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INTERNATIONAL COMMISSION ON ILLUMINATION
INTERNATIONALE BELEUCHTUNGSKOMMISSION



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THE CIE AFTER THE 2009 GENERAL ASSEMBLY IN BUDAPEST

As circulated by me already to our membership in June 2009, the CIE General Assembly (GA) has made some momentous decisions at its meeting in Budapest in May this year, which will have an effect on the organization for years to come. The decisions were triggered by legal, financial and tax issues, which required changes to the CIE Statutes to bring the organization fully in line with the laws and regulations applicable to organizations like the CIE in the country in which they are registered (Austria). One of these changes was the inclusion of an enabling clause in the Statutes, allowing the organization to move part of its income generating activities into a separate, commercial, taxable entity called **CIE Scientific Services GmbH** (a company with limited liability, owned 100% by the CIE). This move positions the CIE for growing the abovementioned income generating activities without any fear of the other part (the non-profit CIE as we know it) losing its tax-exempt status in Austria. If this growth can be achieved, it will lessen the dependence of the CIE on membership dues, the amount of which is of concern to some Members.

The registration of the CIE Scientific Services GmbH has already been completed since then and the Central Bureau (CB) is busy planning and implementing the new structure under the guidance of the Board of Administration (BoA).

In the light of this background, I made it clear in my June 2009 circular to members that our planned **2010 Conference on "Lighting Quality and Energy Efficiency"** (<http://vienna2010.cie.co.at>) is an event of crucial importance to the new CIE. The 2010 conference is the first of the large, high-impact events we would like to organize regularly in the future through the CIE Scientific Services GmbH. If it is as successful as we hope it will be, it will elevate the CIE to the key international role player position on the topic of lighting quality and energy efficiency, which it should rightfully have but which it has not succeeded so far in achieving in the eyes of many of the other role players in this field. We have engaged almost all these role players in our conference and hope that the Conference Proceedings will become the reference information resource on this topic for all national, regional and international projects in this field from here on. It will also show us what financial potential such events have for us as income generators and tell us what additional measures we will have to put into place to excel in this activity.

In my circular I appealed to all CIE Members and all CIE Divisions, to support and promote this event to their utmost. I asked Members to publicise and promote the conference in their national publications, newsletters and websites and to make sure through specific actions that their national and regional role players on lighting and energy (including electrical utilities,

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city councils, government departments and non-governmental organizations) are aware of it, send delegates to attend it and offer papers or poster presentations. Likewise I urged all CIE Divisions to put his event high on their priority list and support it by prominently promoting it to their members (circulars, newsletters, websites), holding Division and TC meetings, workshops or training sessions during or around this event and helping the CB to secure key, high-impact speakers. **I would like to reiterate this appeal again in this issue of the CIE NEWS and thank those members and Divisions who have already acted on it.**

Apart from the abovementioned changes in our Statutes, I would also like to highlight some other General Assembly decisions and related developments since then.

Singapore was approved as a new Associate National Committee and **Malaysia** as a new National Committee. We welcome both of these countries into the CIE family. It is with pleasure that I can report since then further applications for full membership by the **Ukraine** and for Associate National Committee status by **Taiwan**.

The CIE Treasurer, J Schleritzko, announced a 2nd launch of his **campaign to increase the number of our Supportive Members** and a presentation was made by K. Sagawa (CIE Secretary) on a **proposed CIE Affiliate Country Program**, to open the door even wider for exposing developing countries to the work of the CIE.

The Vice-President (Technical), J Schanda, informed the meeting that the publication of a book on **“Solid State Lighting”** was being planned, along similar lines and with similar objectives as the book on “Colorimetry”. The main objective will again be to pull together all the current knowledge available on this subject, both from within the CIE and in other publications and documents.

It is with great pleasure that I can point out to you that during this next quadrennium, which includes the celebration of the CIE centennial in 2013, the organization will be led for the first time by a lady President. On behalf of all our members I wish her a successful and enjoyable Presidency.

The historical **Midterm Session in 2013** was awarded to Lyon (France), taking into account that France was the first country to host the CIE Secretariat.

The General Assembly further approved a **change to the format of the CIE Session**, which will be more compact and will be implemented for the first time during the 2011 Session in Sun City (South Africa).

Dr F Hengstberger
President
17 November 2009

News from the Divisions

Division 1 – Vision and Colour

<http://www.cie.co.at/div1/>

Division 2 – Physical Measurement of Light and Radiation

<http://www.cie.co.at/div2/>

The following new Reportership was established:

- R2-47: Photometry of curved surface sources (Hsueh Ling Yu, TW)

Division 3 – Interior Environment and Lighting Design

<http://www.cie.co.at/div3/>

Division 4 - Lighting and Signalling for Transport

<http://www.cie.co.at/div4/>

Division 5 – Exterior Lighting and other Applications

<http://www.cie.co.at/div5/>

The following new TC has been established:

TC 5-26: Guide for the Lighting of Sport Events for Colour TV and Film Systems (Chair: Alan Smith, GB).

Terms of Reference: To prepare a revision of the 1989 report to better relate to CIE 169:2005 and the present state of the art of HDTV

Division 6 – Photobiology and Photochemistry

<http://www.cie.co.at/div6/>

The following new TC has been established:

TC 6-65: Photobiological Dosimetry for Low Level Laser/Light Phototherapy (Chair: Terry L. Lyon, US)

Terms of Reference: To review the current state of dosimetry applied to low-level-laser/light therapy (LLLT), referred to also as “laser biostimulation” or “laser photobiomodulation,” and prepare a CIE technical report on preferred methods for dosimetry. Although a wide variety of low-irradiance laser and LED phototherapy devices are employed in medical practice for pain relief and wound healing and treatment of chronic disease, a full understanding of the underlying mechanisms of photobiological interactions remain under scientific investigation. A key challenge is to establish a uniform, standardized means of expressing the photobiological exposure of tissue. The role of this TC is to recommend scientifically sound dosimetric methodology that will apply independent of the exact mechanism.

The 27th CIE Session of the CIE

11-15 July 2011

Sun City, South Africa

FORMAT OF THE SESSION

The 27th Session of the CIE will be held in Sun City, South Africa, from 10 to 15 July 2011:

According to the proposed time table (see below) the Session will be divided into two parts:

- 1 The conference part from 11 to 15 July 2011 (morning) with invited papers, presented papers, presented posters, posters at the stand and workshops.
- 2 The technical meetings of the Divisions from 11 to 15 July 2011 (afternoon).

The Session will begin on 10 July and will end on 15 July. The conference part has provision for four invited papers, 74 presented papers and posters as well as a number of posters presented at the stand and up to six workshops. For the posters presented at the stand ample room will be available.

	Sun 10 July		Mon 11 July	Tue 12 July	Wed 13 July	Thu 14 July	Fri 15 July
a.m.	General Assembly	Conference	Celebrity Paper	Invited Paper	Invited Paper	Invited Paper	Invited Paper
			4 Contr. Papers	4 Contr. Papers	4 Contr. Papers	4 Contr. Papers	4 Contr. Papers
			3 Workshops	3x6 Presented Posters	3x6 Presented Posters	3x6 Presented Posters	3 Workshops
p.m.	General Assembly	Divisional meetings	Divisional meetings, up to 3 parallel sessions, and Technical Committee meetings				
Ev.	Cocktail		Cultural Evening	Gala Dinner			Farewell Dinner

CALL FOR PAPERS

Prospective contributors are invited to submit papers dealing with new results in the field of light and lighting. The subjects of the papers should be relevant to the work and the terms of reference of the seven CIE Divisions and their Technical Committees. (For detailed information on domains of interest, the CIE website should be consulted.) Contributions published before will not be accepted. Papers dealing with questions of direct concern to the work of the Divisions will get priority.

PROCEDURE FOR SUBMISSION OF PAPERS

Contributions can be only submitted electronically.

Electronic submission (will be activated soon): for details on the electronic submission, please visit the CIE website (<http://www.cie.co.at/> and click on "Conferences").

The extended abstract should be submitted in English with a minimum of 500 and a maximum of 1000 words. It should be sufficiently specific and informative and should make clear the novelty the author wishes to describe, referring to results and practical applications. Based on this information the Board of Administration will make decision on the acceptance of the paper and on whether it will be given orally in a paper session, or as a poster presented at the stand.

The submissions must arrive at the Central Bureau via the Online Abstract Submission System of the Session Website by:

15 September 2010

Authors will be informed on the decision of the Board of Administration by 30 November 2010.

The authors selected (or one of their co-authors) have to register for the conference to present their paper. After the acceptance of their papers authors will be provided with information indicating format and deadlines of the written contributions for inclusion in the Proceedings.

Future Meetings

Sixth International Conference

IEECB'10

Improving Energy Efficiency in Commercial Buildings

**13-14 April 2010,
Frankfurt, Germany**

The IEECB'08 conference will take place on 13 and 14 April 2010 in Frankfurt during Light+Building, the world's leading trade fair for Architecture and Technology, 11 – 16 April 2010, in Frankfurt, Germany. Light+Building integrates the sectors related to building design – light, electrical engineering as well as home and building automation – at one trade fair. Integrated planning approaches and systems-linking interaction of various technical trades are no longer just a vision but a growing reality. Light+Building does justice to this with its unique international scope by presenting the subject in its entire breadth and depth. From investors to architects and engineers, up to specialist planners, process workers and operators, Light+Building is the number one industry event in 2010 for all experts involved in the conception, planning and management of buildings.

The IEECB conference seeks to bring together all the key players from this sector, including commercial buildings' investors and property managers, energy efficiency experts and building technologies researchers, equipment manufacturers, service providers (ESCOs, utilities, facilities management companies) and policy makers, with a view to exchange information, to learn from each other and to network.

At the conference key representatives of leading organisations and companies, institutions and equipment industry will present the overall picture and give details of policies, recent advancements and examples of best practice.

The wide scope of topics covered during the IEECB'08 conference includes: macro/micro approaches, state-of-the-art equipment and systems (lighting, HVAC auxiliary equipment, ICT & office equipment, miscellaneous equipment, BEMS, electricity on-site production, renewable energies, etc.) and the latest advances in R&D, tools, regulation & policy, demand-side and supply-side perspectives for all branches of activity (public and private sector, the commerce and retail sectors, hotels and restaurants, banks and insurance companies, local authorities, civil services & public bodies, education, universities & laboratories, hospitals, airport and stations, etc.).

In particular the conference aims to attract property investors, architects, and city planners to

present and discuss synergies and cooperation in removing existing barriers to energy efficiency. The energy efficiency contribution to shareholder value and corporate social responsibility in publically traded companies, as well as the importance of public buildings as showcase example for energy efficiency solutions and practices.

The IEECB conference aims at attracting high level papers presenting new technologies, techniques, services, policies, programmes and strategies to increase energy efficiency, energy savings and to reduce greenhouse gases emissions in non-residential buildings. The conference covers both new buildings as well as existing buildings. Of particular interest are the existing barriers to energy efficiency investment, and analysis of behaviour of building investors, and occupiers.

Potential authors are invited to submit abstracts in the following topics (indicative lists, other topics related to the main theme of the conference could also be suggested):

1. Lighting: technologies (light sources, LEDs, luminaires, control gear, and control systems), daylighting, control strategies, best practices, Green Lights type programmes, lighting quality and energy efficiency, test methods and simulation and design tools. Integrated systems focus
2. Building envelope, passive techniques and HVAC: R&D, technologies, ventilation, low energy cooling techniques, passive cooling and natural ventilation, solar cooling, techniques for low energy fluid movement, heat pumps, ground source heat pumps, heat/cool storage, best practices, achieved results, indoor air quality and energy efficiency, test methods and simulation tools. Methodologies for design of buildings in the scenario of climate change and fuel shortage, energy consumption in relation to the definition(s) of comfort
3. Examples of advanced/demonstration buildings (two tracks for new constructions and existing building refurbishment): results of new building concepts; successful refurbishment, which minimise energy consumption, provide successful integration renewable energy sources and maintain or improve occupants comfort and productivity. New buildings green, or energy efficient "design guidelines". System integration for energy efficiency. Very Low and Zero-Energy buildings. Both private and public tertiary sectors buildings will be covered, including office buildings, supermarkets and commercial centres, hospitals and schools, airport & stations. In this session passive and façade technologies (e.g. double skin facades, roofing, etc.) will also be covered – for this track there is the possibility to have a oral

presentation without a peer review paper (see more information on the following pages)

4. Appliances and Equipment (commercial refrigeration, vending machines, office equipment, UPS, lifts, etc.): R&D, technologies, power management, test methods, labelling and standards.
5. Information and communication technology (ICT) equipment and data centres: data centres design and optimisation, efficient servers, network and storage equipment, the impact of internet on commercial building consumption, data networks, telecom and broadband networks energy efficiency, Energy Star programme.
6. Renewable energy sources, distributed electricity and heat generation: R&D, technologies for co-generation and poly-generation, micro turbines, heat pumps, fuel cells, boilers and renewable energy sources (solar thermal, PV, biomass, etc.). Successful implementations.
7. Control systems and Building Energy Management Systems (BEMS): R&D & technologies, successful implementation, impact on energy consumption and indoor quality.
8. Energy and facility management: continuous commissioning and retro commissioning, energy audits, optimisation of building operation for energy efficiency, energy management techniques, the role of the energy manager, operation and maintenance, outsourcing of building energy management, successful examples of retro-commissioning, education and training of building managers.
9. Energy services: energy service companies (ESCOs), Third Party Financing and Energy Performance Contracting, the role of financial institutions, successful examples, public-private partnerships, new financial options, carbon financing.
10. Measurement & Verification (M&V): the importance of M&V, international M&V protocols, case studies and examples, energy simulation tools, risk analysis tools.
11. Policies and Programmes (local, national or International): building codes, building certification, code compliance, test methods, best practice programmes, energy audits, white certificates, national and local energy efficiency funds, Green Buildings programmes, Energy Star programmes, building rating and benchmarking, building quality labels, voluntary building certification systems, Life Cycle Costing (LCC), sustainable cities, programme evaluation, green and public procurement, role of public authorities, emission trading CDM&JI as new opportunities for the building sector. Role of the non-residential buildings in national

carbon targets. International climate policies as drivers for efficiency in the commercial building sector.

12. Implementation of the Directive on Energy Performance in Buildings: best practices in national implementation, needs for standardisation, results in standardisation, building certification programmes, building and equipment inspection, regular inspections of boilers and HVAC, enforcement issues. Adoption of CEN norms into national norms and legislation. Early results.
13. Energy consumption monitoring and benchmarking: recent surveys, technologies and techniques, data analysis and assessment of total consumption of specific equipment at national and/or international level, overall building standby consumption assessment, energy efficiency indicators for high electric-load buildings, benchmarking.
14. Metering and Demand response: Demand Response programmes and dynamic tariffs, results and evaluation, practical implementation in non residential buildings. Impact of real time energy consumption information. Demand response/peak load conservation opportunities
15. Investors' motivation towards green buildings. Financial analyst and shareholder focus on the value of energy efficiency. Marketing and selling energy efficient buildings. Costs and benefits evaluations. Indoor comfort. Non energy benefits resulting from investments in energy efficiency. Market impact of the energy performance certificates. CO2 emission reductions and corporate social responsibility. strategic value of green buildings and energy efficiency; financial benefits; aesthetics & image; green buildings & branding; teams' motivation; demand; organizational culture; competitive advantage.
16. Behaviour and barriers to energy efficiency: Facilitation of planning process for low energy buildings, interaction between the investor, planner, architect, engineer, and user. Non-technical barriers to progress efficiency in commercial buildings. Analysis of behavioural aspects that are exclusive to the commercial buildings sector, and ways to overcome them.
17. Efficient non-residential buildings as an integrated element in sustainable community design: challenges and opportunities with integrating energy efficient buildings into wider community energy planning; commercial buildings and district energy systems; community demand balancing; innovative economic and business models to share risk and benefits across community energy structures.

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<http://energyefficiency.jrc.cec.eu.int/events.htm>

From the Lighting Journals

Color Research & Application

www.interscience.wiley.com

Volume 34, Issue 4, August 2009

Multiangle Study on Colour of Textile Structures

A. Moussa, D. Dupont, D. Steen, X. Zeng

Determination of Dyeing Levelness using Surface Irregularity Function

M. Günay

On the Relations between Colour, Gloss and Surface Texture in Injection-Molded Plastics

S. Ignell, U. Kleist, M. Rigdahl

Linguistic Colour Image Segmentation using a Hierarchical Bayesian Approach

T.E. Alarcón, J.L. Marroquín

Optimization of LED-based Light Blendings for Object Presentation

S. Boissard, M. Fontoynt

Colour Rendering Properties of Light continuously modulated by an Electrochromic Switchable Device

M. Klanjšek Gunde, J. Ahtik, G. Golob, U. Opara Krašovec

Journal of Light & Visual Environment

www.ieij.or.jp/english

Volume 33, Number 2, August 2009

Lighting Photo Albums - Illumination in Front of the Main Building of Miyazaki Prefectural Office

S. Shibata

The Illumination of the Mosaic Dori Street of Shinjuku MYLOAD

Y. Sasaki

Toward the Creation of Innovative Lighting Science

K. Tachibana

The Periodic Table with Regard to Atomic Emissions

S. Kitsinelis, G. Zissis and E. Fokitis

Measurement of Spectral Emissivity near Room Temperature with a Vacuum Blackbody using a Cryogenic Refrigerator

H. Inato, Y. Ishido

Improvement in Durability of Red Phosphor Encapsulated by Sol-Gel Glass for Use in White Light-Emitting Diodes

E. Kin, T. Fukuda, N. Kamata, H. Ohara, T. Yokoo, N. Kijima

Effects of Three Color Factors on Recognizable Threshold of Form Perception taking into Account Individual Differences of Visual Abilities

Y. Akizuki, Y. Inoue

Study of the Potential of Natural Light in Low and High Density Urban Environments in the Oasis City of Mendoza, in Summer

L. Córca, A. Pattini

Perceived Brightness and Saturation of Color LED Light in Dense Fog at Night Time

M.F. bin Zaini, B.A. Kurniawan, Y. Nakashima, M. Takamatsu

A Long-Term Energy Saving Analysis of LEDs General Lighting in China

L. Hong

Lighting Design + Application

www.iesna.com

July 2009

Old Room – New Look
The University of Michigan's
Cook Legal Research Library

August 2009

Growing Green

September 2009

Urban Lightbox
New York's Triple Bridge Gateway

Lighting Research and Technology

<http://lrt.sagepub.com>

Volume 41, Number 3, 2009

Energy Efficiency in Lighting – Considerations and Possibilities

D.L. Loe

Lamps for Improving the Energy Efficiency of Domestic Lighting

B. Jacob

Measurement and specification of Lighting: a Look at the Future

T.M. Goodman

Road Lighting and Energy Saving

P.R. Boyce, S. Fotios, M. Richards

Daylight Metrics and Energy Savings

J. Mardaljevic, L. Hescong, E. Lee

Good Lighting with less Energy: where next?

M. Richards, D. Carter

The Lighting Journal

www.ile.co.uk

Volume 74, Number 4, August 2009

Street Lighting Faces up to the Crunch

C. Gardner, P. Dillon

Lighting Milton Keynes' Redways: Current Issues, Future Solutions

A. Whittaker

Being LED from Here to There

M. Cooper

LEDs hit the Road from Italy

J. Entwistle

Health and Safety in the UK: The Client's Role

G. Pritchard
 Lighting on Track for Improvement
 D. Burton
 Heroes of Light No. 3: Galileo Galilei (1564-1642)
 C. Gardner
 Lighting for Social "Intervention"
 S. Stammers
 Timberrrrrr taking Britain's Streets back to Nature
 M. Wintermeyer

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Investing to save... and Splashing out in Colour
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 T. Chevalier, J. Everley
 The Blanket of the Dark (Part 1)
 R. Holmes

Artificial "Daylight" Lighting in the Office: a Case
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 M. Handley
 LEDs Boosted by Italian Power Company
 The Spectrum of Light Sources and Low Light
 Levels: the Basics
 W. van Bommel
 Heroes of Light (4)
 C. Gardner
 Tackling Light Nuisance: are the ILE Guidelines
 Adequate?
 C. Gardner, T. Webster, A. Howard
 Average Illuminance in the Dark
 S. Bushell
 Secured by Design... or Secured by Better Lighting?
 S. Stammers
 Shedding Light on Proposed Changes to the
 Construction Act
 H. Crossman, D. Cordery

For your Diary

Date	Title of Meeting	Organizer	Place of Meeting
2009			
Dec. 3-4	Forum LED	Sonia Yazmadjian conferences@forumled.com www.forumled.com	Lyon, France
2010			
April 10-16	Light + Building 2010	Messe Frankfurt www.light-building.messefrankfurt.com	Frankfurt/Main, Germany
March 14-17	Lighting Quality and Energy Efficiency	CIE Central Bureau Congress Secretariat Mag. Leena L. Martinez vienna2010@cie.co.at	Vienna, Austria
April 13-14	IEECB'10 6 th International Conference Improving Energy Efficiency in Commercial Buildings	Paolo Bertoldi paolo.bertoldi@ec.europa.eu http://energyefficiency.jrc.cec.eu.int/e vents.htm	Frankfurt/Main Germany
October 18-20	Licht 2010	LTG, Lichttechnische Gesellschaft Österreichs Ilse Neyder ilse.neyder@ltg.at	Vienna, Austria

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Internationale Beleuchtungskommission
Commission Internationale de l'Eclairage
International Commission on Illumination

Lighting Quality & Energy Efficiency

March 14–17, 2010
Vienna, Austria

Photo: Wien Tourismus/Maxim



Highlights:

- Surveys of experimental projects
- Lighting techniques & scenarios
- Integrated approaches in Lighting Design
- Lighting quality criteria
- Future possible lighting schemes
- Methods to compare lighting installations
- Case studies of energy-efficient lighting
- Review of energy-efficient lighting control systems
- Energy efficiency & environmental compatibility

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