottawa ● Report given: VCCI paper presented at the EMC Europe 2016 Wroclaw, Poland

● International Relations Subcommittee

Dates	August 26 and September 9, 2016
Agenda items	<ul style="list-style-type: none"> ● 1. The International Forum ● 2. Update of EMC related standards in the world ● 3. Investigation on EMC situations overseas
Pending business	<ul style="list-style-type: none"> ● Agenda item 1 Planning and preparation for the International Forum ● Agenda item 2 ● Agenda item 3 Preparation for the activity
Decisions made or report given	<ul style="list-style-type: none"> ● Agenda item 1 Convened VCCI International Forum 2016 at CEATEC Japan on October 7 ● Agenda item 2 Did scheduled update

● Market Sampling Test Subcommittee

Dates	September 2 and October 14, 2016
Agenda items	<ul style="list-style-type: none"> ● 1. Document inspection ● 2. Action on cases of Failed tentative ● 3. Preparation for the new rules ● 4. Study of granting preferential treatment
Pending business	<ul style="list-style-type: none"> ● 3. Continue to study method of sampling test under the new rules ● 4. Continue the consideration on pros and cons in preferential treatment of VCCI members who periodically confirm EMI quality of their mass produced products.
Decisions made or report given	<ul style="list-style-type: none"> ● 1. Executed document inspection on 12 cases. Found out wrong testing process on two cases. Accepted the members' intentions on voluntary retesting for the two cases. ● 2. One failed case reconfirmed. The cause was that the member did not retest mass-produced products although the fix was applied at the time of filing to VCCI on an ad-hoc basis. Responses from the owners are awaited on the other two failed cases.

● Education Subcommittee

Dates	September 14 and October 12, 2016
Agenda items	<ul style="list-style-type: none"> ● 1. Responses to the questionnaires on the 3rd Operation course and 35th Basic measurement engineers course ● 2. Study of the new rules within the Education Subcommittee ● 3. Educational programs to align with the new rules ● 4. Standardized education programs by the three contracted labs for hands-on training on the new rules
Pending business	<ul style="list-style-type: none"> ● Agenda item 3. ● Agenda item 4.
Decisions made or report given	<ul style="list-style-type: none"> ● Positive responses were obtained to questionnaires on the two training courses run ● Did a group study on the new VCCI technical requirements by focusing on the differences from the previous requirements ● Education and training business in FY2016 <ul style="list-style-type: none"> • 15 trainees enrolled in the 35th basic measurement engineers course held on September 16 • 13 trainees enrolled in the 44th course for measurement engineers held on October 6/7 and 13/14

● Communication Subcommittee

Dates	September 9 and October 14, 2016 (no meeting in August)
Agenda items	<ul style="list-style-type: none"> ● 1. Participation in CEATEC (October 4 – 7, 2016) ● 2. VCCI Ad with a movie in TV floor of Bic Camera ● 3. Activities in the next term to commit ● 4. On handout, panels and video/movies for exhibitions in 2017
Pending business	<ul style="list-style-type: none"> ● Agenda item 3: Confirmed operations to continue. Will determine details of projects ● Agenda item 4: Develop new panels and handout and modify VCCI movies to align with change to CISPR 32. Details to be determined in the next meeting
Decisions made or report given	<ul style="list-style-type: none"> ● Agenda item 1: Determined booth attendants. Reported on the results of responses to the questionnaire. ● Agenda item 2: Checked if the movie runs as designed and determined portions to fix

● Measurement Facility Registration Committee

Date	September 12, 2016
Agenda items	Reviewed the result of deliberations by the Measurement Facility Examination WG and concluded as follows
Decisions made and items completed	<p>Conformity certified (including cases certified with qualification comments after checking of supplementary papers); 25 companies</p> <ul style="list-style-type: none"> • Radiated EMI measuring facilities; 13 • Mains ports conducted EMI measuring facilities; 15 • Telecommunication ports conducted EMI measuring facilities; 9 • Radiated EMI measurement facilities above 1GHz; 14 <p>Applications returned with comments; none Applications carried over to the next meeting; 1</p>
Date	October 17, 2016
Agenda items	Reviewed the result of deliberations by the Measurement Facility Examination WG and concluded as follows
Decisions made and items completed	<p>Conformity certified (including cases certified with qualification comments after extra paper checking); 20 companies</p> <ul style="list-style-type: none"> • Radiated EMI measuring facilities; 5 • Mains ports conducted EMI measuring facilities; 8 • Telecommunication ports conducted EMI measuring facilities; 10 • Radiated EMI measurement facilities above 1GHz; 4 <p>Applications returned with comments; none Applications carried over to the next meeting; 1</p>

● 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

The history of ISO/TC22 (Road vehicles) and UN Regulation No. 10 (R10)

By Masamitsu Tokuda

1. Foreword

Figure 1 indicates an image of electromagnetic environment problems automobiles undergo.

There are problems of electro-magnetic emission from automobiles to interfere broadcasting receivers on one hand and there are problems to interfere automobiles by electric waves emitted by ① broadcasting facilities, ② emissions from mobile phones, and ③ emissions caused by discharge of static electricity, which are all immunity issues. Standards on emission from automobiles are developed by CISPR SC-D. Immunity standards for automobiles, on the other hand, are developed by TC22 “Road vehicles” of ISO.

In terms of EMC regulations for type approval on automobiles there is UN rule No.10 (R10) established by WP29 – World Forum for Harmonization of Vehicle Regulations. Hereafter I will explain the history of ISO/TC22 and R10.

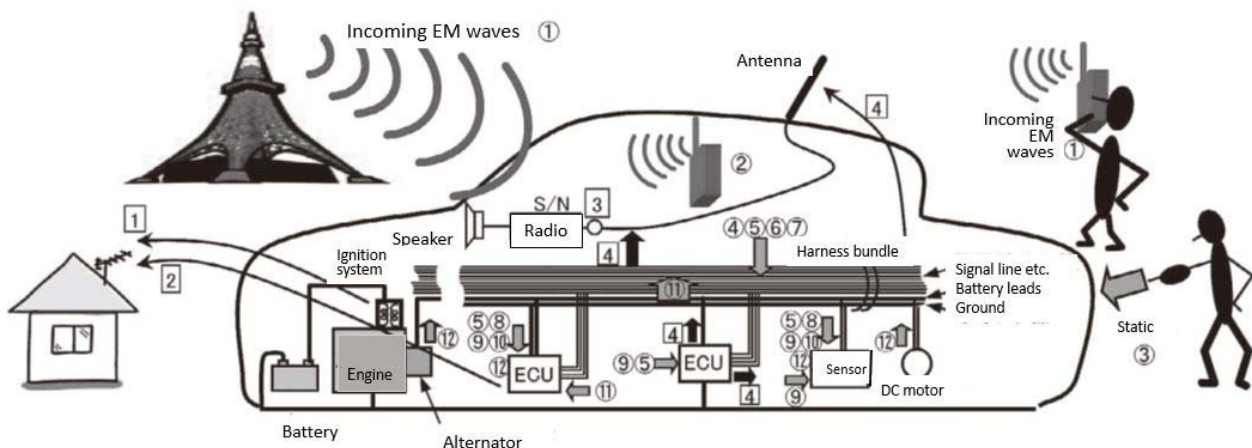


Figure 1 An image of electromagnetic environment

2. ISO/TC22 Road vehicles

(1) Background of the establishment of TC22 and its scope

TC22 is one of the oldest technical committees in charge of standardization of road vehicles established in the year of the establishment of ISO in 1947. The coverage of the committee is very wide encompassing all problems concerning road vehicles (as listed below *) defined in the Chapter 1 of The Convention on Road Traffic agreed in Vienna in 1968 under the auspice of the United Nations. Covered subjects of standardization include terminologies, performance evaluations, testing procedures (covering characteristics of equipment), compatibility and safety just to name a few for the following vehicles.

They are -

Motorized vehicles, motorcycles, automobiles, trailers, semi-trailers, right-trailers, coupled vehicles and articulated vehicles

As of April 2009 TC22 is composed of 22 technically divided SCs, 91 WGs and 8 directly managed WGs.

In terms of immunity testing for automobiles TC22/SC32/WG 3 (Electrical and electronic equipment/Electrical interferences) ¹⁾ started the development of standards on EMI of radio frequencies. However, at the time of the reorganization of TC22 in 2015, standards on 3 EMC issues on automobiles and their components were transferred to TC22/SC32/WG3 (Electrical and electronic components and general system aspects).

(2) Organization to take care of TC22 in Japan

This responsibility was given to JSAE (Society of Automotive Engineers of Japan) which became a P-member (Participating member) given the power to vote in ISO/TC22 Plenary meetings as well as the duty to attend the meetings. To cope with the situation in Japan the Society of Automotive Engineers of Japan took the responsibility for the TC22 national committee in 1968 followed by reorganization in 1970 to improve operational efficiency. Today the committee is engaged in the establishment and maintenance of JIS and JASO standards while dispatching as many as 140 staff to related international meetings a year.

3. EMC regulations on automobiles

(1) R10 of UN/ECE/WP29

In terms of international regulations on EMC for automobiles a mutual agreement was agreed on in 1958 (so-called Year 58 agreement). Based on the agreement WP29 (working party on vehicle structure) was established to work on the harmonization of automobile standards and realization of MRA (mutual recognition agreement) within Europe. Problems was, however, it was not possible to proceed the agreement with the US and Canada based on Year 58 agreement where there was no pre-certification system implemented in the two countries.

This situation led to the movement to establish the global technical regulation (GTR) to enable even the US and Canada to join. At that juncture WP29 was renamed to “the World Forum for the Harmonization of Vehicle Regulations” from “Vehicle structure working party.”

In Europe 95/54/E, the EMC directives for automobiles, became effective as a program to reinforce EMC regulations. In 1997 Series 02 was made effective for the harmonization with the 95/54/E which covers regulations not only on the emission but also on the immunity. After that series 03 was effectuated in 2008 to revise testing method in such a way to accept the direct reference to specific editions of CISPR and ISO standards leaving specific items picked up in R10. In 2008 series 03 was effectuated whose main revision points were to refer directly to the editions of CISPR and ISO standards except for specific items picked up for R10. This was followed by series 4 in 2011 to apply requirements for general EMC directives on charging circuits while avoiding duplicated standards for automobiles and for power supply systems. R10 effectuated in

October 5, 2014 is working today as edition 5 in which parts for charging mode is newly subjected to testing together with revision of testing method.

(2) Japanese organization in charge of UN/ECE/WP29

The government of Japan, which joined the 1998 agreement, is eligible for voting in UN/ECE/WP29. To support this governmental responsibility the Japan Automobile Standards Internationalization Center (JASIC) was established in October 1987 jointly by the Ministry of Land, Infrastructure, Transport and Tourism, the Japan Automobile Manufacturers Association, Japan Auto Parts Industries Association and Japan Automobile Importers Association and others. As to R10 it is handled by ECE/WP29/GRE: Working Party on Lighting and Light-Signaling. To cope with this situation JASIC established R10 Japan WG under ECE/WP29/GRE.

References: (Only those in English)

1) ISO/TC 22/SC32 Electrical and electronic components and general system aspects

http://www.iso.org/iso/home/standards_development/list_of_iso_technical_committees/iso_technical_committee.htm?commid=5383636



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

Announcement on the application of the new VCCI rules “VCCI 32-1”

By VCCI

On November 1, 2016 VCCI started the application of RULES FOR VOLUNTARY CONTROL MEASURES (VCCI 32-1) based on CISPR 32 Ed.2 “Electromagnetic compatibility of multimedia equipment - Emission requirements” reviewed and endorsed by MIC.

Period from November 1, 2016 to March 31, 2019 is set as the transient period allowing both old (V-2) and new rules (VCCI 32-1) to be applicable. VCCI members are required to define which rule was selected for conformity verification. On and after April 1, 2019 only VCCI 32-1 will be applicable.

Note also that measurement facilities registered based on V-5 “Rules for Registration of Measurement Facilities” can be used for VCCI-CISPR 32 for the testing items measureable with V-5 facilities.

Cooperation by VCCI members in this pivotal transition would be highly appreciated

Reference: The Radio Use Web Site of MIC

<http://www.tele.soumu.go.jp/j/adm/inter/cispr/>

Report on the participation in 2016 IEEE EMC Symposium

By Technical Subcommittee

We from VCCI Technical Subcommittee participated in the subject symposium and had a planned meeting with staff of ITI, A2LA and NVLAP there.

Venue: Shaw Centre, Ottawa, Canada
Period: July 25 – 29, 2016
VCCI Participants: Mr. Hoshi, Chair, VCCI Technical Subcommittee
Mr. Tanaka, Technical Subcommittee
Mr. Oda, Senior managing director
Mr. Tsurumi, Manager of general affairs
Mr. Shimasaki, Deputy technical manager
Ms. Inagaki, Program manager

1. The gist of the symposium

The symposium was composed of the following elements.

They are Workshops, Tutorials, Technical Sessions, Special Sessions, Panel Discussions and Exhibition. M. Tanaka made a presentation in the Antennas of Technical Session

(1) Workshop and tutorials

Held on Monday (July 25) and Friday (July 29) with 19 session in total. The subjects we paid our attention to were as follows

① Tutorial: Measurement uncertainty (MU) – Challenges and solutions

The evaluation of MU will become Ed.2 for publication after 2016 with the addition of Supplement 2 to the initial edition. There was a presentation on an example of the application of Monte Carlo method to Supplement 1 of GUM. This subject is worth following in VCCI too.

② Workshop: Basic EMC measurement

Mr. Don Heirman made a presentation on the uncertainty of measurement. While the uncertainty of measurement is recorded but it is not to be referenced in the pass/fail judgment in CISPR 32. In CISPR 11, on the other hand, it is referenced in the pass/fail judgment. In ANSI C63.23 GUM type A is adopted. Under the circumstances it is too early to implement the uncertainty of measurement at this point of time. Mr. H. R. Hofmann made a presentation on concrete examples of on-site EMC problems and proposed solutions to them. His point was, EM disturbance occurs if individual product meets the limits in real field situations. He followed with the causes and solutions.

There was presentations on the update of international standards in 2015 – 2016. Covered there were

hints on EMC measurement on desktop calculators and in-situ equipment, measurement of EMC above 1GHz and measurement uncertainty. These issues are worthy following in VCCI too.

(2) Technical sessions

Held in three days of July 26 to 28. Noteworthy topics were as follows.

① Mr. Tanaka of VCCI Technical subcommittee made a presentation titled “An evaluation on the use of small biconical antenna in Normalized Site Attenuation Measurement.” The gist of his paper is that he made a comparison of NSA evaluation with a small biconical antenna and a log periodic antenna. The result indicated that the small biconical antenna is more problematic than the other. Major comments went as follows.

C1: Small bicon is better than expected although its dynamic range is narrower.

C2: I have had experiences on simulations. The experiment in the presentation is well executed with means including the use of a pole and cables with ferrite cores to avoid the influences from outside. I like to follow this example in my simulations.

C3: It is efficient in NSA evaluation. If any, I am a bit concerned with dispersions of data in high frequency zones.

C4: Comment of Co-Chair Ghery Pettit: VCCI has been keeping studies on referenceable evaluations. The paper this time is not an exception.

② There was another paper in the session on antennas, which was of Mr. Alexander Kriz. It was on the evaluation of loop antenna used for 9kHz – 30MHz and on the status of its study in CISPR A.

③ Modeling of Reverberation

Sessions on chambers attracted many audiences. It was pointed out that the time needed on measurement can be shortened compared to the use of conventional SAC and that it is possible to do measurement in a uniformed field. Problem is, however, measurement needs composite of readings on three axis among others. In Japan Normative Annex 1 (on alternative testing methods) of CISPR 32 was deleted in MIC endorsed CISPR 32, but we should keep watching for a while.

④ EMI Risk

Each of the three presentations in the special session on Management attracted over 50 attendants. There went lively discussions on the importance of electromagnetic disturbances and risk management. IEC 61508, its related standards and functional safety were among topics discussed with enthusiasm, which indicated the subject is hot among those concerned.

(3) Exhibition

In three days of July 26 to 28 the exhibition hall housed as many as 108 exhibitions on EMC, of which two were from Japan. Many booths were on measurement facilities and related equipment. In the past exhibitions there were many booths on protective materials such as gaskets from China and other countries, but this year they were not conspicuous. There also were entries by ANAB (ANSI-ASQ National Accreditation Board - previous ACLASS), A2LA and NVLAP which are all counterparts of VCCI in MRA.

2. Remarks

The number of contributions from Japan was small judged from the names of representatives of papers and presenters. Most of them were from university professors and R & D divisions of foreign organizations. Much less from autonomous organizations like VCCI and measurement related department of companies. It was for a while that VCCI paper was adopted in the session on antennas. It was good that we had opportunities to exchange information on adaptation of CISPR 32 with several organizations including CSA and RRA there. Also it was good that we met Mr. Chang and Yen-Tang of BSMI of Chinese Taipei because we were able to start communication on technical exchange meetings scheduled in the next year with them. The 2017 IEEE EMC will be convened in Washington D.C. in August 7 – 11, 2017. It is our intention to attend it as in the past to benefit VCCI.



The banner of the convention



All VCCI participants in front of the venue



Mr. Tanaka, VCCI Technical Subcommittee



The venue of the symposium

Report on the meeting with ITI

Date/Time: July 25, 2016 19:00 – 20:50

Venue: Shaw Centre, Ottawa Canada

Participants:

ITI Mr. Richard Worley (Deputy for ITI TC5 Chairman)

Other 12 members of ITI TC5

VCCI Mr. Hoshi, Chair, VCCI Technical Subcommittee

Mr. Tanaka, Technical Subcommittee

Mr. Oda, Senior managing director

Mr. Tsurumi, Manager of general affairs

Mr. Shimasaki, Deputy technical manager

Ms. Inagaki, Program manager

The background of the meeting:

It is customary for VCCI to have a meeting with ITI (Information Technology Industry Council) on the occasion of participating in IEEE EMC. Previous meeting was held in 2014. The purpose of the meeting this time was to introduce Mr. Oda, Senior managing director of VCCI to ITI and to update ITI on the major revision of VCCI rules to CISPR 32 based rules.

The gist of the meeting:

Retired was Mr. Ghery Pettit, the previous chair of ITI. Current chair Mr. John Hirvera was not available on the day with previous commitment, so Mr. Worley acted on him in the meeting. Following the presentation on the status of ITI, VCCI made two presentations on which discussions took place.

1. Latest explanation from VCCI

(1) Update on VCCI situations

Mr. Oda covered the following subjects

- ① Organization and recent situation of VCCI
- ② The statistics on the number of VCCI member companies
- ③ Update on measurement facility registration
- ④ Update on the number of conformity verification filing
- ⑤ Status on market sampling test
- ⑥ Policy on CISPR 32 based VCCI rules

(2) New Technical requirements and supplementary rules

Mr. Hoshi covered the following topics

- ① Time table on the implementation of the new rules

- ② Structure of the new rules
- ③ Philosophy behind the new technical requirements
- ④ The gist of interpretation of the new rules

2. Qs & As

Q1: When will you implement the new rules?

A1: October – December this year.

Q2: Will products already registered based on the previous rules be subjected to refiling?

A2: No, refiling is not required as far as there is no technical changes applied.

Q3: About Semi Anechoic Chamber, is there anything to prepare beforehand for CISPR 32 based new rules?

A3: Basically nothing as long as ITE is the subject of testing.

It was agreed that the next meeting is to be held on Thursday in the week of the IEEE convention in 2017.

3. Comments

We had a good opportunity to update ITE on VCCI's endeavor on CISPR 32 based new technical requirements. Members of ITE are also members of VCCI, so their questions were concrete and to the point. We should further reinforce our relationship with ITE through sound technical exchange of information.



A scene of the meeting with ITE

Report on the meeting with A2LA

Date/Time: July 26, 2016 13:00 – 14:00

Venue: The Westin Ottawa Quebec Room (in the venue of IEEE EMC)

Participants:

A2LA Ms. Megan McConnel (Senior Accreditation Officer)

VCCI Mr. Hoshi, Chair, VCCI Technical Subcommittee

Mr. Tanaka, Technical Subcommittee

Mr. Oda, Senior managing director

Mr. Tsurumi, Manager of general affairs

Mr. Shimasaki, Deputy technical manager

Ms. Inagaki, Program manager

Purpose:

To mutually update on the situations the each party is in by taking advantage of both parties attending the IEEE EMC. VCCI and A2LA are tied with MOU. The meeting this time was the first one with A2LA since Mr. Oda assumed his responsibility as VCCI Senior managing director (the previous meeting was held in 2014 with his predecessor).

1. Update on VCCI and efforts on transition to CISPR 32 based operations

(1) Update on VCCI by Mr. Oda

- ① The situation VCCI is in and its organization (including the change of the head of VCCI to Mr. Oda in July 2015)
- ② The statistics on the number of VCCI members
- ③ Update on measurement facility registration
- ④ Update on the number of conformity verification filing
- ⑤ Status on market sampling test
- ⑥ Policy on CISPR 32 based VCCI rules

(2) Mr. Hoshi introduced the gist of the New Technical requirements and supplementary rules.

- ① Time table on the implementation of the new rules
- ② Structure of the new rules
- ③ Philosophy behind the new technical requirements
- ④ The gist of interpretation of the new rules

2. Update on A2LA

Ms. Megan McConnell covered the following topics

- ① Current status on accreditation undertaking
- ② Major causes of non-conformity in test lab accreditations
- ③ Update on A2LA operations
- ④ Introduction of education and training endeavor

3. Discussions

Asked by A2LA about the release date of new VCCI technical requirements etc. we answered that it would be somewhere between October and December 2016. A2LA said the number of VCCI accredited sites is 95, which means 4 sites increased from the previous year. In terms of implementation of CISPR 32 Ed.2 the intention of A2LA is to start it in around 2017. In terms of the MOU with A2LA whose renewal timing will be 2017, we informed them that it is VCCI's intention to renew the MOU.

4. Remarks

A2LA informed us that the number of laboratories accredited with CISPR 32 is on the increase in the US, which hinted that move toward CISPR 32 is getting accelerated in the US. We felt that we should keep convening face-to-face meetings with US accreditation labs in order for us to grasp the reality on the transition to CISPR 32 in the field. In the future occasions to participate in IEEE conventions VCCI should enhance relations with A2LA and related accreditation labs there to deepen and amplify the relationship with them.



In the room of meeting with A2LA

Report on the meeting with NVLAP

Date/Time: July 27, 2016 13:30 – 14:30

Venue: Show Centre, Ottawa Canada/Exhibition Hall

Participants:

NVLAP Ms. Bethany Hackett, Program manager (accompanied by one staff)

VCCI Mr. Hoshi, Chair, VCCI Technical Subcommittee

Mr. Tanaka, Technical Subcommittee

Mr. Oda, Senior managing director

Mr. Tsurumi, Manager of general affairs

Mr. Shimasaki, Deputy technical manager

Ms. Inagaki, Program manager

The background of the meeting

NVLAC with which VCCI closes MOU regularly participates in IEEE EMC including this time. Taking this opportunity too VCCI proposed a face-to-face meeting with them in the IEEE EMC convention site to update each party (the last meeting was held in 2014. Especially this time VCCI side had two news. One is that the top of VCCI was changed to Mr. Oda and the other is that VCCI effectuated CISPR 32 based rule this year.

1. The gist of the meeting

(1) Update on VCCI situations including VCCI move on CISPR 32

Mr. Oda covered the following subjects

- ① Organization and recent situation of VCCI
- ② The statistics on the number of VCCI members
- ③ Update on measurement facility registration
- ④ Update on the number of conformity verification filing
- ⑤ Status on market sampling test
- ⑥ Policy on CISPR 32 based VCCI rules

(2) New Technical requirements and supplementary rules

Mr. Hoshi covered the following topics

- ① Time table on the implementation of the new rules
- ② The structure and systems of the new rules
- ③ Philosophy behind the new technical requirements
- ④ The gist of the interpretation of the new rules

2. Update by NVLAP

Ms. Bethany Hackett updated us on various aspects of NVLAP including better utilization of the NVLAP Web site whose user friendliness was improved. This improvement enabled the users to easily confirm the contents of their registrations in the Web site. Another update for us went that application shifting from CISPR 22 to CISPR 32 is on the increase.

3. Exchange of information

NVLAP asked us the following. If a user has a registration number of NVLAP is the user not required to go through Web application and inspections of VCCI? We answered “True.” Also to their question about the starting time for CISPR 32 based application by VCCI we answered that it will be sometime between October and December 2016. Another question was, “What will be the number of the new technical requirement?” “VCCI-CISPR 32 was our answer. Version number will be VCCI 32-1 against V2 of today. On the MOU we told them it has been working smoothly. Update for the next term will be required in 2017 and it is the intention of VCCI to continue it, with which NVLAP also agreed.

4. Exchange of information

We came to know that NVLAP is also in the process to start CISPR 32 based measurement facility registration. Face-to-face meeting like this one with counterpart accreditation organizations has become more important than before in today’s environment. We both agreed that we should keep meeting in the future also in connection with IEEE meetings.



In the NVLAP booth

Report on EMC Europe 2016 EMC Symposium

By Technical Subcommittee

In the subject symposium the VCCI reps made a presentation on a fruit of the study by VCCI Technical Subcommittee as reported below. Participated from VCCI were the authors of the three papers and Mr. Muramatsu, Engineering manager of VCCI. The total number of participants in the symposium was approximately 286 of 300 applicants (information released by the meeting management).

Venue: Wroclaw, Poland
Period: September 5 – 9, 2016
VCCI Participants: Mr. Okuyama, Technical Subcommittee
Mr. Takeuchi, Technical Subcommittee
Mr. Osabe, Technical Subcommittee
Mr. Muramatsu, Technical manager

1. The gist of the symposium

The location in which EMC International Symposium was convened in 1972 for the first time was Wroclaw Engineering University. In 2010 two independent symposiums convened elsewhere so far in Europe were integrated into a single symposium in today's form. Six years have passed since Wroclaw became a place of the symposium for the first time. Program this time was made of two keynote speeches followed by workshops, tutorials, oral sessions, special sessions, poster sessions and exhibitions. Three papers from VCCI on the fruits of the work of the Technical subcommittee were adopted for presentations. Mr. Osabe and Mr. Okuyama made their presentations in the (3) Measurement Techniques session and Mr. Takeuchi made his presentation in Poster session. There were two keynote speeches made – one is “EMI evaluations on equipment worn by human bodies and immunity testing method” by Professor Ohkensei of Nagoya Institute of Technology. The other was “Trend in spectrum sharing indispensable for wireless network in the future” by Professor Dasilba of Dublin University. Both presentations were significant with regard to today's EMC issues.

As to Workshops & Tutorials they were held in September 5, 8 and 9 on total 13 sessions. Workshops worthy reporting among those we attended were as follows.

(1) Workshop

① WS1: Techniques for Measurement and Characterization of Complex Multi-functional (Digital) Systems

This workshop was designed for EMC measurement techniques for multifunction equipment ever-getting-complexed. I attended WS1A: Time domain measurement and characterization of Electromagnetic Interference from printed circuit boards. What covered in this session was measurement

methods for emissions and immunities of drones. Drone is categorized into Open, Specific and Certified according to applicable scope of use with certain limits based on which regulatory scope is determined. As to emissions they are tested in operated condition both in anechoic chambers and open site. An interesting comment was made that interference gets maximize when camera is working.

② **WS7: Automation of EMI Testing using a Time Domain EMI Measurement System up to 40GHz.**

This workshop was to explain the merits and characteristics of FFT EMI receivers marketed by Gauss Instruments to which the presenter belongs. What was understood was it is a merit in voltage measurement of conducted EMI with AMN whose rough test configurations are settable, measurement of conducted EMI by EMI clamp and measurement of conducted emissions with CDN because measurement time is shortened. However, its advantage is marginal from a standpoint of measurement of max emissions, although it may be good for the management EMI level of mass-produced merchandise. Also in measurement with FFT EMI receivers the merit is marginal in terms of measurement time reduction. Anyway it should go with sufficient accumulation of know-how including rotation of EUT and antenna scan to draw merits from it.

③ **WS8: Frequency Policy and Spectrum Engineering**

The workshop was held for two days for 6 sessions from WS8A to WS8F. Regrettably I was not able to attend all sessions. The room for this session was near full occupancy.

In terms of frequency allocation to mobile networks and digital broadcasting, it is a hot subject in the industry today. Recognized especially as challenging was the issue of frequency allocations to digital broadcasting band and wireless networks band with the surge of transmitted data volumes.

(2) Tutorial session

① **TUT2: Improved EMC Test Method in Industrial Environment**

This session held in the last day dealt with many subject including the following.

(a) Closed distance scanning method –Method to do in-situ measurement of emissions using mini-biconical antenna for near field measurement not possible for the measurement in test sites, and (b) Surface wire measurement method using long wire type antenna(*) to measure radiated emissions to be converted to the field strength at the distance of 3m.

*Note: Its correction factor was obtained from comparison with biconical antenna and log periodic antenna.

Also introduced was Full Time Domain measurement for in-situ radiated EMI measurement. This is a method to cancel incoming noises in in-situ measurement by utilizing FFT EMI receivers. Emission measurement itself is not necessarily better than the conventional method using the frequency domain, but for facilities in which operational condition and testing arrangement are fixed the time domain measurement may be advantageous.

(3) Oral Session

In OS1C Measurement Techniques Mr. Okuyama and myself (Osabe) of VCCI Technical Subcommittee engaged in Qs & As session on the papers contributed by ourselves focusing of VCCI's new EMI

self-regulation system.

① OS1C: Measurement Techniques (3)

Our papers subject to question and answer were as follows.

First on Osabe's paper "Proposal of Polarization Dependence Limit based on the Test Arrangement of Radiated Emission Measurement in FAR Test Site.

Q1: Don't you need to check the relationship on allowance rerated information above 200MHz?

A1: The following is basically agreed on. Namely, limits on emission in the FAR measurement the value 5dB or stricter is applied based on whether or not there exists ground plane.

Q2: SAC gets maximized in the case of antenna height 4m+ in low frequency area. Is FAR Measurement with fixed antenna wrong?

A2: Scanning in the antenna height is prescribed in the standard. Allowances are also specified under that condition as well as our experiment this time.

Following that Mr. Okuyama presented his paper "Study on improving the reproducibility of radiated emission measurement in fully anechoic room by using VHF-LISN. Q & A that followed went as follows

Q1. Will a cable terminator only solve the problem of the site interrelation issues?

A1. There are other problems on the site correlation issues, but this problem is considered the most influential.

Q2. I understand that you conducted international RRT (Round Robin Test) for SAC and the same is in plan for FAR. If you conduct international RRT for FAC I like to join it.

A2. Right now we are tackling standardization of VHF-LISN in CISPR and SC-I/WG2 treats the issue as a long term issue. For these reasons the timing for the international RRT will be several years later at the earliest, but when schedule is fixed I will let you know.

The number of audience to the presentations by Mr. Osabe and Mr. Okuyama was over 50 indicating FAR measurement issue is popular in the EMC society.

The last item in the same session was a paper presentation titled "Analysis of Repeatability and Uncertainty issues in Radiated Emission Tests Regarding HDMI Ports." This paper discussed comparison of placing of cables based on EN 55022 and EN 55032 in the frequency range 30MHz to 1GHz. The point was that emission levels largely change by the way cable is placed. This fact had been confirmed in VCCI too. Continued study is expected on this issue.

② OS3A: Standard

In this session a paper titled "Tracking the Issue of Non-Compliant Products with a New EMC Directives" focusing on IoT and market control within EU drew a lot of attention. The first paper was on the theme of WS1A with the same slide used in WS1A. The second paper was on the market control applied to a product named solar panel inverter 55. Pointed out in the paper were technical problem and CE mark, defects in the paper etc.

③ OS4: Smart meter and PLC

In this session several papers as in below were presented in the theme about the effects of power line

communication signals against smart meters.

In a paper titled “Investigation of Smart Meters Using G3 PLC” it was advocated that EMC effects on Smart Meters were not recognized. Testing on Smart meter based on IEC 61000-4-31 CDV indicated that correctness was within the specified accuracy. On the other hand, however, a paper titled “EN 50561-3 Not an EMC Standard, but an Unacceptable License to Cause Interference” pointed out that there are many G3 PLC equipment not satisfying EN 50561-3, which may have caused electromagnetic disturbances.

④ OS7A: Immunity Tests (1)

In a paper under the title “Proficiency Testing for Conducted Immunity with a new Round Robin Device” introduced were a case of proficiency testing with a device developed for RRT on immunity testing. There generally are challenges in RRT on immunity but the paper presented a hint for the improvement of reliability in immunity testing. It was said in the paper that this device is in actual use for proficiency testing of accredited test laboratories. Today in Japan proficiency testing service is provided by VLAC and JAB. The device discussed in the paper is expected to help their services for immunity testing.

⑤ OS15: EMC Testing of Industrial or Large System

Reported here was measurement by time domain to shorten measurement time in In-situ testing of large EUT. In-situ testing in the paper was applied not only to radiated emissions but also conducted emissions. The scope of in-situ testing may need revisit.

(4) Poster sessions

Total 57 papers were posted in three groups in the afternoon of Tuesday and full day of Thursday. The paper of Mr. Takeuchi of VCCI Technical Subcommittee was posted in poster session P3 in the afternoon under the title “Experiments on the Effects of Reflections from EUT Set-up Tables by Materials in Radiated Emission Measurement above 1 GHz to 18 GHz”. Major comments on his poster were as follows.

C1: Balsa may impact the measurement with its grain direction – vertical/horizontal

C2: It is a very interesting experiment. Next time I would expect you to use fluorocarbon polymers.

C3: Your experiments used the distance 3m between TX and RX. I want to know difference from distance 1m case.

(5) Exhibition

24 companies ran their booths on EMC on the ground floor. Most of them were by measurement facility related companies.

2. Remarks

Our presentations were positively accepted in the symposium with such comments as “fundamental technical study is well addressed.” We felt that recognition rate for VCCI was further heightened with our basic studies and contributions to standardization.

It is our commitment to keep participating in CISPR related activities centered around CISPR 32.

Judged from themes of sessions this time EMC world is rapidly expanding from wearable terminals to the

facilities of large plants where all things are interconnected in wired and wireless networks. Under the circumstances EMC issues are widened waiting for smart solutions covering wearable terminals to facilities of large plants. We felt what is expected is wise sharing of frequency spectrum. Euro 2017 will be convened in Angers, France from September 4 to 7, 2017. It is our proposal and commitment to participate in the Angers sessions with VCCI's contributions as in the past.



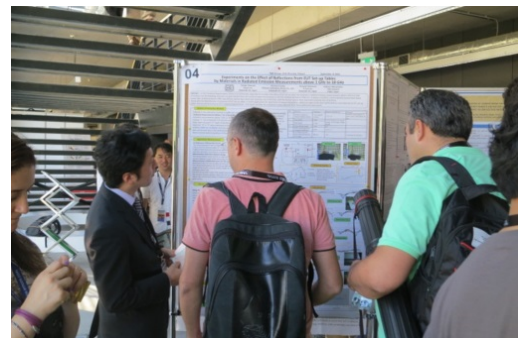
All VCCI participants



A scene of presentation by Mr. Osabe



A scene of presentation by Mr. Okuyama



A scene of presentation by Mr. Takeuchi

Report on EMC Seminar

Under the auspices of the Mie Prefecture
Industry Laboratory
Cooperated by: VCCI

1. The gist of the seminar

Date/Time: October 21, 2016 13:00 – 16:00
Venue: Mie Prefecture Industry Laboratory
No. of Attendees: 14 persons
VCCI speakers: Mr. Uchida, Chairman of International Relations Subcommittee (Panasonic)
Mr. Hoshi, Chairman of Technical Subcommittee
(Hitachi Information & Telecommunication Engineering, Ltd.)
Mr. Hirata, Chairman of Education Subcommittee (Hitachi)
Mr. Oda, Senior Managing Director, VCCI

2. Program

Time	Content	Speakers
13:00-13:30	(1) Activities of VCCI and regulations in the future <ul style="list-style-type: none">• Membership system and self-regulation• EMI regulations in the future (Den-an law, multimedia standards)	Mr. Oda
13:30-14:00	(2) Introduction of regulations in the world on electromagnetic disturbance	Mr. Uchida
14:00-14:45	(3) Rules on EMC Control <ul style="list-style-type: none">• Introduction of VCCI Rules for Voluntary Control Measures• Introduction of VCCI Technical requirements<ul style="list-style-type: none">- On emitted disturbance above 1GHz- On Telecom port conducted EMI above 1GHz	Mr. Hoshi
14:45-15:00	Break	
15:00-15:40	(4) Training on EMI and points in measurement <ul style="list-style-type: none">• Summary of VCCI training endeavor• Measurement methods (below 1GHz)<ul style="list-style-type: none">- Radiated EMI- Conducted EMI	Mr. Hirata
16:50-17:00	Q & A	All speakers

3. Remarks

Mie Prefecture Industry Laboratory we had a seminar this time for is a public testing and research machinery for the prefectural industries with expertise to support R&D, technical training, commissioned analysis and tools/machines sharing for the local community.

Participants this time were mainly from those engaged in development and manufacturing in Mie prefecture. Most of them said it was the first time to get lectured on the control on EMI. Responses from participants were generally positive in saying they systematically learned regulations against disturbances and how to mitigate the problem with VCCI.

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 Mie Prefecture Industry Laboratory for their support and cooperation.



Status on FY2016 Market Sampling Test Operations

Market Sampling Test Subcommittee

As of October 31, 2016

Planned number of market sampling tests	Loan-based		45		100					
	Purchase-based		55							
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	78	3	6	69	45	13	29	0	1	2
Previous month grand total	39	3	4	32	14	9	0	0	0	0

Loan-based testing total	46	3	5	38	21	6	14	0	0	1
1 st Quarter	22	3	2	17	15	2	12	0	0	1
2 nd Quarter	12	0	2	10	6	4	2	0	0	0
3 rd Quarter	12	0	1	11	0	0	0	0	0	0
4 th Quarter	0	0	0	0	0	0	0	0	0	0

Purchase-based testing total	32	0	1	31	24	7	15	0	1	1
1 st Quarter	17	0	0	17	17	0	15	0	1	1
2 nd Quarter	9	0	0	9	7	7	0	0	0	0
3 rd Quarter	6	0	1	5	0	0	0	0	0	0
4 th Quarter	0	0	0	0	0	0	0	0	0	0

Final Result

Passed	Failed	Pending
29	1	2

Document inspection	Selected	Cancelled (withdrawal, etc)	Owner's consent pending	Inspectable samples	Inspection Completed	Judgment awaited	Judgment	
							Cleared	Problems identified
	31	0	2	29	23	0	19	2

Report from the Secretariat

● List of Members (August 2016 ~ October 2016)

New Members

Membership	Member No.	Company Name	Country
Regular	3751	JCVKENWOOD Public & Industrial Systems Corporation	JAPAN
Regular	3757	The Hand Ltd.	JAPAN
Regular	3762	Kpnetworks Ltd.	JAPAN
Regular	3764	SUN-WA TECHNOS CORPORATION	JAPAN
Regular	3765	GLBB JAPAN	JAPAN
Regular	3768	INNOTECK CORPORATION	JAPAN
Regular	3769	K.K.FOVE	JAPAN
Regular	3752	VT iDirect, Inc.	USA
Regular	3753	Royole Corporation	CHINA
Regular	3754	Kaga(H.K.) Electronics Limited	HONG KONG
Regular	3755	Cadence Design Systems, Inc.	USA
Regular	3758	Tembo Systems, Inc	USA
Regular	3759	HFR, Inc.	KOREA
Regular	3760	Shenzhen 3NOD Information Technology Co., Ltd.	CHINA
Regular	3761	ROCCAT Asia Pacific Co., Ltd.	CHINESE TAIPEI
Regular	3766	Primera Technology, Inc.	USA
Regular	3767	DASAN Networks, Inc.	KOREA
Regular	3770	Cohesity, Inc	USA
Supporting	3756	East China Institute of Telecommunications	CHINA

Withdrawal Members

Membership	Member No.	Company Name	Country
Regular	2862	NEC Nagano, Ltd.	JAPAN
Regular	3411	Tech Trex Inc. Japan	JAPAN
Regular	3328	AAEON Technology Inc.	CHINESE TAIPEI
Regular	3660	Lorom Industrial Co., Ltd.	CHINESE TAIPEI
Supporting	3138	Walshire Labs, LLC	USA

Change of Company Name

Membership	Member No.	Company Name	Country	Former Company Name
Regular	131	IDEC AUTO-SOLUTIONS	JAPAN	DATALOGIC ADC KK.
Regular	348	DMG MORI B.U.G. CO., LTD.	JAPAN	B.U.G. MORI SEIKI CO., LTD.
Regular	3502	Smart Solution Technology, Inc.	JAPAN	B.U.G. SST, Inc.
Regular	308	Nokia-Global Product Compliance Laboratory	USA	Alcatel-Lucent
Regular	339	DASAN Zhone Solutions, Inc.	USA	ZHONE TECHNOLOGIES
Regular	748	Microsemi Storage Solutions Inc.	USA	PMC-Sierra, Inc.
Regular	3023	NetScout Systems Texas, LLC	USA	Tektronix Communications
Regular	3179	GS Instech Co., Ltd.	KOREA	GS Instruments Co., Ltd.
Regular	3642	PNY TECHNOLOGIES Asia Pacific Limited	Chinese Taipei	PNY TECHNOLOGIES, INC
Regular	3753	Royole Corporation	CHINA	SHENZHEN ROYOLE TECHNOLOGIES CO., LTD
Supporting	618	TUV SUD America Inc.	USA	Product Safety Engineering, Inc.
Supporting	2718	TUV SUD Canada Inc.	CANADA	Global EMC Inc.
Supporting	3498	Guangdong Keyway Testing Technology Co., Ltd.	CHINA	Keyway Testing Technology Co., Ltd.

Request :	In case of any change in your company name, please kindly advise VCCI. Use the "Notice of Change" at VCCI Website.
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● VCCI Events Calendar

FY2016

<p>April</p> <ul style="list-style-type: none"> • VCCI Basic Course for Measurement Engineers • Exhibition at TECHNO FRONTIER 	<p>May</p> <ul style="list-style-type: none"> • VCCI Course for Measurement Engineers • Computex Taipei 	<p>June</p> <ul style="list-style-type: none"> • VCCI Course on Radiated EM Measurement Above 1GHz • Release VCCI Dayori No.121
<p>July</p> <ul style="list-style-type: none"> • VCCI Business Reporting Meeting • VCCI Course of Rules for Voluntary Control Measures (tentative) • Release Annual Report 	<p>August</p>	<p>September</p> <ul style="list-style-type: none"> • VCCI Basic Course for Measurement Engineers • Release VCCI Dayori No.122
<p>October</p> <ul style="list-style-type: none"> • VCCI Course for Measurement Engineers • Exhibition at CEATEC JAPAN • VCCI International Forum 	<p>November</p> <ul style="list-style-type: none"> • VCCI Course on Radiated EM Measurement Above 1GHz • VCCI Course on Antenna Calibration and NSA Measurement 	<p>December</p> <ul style="list-style-type: none"> • VCCI Seminar on Automated and Manual Measurement • Release VCCI Dayori No.123
<p>January</p> <ul style="list-style-type: none"> • VCCI Technical Symposium 	<p>February</p>	<p>March</p> <ul style="list-style-type: none"> • Release VCCI Dayori No.124

● State of Conformance Report Submitted (July 2016 ~ September 2016)

					July 2016			August 2016			September 2016		
			Class A	Class B	Class A	Class B	Total	Class A	Class B	Total	Class A	Class B	Total
Computer	Server	Super Computer, Server, etc.	A 2	a 2	19	1	20	33	0	33	20	1	21
	Tabletop type	WS, Desk-top PCs, etc.	B 2	b 2	1	16	17	4	11	15	1	17	18
	Portable type	Note PCs, Tablet PCs, etc.	C 2	c 2	0	33	33	1	42	43	1	34	35
	Others	Office Computer, Wearable computers, etc.	E 2	e 2	2	7	9	1	5	6	3	12	15
Peripherals/Terminals Equipment	Storage Device	HDD, SSD, USB Memory, Media drives, etc. Disk drives, NAS, DAS, SAN, etc.	G 2	g 2	11	20	31	19	24	43	7	27	34
	Printer	Printer (Compound equipment included), etc.	H 2	h 2	5	7	12	11	11	22	4	11	15
	Display	CRT displays, Monitor, projector, etc.	J 2	j 2	13	52	65	27	61	88	17	38	55
	Input/Output Device (excluding Auxiliary Memory, Printer, Display)	Image scanners, OCR, etc.	M 2	m 2	1	10	11	2	10	12	5	24	29
	General Purpose Terminal	Display control terminals, etc.	N 2	n 2	0	0	0	2	2	4	0	1	1
	Exclusive Terminal	POS, Terminal for Financial and Insurance use, etc.	Q 2	q 2	7	4	11	8	0	8	7	0	7
	Other Peripherals Equipment	Others (PCI cards, Graphics cards, Mouse, Keyboard, etc.)	R 2	r 2	4	20	24	7	26	33	13	31	44
Audio visual equipment	Broadcast receivers	Television, Radio, Tuner, Video recorder, Set-top Boxes, etc.	K 2	k 2	0	0	0	0	1	1	0	0	0
	Audio equipment	Speaker, Amplifier, IC recorder, MP3 player, Headsets, etc.	L 2	l 2	0	5	5	0	2	2	0	24	24
	Video/Camera equipment	Digital video cameras, Web cameras, Network cameras, Video players, Photo frames, Digital-camera, etc.	I 2	i 2	6	6	12	0	11	11	2	10	12
	Others	Other Audio visual equipment	P 2	p 2	6	4	10	0	3	3	11	9	20
Copying Machine/Compound equipment	-	Copying Machine/Compound equipment, etc.	S 2	s 2	7	8	15	2	3	5	2	3	5
Communications Equipment	Terminal equipment	Mobilephone, Smartphone, PHS telephones	T 2	t 2	0	6	6	0	5	5	0	5	5
		Telephone Equipment (PBX, FAX, Key Telephone System, etc.), Cordless telephones	U 2	u 2	0	0	0	4	1	5	1	2	3
	Network related equipment	Network Channel Terminating Equipment (Modem, Digital Transmission Equipment, DSU, TA, etc.)	V 2	v 2	1	1	2	5	1	6	4	4	8
		LAN Equipment (Router, HUB, etc.), Switching-node, etc.	W 2	w 2	65	9	74	48	17	65	50	6	56
	Others	Other Communications Equipment	X 2	x 2	15	10	25	22	16	38	17	9	26
Entertainment and educational equipment	Electronic stationeries	Electronic dictionaries, Electronic book readers, etc.	D 2	d 2	0	1	1	0	1	1	0	0	0
	Electronic toys	Game machines, Game pads, Toy drones, etc.	Y 2	y 2	0	3	3	0	2	2	0	1	1
	Lighting control equipment for entertainment	Lighting control equipment for entertainment	Z 2	z 2	0	0	0	0	0	0	0	0	0
	Others	Others (Navigator, etc.)	F 2	f 2	0	0	0	0	0	0	0	0	0
Others			O 2	o 2	2	1	3	18	6	24	8	4	12
Total					165	224	389	214	261	475	173	273	446

● 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 2016 – October 2016)

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	Company name	Equipment name	3 m	10 m	30 m	Dark 3m	Dark 10m	Registration number	Effective date	Location	Contact to:
11707	東芝キャリアエンジニアリング&ライフサポート株式会社	#505 電波暗室	-	-	-	○	○	R-4387	2019/9/11	静岡県富士市蓼原336番地	0545-62-5766
11708	東芝キャリアエンジニアリング&ライフサポート株式会社	#505 電波暗室	-	-	-	-	-	C-4886	2019/9/11	静岡県富士市蓼原336番地	0545-62-5766
11709	東芝キャリアエンジニアリング&ライフサポート株式会社	#505 電波暗室	-	-	-	-	-	G-976	2019/9/11	静岡県富士市蓼原336番地	0545-62-5766
11710	Top Victory Electronics Co., Ltd.	TPV Fuqing 3m Semi-anechoic chamber	-	-	-	○	-	R-4388	2019/7/24	Shangzheng, Yuanhong Road, Fuqing City, Fujian Province, China	86-591-65285555 ext8003
11711	Top Victory Electronics Co., Ltd.	TPV Fuqing shielded room	-	-	-	-	-	C-4887	2019/7/24	Shangzheng, Yuanhong Road, Fuqing City, Fujian Province, China	86-591-65285555 ext8003
11712	Top Victory Electronics Co., Ltd.	TPV Fuqing shielded Room	-	-	-	-	-	T-2368	2019/7/24	Shangzheng, Yuanhong Road, Fuqing City, Fujian Province, China	86-591-65285555 ext8003
11713	Top Victory Electronics Co., Ltd.	TPV Fuqing 3m Semi-anechoic chamber	-	-	-	-	-	G-977	2019/7/24	Shangzheng, Yuanhong Road, Fuqing City, Fujian Province, China	86-591-65285555 ext8003
11714	QuieTek Corporation	AC10	-	-	-	○	-	R-4389	2019/7/24	Building No.2, No.10 Xibeiwang East Road, Haidian District, Beijing	86-512-6251-5088 ext5113
11715	QuieTek Corporation	TR15	-	-	-	-	-	C-4888	2019/7/24	Building No.2, No.10 Xibeiwang East Road, Haidian District, Beijing	86-512-6251-5088 ext5113
11716	QuieTek Corporation	TR15	-	-	-	-	-	T-2369	2019/7/24	Building No.2, No.10 Xibeiwang East Road, Haidian District, Beijing	86-512-6251-5088 ext5113
11717	Nemko AS	KJELLER Laboratory, 10m SAC CHAMBER	-	-	-	○	○	R-4390	2019/9/11	Instituttveien 6, 2007 Kjeller, Norway	47-22-96-05-12
11718	Nemko AS	KJELLER Laboratory, 10 SAC CHAMBER	-	-	-	-	-	C-4889	2019/9/11	Instituttveien 6, 2007 Kjeller, Norway	47-22-96-05-12

No	Company name	Equipment name	3 m	10 m	30 m	Dark 3m	Dark 10m	Registration number	Effective date	Location	Contact to:
11719	Nemko AS	GAUSTAD Laboratory, EMC ROOM C	-	-	-	-	-	C-4890	2019/9/11	Instituttveien 6, 2007 Kjeller, Norway	47-22-96-05-12
11720	Bay Area Compliance Labs Corp.,(ShenZhen)	Bay Area Compliance Labs Corp.,(ShenZhen)	-	-	-	○	-	R-4391	2019/7/24	6/F, the 3rd Phase of Wan Li Industrial Bldg., Shihua Rd., FuTian Free Trade Zone, Shenzhen, China	86-0755-33320018 ext 8906
11721	Bay Area Compliance Labs Corp.,(ShenZhen)	Bay Area Compliance Labs Corp.,(ShenZhen)	-	-	-	-	-	C-4891	2019/7/24	6/F, the 3rd Phase of Wan Li Industrial Bldg., Shihua Rd., FuTian Free Trade Zone, Shenzhen, China	86-0755-33320018 ext 8906
11723	Bay Area Compliance Labs Corp.,(ShenZhen)	Bay Area Compliance Labs Corp.,(ShenZhen)	-	-	-	-	-	G-978	2019/7/24	6/F, the 3rd Phase of Wan Li Industrial Bldg., Shihua Rd., FuTian Free Trade Zone, Shenzhen, China	86-0755-33320018 ext 8906
11741	アイシン精機株式会社	藤岡第2電波暗室	-	-	-	-	-	G-980	2019/7/24	愛知県豊田市御作町坂下918-11	0566-75-1577
11745	ソニーグローバルマニュファクチャリング&オペレーションズ株式会社	SKD(幸田)サイト通信端子妨害波測定設備	-	-	-	-	-	T-2376	2019/9/11	愛知県額田郡幸田町坂崎雀ヶ入1	050-3809-3510
11746	Cerpass Technology Corporation	Cerpass Test Laboratory(Taipei)	-	○	-	-	-	R-4399	2019/9/11	No.68-1, Shibachong Xi, Shiding Dist., New Taipei City, Taiwan	886-3-3226-888

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Before putting down a pen

All articles in the VCCI Dayori journal are basically engineering oriented. One exception is "Contribution". This year I ventured to feature "Charms of Japan." I searched and found people engaged in their work by sticking to "good things" of Japan. I hope you enjoyed the series throughout this year.

In several years when I lived in overseas countries for study and business I experienced cultural awakening for Japan. And I hope that many people not only Japanese but also people in many countries foster and enjoy goodness of Japan for a long time. Up until today, however, I have not have any skill to express my intimate feeling toward Japanese culture, so it is fortunate that I showed


some works in Dayori.

In the past 30 years, a short period of time in the long history, many conveniences have been made available and upgraded such as calculators, word processors, facsimiles, personal computers and mobile phones, to name just a few. Even so there are certain things we want them to keep going for a long time in the future. I hope Dayori is one of them.

I thank you all related people for letting me work together in 2016.

I wish you good health and happiness in the New Year.
(L.K.)

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The map shows the VCCI location (NOA Bldg.) in red, surrounded by landmarks like Reiyukai Temple, Russian Embassy, Mori Bldg No.58, Tokyo Tower, and Tokyo Prince Hotel. It also indicates the location of the subway lines (Hibiya Line, Chuo Line) and the highway.