

RESEARCH ACTIVITIES AND TECHNICAL EXCHANGES IN ASIAN COUNTRIES

Conference Records

2009 Korea-Japan Joint Symposium on Electrical Discharge and High Voltage Engineering (KJ2009, Busan, Korea)

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The University of Tokyo, Japan

1. Introduction

2009 Korea-Japan Joint Symposium on Electrical Discharge and High Voltage Engineering (KJ2009, Busan) was held at The Paradise Hotel Busan, at Busan in Korea from 5th to 7th November, 2009.

In order to promote the international activities in electrical discharges, "Japan-Korea Joint Symposium on Electrical Discharge and High Voltage Engineering" has been organized in collaborative with the Technical Committee of Electrical Discharge in IEEJ and Electrical Discharge & High Voltage Engineering Society of KIEE, and has been held every two years since the first symposium was held at LG Cable & Machinery Co. Ltd. In 1996. KJ2009 Busan is the 11th conference followed by the one at Shibaura Institute of Technology, Tokyo in 2007 (JK2007). KJ2009 is mainly organized by KIEE Electrophysics and Applications Society in collaborative with Technical Committee of Electrical Discharge in IEEJ and co-organized by Research Group of High voltage and Discharge in KIEE and Dong-A University.

Table 1 lists the number of presented papers of KJ2009 compared with that of JK2007, and Table 2 lists the number of participants. The numbers of presented paper and participants have remained stable at around 100.

Eighty-one full papers were presented in total from not only academic but also industrial sides by researchers, professors, and students. This symposium aimed to offer the graduate students opportunities of making presentation in English, and following to this intension, more than half papers were presented by graduate students.

2. Outline of Symposium

2.1 Timetable

Table 3 indicates the symposium schedule including the social events of the banquet and the technical tour. The program committee assigned each paper to each session, in other words, presenters could not decide the presentation way. Each session has not been classified to any specific theme.

Table 1. Number of participants of KJ2009 symposium based on preliminary count in the evening of the first day.

	JK2007	KJ2009	
		Regular	Student
Participants	136	56	38
		94	

Table 2. Number of presented papers in KJ2009 symposium.

	JK2007	KJ2009	
		Japan	Korea
Oral	58	11	11
Poster	42	28	31
Total	100	81	

Table 3. Schedule.

	Date	Schedule	
Nov.05	12:00-18:00	Registration	
	13:00-13:15	Opening Ceremony	
	13:15-14:45	Invited Lectures (3 papers)	
	15:00-16:40	Oral A (5 papers)	Oral B (5 papers)
	17:00-18:10	Poster I (26 papers)	
	18:30-20:30	Banquet	
Nov. 06	8:40-10:00	Poster II (40 papers)	
	10:20-12:00	Oral C (5 papers)	Oral D (5 papers)
	12:00-12:30	Closing Remark	
	14:00-18:00	Technical Tour (Korea Electrotechnology Research Institute)	

2.2 Invited Lecture

The following three invited lectures were given by the guest speakers from China, Japan, and Korea.

- A) "Research of outdoor insulation of EHV and UHV transmission line in China," Prof. Zhicheng Guan (Tsinghua University, China)
- B) "University Activities in Power Apparatus Technology," Prof. Hiroaki Toda (Kyushu Institute of Technology, Japan)
- C) "Experience of R&D on the 765kV Double Circuit Transmission System," Prof. Jeong-Boo Kim (Joongbu University, Korea)

2.3 BPPA

In JK symposium, Best Presentation Paper Award (BPPA) is presented to the author of a high-quality paper written primarily by a young researcher including a student. The following 9 papers were awarded in KJ2009.

- (1) "Surface Discharge Characteristics in Different Media," by Eun-Hyeok Choi (Kwang Sik Lee Lab., Yeungnam Univ., Korea)
- (2) "Development of the On-line iPDM System for the PD Diagnosis for 25.8 kV C-GIS," by Taesuj Choi (Hyosung Corporation, Korea)
- (3) "Development and Type Tests of HVDC \pm 250kV MI Submarine Cable System," by Tae-ho Lee (LS Cable Ltd., Korea)
- (4) "Discharge Characteristics of AC PDP with Cross-bar Electrode in High Xe Partial Pressure," by Hyung-Woo Nam (Chung-Hoo Park Lab., Pusan National Univ., Korea)
- (5) "Discharge Propagation on Barrier in Dry Air" by Y. Oida (Hidaka Lab., The Univ. of Tokyo, Japan)
- (6) "Location of Partial Discharge at Joint Section of CV Cable Using Acoustic Emission Technique", by K. Sakamoto (Otsubo Lab., Miyazaki Univ., Japan)
- (7) "Corona Inception Electric Field of Arcing Horn Model by Electric Field Calculation Based on 2D and 3D Models," by H. Shirai (Hikita Lab., Kyushu Institute of Technology, Japan)
- (8) "Breakdown Characteristics of CF3I on Dielectric Surface," by T. Takeda (Hidaka Lab., The Univ. of Tokyo, Japan)
- (9) "Preparation and Fundamental Investigation of characteristics of Silicon Rubber Nano-composite of Outdoor Insulation," by M. Higashikoji (Hikita Lab., Kyushu Institute of Technology, Japan)

2.4 Summary

This symposium is intended to encourage the young researchers in the field of electrical discharges by providing opportunities to make presentations. Not a few participants made their first presentation in English, and seemed to get valuable experiences.



Figure 1. Prof. Toda at the invited lecture.



Figure 2. Participants in oral session.

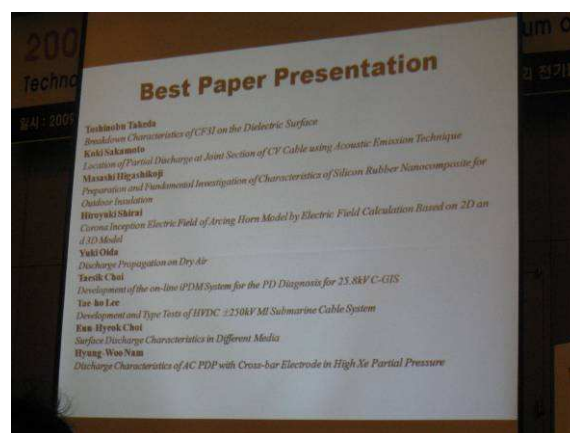


Figure 3. Best paper presentation announced in closing ceremony.

By **Dr. Akiko Kumada**
The University of Tokyo, Japan

International Conference on Electrical Engineering (ICEE 2010 Busan, Korea)

Prof. Seung-Jae Lee, Myongji University, Korea

1. Preface

The 16th International Conference on Electrical Engineering (ICEE 2010) was successfully held from July 11th to 14th at the Paradise Hotel in Busan, the city of international tourism in Korea.

Since its 1st conference was held in Korea in 1995, ICEE has been hosted by Korea, Hong Kong, Japan and China in turns on annual basis, and has steadily expanded. ICEE2010, under the main theme of "The Smart & The Green in Electrical Engineering", was constituted with a welcoming reception, an opening ceremony, keynote speeches, technical sessions, a tour and a banquet in turns. At the conference, around 500 researchers from 10 countries participated and 419 outstanding research results were presented. The Organizing Committee of ICEE 2010 provided an opportunity to share each others' knowledge and

experiences through the keynote speeches by representatives of 4 countries. The committee also hosted the Industry Special Session for the first time to promote active participation of the industry. During the history session, the participants could look back ICEE's history and development during the last 16 years and shared a meaningful time to discuss directions for the future. In addition, the representatives came to an agreement to publish ICEE Journals from 2011 at the representative meeting, which made this ICEE into a landmark in the 16 years history of ICEE. Thanks to the agreement, ICEE could step forward to be the ICEE of Asia, just like IEEE in North America and CIGRE in Europe.

2. ICEE2010's Statistics and Programs

Please see the tables shown below.

1) Full Paper Submission Status

Country	No. of Papers	Country	No. of Papers
Australia	2	Japan	155
China	32	Korea	194
Germany	1	Taiwan	1
Hong Kong	12	Thailand	11
India	3	United Kingdom	2
Iran	6	Vietnam	1
419 Papers from 12 Countries			

2) Registration Status

Country	No. of Participants	Country	No. of Participants
Australia	1	Japan	201
China	36	Korea	234
Germany	1	Taiwan	1
Hong Kong	14	Thailand	10
India	3	United Kingdom	2
Iran	3		
506 Participants from 11 Countries			

3) Welcoming Reception

The welcoming reception, commenced on July 10th (Sun) at 6 p.m., was the beginning of ICEE 2010. Mr. Jong-Keun Park, the chairman of the conference, started

the reception with his welcoming speech. Experts from around the world congratulated the successful hosting of ICEE 2010 and enjoyed their first encounters and reunions.



4) Opening Ceremony

The opening ceremony was commenced on July 12th (Mon) at 9 a.m. under the presiding of Mr. Seung-Jae Lee. Representatives of each country (KIEE: President Jong-Keun Park, IEEJ: President Takashi Fujimoto, CSEE: President Yanchang Lu, HKIE: Vice President Fuk Cheung Chan) gave welcoming speeches. In addition, an appreciation plaque ceremony was held to show appreciation for the founders of ICEE (Mr. Fumio

Arakawa, Mr. Hasegawa Jun, Mr. Otto Poon, Mr. Jae Pong Jeon)

5) Keynote Speeches

Renowned experts representing IEE of each county were invited to the keynote speeches. The experts gave representative lectures to grasp the latest research trends and to contribute for the future strategy regarding new technologies and industry creation.

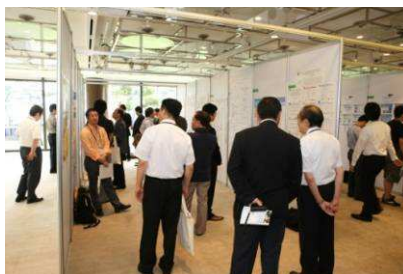
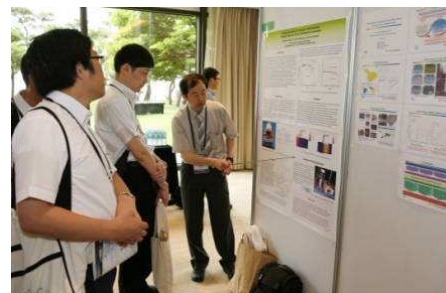
Speaker	Speech Title
Mr. Moon-Duk Kim	Green Growth in Electricity
Dr. Shunji Yamamoto	Continuing Progress Our Electric Power Machinery Toward a Next Generation and the Enlarged Application
Prof. Jianhua Wang	The Intelligent Electrical Equipment for Smart Grid
Prof. C. C. Chan	Electric Vehicles and Smart Grid Development Roadmap



6) Technical Sessions

The presentation, commenced on July 12th at 1:30 p.m., was constituted with 3 special sessions, 35 oral sessions and 6 poster sessions; in overall, 167 oral presentations and 252 poster presentations. During the history session, held as the special session, participants

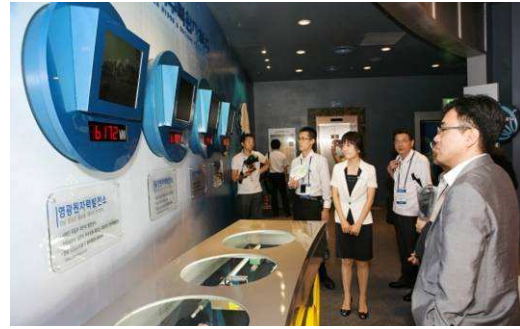
enjoyed a chance to look back the history of ICEE and to discuss the development directions for the future. Thanks to the great interest of the participants, the smart grid and EMTP special sessions were successfully held and numerous questions and discussions were made under each theme.



7) Technical Tour

It was planned to visit Kori Nuclear Power Plant and Haedong Yongkum Temple on July 13th in the afternoon with all participants wearing souvenir T-shirt. However

the participants made a trip only to Kori Nuclear Power Plant due to rain. The participants felt sorry, but it was a meaningful tour that introduced the current status and future of the nuclear energy.



8) Banquet

The banquet was held on July 14th at 6 p.m. at the Grand Ballroom of Paradise Busan with 300 participants all wearing souvenir T-shirts. The representatives of each country and Mr. Ja-Hong Koo, the president of the LS Group also gave congratulatory speeches to celebrate the successful hosting of ICEE 2010. At the dinner, the organizing committee of ICEE 2010 announced the plan

of ICEE Journal publication and asked for interest and participation. In addition, a promotional event was prepared to promote the upcoming ICEE 2011 in Hong Kong, and Mr. Jong-Keun Park, the president of KIEE, handed over the flag to the vice president of HKIE. After the dinner, a B-boy performance, which made the night unforgettable with the dynamic moves and strong beat.



9) Representative Meeting

The representative meeting was held on July 12th at 5 p.m. at Nurimaru Conference Room to discuss sustainable and systematic development of ICEE 2010. At the meeting, the representatives agreed to publish ICEE Journal from January 2011 onwards which turned

the meeting into a historical moment and made the future of ICEE 2010 more concrete. The venue Nurimaru on the scenic island Dongbaek enabled the representatives to enjoy nice photo time and to socialize in amicable atmosphere.



Reported by: **Prof. Seung-Jae Lee (Chairman of the Organizing Committee)**
Myongji University, Korea

International Conference on Condition Monitoring and Diagnosis 2010 (CMD2010)

Toshihiro Takahashi

Central Research Institute of Electric Power Industry, Japan

The Institute of Electrical Engineers of Japan (IEEJ) has successfully held the International Conference on Condition Monitoring and Diagnosis 2010 (CMD2010) on September 6 - 11 in Toyosu campus of Shibaura Institute of Technology, Tokyo, Japan with 374 participants from 31 countries and areas and 308 papers including plenary lectures. The conference was technically co-sponsored by IEEE-DEIS, CIGRE, CES, KIEE, and KIEEME.

The CMD2010 covered many issues surrounding the electric power apparatus, such as condition monitoring and diagnosis, failure phenomena based on physical and chemical aspects, material sciences, financial and economic aspects like asset management techniques, and degradation by radiation, sun shine, and salty wind. Therefore, not only the researchers in universities and companies related to these fields but also the person related to operation of the power apparatus were welcome to attend and contribute the conference.

After the opening address by Prof. Hitoshi Okubo of Nagoya University, chair of the organizing committee of CMD2010, on Sep. 7, three plenary lectures were followed. Firstly, Prof. Ernst Gockenbach of Leibniz Universität Hannover, Germany, gave his plenary lecture entitled with "Condition Monitoring and Diagnosis for Reliable Power Transmission and Distribution", having state-of-the-art information around the CMD technology. Then, Dr. Ashok Sundaram of EPRI, USA, talked about "Enabling Asset Management with the Smart Grid" instead of Mr. Mark McGranaghan of EPRI. The lecture was filled with the latest information of the smart grid technology mainly in USA. Finally, Mr. Hiroshi Yamaguchi of The Tokyo Electric Power Co., Inc., Japan, made his plenary talk about "Condition Monitoring and Diagnosis for Aged Power Apparatus in Japan" with the CMD technology in Japan where the electricity plays quite important role in human activity. All the plenary lectures gathered attendees' interest, thus the lecture hall was full of the audience. After the plenary talks, Prof. Dae-Hee Park of Wonkwang University, Korea, delivered his talk entitled with "Recent Activities Related to CMD in Korea and the Contribution of the late Prof. Kyu-Bock Cho" as a memorial lecture honoring Prof. Kyu-Bock Cho who was the chair of the first CMD held on 2006 in Changwon, Korea.

The plenary talks were followed by 24 oral sessions and 2 poster sessions. 143 and 161 papers were listed on the oral and poster sessions, respectively. The detail of the paper number per objective power apparatus is shown in Table 1. As can be seen in Table 1, nearly one third of the papers were related to transformers, which can be said that issues around transformers are the most interested subject of recent years. 3 oral sessions were held parallel, and the two poster sessions were held in the evening of Sep. 7 and 8, respectively, independent from any oral sessions. All the oral sessions were filled with

many audience and hot discussions even on the last day. Both poster sessions also gathered many audience and discussions in every parts of the session site.

On ahead of the opening of CMD2010, tutorials were held on Sep. 6 with 8 courses, having their themes of GIS, transformers, cables, and rotating machines, each of them with English and Japanese. More than 240 persons had hung on the words of lecturers who were specialists of the respective fields.

23 companies related to the CMD technology had made their exhibition booths on the conference. All the companies exhibited their state-of-the-art CMD apparatus, techniques and so on with real apparatus by their specialists. All the attendees had been fascinated with their technology.

Short tours were held on Sep. 7 AM and PM, for the Shin-Toyosu underground substation, which is the world first 500 kV underground substation located near from the conference venue. All the attendees for the short tours were fascinated with the sophisticated underground substation.

Two technical tours were held on Sep. 9 PM. One course was for the Electric Power Historical Museum & Asakusa Kannon Temple, the other was for the Yokohama Thermal Power Station & Asakusa Kannon Temple. Attendees of the both technical tours had interested in the historical and the state-of-the-art power apparatus and Japanese historical culture with one of the oldest temple "Senso-Ji" and its surrounding town having many souvenirs, Japanese fast food, and so forth.

The banquet following the two technical tours was held at Meguro Gajoen, having some gorgeous Japanese gardens and precious artistic handicraft articles. Meguro Gajoen is one of the traditional hotels in Tokyo, established in 1930's. Its interior is full of arts, its walls and ceilings are tastefully decorated with beautiful pictures of flowers and birds, which impressed all the attendees and invited the some courtly time.

Finally, we would like to deeply thank all of the participants from all over the world, and members of the organizing committee and the sub-committees for their effort to realize this symposium. We also express sincere appreciation to all the supporting members of this symposium for their tremendous contributions, and financial support by Commemorative Organization for the Japan World Exposition '70.

The next CMD will be held in Bali, Indonesia, in 2012. We wish not only all the participants but also the researchers who could not attend this CMD will come to Bali with the harvest of coming two years.

Dr. Toshihiro Takahashi
(Assistant Secretary of CMD 2010)
E-mail: toshihiro@criepi.denken.or.jp



Participants in CMD2010



Prof. Hitoshi Okubo
at the opening address



Prof. Ernst Gockenbach
at his plenary talk



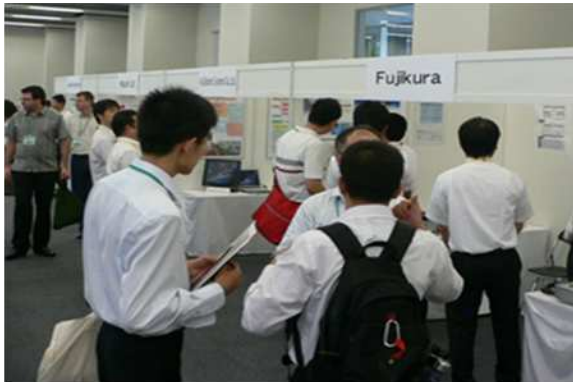
Dr. Ashok Sundaram
at his plenary talk



Mr. Hiroshi Yamaguchi
at his plenary talk



Prof. Dae-Hee Park
at a memorial lecture honoring
Prof. Kyu-Bock Cho



Information exchange at the exhibition



Discussion at a poster session



Presentation at an oral session



“Kagami-wari”, traditional ceremony of opening of the banquet

Number of attendees by country

Country	attendees	Country	attendees
Japan	205	Russian Federation	3
Korea	29	Singapore	3
China	25	United States	3
Germany	17	Egypt	2
Canada	14	Hong Kong	2
Indonesia	8	India	2
Australia	7	Romania	2
Austria	7	United Kingdom	2
France	7	Greece	1
Netherlands	6	Hungary	1
Sweden	5	Iran	1
Italy	4	Malaysia	1
Switzerland	4	New Zealand	1
Thailand	4	Slovenia	1
Brazil	3	Taiwan	1
Czech Republic	3	Total	374

Number of papers by object apparatus

Object apparatus	Paper number
Transformer	112
Cable	50
Switchgears	31
Rotating machines	24
Overhead transmission lines	17
Common techniques	17
Optical sensor	12
Outdoor insulation	11
Arresters/Power capacitors/Others	9
New developments in asset management	8
Insulating materials	7
PD diagnostic methods	6
Total	304

International Conferences to be held in Asia

ISEIM 2011 (International Symposium on Electrical Insulating Materials)

Dates: September 6-11, 2011

Venue: Kanbaikan, Doshisha Univ., Kyoto, Japan

Chairman: Prof. Masayuki Nagao
(Toyohashi University of Technology)

ISEIM2011 targets issues on the physical, chemical and practical aspects on the dielectrics, electrical conduction and breakdown in dielectrics, not only in solid dielectrics but also liquid and gas dielectrics. ISEIM2011 will provide you an important chance to discuss above topics with a lot of researchers gathering from all around the world. It is sponsored by Technical Committee on Dielectrics and Electrical Insulation, IEEJ and technically co-sponsored by IEEE Dielectrics and Electrical Insulation Society and CIGRE SCs D1 and A2.

The conference venue, Kyoto-city, is located mid-west of Japan, well-known as an ancient Japanese capital city with a 1200-year history. Since its open in AD 794, Kyoto has been always one of the centers of Japanese politics and culture. Thus, Kyoto has been maintaining historical architecture such as shrines and Buddhist temples, gardens, town and natural scenery, and so forth. All of you will feel heartwarming hospitality and the real Japan.

Key dates:

Abstract Submission: January 31, 2011

Acceptance Notification of Abstract:
Middle of March, 2011

Manuscript Submission: May 30, 2011

Secretariat:

Dr. Toshihiro Takahashi and Dr. Norikazu Fuse
C/o Electric Power Engineering Research Laboratory,
Central Institute of Electric Power Industry (CRIEPI)
2-6-1 Nagasaka, Yokosuka,
Kanagawa 240-0196, Japan
Tel: +81-46-856-2121, Fax: +81-46-857-5829
Email: iseim2011@freeml.com
URL: <http://www2.iee.or.jp/~adei/ISEIM2011/>

ICEE 2011 (International Conference on Electrical Engineering)

Dates: July 10-14, 2011

Venue: Harbour Grand Kowloon, Hong Kong

Organized by HKIE

Co-organized by CSEE, IEEJ, KIEE

The International Conference on Electrical Engineering (ICEE) aims to be a premium forum for sharing information, creative ideas, expert knowledge and experience among electrical engineers of the world. Since 1995, ICEE has been successfully held once a year. The Hong Kong Institution of Engineers (HKIE) is pleased to announce ICEE 2011 will be held at the Harbour Grand Kowloon Hotel from 10 to 14 July 2011. The theme of the ICEE 2011 is "Towards Smart & Low-Carbon Electrical Engineering". It is a great pleasure for the HKIE, together with co-organisers, The Chinese Society of Electrical Engineering (CSEE), The Institute of Electrical Engineers of Japan (IEEJ) and The Korean Institute of Electrical Engineers (KIEE), to invite potential authors to submit quality papers to be referred in the following areas: power systems, energy and environment, electric traction systems, power electronics, motor drives & industrial applications, fundamentals, materials & education and other related areas.

Key dates:

Abstract Submission: December 31, 2010

Acceptance Notification of Abstract: February 1, 2011

Full Paper Submission: April 1, 2011

Acceptance Notifications of paper: May 3, 2011

Secretariat:

9/F Island Beverley
No 1 Great George Street
Causeway Bay, Hong Kong
Tel: +852 2895-4446, Fax: +8522203-4133
E-mail: conf3@hkie.org.hk
URL: www.icee-con.org

CMD2012 (International Conference on Condition Monitoring and Diagnosis)

Dates: September 23-27, 2012

Venue: Grand Bali Beach Hotel, Bali, Indonesia

Chairman: Prof. Swarno (Bandung Inst. of Tech.)

Organized by ?

Co-organized by Bandung Inst. of Tech. and Udayana University, Bali

Key dates:

Abstract Submission: February, 2012

Acceptance Notification of Abstract: April, 2012

Manuscript Submission: June, 2012