

RESEARCH ACTIVITIES AND TECHNICAL EXCHANGES IN ASIAN COUNTRIES

Conference Records

International Conference on Condition Monitoring and Diagnosis (CMD2006)

The first International Conference on Condition Monitoring and Diagnosis (CMD2006) organized by The Korean Institute of Electrical and Electronic Material Engineers (KIEEME) and Korean Electro-technology Research Institute (KERI) was held at Changwon Exhibition and Convention Center in Changwon city, Korea, from 2nd to 5th of April, 2006. CMD2006 was held for presentations and discussions among engineers and researchers with the view of sharing their knowledge, experience and ideas in this emerging multidisciplinary science area.

Short Report on CMD2006

The first CMD Conference, originated from ACEID (Asian Conference on Electrical Insulation Diagnosis) among China, Japan and Korea and dealing with one of the fast growing fields in the world, was on the table with approximately 360 technical papers contributed by delegates from 33 countries with over 300 registered participants as shown in Table 1.

These days, we are in needs of not only faster and faster flow of monitoring and diagnosis, but also in need of safer and more environment-friendly methods. To meet these requirements, technology must be developed much greater than ever before. We strongly believe that those trends were accomplished by the most extraordinary papers from all over the world as well as 8 plenary lecturers and 5 tutorials the organizing committee invited to take this opportunity to boost CMD industries as shown in Table 2~3.

CMD2006 had very various scopes and important sessions such as Strategic Planning and Management for Condition Monitoring, CMD Technologies under Ubiquitous Environment, and CMD for HV Power Apparatus and Systems.

Also, most prominent professionals like Prof. Keith Nelson, Mr. Pierre Boss, and Prof. Toshikatsu Tanaka, Prof. Guan Zhicheng gave all participants the informative and distinguished lectures as the highlights of the whole occasions.

During the conference, we had an International Board Meeting with the representatives of CMD2006 International Steering and Advisory Committee to decide the next hosting country, hosting cycle and period for CMD and discuss other agenda for future of the forthcoming CMD conferences. The represen-

tatives of each Society had signed the MOU as shown in Figure 4 at the meeting. After a successful

Table 1 Invited Lecture Program of Plenary Session

Speaker	Affiliation	Title
Prof. Keith Nelson	Rensselaer Polytechnic Institute (USA)	A comparative assessment of PD and EMI methods from the EPRI generator field condition monitoring program
Prof. Zhicheng Guan	Tsinghua University (China)	Ongoing hydropower and long distance transmission projects in China
Mr. Boss Pierre	ABB Secheron Ltd CIGRE (Switzerland)	Overview on the activities of CIGRE Study Committee A2 "Transformers" and related links with IEC standardization bodies
Prof. Toshikatsu Tanaka	Waseda University (Japan)	Decision Making in Asset Management of Power Apparatus and Systems
Mr. J. Auke Wiersma	ENECO Energie (Netherlands)	Trends and Developments in Substation Technology
Mr. Liu Chang-dong	Three gorges Hydropower Plant (China)	Research on the Management Strategy of Main equipments in the Three Gorges Left Bank Power House
Prof. Suk-han Lee	Sungkyunkwan Univ.(Korea)	Condition Monitoring in Service Robotics
Dr. Alexander Apostolov	AREVA T&D Automation (USA)	IEC 61850 and Its Impact on Condition Monitoring and Diagnosis

Table 2. Program of Tutorials

Speaker	Affiliation	Title
Mr. J. Auke Wiersma	ENECO Energie (Netherlands)	Modern Substation Technology
Mr. Boss Pierre	ABB Secheron Ltd CIGRE (Switzerland)	Economics of Transformer Management
Prof. Keith Nelson	Rensselaer Polytechnic Institute (USA)	Basic Theory and Interpretation of PD and EMI On-line Monitoring in

		Large Machines
Mr. Reinhard G. Schroth	CIGRE (Germany)	Technical and Environmental Issues Regarding the Integration of New HV Cable Systems in the Network
Mr. Deepak Parmar	Geotherm Inc. (Canada)	Importance of External Thermal Environment on the Rating of Under-ground and Submarine Transmission Cables

conversation and discussion we decided eventually that the next upcoming CMD will be held in Beijing China 2008.

As General Chairman of CMD2006, I really hope that conference was a beneficial experience for all participants and it is expected that they had a memorable time with many new and old friends in beautiful city, Changwon. Further, I would like to give my most heartfelt thanks to all delegates from all over the world and the member societies for the efforts they have given to assist in this scientifically successful Conference.

We believe that CMD2006 would be remained as a good opportunity to announce the critical role in the progress of vanguard fields such as Technology, Electronics and Telecommunication especially under “Ubiquitous Environment”

The topics of CMD2006 are as follows

- Special Topics

- A. Condition Monitoring and Diagnosis Technologies under Ubiquitous Environment
- B. Monitoring and Diagnosis System for Nuclear Power Plant
- C. Condition Monitoring and Diagnosis for System Environmental Performance
- D. Digital Substation
- E. Intelligent Power Distribution System
- F. Life Line Corrosion Control and Monitoring
- H. Monitoring and Diagnosis System for GIS

- Main Topics

- 1. Condition Monitoring for Power and Gas /Oil Plants
- 2. Diagnosis and Condition Monitoring for HV Power Apparatus and Systems
- 3. Investigation into the Mechanism of Electrical, Mechanical, Thermal, Chemical and Electronic Failure Phenomena
- 4. Applications of Information Technology in Asset Management
- 5. Strategic Planning and Management for Condition Monitoring
- 6. Monitoring in the Electricity Markets and Regulation under Various Economic Aspects

Table 3 Invited lectures in each Technical Sessions

Speaker	Affiliation
Prof. Guan-Jun Zhang	Xi'an Jiaotong University (China)
Dr. Toshihiro Takahashi	CRIEPI (Japan)
Prof. Ernst Gockenbach	Univ. of Hannover (Germany)
DR. Ir. Suwarno	Bandung Institute (Indonesia)
Prof. Edward Gulski	Delft University (Netherlands)
Prof. Michael Muhr	Graz University (Austria)
Dr. Katsumi Uchida	Chubu Electric Power Co. (Japan)
Prof. Yoshimichi Ohki	Waseda University (Japan)
Dr. Brian Stewart	Glasgow Caledonian University (United Kingdom)
Dr. Greg Stone	Iris Power Engineering (Canada)
Prof. Satoshi Matsumoto	Kyushu Institute (Japan)
Prof. Johan J. Smit	Delft University (Netherlands)
Mr. W. M. McDermid	Manitoba Hydro (Canada)
Prof. Guangning Wu	Southwest Jiaotong University (China)



Figure 1 All Participants

Table 4. Numbers of Submitted Papers from each country

Country	Number	Country	Number
Australia	4	Kuwait	2
Austria	7	Libya	1
Brazil	7	Malaysia	2
Canada	8	Netherlands	13
China	77	Romania	2
Croatia	1	Russia	9
Czech Rep.	4	Singapore	1
Finland	2	South Africa	5
France	2	Spain	1
Germany	14	Sweden	4
India	12	Switzerland	2
Indonesia	6	Thailand	15
Iran	4	United Kingdom	6
Israel	1	USA	9
Italy	4	Venezuela	1
Japan	24	Yugoslavia	1
Korea	110		
Total		368	



Figure 4 Memorial Photo snaps of Inter-national Board Meeting after MOU Signing Meeting
(From left to right,
Mr. Jean Kowal (CIGRE General Secretary, France),
Dr. George Chen (IEE UK),
Mr. Bill McDermid (IEEE DEIS, USA),
Prof. Kyu-Bock Cho (KIEEME, Korea),
Dr. Tatsuki Okamoto (IEEJ/KRIEPI, Japan),
Prof. Guan Zhicheng (CES / Tsinghua Univ. China))



Figure 2 Plenary Session



Figure 5. Welcome Reception
(From left to right,
Prof. Dae Hee Park (Wonkwang Univ.),
Prof. Kee Joe Lim (Chungbuk Univ.),
Prof. Toshikatsu Tanaka (Waseda Univ.),
Prof. Yoshimichi Ohki (Waseda Univ.))



Figure 3 Poster Session

Prof. Kyu-Bock Cho, Ph.D.
General Chairman of CMD2006
kbcho@hanseo.ac.kr / bionicsys@hotmail.com

International Conference on Properties and Applications of Dielectric Materials (ICPADM 2006)

Dates: June 26 to 30, 2006

Venue: Bali, Indonesia

Sponsor: IEEE DEIS

Chairperson:

Dr. Ir. Suwarno, Bandung Institute of technology

URL: <http://www.melsa.net.id/~icpadm06/>

Purpose and outline:

The ICPADM has been held every three years in the Pan-Pacific region since 1985 and this is the 8th time. The purpose of this conference is to provide an international forum for discussion and exchange of the latest advances in science and technology of dielectric materials. The Liu Ziyu and Ieda Memorial Lecture was given by Prof. G. C. Montanari and invited lectures was given by Prof. T. Tanaka and Prof. S. Gubanski.

Number of attendees:

205 persons (Indonesia 78, Japan 33, China 30, Korea 21, Germany 7, Malaysia 7, Others 29)

Number of papers:

235 papers from 22 countries

28 Sessions including 2 Plenary Sessions,

18 Oral, 4 Short-Oral and 4 Poster Sessions

Session theme and number of related papers:

Partial discharge 13, Space charge 11, Nano composite 12, New measurement 13, Tr & Rotating machine 12, GIS & Cable 16, Others 30 (except poster papers)

Keynote speeches/Awards:

(1) Liu Ziyu and Ieda Memorial Lecture:

Insulation diagnosis of HV apparatus by PD investigation (Italy)

(2) Promising characteristics of nanocomposite dielectrics (Japan)

(3) Performance and diagnostics of biologically contaminated insulators (Sweden)

Personal Impression:

The ICPADM 2006 was very successful as the results of much effort of the host country. There were 205 attendees from Asia, Oceania, North America and Europe. And 235 papers were presented. "Nano composite" and "Diagnosis and Asset management" looked to gather much interest of the attendees. Especially, 20 papers were presented at the session of "Nano composite". There were so many tourists at the Bali Island at the time in spite of the bombing last year. All at-

tendees could have wonderful time at the most famous tourist resort in the world.



Dr. Swaruno, Chairperson of ICPADM 2006.



Mr. H. Orton at Welcome reception.



Welcome reception. Left to right: Dr. G-Y. Kim, Prof. Sekii, Prof. Mizutani, Dr. J-W. Hong, Dr. Swaruno.



Prof. T. Tanaka at Invited lecture.



Prof. Gubanski at Technical session.



Lunch time.



Group photo of all attendees of ICPADM 2006.

Reported by
Prof. Y. Sekii (Chiba Institute of Technology)
<sekii.yasuo@it-chiba.ac.jp>

International Conference on Electrical Engineering (ICEE 2006)

Dates: July 9 to 13, 2006

Venue: YongPyong, Korea

Organizer: KIEE

Co-organizer: IEEJ, CSEE, HKIE

Chairperson:

Prof. Heung-Jae Lee, Kwangwoon Univ.

URL: <http://icee2006.kiee.or.kr>

Purpose and outline:

A conference theme is represented by “Innovation and Convergence”. ICEE2006 was trying to provide a forum to address these issues with the theme of innovation and convergence in electrical engineering and technology. In addition to 24 technical sessions of 336 technical papers, a keynote speech session, panel sessions and a special session were specially organized.

Number of attendees:

549 persons (Korea 365, Japan 151, China 22, Hong Kong 6, Others 7)

Number of papers:

536 papers (Korea 375, Japan 140, China 28, Hong Kong 9, USA 3, Spain 1, Iran 1, Germany 1, Taiwan 1, Oman 1, Indonesia 1, Sweden 1, and Russia 1)

Oral 206, Poster 191, Panel session 31

Session theme and number of related papers:

Electrical machines 52, Materials 43, MEMS 39, High voltage technologies 25, Applied superconductivity 13, Control and automation 39, Diagnosis and sensors 29

Keynote speeches:

- (1) Global Perspective of Engineering Education and Research (Korea)
- (2) Electricity Supports Energy Society in the Future (Japan)
- (3) China’s Approach to Future Power and Energy Need: Considering Renewable Energy as a Priority in Energy Development (China)
- (4) Sustainability of Electricity and its Lighting Applications (Hong Kong)

Panel debate theme:

R&D Strategies and Programs for Convergence and Innovation in Electrical Engineering and Technology

Special Session:

Education in Electrical Engineering in Preparation for Emerging Technologies

Personal Impression:

The conference was well received and well balanced in several individual themes. It was also matched with its main theme of innovation and con-

vergence. It is worthwhile to note titles of the keynote speeches, and themes for panel debate and special session.

Next Conference:

Hong-Kong, July 8-12, 2007.

<http://www.icee-hk.org>



Prof. Min-Koo Han, President Elect of KIEE (Seoul National Univ.) made a keynote address on “Global Perspective of Emerging Education and Research”.



Prof. Min-Koo Han (left), President Elect of KIEE of Korea and Prof. T. Tanaka, Chairman of EINA magazine Committee of Japan.



Panel Debate on R&D Strategies in Electrical Engineering. From left to right: Mr. D-K. Kim (KERI), Prof. S-I Moon (Seoul National University), Dr. H. Konishi (Hitachi), Prof. K. Nara (Ibaraki University), Dr. F-C. Chan (University of Hong Kong), Prof. C-C. Chan (University of Hong Kong), Mr. X. Bai (China EPRI), Dr. J-W. Choe (LS Industries).



Panel Debate on R&D Strategies in Electrical Engineering. Dr. K-Y. Lee (Penn. State University) Chairperson (Standing).

Reported by **Prof. T. Tanaka**,
Waseda Univ.
<t-tanaka@waseda.jp>