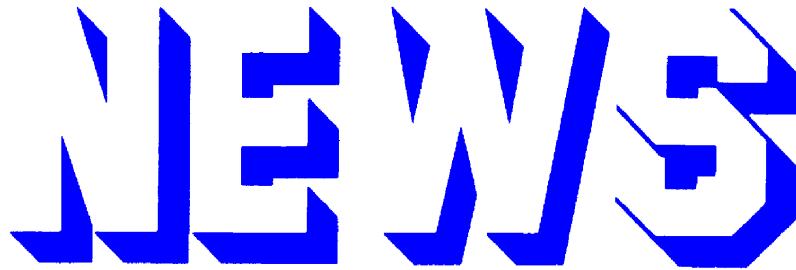




COMMISSION INTERNATIONALE DE L'ÉCLAIRAGE
INTERNATIONAL COMMISSION ON ILLUMINATION
INTERNATIONALE BELEUCHTUNGSKOMMISSION



Comité Luminotécnico
Argentino CIE **Australia**
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CIE – **New Zealand** **Norsk**
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the CIE **Slovenski** nacionalni
komite pri CIE **South**
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Nationalkommittén av CIE
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komitee der CIE **Thai**
National Committee of CIE
Aydinlatma **Türk** Milli
Komitesi **United States**
National Committee of the CIE

Message from the new President

CIE into the next millennium

Dear CIE Member,

With deep gratitude and humility I accepted the signs of presidency at the CIE 24th Session in Warsaw. I can only hope to be able to contribute to the further development of the CIE as *the* international body in light and lighting.

With the support from the Central Bureau in Vienna, the very able new Board of Administration, the National Committees and all enthusiastic individuals in the large CIE family I am sure that we will succeed in strengthening the CIE.

The very good attendance at the Session, the many good papers, workshops and discussions are a sign of health. It was also stimulating to see many new faces indicating good continuity when we have to say goodbye and thank you to many of our old friends and supporters.

As you know the Board has adopted a Business Plan to make the CIE more efficient, even better known and better financed. Some of the developments were formalised at the General Assembly in Warsaw before the Session. The most revolutionary is perhaps the introduction of new member categories. The intention is to make it easier for new members to become familiar with the CIE and its work as Associate National Committees or Associate Members. Now not only individuals but also organisations can become associate member from countries that do not yet have a National Committee (NC). A country with a newly established NC can become associate member as a start with a low fee to have an introductory period. We hope that this will encourage more developing countries to become members.

The other new category of members is called Supportive Members and there are four classes of this membership. Governmental, educational and national standards bodies can at a basic fee become supportive member. If such bodies and companies are prepared to pay a higher fee they can get further rights to CIE publications and exploitation rights.

Hopefully this will widen the contacts and bring more money into the CIE. It can even strengthen the NCs as a supportive member from a country with a NC must become member of that NC and not reduce the financial support to the NC if already member of the NC.

IN THIS ISSUE

Message from the new President – News from the Divisions – New Publications – New Publications in the Field of Light and Lighting – Future Meetings – Liaison Matters – From the Lighting Journals – In Memoriam – For your Diary

If we can increase the funding of the CIE the burden on the NCs can be reduced or we can make more material available for free or even establish funds for support to the work in Divisions and Technical Committees.

We will see even more use of the net during the coming years in the work in Divisions and committees and for disseminating information of the activities. The CIE will also be a forum on the net for discussions and exchange of ideas. So visit the homepage of the CIE and of the Divisions to follow what is happening. And use the possibilities to discuss and propose activities.

I am sure that the activities will increase over the coming quadrennium and that we can meet for the 25th Session in San Diego, USA in 2003 looking back to an interesting and developing period.

Hans Allan Löfberg
CIE President

New Board of Administration

President:	Mr. Hans Allan Löfberg, Sweden
Past-President:	Dr. Jack Hsia, USA
Vice-President Publications:	Dr. Franz Hengstberger, South Africa
Vice-President Technical:	Dr. Warren Julian, Australia
Vice-President:	Mr. Jean Bastie, France
Vice-President:	Ir. Wout van Bommel, Netherlands
Vice-President:	Mr. Hari S. Mamak, India
Secretary:	Dr. János Schanda, Hungary
Treasurer:	Dr. Michael Seidl, Germany
Division 1 Director:	Dr. Ken Sagawa, Japan
Division 2 Director:	Ms. Teresa Goodman, Great Britain
Division 3 Director:	Dr. Marc Fontoynt, France
Division 4 Director:	Mr. Pentti Hautala, Finland
Division 5 Director:	Dr. Jozsef Horváth, Hungary
Division 6 Director:	Dr. David H. Sliney, USA
Division 8 Director:	Mr. Todd Newman, USA

Report on the CIE Session

The 24th Session of the CIE was held in Warsaw, Poland, from 24 to 30 June 1999, preceded and followed by the administrative meetings of the Board of Administration, General Assembly, Finance Committee, Division Directors and

Personnel Committee. All CIE Divisions also held their meeting during this time.

Almost 500 delegates attended the Session. The Session was inaugurated on 24 June by J. Kossakowski (Honorary President of the Polish National Committee on Illumination). The first invited paper was held by Prof. J. Holubiec on "The history of Lighting". Further invited speakers were T. Newman on "Image Technology", T. McGowan and N. Miller on "What is Lighting Quality and How do We Apply it to Lighting Design" and K. Narisada on "Balance between Energy, Environment and Visual Performance".

Workshops were held on:

- Criteria for road lighting
- Lighting and architecture
- Integrated photometric descriptions for lighting quality research and recommendations
- Photometry of flashing lights
- Aging effects on vision
- Computer simulation

The Session was accompanied by an exciting cultural and social programme.



Opening of the Session

Proceedings

Vol. I of the Proceedings of the 24th Session of the CIE Warsaw (Publ. CIE 133-1999), containing the text of the Invited and Presented Papers, Presented and Displayed Posters, as well as introductions to the six Workshops was made available to attendees of the Session. Vol. II of the Proceedings, with technical and administrative reports, will be published in the 4th quarter 1999. Both volumes will be available at the CIE Central Bureau.

CIE Awards

At the Closing Session of the Conference, CIE certificates were awarded to:

Ing. Friedrich Dechat	Austria
Dipl. Ing. Helga Maglock	Austria
Dr. W. R. Blevin	Australia
Prof. Yang Chenzhu	China
Prof. Zhang Ming	China
Prof. Liu Shiping	China
Prof. Ren Yuanhui	China
Prof. Hao Yunxiang	China
Jacques Valin	France
Robin Aldworth	Great Britain
Kenneth Scott	Great Britain
John F Verrill	Great Britain
dipl.ing.el. Eduard Širola	Croatia
Gábor Debreczini	Hungary
Prof. Elemér Nagy	Hungary
Vilmos Vincze	Hungary
Pranab Kumar Bandyopadhyay	India
Prof. Dr. Sunil Rajan Bandyopadhyay	India
H. S. Mamak	India
Prof. Masao Inui	Japan
Dr. Kohtaro Kohmoto	Japan
Prof. Hiroshi Nakamura	Japan
Prof. Kohei Narisada	Japan
Prof. Sadao Takahashi	Japan
Dr. Elisabeth de Vries-de Mol	Netherlands
Dr. D. A. Schreuder	Netherlands
Ir. J. Vermeulen	Netherlands
Dr. Pieter Walraven	Netherlands
Prof. Dr. Ing. Cornel Bianchi	Romania
Dr. H. D. Einhorn	South Africa

The President mentioned also that the late Mr. R A Hargroves (GB) had got a certificate, which had been handed over to his widow in May 1999.

Heartiest congratulations to the recipients of the awards. The Central Bureau would like to thank them for their contribution to the CIE and would like to wish them good health and much success in their future activities. May we rely also in the future on their expertise!

Agreement on Technical Co-operation between CEN and CIE

This agreement was officially signed during the Closing Ceremony of the Session, by the General Secretaries of both organisations. We are looking forward to a fruitful co-operation.

Next Session

A questionnaire asking for an evaluation of the Session has been sent out to NCs and attendees. Your answer will help to shape the next CIE Session to be held in early July 2003 in San Diego, USA.

The Midterm Meeting of the General Assembly and the Board of Administration will take place in September 2001 in Istanbul, Turkey.



News from the Divisions

All Divisions had a meeting in Warsaw during the CIE Session.

The following items have been summarized from full Meeting Minutes received at the Central Bureau. Readers requiring more information are kindly requested to contact their National Division Representative through their National Committee.

Division 1 – Vision and Colour

<http://nml.csir.co.za/~cie1>

New Division Officers:

Division Secretary: Y. Nakano

Division Editor: E. Carter

The following new TCs have been established:

TC 1-54: Age-related change of visual response (Chair: K. Sagawa, JP)

Terms of Reference: To establish spectral luminous efficiency, visual acuity and contrast-sensitivity as a function of age.

TC 1-55: Uniform colour space for industrial colour difference evaluation (Chair: J. Nobbs, GB)

Terms of Reference: To derive a new uniform colour space for industrial colour difference evaluation using existing experimental data.

TC 1-56: Improved colour-matching functions (Chair: M. Brill, US)

Terms of Reference: To compare results based on the current CIE colour-matching functions, CMFs proposed by Dr. Thornton's laboratory, and of CIE TC 1-36. To initiate experiments to get the data for such comparison in different laboratories. To report to CIE Division 1 on the results of above investigation and on eventual recommendation for future CIE colour-matching functions.

The following new reporterships have been established:

- *Contrast sensitivity function for detection and discrimination (E. Martinez-Uriegas, US)*
- *Guidelines on planning a mesopic photometry investigation (P. Trezona, GB)*
- *Colour appearance model (M. Fairchild, US)*
- *Liaison with ISO/TC 35 Paints and varnishes (K. Witt, DE)*
- *CIE colour encyclopaedia (P. Walraven, NL)*

Next meeting: 6-8 April, 2000, UK (together with Division 2)

Division 2 - Physical Measurement of Light and Radiation

<http://nml.csir.co.za/~cie2>

New Division Officers:

Division Director: T. Goodman, UK
Associate Director: G. Sauter, DE

The following new TCs have been established:

TC 2-50: Measurement of the optical properties of LED clusters and arrays (G. Sauter, DE)

Terms of Reference: To produce a technical report for measurement of the optical properties of visible LED clusters and arrays, to derive optical quantities for large area arrays and give recommendations for measurement methods and conditions.

TC 2-51: The calibration of diode array spectrometers (R. Austin, US)

Terms of Reference: To produce a technical report which sets out guidelines for the recommended procedures, methods and transfer standards for the calibration of diode array spectrometers.

The following new reporterships have been established:

- *CIE/ISO standard for the measurement of reflectance and transmittance (D. Rich, US)*
- *Emergency lighting luminaires (L. Bedocs, GB)*
- *Classification of colour measuring instruments (Y. Ohno, US)*
- *Liaison with IALA (International Association of Lighthouse Authorities) (I. Tutt, GB)*

Next meeting: 6-8 April, 2000, UK (together with Division 1)

Division 3 - Interior Environment and Lighting Design

<http://ciediv3.entpe.fr>

New Division Officers:

Division Director: M. Fontoynt, FR
Associate Director: D. Dumortier, FR
Division Secretary: G. Cook, GB

The following new TC has been established:

TC 3-34: Protocols for describing lighting (J. Veitch, CA)

Terms of Reference: To establish a catalogue of application-independent descriptors of lighting. To provide relevant, specific, objective definitions of supporting concepts associated with lighting. To develop a measurement protocol for each of the descriptors, with the goal of achieving protocols for use equally by researchers, in recommendations, and in design. To prepare a strategy and action plan for widespread promulgation and application of these protocols and definitions by researchers, journal editorial boards, lighting educators, CIE Technical Committees and Standards, and in other lighting organisations.

The following new reportership has been established:

- *Thermal environment, outdoor climate and visual preferences (C. Laurentine, FR)*

Division 4 – Lighting and Signalling for Transport

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

New Division Officers:

Division Director: P. Hautala, FI
Associate Director: A. de Visser, NL
Division Editor: P. Baldrey, GB

The following new reporterships have been established:

- *Use of LEDs in visual signalling (S. Jenkins, AU)*
- *Management and maintenance of road lighting (E. Brellant)*
- *Definition of an eye sensitivity function in the mesopic region to be used for the calculation of road lighting levels (P. Walraven, NL)*

Next meeting: 3-7 September, 2000, Canada (together with Division 5)

Division 5 – Exterior and Other Lighting Applications

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

The following new TC has been established:

TC 5-19 (S): Emergency lighting (B. Weis, DE)

Terms of Reference: The standard specifies the lighting requirements for emergency lighting systems installed in premises or locations where

such systems are required. It is principally applicable to locations where the persons have access.

The following new reportership has been established:

- *Modelling for sports lighting* (T. Lemons, US)

Next meeting: early September 2000, Canada (together with Division 4)

Division 6 - Photobiology and Photochemistry

<http://physics.nist.gov/CIE/>

The following new TC has been established:

TC 6-51 (S): Standardized solar simulator spectral irradiance for sunscreen testing (R. Sayre, US)

Terms of Reference: To provide a standardized solar simulator emission spectrum for testing sunscreens. Spectral tolerance values will be provided.

The following new reportership has been established:

- *Shorthand notations of UV spectral bands in photobiology and photochemistry* (M. Sasaki, JP)

Next meeting: early July 2000, USA

Division 7 - General Aspects of Lighting

According to a letter ballot among NCs, the CIE Division 7 "General Aspects of Lighting" was dissolved.

- TC 7-06 (C. Hermann: *Lighting terminology*) was transformed into a Reportership (to the Board): RB-01.
- TC 7-08 (R. Vincent: *Lighting research overview*) was transformed into a Reportership (to the Board): RB-02.

Division 8 - Image Technology

<http://www.colour.org>

New Division Officers:

Associate Director: N. Ohta (JP)

The following new TC has been established:

TC 8-06: Image technology vocabulary (J. Schanda, HU)

Terms of Reference: To liaise with the Vocabulary Committee and collate definitions of terms associated with image technology.

The following new reporterships have been established:

- *Fluorescence issues* (C. S. McCamy, US)
- *Potential CIE and IEC/TC100/PT61966 interactions* (H.S. Ikeda, JP)

Next meeting: 13-14 April, 2000, UK



New Publications

New publications available from the Central Bureau:

Measurements of Optical Radiation Hazards

**CIE x016-1998
(ICNIRP 6/99)**

ISBN 3-9804789-5-5

This Reference Book is based on presentations given by health and safety experts at the CIE/ICNIRP/NIST/USACHPPM Symposium on Measurements of Optical Radiation Hazards, held in Gaithersburg, MD, USA, from 1 to 3 September 1998. It provides an authoritative overview of the science on optical radiation hazards. The articles are written by internationally recognized experts with comprehensive experience in optical radiation research and the assessment of optical radiation hazards.

The intent of this publication is to provide guidance on how to measure intense light sources (i.e. UV, visible and infrared) and evaluate the potential hazards to the eye or skin. In addition to measurement, calculations are usually required to compare the measured exposure with optical safety limits. This determines the hazard level of the source. This reference book offers a unique source with which to catch up on the latest developments in this important field.

The objective of this "first-of-its-kind" overview is in many respects tutorial, to promote improved, standardized radiometric measurements of optical radiation hazards from ultraviolet, visible and infrared radiation sources. In addition, the radiometric assessment of protective measures such as sunscreens, clothing and eye protection will also be covered. To achieve this goal, the first few chapters are devoted to a review of the photobiological basis of human exposure guidelines. The second series of chapters are devoted to the human health guidelines and standards (exposure limits), their rationale and any remaining

uncertainties. Then, in the third group of chapters, actual measurements and instrumentation are considered.

This reference book is aimed, but not limited to: industrial hygienists, health physicists, optical physicists, photobiologists, safety engineers, and lighting engineers.

The volume contains 775 pages, and is softcover-bound. The publication is available from ICNIRP and the CIE Central Bureau, Vienna, as well as from the National Committees of the CIE.

Joint ISO/CIE Standard

CIE Standard Illuminants for Colorimetry

ISO 10526:1999/CIE S005-1998

ISO informed us that the CIE Standard S005-1998 has been re-published as joint ISO/CIE Standard ISO 10526:1999/CIE S005-1998. This joint standard is available from the CIE Central Bureau.



New Publications in the Field of Light and Lighting

Die Lehre von den Farbenharmonien

Andreas Schwarz

Muster-Schmidt Verlag, Göttingen-Zürich, 1999,
ISBN 3-7881-4053-4

It is interesting and fascinating for a colour scientist or technologist to read how much pure speculation was done during the centuries on colour harmony. The book by Andreas Schwarz evolved from his PhD dissertation work where he discussed the different approaches to colour harmony.

The book starts with a chapter on the views of classical Greek philosophers, according to the good old German rule to start with "schon die alten Griechen ..." (i.e. already the old Greeks...). It continues with medieval and more recent speculations on colour harmony, its relationship to musical harmony (can we define musical harmony based on works written in the second half of the 20th century?).

The last two chapters are devoted to colour order systems and geometric considerations. For a colour scientist or technologist it is strange that in the quite comprehensive literature there is one

single reference to Munsell, one to Nemcsics and none to the developers of the NCS system.

The book is a further example of how far we are from a unified understanding of psychological effects of colours. Despite of this, or even just due to this, its reading is recommended for everybody, who would like to get some insight into how non-technical colour speculation has grown during the centuries.

Remote Sensing, the Image Chain Approach

John R. Schott

Oxford University Press, New York, Oxford, 1997
ISBN 0 19 508726 7

The author, who has many years of experience in teaching the subject at undergraduate and graduate level, takes an approach of the problem not too often found in other books of the subject: he treats the process of remote sensing as a continuous flow and studies underlying science only to a level necessary to understand the many limitations this flow of information has.

The book is aimed at graduate level physical or engineering students. But it is an interesting reading also for scientists who would like to get insight in the subject, thus also for readers of CIE NEWS. The first third of the book deals with radiometry and presents an interesting approach and presentation of radiometry, emission, reflection and atmospheric properties. The next chapter deals with the detection and measurement of the radiation in remote sensing. The principles of the functioning of the detectors themselves are relatively short, the systems used in remote sensing get – however – extended treatise, just as the calibration of the sensors, which is a subject going beyond the everyday technique of the traditional radiometric laboratories.

The author devotes a chapter also to questions of image processing, here again the subject covered gets very near to items dealt with in CIE, in its Division 8. The book reviews also image and related colour perception, discussing the question from the perspective of remote sensed images, their processing for human inspection.

A very important chapter for further CIE studies deals with spatial resolution and fidelity, the influence the modulation transfer function and noise of the different parts of the sensing chain has.

The final chapter of the book deals with generating synthetic images and how these can be used in simulating sensed pictures. The book will

certainly not only provide better understanding of remote sensing but will help CIE experts to develop new concepts in the field of image perception and processing for human observation.

Introduction to Document Image Processing Techniques

Ronald G. Matteson

Artech House, Boston, London, 1995

The book was written as a textbook for graduate students in electrical engineering, computer science and imaging sciences. Every chapter ends with problems.

After an introduction to the subject a short overview of the necessary mathematical background is presented. The chapter on scanning and scanners was considered by the reviewer as not going enough into detail. The next chapters then deal with image manipulation techniques: histograms, filtering, image transformation, scaling and rotation. Data processing is further discussed in relationship with compression and OCR.

A further chapter discusses the printing and displaying of the document. Here again the practical realisation is dealt with only very shortly, just as page description languages. The last chapter deals with image quality metrics. It is very short and just enumerates some questions of image quality.

Optical Document Security, 2nd edition.

Rudolf L. van Renesse (editor)

Artech House, Boston, London, 1998
ISBN 0 89006 982 4

CIE Division 8 is dealing with electronic image processing. In this connection CIE has to deal with optical document security, and document counterfeit.

The book discusses many techniques of document security, starting with the traditional water mark, introducing metallic colours, interference effects, holography etc. Many colour effects, thin-film techniques and devices are described.

The result of different techniques are shown in an Appendix. The book is accompanied by a CD-ROM encyclopaedia describing the terms used in the book. The inclusion of more explanatory figures in the single headings of the encyclopaedia could make this part of the publication even more valuable. Even so the book is highly recommended for everybody who has to deal with optical material security issues.

Deconvolution of Images and Spectra, Second edition

Peter A. Janson (editor)

Academic Press 1997, ISBN 0-12-380222-9

Since the publication of the first edition - fifteen years ago - new methods have been elaborated in the field of deconvolution. This created the opportunity for a book to provide an understanding of the relationships among deconvolution methods, present practical methods and results for the researchers. Continuing interest in deconvolution is timely for at least two reasons:

1. The inexorable advance of computers has given us hardware for the computation-intensive programs often needed, and
2. The advantages of modern nonlinear constrained methods have made deconvolution worth the effort.

Two such advantages - reduced noise sensitivity and superresolving capability - produce results that are sometimes astonishing when judged by the standards of traditional linear methods.

The present work like its predecessor conveys an understanding of the field and presents under one cover a selection of the most effective and practical techniques. The fourteen chapters are organized into four sections. The first section includes four chapters that introduce the reader to basic concepts and progress through a survey of both traditional linear and modern nonlinear methods. This section concludes with Chapter 5, which examines the convergence of relaxation algorithms. In the next section Chapter 6, 7 and 8 detail a specific application of a proven method. This method was among the first to take effective advantage of a lower bound (positivity) and was the first to use upper bound. It remains one of the most useful. Specific applications to the field of high-resolution infrared spectroscopy are described via three different types of experimental apparatus: the dispersive grating spectrometer, the interferometer and the tunable diode laser. The third section, which contains Chapters 9 and 10 details advances made in restoration of images from cell biology and astronomy. The fourth section Chapters 11, 12, 13 and 14 contains materials suited to use by researchers expanding the horizons of deconvolution by investigating new methods. It covers topics of maximum probable estimation, Fourier spectrum, spectrum continuation and projection onto convex sets.

Although specific examples are chosen from spectroscopy and image processing, deconvolution's general applicability should make the volume useful in divers fields that yield both single- and multidimensional data. The reader of this book

should have a background in physical science, engineering, mathematics or statistics, and a working knowledge of calculus is assumed. Previous experience with convolutions or Fourier transforms would be helpful but is not absolutely necessary.

Liquid Crystal Devices Physics and Applications

Vladimir G Chigrinov

Artech House, Boston - London 1999
ISBN 0-89006-894-4

This book is written by an expert on liquid crystal materials. The chapters on basic physical properties and electro-optic effects provide an insight into the structure and functioning of the many different liquid crystal structures - perhaps too detailed for an average CIE reader, but very clearly written, permitting to understand the many peculiarities of liquid crystal devices.

Chapter 3, Liquid Crystal Displays, reviews also other display technologies and is an excellent short introduction to the different display technologies, giving also an outlook what the author expects from the given technology in the future. Similarly also the last chapter on nondisplay applications can be an interesting reading.

It is unfortunate that also in such an excellent book your reviewer became annoyed when more CIE related subjects are covered. Thus e.g. on p. 107 for the "sensitivity of the human eye" the symbol $\gamma(\lambda)$ is used, $H(\lambda)$ is used to symbolise the "energy distribution of imination source" (I could not find this term in the CIE-IEC Lighting Vocabulary). You find also many other minor misuses of CIE terminology, thus e.g. using the term brightness instead of luminance (p. 114), or the description of the CIELAB and CIELUV systems on p. 154. One cannot blame a liquid crystal physics and chemistry expert - especially if his scientific education was not in an English speaking country - if he uses some English lighting terms incorrectly (it would be nice if all lighting engineers would use the lighting terms correctly). But the publisher should take care that terminology conforms to the international standards. Let us hope that such reviews will draw the attention of publishers to this negligence, a problem we can experience with many other publishers too.

In summary one can recommend the book to everybody who would like to get some insight into the functioning and capabilities of liquid crystal displays.



Future Meetings

Prakash '99

International Conference on Lighting
Technology

29-31 October 1999, New Delhi, India

The Indian Society of Lighting Engineers (ISLE) is happy to announce the forthcoming Prakash '99 International Conference on Lighting Technology. This will coincide with the Prakash '99 International Exhibition on Light & Lighting Technology (Oct. 29 – Nov. 3, 1999).

Prakash '99 will present the latest developments in light and lighting technology with special emphasis on their application in the developing countries. The conference will be application oriented with an emphasis on problem solutions. The Prakash '99 Exhibition will showcase the latest in lighting technology developed and available in India and also that available in the developed countries.

ISLE looks forward to your participation in these events to increase awareness and interaction amongst the international lighting fraternity.

The Sessions at the Conference will cover the following aspects:

- Latest Techniques of Energy Management
- Improvement in Quality of Urban Life-City Beautification
- Rural/Remote Area Lighting through Renewable Energy Sources
- Lighting for Museums, Art Galleries, etc.; Special Effect Lighting; Use of Fibre-Optics
- Lighting Design and Application Problems in SAARC/ Developing Countries.
- Developments in Automotive Lighting
- Daylighting / Hollow Light Guide
- Testing and Measurement of Lighting Products and Parameters

For further information please contact:

Indian Society of Lighting Engineers
POB 144
Market Road Post Office
New Delhi 110 001
Phone: 91 11 6320102, 6320103
Telefax: 91 11 6316693
E-mail: isledel@vsnl.com

InterLight '99

5th International Trade Fair for Lighting and Light Technology

13-16 December 1999, Moscow, Russia

This trade fair, which already became traditional in Eastern Europe, gathers representatives of all trading enterprises, regional administrations, construction and architectural organizations as well as energy saving centers from all Russian regions and the CIS states.

It offers to foreign companies an excellent possibility to get to know and to assess the market in Russia, to find partners for a long-term co-operation, to found representations, to open showrooms and warehouses, to arrange transportation possibilities and to employ people.

More information on the InterLight '99 can be obtained at:

OWP Ost-West-Partner GmbH
P.O. Box 2127
D-92611 Weiden, Germany
tel.: +49 961 38977-0
fax: +49 961 32035
e-mail: OWP-Weiden@t-online.de

□ Liaison Matters

IEC has sent us the following documents:

34/55/CDV:

Draft amendment 1 to IEC 61547, Ed.1: Equipment for general lighting purposes - EMC immunity requirements.

Deadline for comments and vote: 1999-11-01.

34A/894/CDV:

Amendment 1 to IEC 60064: Tungsten filament lamps for domestic and similar general lighting purposes - Performance requirements

Deadline for comments and vote: 1999-10-25.

34D/531/FDIS:

Draft IEC 60598-1, Ed. 4.2: Luminaires - Part 1: General requirements and tests

(parallel voting IEC-CENELEC)

Deadline for vote: 1999-11.01.

Readers interested in any of the above items are requested to contact their IEC National Committee for further details.

IEC publishes specification on International Lamp Coding System

IEC/TS 61231 (1999-06)

International lamp coding system (ILCOS),
Edition 2.0 Bilingual

ISBN 2-8318-4819-9 – 43 pp. – CHF 84.00

The International Electrotechnical Commission (IEC) has recently published the second edition of IEC/TS 61231, a Technical Specification dealing with the International Lamp Coding System (ILCOS).

The lamp industry strives continuously to meet customers' needs. Its innovative power has led to a tremendous variety of different light sources. To enable customers and experts to find their way within the diversity of products, the ILCOS system has been developed.

The publication gives the rules for the international lamp coding system and covers all lamp categories, excluding vehicle lamps. Coding for the main lamp types is specified and, for the others, will follow by amendments.

The object of the international lamp coding system is to:

- improve communication about the different types of lamps;
- help in discussions concerning interchangeability and compatibility of products;
- create a closer relationship between international standards and manufacturers' literature (for example the code could be given in future in the relevant parts of a standard);
- enable correct replacements of lamps;
- be used as a complementary marking on the luminaire;
- replace national and regional coding systems.

Mrs. Debbie Way, Secretary of IEC Subcommittee 34A (Lamps) explains that "this technical specification extends, modernizes and refines the previous technical report by, for example, giving a new extended short version for fluorescent and incandescent lamps; it also gives the possibility of including further technical details to increase the flexibility of the code in practical use."

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Email: custserv@iec.ch

Human Factors

Volume 41, Number 2, 1999

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† In Memoriam

John Verrill †

We regret to report that John Verrill passed away on 29 June 1999. He had been ill for some time, but only stopped working a few weeks before he died - he was determined to continue as normal for as long as possible, and he did this with characteristic bravery.

John joined the then Optical Metrology Division of National Physical Laboratory (the UK's National Standards Laboratory) in March 1965, to work on diffraction gratings. However he soon moved into colour measurement, and during the rest of his career established himself as a well-respected international expert in this field. He was appointed Head of the Colorimetry and Spectrophotometry

Section in 1981 and for the next 18 years led and inspired his team to develop new and improved measurement methods and reference standards for the measurement of colour, reflectance and transmittance, many of which are now used throughout the world. This work took on even greater industrial importance with the increasing prevalence of new materials and technologies, such as multi-media colour reproduction.

Within the CIE, John will be remembered for his tireless work for many years as Secretary of Division 1, and for his contributions to many TCs in the field of colorimetry and spectrophotometry. But more than this, he will be missed as a good friend and colleague, and a man of great kindness, generosity and integrity.

John was also a well-liked and respected member of his local community and an active member of the Church, where he campaigned for ecumenical harmony. He leaves his wife, Ann, and 4 children.

Gisli Jonsson †

We have just been informed that Gisli Jonsson, President of the Illumination Society of Iceland died last February. An obituary will be published in one of the next issues.

For your Diary

Date	Title of Meeting	Organizer	Place of Meeting
1999			
Oct. 3-9	XXIst World Road Congress	PIARC, fax: +33 1 4900 0202, piarc@wanadoo.fr	Kuala Lumpur, Malaysia
Oct. 6-8	Balkan Light-99 1st Balkan Lighting Conference & Exhibition	Balkan Light 99, fax: +3592 654883, e-mail: denima@omega.bg	Varna, Bulgaria
Oct. 8-10	BULCOLOR'99	Colour Group Bulgaria fax: +359 2 987 93 60 lme@mb.bia-bg.com	Varna, Bulgaria
Oct. 18-20	Intern. Workshop on UV Exposure, Measurement and Protection	NRPB, WHO, ICNIRP http://www.nrpb.org.uk/WHO-uv.htm	Oxford, Great Britain
Oct. 18-21	Métrologie 99	MFQ, fax:+33 4 6791 3343, sandrine.gazal@wanadoo.fr	Bordeaux, France
Oct. 25-27	Newrad 99, Int. Conf. on New Developments in Optical Radiometry	A. Corrons, fax:+34 91 4117651, corrons@fresno.csic.es	Madrid, Spain
Oct. 28-29	II Jornada Electrotécnica del CEC	CEC, fax: 537 271574 btur@tesla.ispjae.edu.cu	La Habana, Cuba

Date	Title of Meeting	Organizer	Place of Meeting
Oct.29 – Nov.3	PRAKASH'99 3 rd Int. Conference & Exhibition on Light and Lighting Technology	ISLE fax: +91 22 4950 498, +91 22 4933 775	New Delhi, India
Nov. 1-2	Annual Congress: Light for Life	South African NC of CIE Fax: +27 12 46 4264	Kimberley, South Africa
Nov. 4-6	Farb-Info '99	Deutsches Farbzentrum Bozener Str. 11-12 D-10825 Berlin	Berlin, Germany
Nov. 8-10	SAVE: For an energy efficient millennium	EVA, Austria fax: +43 1 586 94 88 save-conf@eva.wsr.ac.at	Graz, Austria
Nov. 16-19	7 th Colour Imaging Conference Colour Science, Colour Eng.	IS&T, 7003 Kilworth Lane, Springfield VA 22151, info@imaging.org	Scottsdale, Arizona, USA
Nov.29 – Dec.3	Int. Symposium on Photonics and Applications (ISPA'99)	SPIE www.spie.org/info spie@spie.org	Singapore
Dec. 9-10	The city of tomorrow: electricity at the service of sustainable development	dan.bialod@espace-elec.fr	Strasbourg, France
Dec. 13-16	Interlight '99 5th Intern. Trade Fair for Light & Light Technology	OWP, POB 2127, D-92611 Weiden, fax:+49 961 32035	Moscow, Russia
2000			
April 6-8	CIE Division 2 Meeting	CIE Division 2	Great Britain
April 6-8	CIE Division 1 Meeting	CIE Division 1	Great Britain
April 13-14	CIE Division 8 Meeting	CIE Division 8	Great Britain
early July	CIE Division 6 Meeting	CIE Division 6	San Francisco, USA
early Sept.	CIE Division 5 Meeting	CIE Division 5	Canada
Sept. 3-7	CIE Division 4 Meeting	CIE Division 4	Toronto, Canada
Sep. 20–22	Licht 2000	LiTG, Germany fax +49 30 26011231	Goslar, Germany
2001			
September	CIE Midterm Meeting	CIE	Istanbul, Turkey

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