

RESEARCH ACTIVITIES AND TECHNICAL EXCHANGES IN ASIAN COUNTRIES

Conference Records

International Conference on Electrical Engineering (ICEE 2012)

International Conference on Electrical Engineering (ICEE 2012) was successfully held at Ishikawa Ongakudo and ANA Crown plaza Hotel in Kanazawa, Japan from July 8 to 12, 2012.

The ICEE is hosted by the Institute of Electrical Engineers of Japan (IEEJ), the Chinese Society for Electrical Engineering (CSEE), the Hong Kong Institution of Engineers (HKIE) and the Korean Institute of Electrical Engineers (KIEE). 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. It was the 18th conferences and the 5th time held in Japan, following Matsue in 1997, Kita-kyushu in 2000, Sapporo in 2004 and Okinawa in 2008.

With the theme “*Renovation and Innovation by Electrical Engineering*”, ICEE 2012 was well attended by 503 delegates from Japan (355), Korea (95), China (30), Thailand (9), Hong Kong (7) and some other overseas countries (7) (Table 1). Total 350 technical papers were submitted (Table 2). There were 5 Keynote speeches, 35 Oral sessions (166 papers), 7 Poster sessions (164 papers) and 3 Panel discussions.

In the opening ceremony on July 9, 2012, Prof. K. Hidaka of IEEJ made his greeting speech and Mr. F. Chen of CSEE, Ir Prof. K.K. Choy of HIKE, Prof. J.Y. Koo of KIEE and Mr. Y. Yamano of Kanazawa city gave their congratulations (Fig.1). After the opening ceremony, 4 keynote speeches were given by Dr. Makoto Toyoma, Dr. Ben Hua, Dr. F.C. Chan and Dr. Young-Hyun Moon. In the morning on July 10, 2012, Dr. Makoto Yoshikawa gave his keynote speech also (Table 3, Fig.2).

Table 1 Number of participants from each country.

No	Country	No. of participants
1	Japan	355
2	Korea	95
3	China	30
4	Thailand	9
5	Hong Kong	7
6	USA	2
7	Other countries	5
	Total	503

(Above numbers include accompany persons.)

Table 2 Number of papers at each session

Sessions	Number of papers
Oral session	166
Poster session	164
Keynote speech	5
Panel discussion	15
Total	350



Fig.1 Prof. Hidaka gave greeting speech at opening ceremony.

Table 3 Presenters and titles of keynote speeches.

No	Name of Speaker	Title of Presentation
1	M. Toyoma (The Federation of Electric Power Companies, Japan)	Power system damage, recovery and challenges from Great East Japan Earthquake
2	B. Hua (South China University of Technology, China)	Coordination of Distributed Energy System with Power Balancing & Reliability
3	F.C. Chan (The Hong Kong Institution of Engineers, Hong kong)	Global Outlook of Electric Vehicles Development & Their Infrastructure
4	Y-H Moon (Yonsei University, Korea)	Energy Crisis and Electric Power Industry
5	M. Yoshikawa (Japan Aerospace Exploration Agency, Japan)	Missions to Asteroids : Challenges of Hayabusa and Hayabusa2

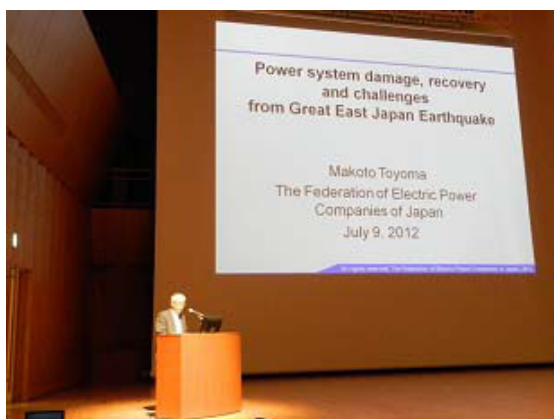


Fig.2 Dr. Toyoma at his keynote speech.

In the oral and poster sessions, technical presentation and discussions were made for some separated topics, such as Power Systems and Energy, Materials, Information & Control Systems, Electrical Machines, Power Electronics & Industry Applications, Sensor & Micro-machines and etc. (Fig.3 & 4). As the panel discussions, 3 important themes were prepared and active and meaningful discussions were done for two hours and more (Table 4).



Fig.3 A view of oral session.

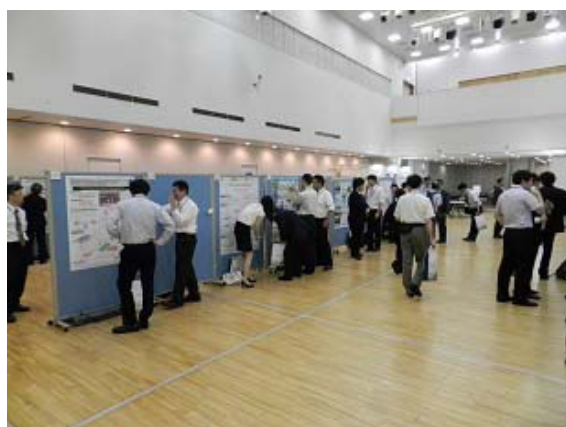


Fig.4 A view of poster session.

Welcome reception, banquet and technical tours were also arranged as the social events of ICEE 2012. Banquet was scheduled in the evening of July 10, 2012 at ANA Crown Plaza Kanazawa.

Dr. Masaki Sakuyama, conference chair of ICEE 2012, chairman of IEEEJ gave his greeting at the opening of banquet (Fig.5).

Table 4 Titles of panel discussions

No	Title of panel discussion
1	Development and Standardization of Smart Grid and Smart Community
2	Battery as a Key Element of Smart Grid
3	Education and Human Resources Development in Electrical Engineering



Fig.5 Dr. Sakuyama gave his greeting speech at the opening of banquet.

All participants enjoyed some kinds of local foods and historical Japanese music and attractions in Kanazawa. At the end of the banquet, Mr. Fen Chen of CSEE announced the next conference, ICEE 2013 to be held in Xiamen, China.

Finally, Prof. Yoshihiko Uesugi, the Chairman of Local Organizing Committee of ICEE 2012, passed the flag of ICEE to the representatives of the host of ICEE 2013, Mr. Fen Chen (Fig.6).



Fig.6 Prof. Uesugi (right) passed the flag of ICEE to Mr. F. Chen (left).

Prof. Yoshihiko Uesugi
University of Kanazawa
Chairman, Local Organizing Committee of ICEE 2012

International Conference on Properties and Applications of Dielectric Materials (ICPADM 2012)

The 10th ICPADM, International Conference on Properties and Applications of Dielectric Materials was held in Bangalore, India on July 24-28, 2012. The Conference was hosted by CPRI, the Central Power Research Institute in Bangalore with the following Institute members providing a dominant role in the conference organization:

Mr. N. Murugesan,
Director General, CPRI & Conference Chair
Dr. Seetharamu, Conference Co-chair,
Dr. R.S. Shivakumara Aradhya,
Conference Co-chair & Technical Chair
Mr B. Nageshwar Rao, Finance Chair
Dr. N. Vasudev, Publication Chair
Dr. M. Shekhar Kumar, Secretariat Chair
Dr P. Sampath Kumaran, Member
Dr. H.N. Nagamani, Member
Ms. S. Ganga, Member
Dr. C. Viswanatha, Member
Mr. K. Mallikarjunappa, Member

Dr. Seetharamu, the ICPADM 2012 Conference Co-chair, reported that there were 299 abstracts submitted of which 225 were accepted. The number of papers accepted after review was 175 plus a further attrition of 15 papers occurred due to suspected plagiarism. The final number of papers presented was 137 out of which 66 were from abroad and 71 from India. In addition some papers were withdrawn due to Visa issues.

The total delegates for the conference were 156 of which 44 were overseas delegates represented from China, Japan, UK, Australia, USA, Canada, Germany, Italy, Romania, Poland, Indonesia, and Switzerland. The pre-conference tutorial program was held on July 24, 2012 covering the topics on Nano-dielectrics, Outdoor insulation and Insulation aspects of Power

System Components with 80 participants. The ICPADM 2012 commenced with the inauguration by Mr. D.N. Narasimha Raju IAS, Principal Secretary, Energy Department, Government of Karnataka, India on July 24, 2012 and this is followed by the addresses of Dr. Harry Orton and Prof. Len Dissado. Mr. N. Murugesan presided over the function. This was followed by a welcome dinner. In the inaugural speech, Mr. Narasimha Raju stressed the need for improved infrastructure within the Indian Power Sector and further he remarked that the ICPADM 2012 is a very timely event for India for this reason.

The Technical program started with Ziyu Liu Memorial Lecture delivered by Dr. Keith Nelson, Professor Emeritus at the Rensselaer Polytechnic Institute, NY, USA followed by other plenary presentations by invited speakers. The lists of plenary speakers are given below.



Fig.2 Dr. J. Kieth Nelson delivering the Ziyu Liu Memorial Lecture



Fig.1 Inauguration – Lighting the Lamp



Fig.3 Lectures delivered by Dr. Toshikatsu Tanaka

Table 1 Lists of plenary speakers at ICPADM 2012

Speaker	Affiliation	Title of the plenary talk
Ziyu Liu Memorial Lecture		
Dr. J. Kieth Nelson	Rensselaer Polytechnic Institute, NY, USA	The Continuing Evolution of Nanodielectrics
Invited Lecture		
Dr. Toshikatsu Tanaka	Waseda University, Japan	Partial discharges, treeing and tracking
Dr. Greg Stone	IRIS Power L.P., Canada	Partial discharge measurement
Dr. Tatsuki Okamoto	CRIEPI, Japan	New methods of degradation estimation of insulation paper of power transformer windings based on the load history
Dr. L. Satish	Indian Institute of Science, Bangalore	Some Innovative Applications of Frequency Response Data of Transformer Windings
Dr. Len A. Dissado	Leicester University, UK	Space charge and its relationship with aging
Dr. Sivaji Chakravorti	Jadhavpur University, India	Charge modified field computation in high voltage
Mr. B. Gunasekaran	CPRI, India	CPRI experience in 1200 kV transmission line design
Dr. Rajeswari Sundararajan	Purdue University, USA	Impedance spectroscopy studies of bio dielectrics – cancer cells and tissues



Fig.4 Lecture delivered by Dr. Greg Stone



Fig.6 Dr. L. Satish at his lecture.



Fig.5 Dr. Tatsuki Okamoto at his lecture.



Fig.7 Dr. Len A. Dissado at his lecture.



Fig.8 Dr. Sivaji Chakravorti at his lecture.



Fig.10 Dr. Rajeswari Sundararajan at her lecture.



Fig.9 Mr. B. Gunasekaran at his lecture.



Fig.11 View of audience participation.

The contributory papers presented in various technical sessions were of high technical standard, although there was a mixture of papers. It was pleasing to note that there were a large number of student papers presented from Universities and by young engineers from Industries, which were well recognized and appreciated. Finally, ICPADM had 129 papers, 60 papers from abroad and 69 from India. Among the 60 papers presented from overseas countries, 41 papers were from China.

The Banquet Dinner organized on July 26, 2012 at the RMV Club Terrace Hall close to CPRI was an informal networking affair for the participants. Social events included an evening of light classical music / Veena recital, by the musical troupe "Sunadha Lahari", plus Bangalore sightseeing tours were made available. Technical tours of the extensive CPRI facilities including the High Voltage Division, Short Circuit Laboratory, Dielectrics Cables & Capacitors Laboratory, Materials Technology Laboratories and Earthquake Vibration Research Centre were conducted upon request.

On the final day, a concluding session was held on July 27, 2012 with panel discussions on "Future of

Dielectrics" chaired by Mr. N. Murugesan, Director General, CPRI and steered by Dr. Harry Orton, Canada. The panelists were Dr. Keith Nelson, USA, Dr. Tatsuki Okamoto and Dr. Yoshimichi Ohki, Japan, Dr. Toan Phung, Australia and Dr. Zheng Xioquan. Each panelist gave a five minute dissertation on their views of what holds for the future of dielectrics. Lively audience participation followed during a question and discussion session.



Fig.12 View of Poster Session.

CPRI organized an R&D Expo of Indian industry from July 24 – 26, 2012 coinciding with ICPADM 2012. This included exhibition by nine major industries of their latest products & interaction with R&D institutions, Academicians and Industry personnel.

The nine exhibitors were:

- ✓ BHEL Electro Porcelain Division
- ✓ CPRI (Central Power Research Institute)
- ✓ Gharda Chemicals Ltd.
- ✓ Hindustan Vidyut Products Ltd.
- ✓ KVTEX Power Systems.
- ✓ Oblum Electric Industries
- ✓ PCI Ltd.
- ✓ Raychem and
- ✓ Vijai Electric Ltd

During the ICPADM 2012 conference the IAC met to discuss the next ICPADM 2015 venue. All those present endorsed the decision to hold the next ICPADM 2015 at the UNSW, the University of New South Wales in Sydney, Australia.



Fig.13 Closing Session – Panel Discussions.

Dr. Subramanyam Seetharamu

Co-chair ICPADM 2012

CPRI, India

Dr. Harry Orton,

Chair Int. Advisory Committee of ICPADM 2012
Canada.



Fig.14 Group photo of all participants of ICPADM 2012.

International Conference on Condition Monitoring and Diagnosis (CMD 2012)

2012 International Conference on Condition Monitoring and Diagnosis (CMD 2012) has been held successfully in very famous place Bali, Indonesia on 23-27 September 2012. The venue of the conference was The Grand Bali Beach Hotel which is located at the beautiful Sanur Beach Bali. CMD 2012 was co-organized by School of Electrical Engineering and Informatics, Institut teknologi Bandung and Department of Electrical Engineering Udayana University, Bali, Indonesia and sponsored by IEEE DEIS. The previous conferences were held in Beijing (2008) and Tokyo (2010).



Fig.1 Welcome reception.

CMD 2012 was opened on September 24th by Prof. Puti Farida, The Vice Rector of Institut Teknologi Bandung.

The Organizing committee received more than 400 abstracts and after rigorous review, finally 302 papers from 33 countries from 5 continents were accepted. The number of papers from each country is shown in table 1.



Fig.2 Opening remarks by Prof. Suwarno.

Table 1 Number of papers from each country.

No	Country	Number of papers
1	China	73
2	Indonesia	46
3	Japan	43
4	Republic of Korea	29
5	Germany	19
6	The Netherland	17
7	Malaysia	13
8	Austria	12
9	India	8
10	Others	42

The papers deal with

1. Condition monitoring and diagnosis for power equipments such as transformers, GIS, cables and electric machines
2. Condition monitoring and diagnosis in power plants
3. Failure phenomena based on electrical, mechanical, chemical and thermal causes
4. Degradation assessment for power equipment
5. Modern maintenance tools for effective replacement
6. Advanced sensing techniques for condition monitoring and diagnosis
7. Applications of artificial intelligence for data mining and condition assessments
8. Asset management for power equipments
9. Strategic planning and management for condition monitoring and diagnosis

The papers were presented in 21 oral sessions, 2 plenary sessions and 2 poster sessions. Keynote plenary invited lectures was given by Dr. Tatsuki Okamoto from CRIEPI Japan and Dr. Jitka Fuhr (AF Engineer and Consultants, AFEC) while plenary



Fig.3 Invited plenary lecture by Dr. Okamoto.

invited speeches were given by Prof. Cengrong Li from North China Electric Power University, China, Ir. Yanuar Hakim MSc. from Indonesian Electric Power Company PT PLN Indonesia and Dr. Sang-Jin Kim from Korean Electric Power Company (KEPCO KDN) Korea.



Fig.4 View of oral session.



Fig.5 View of poster session.

CMD 2012 was attended by 239 participants. Number of participants from each country is shown in table 2.

Table 2 Number of participants from each country.

No	Country	No. of participants
1	China	52
2	Indonesia	38
3	Japan	34
4	Republic of Korea	22
5	Germany	12
6	Austria	7
7	Malaysia	7
8	The Netherland	6
9	UK	6
10	Others	55

On September 25, the meeting of international advisory and corresponding members was held. Members attended the meeting were Dr. Okamoto, Prof. Cheng Rong Li, Prof. Ja-Yoon Koo, Dr. H. Orton, Dr. W. Koltunowicz, Prof. Shengtao Li, Prof. M. Hikita, Prof. E. Gockenbach, Prof. J. Smit, Prof. G. Chen, Prof. M. Muhr, Prof. Guan Zhicheng, Prof. A. Beroual, Prof. Dae Hee Park, Prof. Hyun Hoo Kim (replaced by Prof. Jun Hoo Lee), Prof. N. Hozumi and Prof. Suwarno, Dr. Resi Zarb (IEEE DEIS representative), Dr. Ahmed Abu Siada (from Curtin University Australia, presented a proposal to host CMD 2016 in Australia), Dr. Umar Khayam (General secretary), Prof. Dayu (Local arrangement committee) and Dr. Ariastina (secretariat).

Prof. Suwarno reported the progress of on-going CMD 2012 while Prof. Ja Yoon Ko, firmly explained the preparation for CMD 2014 which will be held in Jeju Island, Korea. After presentation from Dr. Ahmed Abu Siada from Curtin University and Prof. Shengtao Li from Xian Jiaotong University as candidate for hosting CMD 2016, finally the meeting decided Xian as the venue of CMD 2016.

On September 25 evening, a banquet dinner was held at open stage with live Balinese dances and gamelan.



Fig.6 Balinese dance at banquet.



Fig.7 International corresponding members with dancers at banquet



Fig.8 Voluntary students, the green team with Prof. Suwarno, General Chairman.

The conference was officially closed on September 26 evening by Dr. Resi Zarb as the representative of IEEE DEIS. Post conference full day culture tour was arranged to famous places such as watching Barong Dance at Batubulan, visited the centre of Balinese gold and silver handicraft Celuk and Mas, where one can meet Balinese woodcarvers in every angle of the village. A lunch was served in Kintamani at 1,500 meters above sea level and participants enjoyed a breathtaking view of the Crater Lake Batur.

Prof. Suwarno

General Chairman of IEEE-CMD 2012
Institut Teknologi Bandung, Indonesia



Fig.9 All participants of CMD 2012.

International Conferences to be held in Asia

ISH 2013 (International Symposium on High Voltage Engineering)

Dates: August 25~30, 2013
Venue: Hanyang University (Seoul Campus)
Chairman: Prof. Ja-Yoon KOO (Hanyang University.)
Organizer: Organizing Committee ISH 2013
Co-organizer: KIEE, Hanyang University
Official Website: www.ish2013.org

18th International Symposium on High Voltage Engineering (ISH 2013), which will take place in Hanyang University in Seoul, Republic of Korea from August 25 to 30, 2013.

The ISH 2013 promotes opportunities to be an effective rallying point for a broad range of constituencies, government officials, pioneering engineers, scientists, academics, researchers and many other professionals working in the pertinent fields to discuss the challenges of the day and to provide a platform for all to share cutting-edge technology and up-to-date knowledge and experience.

Seoul, the designated venue for the ISH 2013, is an ineffable world-class city where contemporary lifestyle meets long-standing history. Seoul offers the warmest hospitality, world-class services, high value-added accommodation and the state-of-the-art convention facilities. The ISH 2013 Organizing Committee is working around the clock to prepare for forward-looking programs and to ensure the effectual communications amongst interested parties from four corners of the world.

Topics

1. *Electromagnetic fields: computation, measurements, environmental effects*
2. *Transient voltages: lightning, switching, repetitive impulses, surge arrester, insulation coordination, overvoltage protection*
3. *High voltage and high current testing techniques*
4. *High voltage measuring techniques: dielectric parameter, space charges, partial discharges*
5. *High voltage insulation materials and system: outdoor, indoor, gas insulated, nano-dielectric, eco-friendly materials and applications*
6. *Monitoring and diagnostics: evaluation procedures, knowledge rules, data mining, smart sensors and applications*
7. *High voltage systems aspects: asset management, smart grids, live line working, maintenance and on-site repair*
8. *HVDC technologies and applications*

Key dates:

Abstract Submission:	October 31, 2012
Notification of Acceptance:	January 31, 2013
Full Paper Submission:	April 15, 2013
Speaker Registration:	May 31, 2013

Secretariat:

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ICEE 2013 (International Conference on Electrical Engineering)

Dates: July 14~18, 2013
Venue: Xiamen, China
Organizer: CSEE
Co-organizer: HKIE, IEEJ, KIEE
Official Website: www.icee-con.org