# **RESEARCH ACTIVITIES AND TECHNICAL EXCHANGES IN ASIAN COUNTRIES**

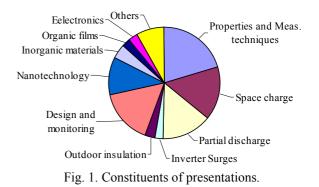
# **Conference Records**

## 2014 International Symposium on Electrical Insulating Materials (ISEIM 2014)

The International Symposium on Electrical Insulation Materials (ISEIM) is positioned as the international version of annual domestic Symposium on Electrical and Electronic Insulating Materials and Applications in Systems (SEEIMAS), formerly called Symposium on Electrical Insulating Materials (SEIM). Continuing a series of conferences that began in 1995, the ISEIM held its 7<sup>th</sup> conference by the Technical Committee of Dielectric and Electrical Insulation of IEEJ on June 1–5 2014, in Toki Messe, Niigata, Japan.

The conference covered nanotechnology, material aging, phenomena under inverter serge, and several other fundamental material researches. There were 155 papers registered for the conference with 5 invited lectures for the workshop, and 60 oral presentations and 82 papers were presented through two kinds of poster presentations. Eight demonstration presentation on space charge measurement systems were also held as described later. These presentations are categorized into more than 11 topics, as shown in Fig. 1. During the conference, 162 participants from 16 different countries (as listed in Table 1) working with industry, government, and research and academic institutions shared their experiences and discussed the latest developments and future challenges confronting the field. Fig. 2 shows a group photo from the conference.

The conference commenced with opening remarks by Prof. Y. Tanaka of Tokyo City University and General Chair of the symposium. Prof. J. K. Nelson of Rensselaer Polytechnic Institute delivered the 6<sup>th</sup> Inuishi Memorial Lecture. His presentation, "Nanodielectrics - the First Decade and Beyond," consisted of research carried out on the theoretical and empirical analyses of polymer nanocomposites (Fig. 3). A plenary lecture on the space charge formation in polymeric materials and the lifespan of the materials



Japan	101	China	22
France	7	Sweden	6
Korea	5	Australia	3
Canada	3	Thailand	3
USA	2	India	2
Indonesia	2	Italy	2
England	1	Spain	1
Switzerland	1	The Netherlands	1
		Total	162

Table 1. Number of participants by country.



Fig. 2. Group photo.

was delivered by Prof. G. Chen of the University of Southampton and Xi'an Jiaotong University. Eleven invited lectures were provided during the sessions in order to discuss issues from the key fields. Table 2 lists the speakers and the title of their lectures.



Fig. 3. J.K. Nelson at his Inuishi Memorial Lecture.

Speaker	Affiliation	Title
J.K.	Rensselaer Poly-	Nanodielectrics - the first decade and
Nelson	tech. Inst., USA	beyond
George	Univ.	The missing link - the role of space
Chen	Southampton, UK	charge in polymeric insulation lifetime
М.	Inst. Rec. d'Hydro	Modelling the dielectric permittivity of
Fréchette	Québec, Canada	nanocomposites – the overlap model
	Monash Univ.,	Acoustic emission from partial
zejko	Australia	discharges in cable termination
Suwarno	Inst. Teknologi	Phase resolved measurement and
	Bandung,	simulation of partial discharges in solid
	Indonesia	and liquid insulating materials
C.	Univ. Toulouse,	Evidence of exciton formation in thin
Laurent	France	polypropylene films under ac and dc
		fields and relationship to electrical
		degradation
Yi Yin	Shanghai Jiaotong	Investigation of space charge behavior of
	Univ., China	HVDC XLPE Cables using PEA Method
	Indian Inst. Tech.	Role of external and internal parameters
C.	Ropar, India	on the space charge formation in
		dielectrics
	Xi'an Jiaotong	The effect of charge recombination on
Li	Univ., China	surface potential decay crossover
		characteristics of LDPE
	Delft Univ. Tech.,	Experimental investigation on the role of
Morshuis	the Netherlands	corrosive sulphur on the development of
		partial discharges in power transformers
R.	Indian Inst. Tech.	Understanding the partial discharge
Sarathi	Madras, India	activity in liquid nitrogen under
		harmonic ac voltages

Table 2. Invited lectures on the sessions.

A special poster session called "Mutual Visiting-Type Poster (MVP) Session" was organized to encourage young researchers to expand their activities. This is one of our most important missions. Young researchers were encouraged to showcase their presentations and research abilities through the poster sessions. Presenters from similar research fields were divided into small groups and were required to give their own poster presentation to the other members of the group. After the short presentations, the other group members questioned the presenter. All members of the group delivered their presentation in the same way; this allowed all participants to engage in meaningful and productive discussions and overcome language barriers (Fig. 4). Eight outstanding presenters listed in Table 3 were presented with awards during the conference banquet. S. Yoshida of Kyushu Institute of Technology won "the most valuable presentation" award, which enabled the researcher to partake in the Korea-Japan Young Researcher Exchange Program. This new award that offers winners financial aid to deliver presentations was inaugurated at this symposium. During this symposium, Mr. Jae-Sang Hwang of Hanyang University presented his study as part of this exchange program. The other important mission of the symposium was to provide researches

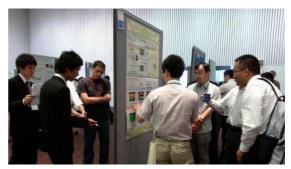


Fig. 4. Snap shot at the MVP Session.

Table 3. Presentations	awarded for valuable
presentations in	MVP sessions.

	presentat	tons in for the sessions.
Speaker	Affiliation	Title
M. G.	KTH Royal Inst.	Effect of partial discharges on thermal
Niasar	Tech., Sweden	breakdown of oil impregnated paper
S.	Kyushu Inst.	Characteristics of discharge generation
Yoshida	Tech. Japan	across insulation barrier in the oil/
		pressboard composite insulation system
A. T.	Chalmers Univ.	Partial discharge behavior of a newly
Hoang	Tech., Sweden	developed enamel insulation at various
		voltage rise times
Y. Mura-	Meijo Univ.	Effect of component of liquid sample on
kami	Japan	sterilization of E. coli by high electric
		field pulse
T. Kato	Tokyo City Univ.	Characteristics of space charge behavior
	Japan	and conduction current in XLPE and
		annealed polyethylene under High DC
		stress
P. Yang	Waseda Univ.,	Analysis on thermally stimulated currents
	Japan	in Polyethylene-terephthalate and poly-
		ethylene-naphthalate
P. Manci-	Univ. Bologna,	LDPE composite materials obtained from
nelli	Italy	building blocks containing standardized
		graphene interfaces
J. Guo	Xi'an Jiaotong	Study on electrical properties of micro-
	Univ., China	nano structured epoxy composites

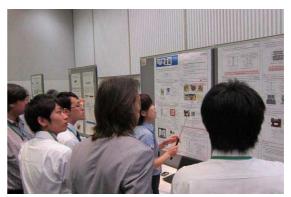


Fig. 5. Snap shot at the SS Session.

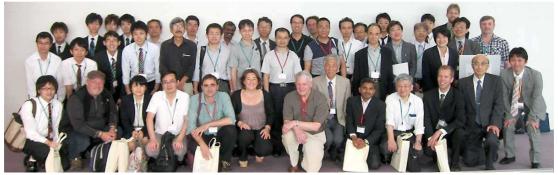


Fig. 6. Group photo of Workshop lectures with audiences.

Table 4. Lectures in workshop APIANS.	Table 4.	Lectures	in	workshop	APIANS.
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Affiliation	Title		
Univ. Connecticut,	The application of computational		
USA	methods to the design of dielectric		
	materials and systems		
ABB, Sweden	First principle simulations of electronic		
	structure of polymer dielectrics		
Tokyo City Univ.,	Determination of charge-trapping sites in		
Japan	saturated and aromatic polymers by		
	quantum chemical calculation		
Univ. Toulouse,	Modeling charge transport and storage in		
France	polymeric insulating materials: numeri-		
	cal analysis, optimization and validation		
Univ. Sevilla,	Numerical simulation methods to model		
Spain	electron trapping and transport in		
	polyethylene at the molecular level		
	Univ. Connecticut, USA ABB, Sweden Tokyo City Univ., Japan Univ. Toulouse, France Univ. Sevilla,		

with the opportunity to meet other researchers from the world. More recently, links between researchers from industry and academia (including students) has become increasingly important. From this point of view, we planned another special session, named the "Sun-Shine Session," to introduce industry R&D topics to academics. Fig. 5 shows a snapshot taken during the session. It is believed that the Sun-Shine Session was helpful as it fostered mutual understanding among researchers in industry and academia in the field of electrical insulation materials.

The symposium also conducted two special events. One was a workshop on numerical computation called APIANS, which stands for "Analysis for Polymeric Insulating Materials Using Advanced Numerical Simulation." After an introduction from the Chair (Prof. T. Tanaka of Waseda University), several research topics, such as band energy structures, charge storage and transportation, as well as conformational structure analysis were presented (the topics are listed in Table 4). The workshop room was heavily crowded, such that standing room for the participants was insufficient.

The other special event held during the symposium was a session for space charge measurement technologies. The broad HVDC power network is moving forward with full-scale implementation, especially in Europe. The space charge distribution with the pulsed electro-acoustic (PEA) method has received much attention as a means of estimating the HVDC stress on insulating materials. This special session introduced the advanced technique for measuring the space charge distribution in insulating materials using the PEA method.



Fig. 7. Snapshot at the PEA tutorial program.

Table 5. List of PEA systems introduced in the PEA demonstration session with corresponding speakers.

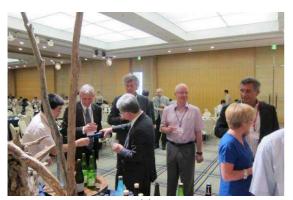
Speaker	Affiliation	Title
Y.	Toyohashi Univ.	Space charge measurement system
Murakami	Tech., Japan	equipped with a function to measure
		acoustic properties
К.	Tokyo City	Ultra high resolution PEA
Kumaoka	Univ., Japan	
T. Kato	Tokyo City	Simultaneous measurement PEA system
	Univ., Japan	
N. Hozumi	Toyohashi Univ.	Space charge measurement for full size
	Tech., Japan	cable by pulse electroacoustic method
К.	Tokyo City	Portable mini PEA
Horiguchi	Univ., Japan	
K. Abe	NICT, Japan	Normal PEA
K. Abe	NICT, Japan	Wire cable PEA
M. Fukuma	Matsue Nat.	Space charge measurement for thick
	College of	sample in PEA method
	Tech., Japan	



Fig. 8. Snapshot at the PEA demonstration session.



Fig. 9. Snapshot at the technical tour.





(b) Fig. 10. Snapshot at the banquet.

- 1) Special oral presentations were held during the symposium, including keynote lectures.
- A practical tutorial program was held which focused on the basics of space charge measurement using a standard measurement system. Participants learned about the conventional PEA system, the step-by-step process of measurement and calibration, and issues regarding compliance with the IEC Technical Specifications (IEC/TS 62758) procedures (Fig. 7).
- 3) Japanese researchers also held a demonstration session focusing on advanced measurement systems. Eight types of state-of-the-art PEA systems were showcased and audiences had the chance to learn how they work. Table 5 lists the systems and the names of the presenters, and Fig. 8 shows a snapshot from the event.



Fig. 11. Stick drum show at the banquet.

The local organizing committee arranged a technical tour to the Higashi Niigata Thermal Power Station, Tohoku Electric Power Co., Inc., which increased the station's total capacity to 4600 MW by the first large CCGT project in Japan (Fig. 9). The tour also visited NAMICS Corporation, a company that produces both conductive and insulating systems for electronic components and systems. Attendees of the tour also visited Imayotsukasa Syuzo Sake Brewery to become acquainted with Japanese culture. As it is well known, Niigata City is proud of its variety of wonderful sakes and cuisine, such as seafood nurtured from the Sea of Japan.

The local committee also invited all conference participants to the banquet and award ceremony. A traditional stick drum show and sake tasting event during the banquet was held, which encouraged socialization among the researchers (Figs. 10 and 11).

During the conference, the International Advisory Committee of the ISEIM 2014 met to summarize the status and preparations of the conference. After a successful meeting, it was decided that the next ISEIM would be held in Toyohashi City, Japan in 2017. We hope that all the participants and their families enjoyed a delightful time filled with friendship and kindness. The organizing committee is proud to have had the chance to organize this symposium.

Finally, we would like to sincerely thank all of the participants and members of the organizing committee for their contribution to the symposium. We also would like to express our sincere appreciation to all the supporting members of the symposium for their contributions. We hope all the participants return to Japan in 2017.

#### Dr. Norikazu Fuse

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## International Conference on Electrical Engineering (ICEE 2014)

International Conference on Electrical Engineering (ICEE 2014) was successfully held at Ramada Plaza Jeju Hotel, Jeju, Korea from June 15 to 19, 2014.

ICEE is hosted by the Korean Institute of Electrical Engineers (KIEE), the Institute of Electrical Engineers of Japan (IEEJ), Chinese Society for Electrical Engineering (CSEE), and the Hong Kong Institution of Engineers (HKIE). ICEE aims to provide a forum for sharing knowledge, experience and creative ideas among international electrical engineers with focus on Asia, and to contribute to technical development in electrical engineering. The 20th ICEE has been expanded since its first opening in 1995 by Republic of Korea, Japan, China and Hong Kong.

With the theme "Sharing Solutions for Secure and Sustainable Energy", ICEE 2014 was well attended by 696 delegates from Korea (444), Japan (165), China (45), Hong Kong (18), Thailand (12) and some other overseas countries (14) (Table 1). Total 545 technical papers were submitted (Table 2). There were 549 presentations, 4 Keynote speeches, 8 Oral sessions (227 papers), 2 Industry sessions (166 papers), 2 Poster sessions (152 papers) and 4 Panel sessions.

In the opening ceremony on June 16, 2014, Dr. Ho-Yong Kim, Conference Chairperson of ICEE 2014, President of KIEE made his greeting speech (Fig.1). After the opening ceremony, 4 keynote speeches were given by Prof. Hee Jun Kim, Prof. Kouhei Ohnishi, Mr. Xiaochen Wu, Ir Prof. Ching Chuen Chan and Ir Dr. Fuk Cheung Chan (Table 3, Fig.2 - 6). Table 1 Number of participants from each country.

No	Country	No. of participants
1	Korea	444
2	Japan	165
3	China	45
4	Hong Kong	18
5	Thailand	12
6	Indonesia	2
0	Russia	2
7	Other countries	10
	Total	696

Sessions	Number of presentations
Keynote	4
Oral	227
Industry	166
Poster	152
Total	549



Fig.1 Dr. Ho-Yong Kim gave greeting speech at the opening ceremony.

No	Name of Speaker	Title of Presentation		
1	Prof. Hee Jun Kim (Hanyang University, Korea)	The Technology Trend of LED Drivers in Korea		
2	Prof. Kouhei Ohnishi (Keio University, Japan)	A New Challenge for Future Technology		
3	Mr. Xiaochen Wu (China Southern Power Grid Corporation, China)	China Power System Stability Control Technology: Development and Prospect		
4	Ir Prof. Ching Chuen Chan and Ir Dr. Fuk Cheung Chan (The Hong Kong Institution of Engineers, Hong Kong)	Renaissance and Power Engineering Challenges		

Table 3 Presente	ers and titles	of keynote	speeches
	sis and thus	Of Keynole .	specenes.



Fig.2 Prof. H. J. Kim at his keynote speech.



Fig.3 Prof. Ohnishi at his keynote speech.



Fig.4 Mr. Wu at his keynote speech.



Fig.5 Ir Prof. C. C. Chan at his keynote speech.



Fig.6 Ir Dr. F. C. Chan at his keynote speech.

In

the oral and poster sessions, technical presentation and discussions were made for some separated topics, such as *Electric Power Engineering, Electric Machinery* and Power Electronics, Electrophysics & Applications, Information and Control, Smart Grid and other related areas (Fig. 7).

The Special Sessions were organized for enhancing the technical programs with respect to certain topics and areas not included in the main topics. Titles of the 6 special sessions are shown in Table 4.

ICEE 2014 presented the industry session for sharing the recent advances in R&D and the "real-life" experiences by industry participants and field engineers. By focusing on the more practical side of relevant technologies this Session offered a unique opportunity for exchanging ideas and networking amongst a broad spectrum of engineers from the industry, academia and government sectors (Fig. 8).

As the panel discussions, 4 important themes were prepared and active and meaningful discussions were done during the limited time (Table 5).



Fig.7 A view of oral session.

Welcome reception, banquet and technical excursion were also arranged as the social events of ICEE 2014. Banquet was scheduled in the evening of June 17, 2014 at Grand ballroom, Ramada Plaza Jeju Hotel.

ruble + rules of special sessions		
No	Title of special discussion	
1	Optimal Control, Operation, and Planning for Distributed Generations	
2	International standardization for transmission & distribution of East Asia	
3	Wind energy Grid-Adaptive Technology I	
4	Wind energy Grid-Adaptive Technology II	
5	Wind energy Grid-Adaptive Technology III	
6	Decentralized Technologies for Smart Grid	

Table 4 Titles of special sessions

Table 5 Titles of panel discussion	ons
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No	Title of panel discussion		
1	Power System Wide Area Monitoring, Protection and Control		
2	Renewable Energy Integration		
3	East-Asia Super Grid		
4	Distributed Energy Resources and Demand Response		



Fig.8 A view of industry session.

At the opening of banquet, the  $20^{th}$  anniversary of ICEE was celebrated by cutting of the annicersary cake. The next conference, ICEE 2015 was announced to be held in Hong Kong. Dr. Ho-Yong Kim, the Chairman of Local Organizing Committee of ICEE 2014, past the flag of ICEE to Ir. Raymond K S Chan, the representative of the host of ICEE 2015 (Fig.10).



Fig.9 Cutting of the 20<sup>th</sup> anniversary cake at the opening of banquet.



Fig.10 Dr. Ho-Yong Kim (right) past the flag of ICEE to Ir. Raymond K S Chan (left).



Fig.11 A view of banquet.

### **By EINA TF**

EINA TF gratefully acknowledges the contribution of Prof. Byongjun Lee of Korea University, the Chairman of the Local Organizing Committee of ICEE 2014, for this article.

## International Conference on Condition Monitoring and Diagnosis (CMD 2014)

The 5th International Conference on Condition Monitoring and Diagnosis 2014 (CMD 2014) was convened at the Ramada Plaza Jeju Hotel from September 21 (Sunday) to 25 (Thursday), 2014.

Since its launch in 2005 and an inaugural conference held in Changwon in 2006, the CMD is an integrated gathering of the ACEID first held in Korea and the ICMEP first held in China. The Conference aims to share the up-to-date technology, expertise and information on the high voltage electric power apparatus monitoring and diagnosis across borders.

The CMD 2014 was carried out various programs including welcome reception, opening ceremony, plenary sessions, oral and poster presentations, technical tour, exhibition, gala dinner and closing ceremony in order, with over 300 delegates from 28 countries, presenting 254 exceptional papers. The CMD 2014 Organizing Committee offered a pivotal platform where all delegates can have an access to relevant technology and expertise in power engineering and can also partake in various activities to promote advancement of relevant industries at home. In particular, the advancement of power engineering in Asia was the key element for the Organizing Committee to focus on, in order to assure the spread of power engineering at the international level as well.

#### 1. REGISTRAION

Of 307 delegates from 28 countries, 67% delegates were accounted for regular delegates with 27% student delegates (Table 1). There were 19 accompanying persons at the CMD 2014, which in turn, would suggest an accompanying person's tour program at the CMD 2016.

#### 2. TECHNICAL PROGRAM

Technical Programs comprised of three parts: 3 plenary lectures, 15 oral sessions and 3 poster sessions. Technical programs were arranged in accordance with topics stated below. 333 abstracts were submitted and 254 abstracts were accepted. Of accepted 254 abstracts, there were 88 oral presentations and 166 poster presentations (Table 2). It is anticipated that numbers of oral presentations can be increased by having the CMD schedules extended.

#### 1) Plenary Lectures

Plenary lectures were conducted after the Opening ceremony held on the Day 1. Dr. Uwe Schichler, Dr.

Peter van der Wielen and Dr. Yong Joo Kim delivered the plenary lectures in order (Table 3 and Fig. 1 - 3).

Table 1 Number of participants from each country.

No	Country	Regular	Student	Accom person	Total
1	Australia	3			3
2	Austria	4	1	1	6
3	Brazil	1			1
4	Canada	2		1	3
5	China	40	46	6	92
6	Chinese Taipei	3			3
7	Czech Republic	2	1		3
8	Germany	8	3	1	12
9	Hong Kong	2			2
10	Hungary	1	1		2
11	India	3		1	4
12	Indonesia	2	5	1	8
13	Iran	1			1
14	Italy	1			1
15	Japan	10	7		17
16	Malaysia		1		1
17	Netherlands	4	2		6
18	Nigeria	1			1
19	Norway	1			1
20	Republic of Korea	99	13	6	118
21	Romania	1			1
22	Russian Fed.	4		1	5
23	Singapore	1			1
24	Sweden	1			1
25	Switzerland	4			4
26	Thailand	2		1	3
27	U. Arab Emirates	1			1
28	United Kingdom	3	3		6
	Total	205	83	19	307

Table 2 Number of presentations for the topics.

Topics	Oral	Poster	Total
A. Rotating Machine	6	5	11
B. Transformer & Liquid Insulation	35	55	90
C. Switchgear & Gas Insulation	17	16	33
D. Cable & Solid Insulation	12	34	46
E. Overhead Line & Insulator	6	24	30
F. Substation	6	12	18
G. Other Topics	6	20	26
Total	88	166	254

#### 2) Oral Session

15 Oral Presentation Sessions in three parallel rooms were delivered for 2.5 days. 88 abstracts were presented and each session was chaired by two chairs.

#### 3) Poster Session

166 abstracts were presented at the three poster sessions. Since the poster sessions were not carried out in conjunction with oral sessions, each delegate was enabled to have enough presentation slot and level of participation was satisfactory.

#### 4) Outstanding Student Awards

"Outstanding Student Awards" was arranged at the CMD 2014 for the first time in CMD history. This award has attracted more students to partake in the CMD 2014 and should be continued in the CMDs to come. The Awards were awarded to 13 exceptional abstract presenters with the CMD 2014 Certificate and Dolhareubang, Jeju's symbolic souvenir.

#### 3. OFFICIAL & SOCIAL PROGRAM

#### 1) Opening Ceremony

The opening ceremony was carried out from 9:40 on Monday September 22, emceed by Prof. Ja-Yoon Koo, the Chairman of the CMD 2014. The Opening Ceremony with delegates was celebrated with welcome and congratulatory remarks delivered by Mr. Ho Yong Kim, President of the Korean Institute of Electrical Engineers (KIEE) and Mr. Byung-Sook Kim, Executive Vice President and Chief Technology Officer of the Korea Electric Power Corporation (KEPCO).

#### 2) Welcome Reception

The Welcome Reception between 17:00 and 18:00 on Sunday September 21, was hosted in the Grand Ballroom Foyer with over 100 delegates.

#### 3) Technical Tour

The Technical Tour took place in the Seojeju Converter Station HVDC. 117 delegates in three sub-groups joined the tour, observing outer and inner facilities and Jeju Museum of Art, located nearby.



Fig. 1 Prof. Dr.-Ing. Uwe Schichler at plenary lecture.



Fig. 2 Dr. Peter van der Wielen at plenary lecture.



Fig. 3 Dr. Yong Joo Kim at plenary lecture.

#### 4) Gala Dinner

The Gala Dinner emceed by Prof. Yong-June Shin with Yonsei University was hosted after the Technical Tour with 170 delegates. Starting with the remarks delivered by Prof. Ja-Yoon Koo, congratulatory and toasting remarks were also delivered by Prof. Suwarno (CMD Chiarman, Indonesia) and Prof. Shengtao Li (CMD 2016 Chairman, China). Hyosung Corporation, the sponsor for the Gala Dinner was

Table 3 Presenters and title	s of plenary lectures.
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No	Name of Speaker	Title of Presentation
1	Prof. DrIng. Uwe Schichler (Graz University of Technology, Austria)	Condition Monitoring on Gas-Insulated Systems
2	Dr. Peter van der Wielen (DNV GL, Netherlands)	The Need for Testing, Diagnostics and Failure Investigations of Power Cables in a Smart Grid Era
3	Dr. Yong Joo Kim (Korea Electrotechnology Research Institute (KERI), Republic of Korea)	A Novel On-Line Insulation Diagnosis Technique for Large Rotating Machine



Fig. 4 Discussion at oral session.

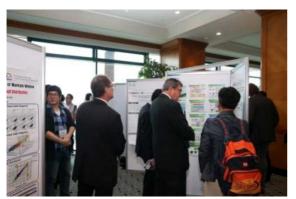


Fig. 5 A view of poster session.



Fig. 6 Outstanding Student Awards ceremony.



Fig. 7 Prof. Ja-Yoon Koo at Opening Ceremony.

represented by Mr. Jung-Bae Kim with promotional video clip and presentation. Western Course dinner was served with delightful band play, performed by "Carnival Sound," a dialect band based in Jeju.



Fig. 8 Technical tour to the Seojeju Converter Station HVDC.



Fig. 9 A view of the Gala Dinner.



Fig. 10 A view of the Gala Dinner.



Fig. 11 Delightful band play at the banquet.

#### 5) Closing Ceremony

The Closing Ceremony, emceed by Prof. Bang Yook Lee (Hanyang University), had the CMD 2014 Conference Report, Closing addresses and Outstanding Student Award Ceremony. With the Closing Ceremony, the official programs of the CMD 2014 were successfully completed.

### 4. IAC MEETING

On Monday September 22, the International Advisory Committee (IAC) Meeting was conducted in order to review the Conference Report of the CMD 2014 and select the venue for the CMD 2018. Perth, Australia was selected as the venue for the CMD 2018 with unanimous approval. International Conference on Electrical Engineering (ICEE 2014) was successfully held at Ramada Plaza Jeju Hotel, Jeju, Korea from June 15 to 19, 2014.



Fig. 12 Members at IAC Meeting.

#### 5. SPONSOR & EXHIBITION

5 companies sponsored the CMD 2014 and 4 companies partook in the Exhibition. Coffee breaks were organized in the same place where those booths were located and in turn, all delegates had a chance to join the Exhibition in and around the Conference.



Fig. 13 A view of the Exhibition.

Prof. Bang Wook Lee Secretary General CMD 2014 Local Organizing Committee Email: bangwook@hanyang.ac.kr Tel: +82-31-400-5665 Website: www.cmd2014.org



Fig. 14 Group photo of CMD 2014.

# International Conference to be held in Asia

# ACED 2014 (Asian Conference on Electrical Discharge)

Dates: December 8-10, 2014

Venue: The Narai Hotel, Bangkok, Thailand Organized by:

Department of Electrical Engineering, Faculty of Engineering, Chulalongkorn University

#### **Co-organized by:**

The Center of Excellence in Power Technology (CEPT), Chulalongkorn University

#### **Conference chair:**

Komsan Petcharaks, Chulalongkorn University

The 17th Asian Conference on Electrical Discharge (ACED 2014) will be held at Bangkok, Thailand, on December 8-10, 2014. This is the 17th conference of a series that had its last venues in Johor Bahru, Malaysia (2012), Xi'an, China (2010), Bandung, Indonesia (2008), Hokkaido, Japan (2006), Shenzhen, China (2004), Seoul, Korea (2002), Kyoto, Japan (2000), Bandung, Indonesia (1998), Bangkok, Thailand (1996), Xi'an, China (1994), Oita, Japan (1993) and Singapore (1992). The purpose of this conference is intended to provide a forum for researchers, scientists and engineers to exchange ideas and discuss recent progress in properties, phenomena and applications of electrical discharges. The organizing committee cordially invites you to participate in the conference.

#### **Conference Topics:**

- Elementary processes and transport phenomena of electric charges
- · Corona, spark, surface discharge, high-pressure glow, and high-frequency discharge
- · Lightning discharge phenomena and its measurement
- · Pulsed power source and technology
- · Plasma generation and diagnostic technology
- Application of electrical discharge and plasma
- · Partial discharge phenomena and measurement
- Space charge, dielectric measurement and their applications
- Electromagnetic fields, measurement, and environmental effects
- Electrical insulation diagnostics, on-line monitoring, measurements, testing techniques and quality assurance
- · Intelligent technology and system in HV engineering
- · Other related issues

## **Contact:**

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# ICEE 2015 (International Conference on Electrical Engineering)

Dates: July 5-9, 2015 Venue: Hong Kong Organized by: The Hong Kong Institution of Engineers (HKIE) Co-organized by: Chinese Society for Electrical Engineering (CSEE) The Institute of Electrical Engineers of Japan (IEEJ)

The Korean Institute of Electrical Engineers (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 2015 will be held from 5 to 9 July 2015 in Hong Kong. The theme of the ICEE 2015 is "Sustainable Electrical Engineering to 3<sup>rd</sup> Industrial We shall also invite Prof. Venkatesh Revolution". Naratanamurti of Harvard University as our keynote speaker. It is a great pleasure for the HKIE, together with co-organisers, the Chinese Society for 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.

#### **Conference Topics:**

- Power Systems
- · Power Systems and Information Technology
- · Energy and Environment
- Electrical Transportation Systems
- Power Electronics, Motor Drives & Industrial Applications
- · Sensors, Micro-machines and Robotics
- Fundamentals, Materials & Education
- Other Related Areas

#### **Important Dates:**

Dec. 31, 2014
Feb. 2, 2015
Apr.1, 2015
Mar. 4, 2015
Jun. 1, 2015

#### ICEE 2015 Secretariat:

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## ICPADM 2015 (International Conference on the Properties and Applications of Dielectric Materials)

Dates: July 19-22, 2015 Venue: University of New South Wales (UNSW Australia), Sydney, Australia Organized by: UNSW Australia and IEEE-DEIS NSW Chapter Sponsored by: IEEE DEIS Supported by: IEEE DEIS, UNSW Australia, IEEE NSW, CIGRE AP-D1 Co-chairs: Toan Phung, University of UNSW (Australia) Trevor Blackburn, University of UNSW (Australia)

URL: www.icpadm2015.org

The ICPADM is fully sponsored by the IEEE Dielectrics and Electrical Insulation Society. This triennial Conference, established since 1985, is the premier insulation and dielectric materials forum for Asia. Recent ICPADM venues have included India, China, Indonesia, and Japan. The 2015 Conference will be the eleventh ICPADM and will be held at the University of New South Wales (UNSW) in Sydney, Australia, from July 19-22, 2015.

The ICPADM is a conference combining fundamental research and application practice in dielectrics covering the basic dielectric physics and the general areas of electrical insulation in power system equipment and components, monitoring and diagnosis of insulation degradation, insulation for EHV AC and HVDC systems, ageing and life expectancy of insulation, dielectric phenomena and applications, partial discharges, electrical and water treeing and surface tracking, electrical conduction and breakdown in dielectrics, surface and interfacial phenomena, nano-technology and nano-dielectrics, space charge and its effects, new and functional dielectrics, dielectric materials for electronics and photonics, eco-friendly dielectrics, bio-dielectrics, dielectrics for superconducting applications, new diagnostic applications, modelling and simulation of insulation systems, etc.

#### **Important Dates:**

Receipt of abstract:	Nov. 3, 2014
Provisional acceptance notification:	Jan. 12, 2015
Receipt of full papers:	Mar. 12, 2015
Notification of final acceptance:	May 5, 2015

#### **ICPADM 2015 Secretariat:**

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## International HVDC Conference

Dates: September 14 – 16, 2015 Venue: Korea International Exhibition Center, Seoul, Korea Co-Organized by: Korea Electrical Manufacturing Association CIGRE Korea National Committee Supported by: Institute of Electrical Engineering of Japan Korea Electric Power Corporation Chair: Yong Joo Kim, KERI, Korea URL: www.hvdc2015.org

Nowadays, the global projects and researches in HVDC are very actively planned and launched especially in EU and China. Promoting the current technical and policy making issues, a lot of discussion and meetings for HVDC have been challenged for the new perspective in HVDC world. However, three main topics such as HVDC Application in Power Grid, HVDC Power Converter Station and HVDC Insulation and Dielectrics are discussed separately in one way or another. Therefore, we have been spending the enormous efforts to grasp the total strategic solutions and technical information on HVDC projects. In this context, International HVDC Conference has been organized to provide the collective strategic and technical information for the policy making staffs and technical engineers all together in the major three topics - Power Grid, Power Converter and Insulation -for HVDC era.

#### **Main/Sub Topics**

- · HVDC Application on Power Grid
- · HVDC Power Converter Station
- HVDC Insulation and Dielectrics
- Nano Composite Insulation Materials for HVDC Application
- Space Charge Phenomena under HVDC Environment
- Electromagnetic Design on HVDC Power Equipments
- Dynamic Thermal Characteristic for HVDC Insulation Materials
- Commissioning Test and Health Index Criteria for HVDC Power System
- HVDC Insulation Coordination
- Special Session: CMD (Condition Monitoring & Diagnosis) on HVDC

#### **Important Dates:**

Abstract Submission:	Feb. 28, 2015
Notification of Abstract Acceptance:	Mar. 31, 2015
Full Paper Submission:	May 31, 2015

The International CMD Workshop will be held in conjunction with the International HVDC Conference on Sept. 16 - Sept. 17, 2015.