



# LIGHT

the official

# NEWSLETTER

of the **indian society of lighting engineers**

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## FROM THE PRESIDENT'S DESK

I would like to wish all ISLE members and other readers of our newsletter a Very Happy New Year!

The year has begun in the shadow of the greatest natural disaster in recent times. However, the spirit in which people (the victims themselves as well as those who have come forward to help) have confronted this tragedy does leave room to hope for the possibility of a saner and better world in the future.

As far as the lighting industry is concerned, 2005 opens with a continuation of the positive business trend we have seen last year and there is every indication that this will continue. For us in ISLE this is good news since we are planning our next international event, Lii2005 in September this year.

As you will see from the update on Lii2005, we are poised to have our best show yet. At the year end we see space is already at a premium with more than 70% of the space in halls 8, 9, 10 and 11 sold by the year end. For the first time international brands are planning to take around 1000 square metres of space.

On the conference front, our new format has met with success with 5 of our six Lighting Masterclass speakers having confirmed their participation (see details on page 4). We expect the sixth confirmation shortly. Now it is important that ISLE members register themselves and take advantage of the special discounted fee. And we should make it a point to spread information on the conference so that all those concerned with good lighting practice participate and benefit from this unique opportunity.

In view of the fact that we have not received any papers till date, we are seriously considering a change in the morning programme to include workshops on subjects of interest to participants.

The Directory that ISLE instituted in 1991 and has become an integral part of ISLE's international events, is

# Lumilux Range of Lamps comes with Tri Band Advantage.



'LUMILUX TRI BAND COATING'  
a new development from OSRAM.  
Osram's LUMILUX PLUS lamps are now coated  
with a new phosphor coating that make these  
LUMILUX PLUS lamps **30% more energy  
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to the conventional fluorescent lamps and also  
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**Others are fluorescent tubelights.**

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A SIEMENS Company



now into its 5th edition. As the only publication of its kind, it has become the definitive document on lighting in India. Those of you who are in the lighting business should rush in your ads and entries. See page 5 for the special offer we have for those who have participated in our previous editions.

We still have a few months before us, so let us all work to make this our best effort yet. Please feel free to contact me or the Secretariat for any help or information you may need.

S. Venkataramani  
President

## EDITORIAL

As this issue goes to press I feel a sense of satisfaction that the hard work put in by ISLE over the years to establish itself as the technical platform for lighting in India is now bearing fruit.

The positive response to our conference from the leading lighting personalities from different parts of the world is one indication of how ISLE is now viewed by the international lighting community. The exhibition too reflects this same view. A number of high-end international companies are planning to come to the exhibition for the first time and we have allocated 1000 square metres of space for this display of international products and technology.

In the last two issues we have given information on the CIE Midterm Meeting and International Conference taking place in Leon in Spain and the Lux Pacifica Conference taking place in Cairns, Australia. There is still time to register for both events and I do hope to see some of you there. And in fact, if you wish to present a paper at Lux Pacifica, please rush your paper to the undersigned at the Secretariat address immediately.

It gives me great pleasure also to report in this issue about the lighting projects by some of our members that have been awarded international lighting prizes. Lighting in India has indeed come of age.

The buildup to our September events has already begun. Together with the Indian Institute of Interior Design, ISLE Mumbai State Centre organized a very successful conference this month (see details on page 8). Prior to the Mumbai conference, ISLE Mumbai State Centre also cosponsored the Safety Day of the conference at Auto04 held in Pune in December.

Delhi State Centre organised an interesting and topical seminar on New Technologies in Lighting in October, while Calcutta State Centre organized a technical course on

Operation and Maintenance of Rural Energy Systems at Jadavpur University in September.

Our Past President, Mr. P.K. Bandyopadhyay who is presently the Associate Editor of the Newsletter was at Jadavpur University for the Golden Jubilee celebrations. He has written a special report covering the history and present status of Illumination studies at the university and ISLE's role in this evolution.

There is today an increasing interest in heritage sites in India. We have an article from the ILR that examines the many considerations that govern the lighting of such sites and monuments.

We are introducing a new column in this issue called "WebWatch" with the help of our member Anool Mahidharia who takes an active interest in CIE Division 2 and draws our attention to interesting news in the world of lighting. The internet has an enormous amount of information on lighting and through this column we hope to bring to your attention some of the interesting developments and activities that are taking place.

We would like to express our deep gratitude to Philips India for coming forward to undertake the costs for printing this issue of the newsletter.

H.S. Mamak  
Editor

## ISLE ACTIVITIES



### UPDATE

#### EXHIBITION

September 9-12, 2005

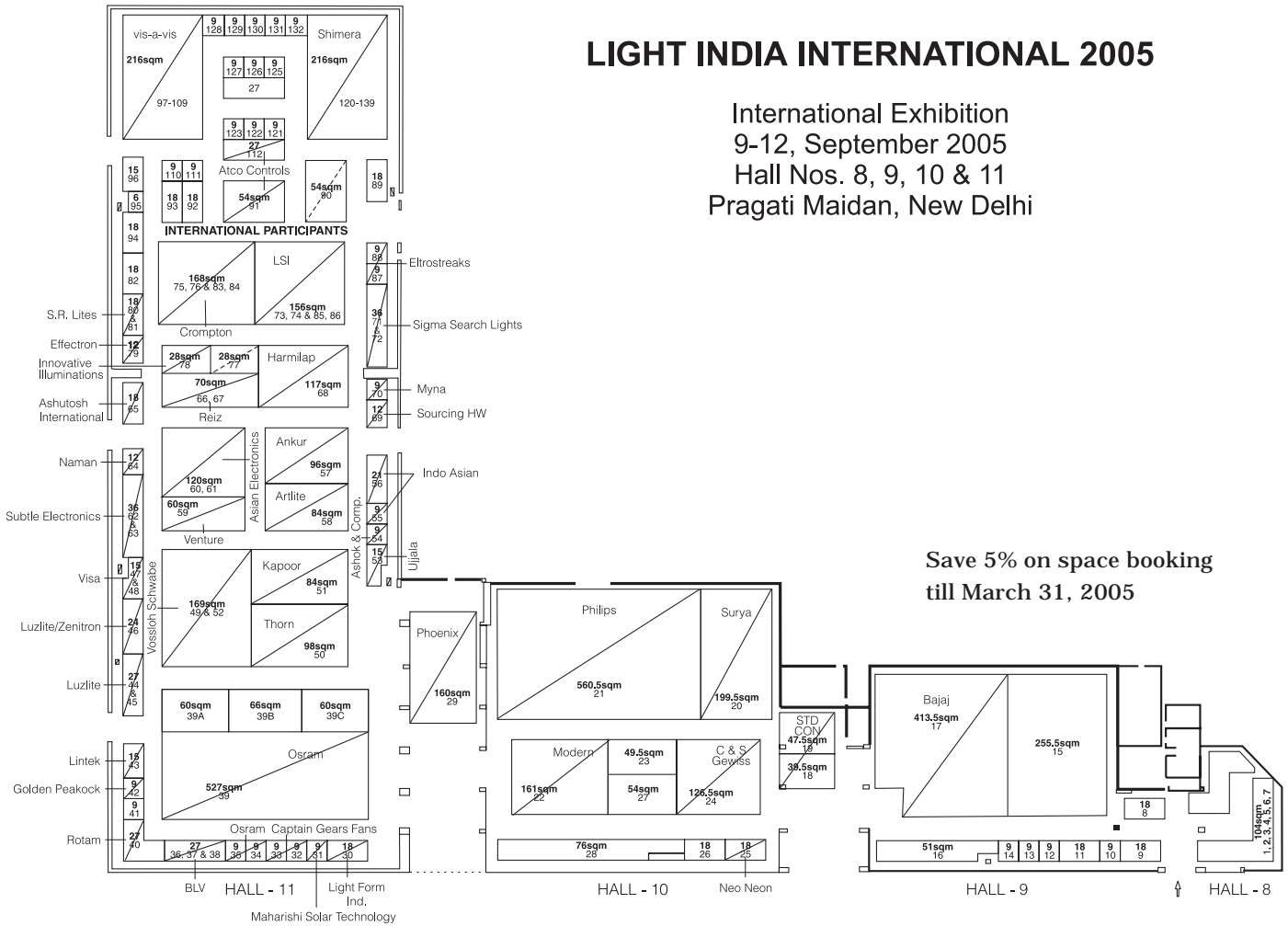
It is with great pleasure that we report that already at the end of 2004 we have space bookings from 42 companies who have occupied over 70% of the space available in halls 8, 9, 10, 11. From the floor plan you will see that most of the major lighting companies are already there. Others are planning to book their space shortly.

The 5% early bird discount is available only till March 31. So if you want to take advantage, book now. In any case, at the rate that space booking is going forward the remaining space is likely to be booked in the next few weeks.

The interesting development this time is the enquiries we are getting from international companies in the high

# LIGHT INDIA INTERNATIONAL 2005

International Exhibition  
9-12, September 2005  
Hall Nos. 8, 9, 10 & 11  
Pragati Maidan, New Delhi



Save 5% on space booking  
till March 31, 2005

end product category. We hope to see some of the most exciting technical developments and products in the international area which will be about 1000 square metres.

The interest in the exhibition we find is not only from exhibitors, but from visitors as well. Several of the delegations that came to Lii2002 are contacting us for details of the forthcoming event. We will try to improve the visitor attendance from last time both in the area of Business Visitors as well as the general public. India is now both a market as well as a source for international products and this is likely to make for more lively and productive business hours.

So whether you are thinking of exhibiting or visiting Lii2005, make your plans now so you don't miss out on the major lighting event of South and South East Asia.

## CONFERENCE September 12-14, 2005

The new format of the conference was outlined in the last issue of the newsletter. It has received an overwhelmingly positive response, both from the international faculty of the Lighting Masterclass as well as those interested in attending the conference.

We already have confirmations from five of the six Lighting Masters and we hope to receive the last one shortly. Howard Brandston, George Brainard, Gert Hof, Kaoru Mende and Dave Irvine Halliday have confirmed their participation. We give below a brief note on each speaker.

### Howard Brandston

Has more than 40 years experience in lighting design, engineering and electronics, designing illumination for more than 2500 commercial, institutional, residential and government projects. Honoured as an initial inductee of the Lighting Design Hall of Fame, he has also received the International Lighting Designers Lifetime Achievement Award, AIA Institute Honors Award for his contribution to architecture and the IESNA medal. He has been inducted in the Interior Design Hall of Fame, the only lighting designer to be awarded this honour.

He teaches at LRC. He is also a light sculptor and his work is displayed in several museums.

[www.brandston.com](http://www.brandston.com)

### George Brainard

Is Professor of Neurology at Thomas Jefferson University Jefferson Medical College. He has done extensive pioneering research on the biological potency of

light in humans and its significance to health and behaviour. This includes the neural regulation of the nonvisual effects of light, light therapy for winter depression and other clinical conditions, non clinical applications of light therapy (jet lag, shift work, space flight), exposure to light at night as a potential risk factor for cancer, measuring light for neuroendocrine and circadian regulation.

### **Gert Hof**

Got into trouble at the age of 16 with the East German authorities for listening to illegal records by the Stones! He doesn't like to be called a "light designer". He could be called a pyroartist or lighting architect. His works include the lighting of the Acropolis to the music of Mikis Theodorakis, dedication of the millennium monument in Beijing, Berlin Millennium celebrations, the 1000th Anniversary of Budapest and the Anniversary Lights at the Red Square in Moscow. Hof told Mike Oldfield who wrote the music for the Berlin show that he needed "monumental music because I will be shooting a week's worth of Berlin's electricity consumption into the sky on one of your chords".

[www.mega-events.net](http://www.mega-events.net)

### **Kaoru Mende**

He was attracted to architectural lighting and participated in a number of lighting planning projects. He was involved in such superb projects as Tower of Winds, Chapel on the Water, Frankfurt Opera House, Tokyo Design Center, Shinjuku Takashimaya, Tokyo International Forum, JR Kyoto station and Sendai Mediatheque.

Awards he has received include the IES (Illuminating Engineering Society) International Lighting Design Award of 1989 Award of Distinction for "Chapel on the Water", and many Awards of Excellence, '97 IALD (International Association for Lighting Designers) Award of Excellence for "Tokyo International Forum", '96 Japan Culture Design Award and '97 Mainichi Design Award.

He has been teaching lighting design at Musashino Art University, Tokyo University, Tokyo University of Art, and others.

[www.lighting.co.jp](http://www.lighting.co.jp)

### **Dave Irvine Halliday**

Dave Halliday is the Founder Director of the Light Up The World Foundation, an international humanitarian organization affiliated with the University of Calgary dedicated to illuminating the lives of the world's poor. It is the first humanitarian organization to utilize solid-state lighting technologies to bring affordable, safe, healthy, efficient, and environmentally responsible lighting to people currently without access to proper lighting. Dr. Halliday laid the foundation for the development of LUTW into a global lighting initiative.

[www.lightuptheworld.org](http://www.lightuptheworld.org)

In addition to the Masterclass sessions there will be Workshops in the morning on subjects of interest to participants. Details are being worked out and will be available shortly.

### **Registration Fees**

ISLE members*	Rs. 6500
Non members	Rs. 7500
After 31.5.05	Rs. 8000

\*(as on 31.03.05 with no dues)

### **DIRECTORY**

Since 1991 the Lighting Directory has been an invaluable source of information on the Indian lighting scenario, as well as a peep into the world of lighting.

The Indian lighting industry has moved from a local activity for local industry to an outward looking ambitious phase where the aspirations for exports and the success it has achieved have resulted in confidence levels hitherto unknown in Indian lighting. The Directory has therefore attempted to meet this need for information and data on world trends.

The need for information on quality standards and requirements to enable exports has found a place in the Directory.

Over the last two years we have noticed that Market Research Organisations in India and abroad as well as foreign companies have shown increasing interest in purchasing the Directory. The Lighting Directory has become a reference publication reflecting not only data on the industry but also the trends and aspirations of the lighting fraternity.

The Directory attempts in this 5th edition to project the place for high-end lighting projects and lighting designs. The need for specialized lighting in Malls, 4 and 5 Star Hotels, airports, Heritage Monuments etc. are being increasingly realised. There is also a need for awareness of the place of lighting controls for the savings in power consumption that they can effect.

International buyers have now put India on their tour circuits and the International lighting companies are keen to know about Manufacturers, Markets, Channels of distribution, etc. The Lighting Directory can meet this requirement.

A new feature of the 2005 Directory is the special discount we are offering to all those who participated in earlier editions (see below).

Full Page (black & white)	Rs. 25000
Full Page (colour)	Rs. 35000
Listing (rate per 2 column cm)	Rs. 2500

*Previous advertisers in the Directory get a discount of 10% on advertisements and Rs. 500 on entries for payments made before April 30, 2005.*

For further information write to the Lii2005 Secretariat at the address given below.

### Secretariat for Exhibition and Conference

For any information on the Light India International Exhibition and Conference and the Directory please contact the Secretariat at the address below.

Promotional literature on the Exhibition and Conference as well as the Directory of the Lighting Industry in India is available for distribution. Copies are also available at your State and Local Centres.

#### Secretariat

#### Indian Society of Lighting Engineers (ISLE)

C/o Thorn Lighting

A 274, 1st Floor, Defence Colony, New Delhi-110 024,

Tel.: 91-11-51551786, 24333794, 24334570 Fax: 91-11-51551789

E-mail: isledel@vsnl.com website: www.isleind.org



Mr. H. Mukherji and Dr. Biswajit Ghosh responding to questions

the School for Energy Studies, Dr. Biswajit Ghosh. The classes were conducted by experts from industries, banks and academic institutions. The following topics were covered by the course.

Rural Energy Systems with special reference to Rural Electrification.

Solar Photovoltaic Energy Systems

Lighting Devices and Luminaires

Fundamentals of Electrical Circuits and Networking

Inverters and Converters

Energy Conservation Methodologies with special reference to lighting

Fault Detection and Rectification Methodologies in Lighting devices, circuits and systems

Entrepreneurship Development

Project Preparation and Business Development

Experiments and Measurements on Lighting Systems

On completion of the course the participants were issued certificates jointly by ISLE and the School for Energy Studies.

### Registered Office

Till further notice all correspondence intended for the ISLE Registered Office in Bombay should be sent to Delhi at the address given above.

### 18th Annual General Meeting

November 30, 2004, Calcutta



L to R Dr. Biswajit Ghosh, Hon. Treasurer; Mr. H. Mukherji, Hon. Gen. Sec.; Mr. S. Venkataramani, President and Mr. C.R. Ravindranath, Vice President on the dais

### CALCUTTA STATE CENTRE

### Technical Course on Operation and Maintenance of Rural Energy Systems

September 13-25, 2004, Calcutta

ISLE and the School of Energy Studies at Jadavpur University jointly organised a fortnight technical course on operation and maintenance of rural energy systems. Twenty participants from all over West Bengal participated in the course.

The course was inaugurated by the Honorary General Secretary of ISLE, Mr. H. Mukherji and the Director of

### DELHI STATE CENTRE

### Seminar on New Technologies in Lighting

October 28, 2004, Delhi

The Delhi State Centre organised a seminar on New Technologies in Lighting at the India International Centre on October 28, 2004. The seminar was sponsored by Bajaj Electricals.

The programme began with the welcome address by Mr. Gulshan Aghi, Secretary Delhi State Centre. This was followed by a presentation by Mr. H.S. Mamak who gave a brief introduction to Light India International 2005, the next International Exhibition and Conference planned for September 2005.

Mr. N. Nagarajan, Chief Engineer CPWD and Chairman of the Delhi State Centre made the first presentation on the lighting of the Ajanta Caves with fibre optic lighting. He highlighted the problems faced where



Mr. Gulshan Aghi, Secretary Delhi State Centre with Mr. H.S. Mamak and Mr. N. Nagarajan welcoming the participants

there was a need to avoid the effect of heat on the paintings while ensuring optimum viewing, visitor circulation, overall aesthetics and general security. There was also the issue of structural sanctity – no chase cutting, no clipping and no nailing could be done. Care was also needed to avoid infra red and UV radiation from damaging the paintings.


Mr. S. Roy Chowdhury of Bajaj Electricals (the organisation that designed and executed the Ajanta Caves lighting project) spoke on the operating principles and materials used for the project. Explaining the components of the system he discussed the issues of colour shift, light attenuation, lens selection and the electrical distribution system.

Mr. Roy Chowdhury's presentation was followed by an active discussion on issues related to fibre optic lighting.

Mr. A. Chakrabarti, Additional Director General CPWD who was the Chief Guest joined the proceedings while the second presentation was being made. After the discussion on fibre optics he addressed the gathering. He said that after seeing the lighting of structures and heritage sites he was delighted at what could be achieved by lighting engineering. Lighting not only takes away darkness but brings pleasure. He pointed out that there were many challenges ahead and gave the upcoming 10<sup>th</sup> Commonwealth Games as an example. He stressed the need for international standards and for industry to help with the problem of quality assurance. There was a need to identify and weed out those doing a bad job and giving a bad name to the industry.

The last presentation for the evening was Mr. Rakesh Sharma of Bajaj Electricals on High Mast Lighting Systems. His presentation covered details of the design aspects that need to be considered in the case of high mast lighting.

Mr. Asheesh K. Chopra of Bajaj Electricals proposed the vote of thanks.



**ATTENTION LUMINAIRE SPECIFIERS/ LUMINAIRE BUYERS**

Do you know what type of Louvre is supplied in the Mirror Optic Luminaire you are purchasing ?

Here are the possible alternatives :

**Cheap Louvre** made from locally anodised material, patchy surface with high iridescence, only 0.3 mm thick hence quite flimsy, photometry likely to be distorted during cleaning/relamping. Low Louvre Height to save on weight and cost of Aluminium resulting in large opening behind lamp and low efficiency. Made on cheap machinery, using poor quality tooling, likely to have significant light leakage. No accuracy, no consistency in product.


**Mid-Priced Louvre** made from imported anodised aluminium of lower grade. Uniformly bright surface but with moderate iridescence, 0.3 to 0.35 mm thickness, low to moderate strength, low to medium louver height. Other constructional features similar to above.

**Standard Louvre** made from imported anodised aluminium of medium grade, low iridescence, 0.4 mm thick, good strength, deep cell height to ensure correct photometry as per international standards. Manufactured as per prevailing standards in U.K./Europe, using special purpose imported CNC machines, designs and tools.

**Premium Louvre** made from imported anodised aluminium of high grade, very low to nil iridescence, 0.4 mm thick, sturdy, deep cell with minimum opening behind lamp to ensure high efficiency, glare-free performance, optimum photometry. Very satisfactory lux levels at working plane. World Class Product, complying with International Standards e.g. Cat. 1, 2 or 3 as required.

**The choice of quality/performance/price is yours. We would only like you to be well informed before you make your decision.**

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## MUMBAI STATE CENTRE

### Auto '04 - Safety Day Conference

November 11, 2004, Pune



Mr. P.C. Barjatia felicitating one of the speakers

### Auto '04 - Safety Day Conference

November 11, 2004, Pune

“Considering the present situation of fatalities due to road accidents, it is imperative that consideration for road safety needs to be given by every citizen”- with these opening remarks, Co-ordinator of the Conference Mr. Prakash Barjatia welcomed the Chief Guest Shri A.S.Lakra, Director, Central Institute of Road Transport (CIRT), Pune and all participants of the Conference. The Conference was attended by more than 50 participants.

In his inaugural address Shri Lakra gave the statistics for different type of road accidents in different weather conditions, on different terrains involving different type of vehicles and pedestrians. He also made suggestions about measures to be taken by different agencies - policy makers, vehicle designers, manufacturers, drivers, and road users.

The first session covered the role of bio rhythm technology in road accident prevention and curbing pollution through provision of catalytic converters. The second session highlighted the role of tyres in road safety.

The third session was on Transport Lighting. Shri Vijay Gupta of Kwality Photonics, Hyderabad highlighted different aspects of lighting, and the technology by which these are achieved in the latest trend of “Designing the Optics for LED Automotive Lighting.” The benefits of the use of such lights were also elaborated by him. The last presentation was made by Shri D.P.Saste, Scientist, CIRT, Pune on CMVR & Automobile Lamps by highlighting the salient features of latest Automotive Industry Standard (AIS) on Automotive Lamps & Lights, likely to be implemented in near future. He also explained the importance of different tests and test methods with the use of latest state of the art equipment available at CIRT, Pune.

The Conference was attended by academicians, technocrats and users, and was well appreciated. A number of questions were raised by the participants and led to a lively discussion.

The Conference was conducted by Mr. Prakash Barjatia, Chairman, ISLE, Mumbai State Centre, who were also one of the Co-sponsors of the AUTO '04. The Conference concluded with the summing up by Mr. Barjatia. He thanked the faculty, their organizations, the Chief Guest and the participants.

### ISLE – IIID InterLite India '05 International Lighting Conference

January 11, 2005, Mumbai



Ar. Rohini Mani presenting a memento to Mr. Shekhar Bajaj

The InterLite India '05, ISLE – IIID International Lighting Conference was organised on 11<sup>th</sup> January 05 at Hyatt Regency in Mumbai.

ILI '05 started with the welcome address by Ar. Rohini Mani, Chairperson of the ILI '05 Organizing Committee, and the Hon. Secretary of the Mumbai State Centre ISLE. In her Inaugural speech while giving the background to the conference she mentioned, how for the first time in history of ISLE, two professional designer groups - one of Interior Designers and Architects and other of the Lighting fraternity came together and organised this event.

The function was inaugurated by lighting the lamp by the Chief Guest: Shri. Shekhar Bajaj, President – Electric Lamp and Component Manufacturer's Association of India (ELCOMA) and Mr. Shrikant Nivsarkar, President, Indian Institute of Interior Designers (IIID).



Mr. Anil Rohra lighting the lamp





*Ms Dolly Valia presenting a bouquet to Mr. Nivsarkar*

Mr. Prakash Barjatia, Chairman, ISLE - MSC, Ar. Ashok Butala, Chairman, IIID - MRC, Ar. Rohini Mani, Secretary ISLE - MSC, Ar. Anil Jayakar, Secretary, IIID - MRC, Mr. Anil Valia, Ex Vice President ISLE, Mr. Rashmi Bhuta, Ex G.B. Member ISLE. Ar. Nitin Killawala, Vice President IIID also joined them in lighting up of the lamp. The speakers from International organisations and sponsors - their Indian representatives were also invited to light the lamp.

The Conference was a grand success with total of 349 registrations comprising 141 Architects/Interior Designers, 20 Lighting Engineers/Consultants, 17 Users, 8 Students, 49 ISLE Members and 114 non-members from the lighting fraternity. 37 participants were from other parts of the country including Jaipur, Delhi, Chennai, Ahmedabad, Pune and Manipal. The Conference Program was compered by Ms. Pallavi Latkar, Asst. Professor of Kamla Raheja Institute for Architecture and Environmental Studies, Mumbai.

Inaugurating the Conference, Ar. Shrikant Nivsarkar, President, IIID complimented the Committee Members of ISLE and IIID for having organized this Conference. He felt that there is a need to organize such events jointly by the professional bodies so as to give benefits to society.

The Conference started with the introduction of speakers from iGuzzini, Italy, by the session chairman



*Mr. Giorgio Stroppa with Mr. Akash Kakkar*



*Mr. Peter Dehoff being felicitated by Mr. Nitin Killawala*

Ar. Shrikant Nivsarkar, President, IIID. Mr. Giorgio Stroppa introduced their Indian Representatives Mr. Akash Kakkar of LSI Systems, New Delhi who sponsored their visit and presentation at the conference. Mr. Stroppa gave a brief on the range of products from iGuzzini and various projects completed by them the world over including India.

The presentation on the “Emerging Trends in Indoor Architectural Lighting Design” was made by Ms. Laura Cinquarla of iGuzzini. Highlighting the three dimensional effects of architectural aesthetics and creating a sense of impulsive and soothing atmosphere, she made an impressive presentation on how the functional aspects of lighting can merge with these aesthetics.

The second session was chaired by noted Architect Mr. Rajesh Patel, who is also known for his active contribution in education of Interior Designers.

Mr. Peter Dehoff of Zumtobel Staff, Austria made a presentation on “Office Lighting Design”. He explained how glare is an important issue in today’s electronic office. He touched upon European norms on lighting parameters like illumination level on task and surrounding areas etc. During his presentation he also introduced their Indian Representatives, Mr. Anil Rohra of Light Options who sponsored their visit and presentation. Mr. Dehoff also described the products from Zumtobel Staff as well as details of their international projects including those in India.

The subject of “Emergency Architectural Lighting” was dealt in detail by Mr. Rodney Woodhead of Pierlite Lighting, Australia. His visit and lecture was sponsored by their Indian Representatives, Pierlite Lighting India. He introduced Mr. Jaydeep



*Mr. S. Chakraborty presenting a memento to Mr. Rodney Woodhead*

Thosar who will be looking after the operation of Emergency Lighting Products in India in addition to his other lighting products.

Mr. Woodhead covered different aspects of Emergency lighting design, International Standards, product specifications, testing and installation methods. This session was chaired by Mr.S. Chakraborty, Member, Governing Body, ISLE.

During the first post lunch session Mr.Laurence Coote of Dynalite, Australia dwelt upon "Lighting Control Systems and Applications". He introduced their Indian Representative, Mr. Jayesh Kharwar of Natech Solutions who sponsored his visit and presentation. While speaking on various applications like Residential, Commercial and so on, he explained the benefits of



Mr. Laurence Coote



Mr. Jayesh Kharwar

lighting control to create the mood as and when needed with a single button, avoiding too many switches and dimmers with energy saving, flexibility, etc. Further he emphasised that lighting should not be an afterthought at the stage of completion, but should be planned well in advance so as to avoid breakage, change in wiring, cost over-runs etc. This session was chaired by Mr. Anil Valia, Lighting Designer and Educator.

In the next session, which was chaired by well known Architect Mr.Nitin Killawala, Mr. Peter Dehoff of Zumtobel Staff made an interesting presentation on "Retail and Shopping Mall Lighting Design". He talked about Active Light systems, aesthetically yet functional products as developed by them, use of LEDs and Fiber Optics, colour and so on. He explained the influence of lighting on retail, and how interior designers can design the illumination layouts using suitable equipment, keeping in mind the functional and aesthetic aspects.

During the last session Ms. Laura Cinquarla of iGuzzini with the help of impressive visuals of Heritage monuments spoke on the subject "Emerging Trends in Outdoor Architectural Lighting Design (Façade and Landscape Lighting Design)". Highlighting the architectural features of these building as viewed from outside, she



Ms Laura Cinquarla

explained that this is not only about providing few flood lights, but it has to be planned with a high degree of aesthetic excellence keeping in view the flora and greenery around the site. The Chairman of the session was Mr. C.R. Ravindranath, Vice-President of ISLE, GB.

Before the concluding session, a brief presentation was made by Mr.Anil Valia on the need of education in lighting for architects and interior designers. He suggested a training module of 12 Credits for the purpose, which was appreciated by all.



Mr. Anil Valia



Mr. Ashok Butala

Mr. Ashok Butala, Chairman, IIID-MRC spoke about the activities of IIID, benefits of such joint programs and need of lighting education for architects and interior designers.

Mr. Prakash Barjatia along with Ar. Rohini Mani made a presentation on the Light India International 2005 Exhibition and Conference scheduled to be held in September 2005 by ISLE. He appealed to everybody to participate in this mega event. He also appealed to all those who were not members of ISLE, to become members.

During the Concluding Session, Mr. Prakash Barjatia, Chairman, ISLE-MSA proposed a Vote of Thanks. Mr.Barjatia thanked Mr.Shekhar Bajaj for gracing the occasion as Chief Guest and Ar. Shrikant Nivsarkar, President, IIID for inaugurating the Conference. He thanked all sponsors, their Indian representatives and advertisers for their support to this Conference. On behalf of the Organising Committee of ILI '05, special thanks were proposed for Mr.Anil Valia, the architect of the Conference, Mr.Nitin Killawala, the catalyst of the Conference, and Mr. Rashmi Bhuta for leading the team and shouldering the responsibility of its organisation.

He also thanked Mr Stan Alvares, the most active member of ISLE MSA and designated Secretary for this event as well as his supporting staff for their untiring efforts for making the Conference a grand success.

Finally he thanked all speakers for their lucid, informative and interesting presentations, and the participants and their organizations for making the Conference interesting and useful. He thanked Ms. Pallavi Latkar for having professionally compered the programme. Hotel Hyatt Regency staff were thanked for their efficient co-operation.



Mr. P.C. Barjatia



The ISLE - IID Interlite India '05 team

The outstanding success of the program was because of combined efforts of all ISLE and IID committee members who had several joint meetings, sharing views, shouldering responsibilities before, during and after the conference.

## CIE PUBLICATIONS

### Colorimetry

CIE 15:2004 (3rd edition)

For over 70 years the International Commission on Illumination (CIE) has provided recommendations about the precise way in which the basic principles of colour measurement should be applied. CIE Publication 15:2004 "Colorimetry" represents the latest edition of these recommendations and contains information on standard illuminants; standard colorimetric observers; the reference standard for reflectance; illuminating and viewing conditions; the calculation of tristimulus values, chromaticity coordinates, colour spaces and colour differences; and various other colorimetric practices and formulae. This publication is consistent with the fundamental data and procedures described in the CIE Standards on Colorimetry.

This publication, which replaces CIE Publication 15.2 (and is not to be known as 15.3!), includes details of the CIE DE2000 colour difference equation; spectral power distributions for sets of halophosphate lamps, DeLuxe type lamps, threeband lamps, multi-band lamps, high pressure sodium lamps and high pressure metal halide lamps. The nomenclature for the recommended geometries has changed, and there are even changes to the equations defining the parameters of the CIELAB colour space!

The publication is accompanied by a CD-ROM that contains all the tables of standard and recommended spectral distributions and a program (for Windows

operation systems) to perform interpolation of spectra related to reflection or absorption measurements.

Thus this publication represents the colorimetric state-of-the-art and should find a place on the bookshelf of every colour scientist.

The report consists of 79 pages with 17 tables.

### Proceedings of the 25th Session of the CIE

San Diego, USA, 25 June - 2 July 2003

(CD-ROM)

CIE 152:2003

Vol. I (Part 1 and 2):

This volume contains on over 700 pages the texts of the Invited Papers, Presented Papers and Posters presented at the Session, as well as the introductions to the Workshops.

Vol. II:

The second volume of the Proceedings contains the text of the Welcome Addresses, Officers Reports, as well as a list of participants. It presents an overview on the technical work achieved during the quadrennium in the form of Quadrennial Reports, minutes of the Divisional Meetings and Workshop Reports.

A CD-ROM containing the full Proceedings (Vol. I and II) in pdf format is now available. It additionally contains a longer version of some of the papers included in Vol. I, as well as some pictures taken at the Session in the form of a slide show and movie presentation.

You can order the CD-ROM alone, or as a set together with the printed version of Vol. I.

### Chromatic Adaptation Under Mixed Illumination Condition when Comparing Softcopy and Hardcopy Images

CIE 162:2004

The chromatic adaptation transforms used in most colour appearance models assume that observers are fully adapted to a given set of viewing conditions.

Unfortunately, the condition of complete chromatic adaptation usually does not occur in the consumer market and in more casual industrial use. Instead, these users tend to view softcopy in a room with sufficient ambient illumination to allow comfortable viewing and examination of hardcopy imaging.

Further, users often desire to compare hardcopy and softcopy images using rapid successive binocular observations. The focus of this report is to determine how colour imaging experts can best accommodate the desires and practices of these more casual observers. It shows that accounting for mixed and incomplete chromatic

adaptation produces more accurate results in colour appearance than not accounting for them. It includes a mathematical model for chromatic adaptation and provides appropriate parameters for the chromatic adaptation model under such viewing conditions.

The report consists of 21 pages with 5 figures and 2 tables.

### **The Effects of Fluorescence in the Characterization of Imaging Media**

CIE 163:2004

The addition of fluorescence to either the inks or the substrate greatly increases the level of uncertainty in instrumental readings of the optical properties of printed images. CIE 76-1988 "Intercomparison on measurement of (total) spectral radiance factor of luminescent specimens" shows that even research and standards laboratories experience a degradation in their reproducibility of up to one order of magnitude (10x), in the readings of total spectral radiance factor of strongly coloured, fluorescent materials. There are no recent studies of this magnitude or reliability but it is the opinion of the Reporter who prepared CIE 163:2004 that the state-of-the-art has significantly advanced in the 15 years since the approval of CIE 76-1988.

This report contains results from a study of the measurement of total spectral radiance factor of digital halftone printing over a range of substrates exhibiting various levels of fluorescence. Colorimetric properties were computed for CIE Illuminant D50 when the UV component was included and when the UV component was excluded from the measurement source. The results indicate and quantify that the fluorescence of the substrate can be measured in both solid ink areas and halftone ink area with the effect being far larger in the latter. The magnitude of the CIELAB colour differences indicate that a significant lack of reproducibility may be experienced between two imaging centers who attempt to apply colour management principles to their individual measurements of the same image printed on fluorescent substrates or between two laboratories who attempt to quantify the colour differences between images printed on fluorescent stock and measured using instruments with different sources.

The preliminary reports of CIE TC 1-44 "Practical daylight simulators for colorimetry" have shown that significant variability exists among instruments claiming daylight simulations and an even greater difference between instruments with UV-rich pulsed xenon lamps and those with UV-poor incandescent lamps.

The report consists of 20 pages with 16 figures and 9 tables.

### **CIE Standard S 012/E:2004**

#### **Standard Method of Assessing the Spectral Quality of Daylight Simulators for Visual Appraisal and Measurement of Colour**

This standard specifies a method of assessing the spectral quality of the irradiance provided by a daylight simulator to be used for visual appraisal of colours or for colour measurements and a method of assigning a quality grade to the simulator. It specifies the maximum permissible deviation of the chromaticity of the simulator from the chromaticity of the CIE Standard Daylight Illuminant or CIE Daylight Illuminant being simulated, for a simulator to be graded by this method.

The basis for the assessment is the special metamerism index for change in illuminant, using pairs of virtual (rather than real) specimens specified by their reflecting and fluorescing properties. The pairs of specimens are metameric matches under the CIE daylight illuminant, when evaluated with the CIE 1964 Standard Colorimetric Observer. The method described in this standard quantifies the mismatch when the pairs of virtual specimens are illuminated by the simulator under test and evaluated by the same standard observer.

The standard is accompanied by a disk containing the spectral data of Tables 3-6 of the standard in MS Excel format.

A German (CIE S 012/D:2004) version is also available, a French version will be published shortly.

### **CIE Draft Standard DS 014-1.2/E:2004**

#### **Colorimetry - Part 1: CIE Standard Colorimetric Observers**

Colours with different spectral compositions can look alike. An important function of colorimetry is to determine whether a pair of such metameric colours will look alike. It has long been the practice in colorimetry to make use of sets of colour-matching functions to calculate tristimulus values for colours: equality of tristimulus values for a pair of colours indicates that the colour appearances of the two colours match, when they are viewed in the same conditions by an observer for whom the colourmatching functions apply. The use of standard sets of colour-matching functions makes the comparison of tristimulus values obtained at different times and locations possible.

This Draft International Standard specifies colourmatching functions for use in colorimetry. Two sets of colour-matching functions are specified:

*Colour-matching functions for the CIE 1931 standard colorimetric observer*

*Continued on page 18*

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# Considerations on Monument and Historical Site Lighting



Current techniques as well as lighting philosophy itself suggest a treatment of monuments which, in some aspects, seems in conflict with the consideration of the latter given by the restoration and conservation field.

Therefore, it is essential to analyse the evolution of the tendencies in the interventions on the cultural heritage and historical cities, and deepen in its philosophical aspects, with special emphasis on the cultural considerations on shape we currently believe appropriate for monuments and historical sites.

The conclusions will reveal the convenience of reorienting some conceptual aspects of lighting towards criteria more in keeping with the way in which currently the intervention on historical cities is conceived.



2

### Evolution of the concept of Restoration

Throughout history, several criteria have been adopted in the field of preservation of monuments and works of art. From all of them, two positions have consolidated: curators and restorers, who have managed with difficulty and, in few cases, to converge towards integration concepts such as those generally accepted today.

The different names given to restoration as its scientific content increased tried to define the various forms of action on cultural heritage; nowadays, all of them are comprised in only one term: "intervention", with a wider content, although the procedure used is not specified.

The interest in preservation of works of art comes from the antiquity; however, the concern for keeping its "essence" does not appear until the turn of the 19th century. From the beginning, two positions became more radical: curators and restorers, led by John Rusquin and Eugène-Emmanuel Viollet-le-Duc.

Since then, each country's legislation has tried to unify positions and limit anarchy. However, in this field, doctrine has been richer than "regulations" and intervention on the architectural heritage was usually represented by "charters" and "international recommendations", since these documents contain the theoretical formulations which, throughout the 20th century, have provided and developed the methodology of intervention on heritage.

### Some aspects of international recommendations

Nowadays, it could be stated that the culture of preservation is starting to integrate with development strategies, similar to the organization of territory and environmental protection. Documents such as the Declaration of Amsterdam (1975) and the Convention of Granada (1985) or the Historical Towns Charter (1987) recognize that the preservation of architectural heritage is one of the main objectives of the economic policy and urban planning.

The Charter of Venice (1964) expanded the concept of monument, extending it to the concept of "site". That set, in reference to all types of constructions - which according to its architecture, its unit or its integration within the landscape is given a specific value - has achieved a larger dimension and conceptual complexity, until merging with the concept of "historical city", although with some different features. The field of cultural heritage conceived from the concept of preserving the representative architectures of a period of history integrates the works of industrial, contemporary, and vernacular architecture and, of course, the works by the great masters of the modern movement.



3

The Symposium of Quito (1977) defines that the historical sites, by themselves and by the monument heritage they contain, represent not only a cultural value, but also an important economic and social asset. The Charter of Restoration (1972) shows a definite interest for historical sites as a consequence of the uncontrolled urban development of cities during the sixties, influenced by the modern movement, which endangered, and in many cases made these urban sites disappear. The European Charter of Architectural Heritage (1975) shows the interest of the ministerial committee in promoting a common European policy, and an established, action for heritage protection, based on "integral restoration". The need to protect heritage is sometimes based on historical and aesthetic reasons and also on man's psychological balance. "The structure of historical sites favors the harmonic balance of society"; "It has a determining educational value" for the people.

This theory of "integral restoration" was reinforced during the International Year of the City Renaissance, as well as in the International Charter for Conservation of Historical Towns, drafted during the ICOMOS (International Council on Monuments and Sites) meeting, Toledo (1987). Finally, the Charter of Restoration (1987) devotes a section to "instructions for protection of historical sites", which defines them as follows:

"Habitable site whose meaning is irreplaceable in the history of a cultural area of mankind". Especially interesting is the detailed analysis it provides on the intervention in these areas. It even insists on the continual control and maintenance of a microclimate around the building work, since this will be the only guarantee of its future preservation. In order to achieve this, it is necessary to use all technical and scientific means currently available. It defends interdisciplinary work and breaks the analysis down to details such as in the example we reproduce below on urban decoration: "the revision of urban decoration is about streets, squares and all existing free spaces (backyards, interiors, gardens, etc.), with the aim of establishing a homogeneous relationship between buildings and outside spaces. Such vision will take into account chromatic aspects of the construction of historical centres". Finally, and according to these considerations, "the monument does not survive alone any more, like a painting or an object, because of its own aesthetic or historical strength. It also survives due to its own material existence, as a building, and its unavoidable connection with the physical structure of the location where it stands, which it configures with its presence.

25 Leire Cathedral (2) and Gregorio Cathedral  
The lighting of these Gothic churches creates  
new points of observation

4 Murallas de Badajoz on the banks of the  
Guadiana River. Lighting emphasizes the  
nighttime and location of these centuries-old  
remains.



4

"In these cases, the wealth of monuments is not only composed of the best buildings, but especially by the urban structure that they configure and the way they occupy it" (Capitel, 1983).

#### Lighting and intervention techniques in monuments and historical sites

It is difficult to define beforehand how to resolve the lighting of a monument or historical site. However, it seems clear that it is something very different from the simple resolution of a merely technical project, among other things, because the main objective is clearly to facilitate the observation or experience of an artistic object or site. This suggests that the aesthetic condition essentially determines the result.

On the other hand, a simply technical approach is useless, because there are human, spatial and psychological factors with the same relevance as the functional ones.

We cannot forget that when a building is lighted, the most remarkable aspect of its architecture - its facade - is usually ennobled. In a way, this is part of the architectural creation. It seems obvious that such an approach to lighting is a way of "intervention" in cultural heritage, even stronger than the possible effects of an action on its material aspects, because it emphasises not only specific aspects, but the whole so deeply that it affects the essence of the monument's architecture itself, because it may be considered a formal recreation.

In fact, it could be stated that light is one of the main tools to modify space. Light has been present in all architectural movements and its functionality can be achieved from different aspects: "as a need, as signs of space, as space modifier and as a tool to create effects and sensations. Therefore, it is about strengthening the value of lighting as a type of art which expresses sensations, changes features and helps to configure a total artistic space" (Camps, 1994). Obviously, we are dealing with "recreation", that is, an authentic artistic task for which a minimum dose of artistic creativity may be essential, which should not necessarily be against the functionality of the building: "to integrate the artist's wishes taking into account the fundamental rules of the physiology of sight, and without setting creativity against functionality" (Jousse, 1994).

From these points of view, it seems logical to reconsider some of the criteria used to condition the forms of intervention, from practice as well as from the rules, inasmuch they should serve as a guideline to the ways of performing the lighting of the site.

The Charter of Venice, one of the documents with more impact on "doctrine" in terms of intervention, especially in architectural heritage, warns us that it is the new vision, by which society wishes to make use of heritage in everyday life, which has opened the path for a more dynamic reinterpretation of the monument. "In a way that, the evaluation of the degree in which the alterations of this new function affect the building and the permanent values to be transmitted to future generations is the main problem of current preservation."

In this sense, the legislations after these criteria have proven sensitive to these new concepts and promote the social dimension given to heritage, thus providing the framework to the citizens' approach. It is about providing and accepting their understanding that this heritage is something that belongs to them, to a certain extent, therefore it is not excessive to demand its preservation and even claim its enjoyment and its correct maintenance and exhibition. Now it can be understood more clearly why heritage is framed within a context of revaluation and increased to a "universal" category that claims above all: preservation, respect, maintenance and authenticity.

Due to these criteria, the term "lighting" is starting to be restrictive and it is being gradually left by specialists in lighting in favor of the concept "application of light" to the monument (Narboni, 1995).

#### Lighting as a response to needs of the cultural heritage and historical city

When the concept of lighting is taken to the urban space, to the historical city, to the city, new approaches appear. The urban space requires more of an overall vision, demanded, as stated above, by its own philosophy with which nowadays cultural heritage is seen. Within this context, it cannot be forgotten either that "each city has its own personality, mainly due to: its monuments, its history, its weather or environment, and why not, its lighting" (Mateos, 1994). For this reason, this same concept of lighting or the set of necessary processes to put light, if they are exclusively conceived, that is, outside the urban context, may lead to the destructuring of the urban space.

Because, historically, monuments belong and conform to the urban structure, although heritage has gradually become sacred: "with time, it has acquired a cultural prestige, because it conveyed the testimony of a specific civilization, of a significant evolution or historic event", as the first article of the Charter of Venice reminds us.

These considerations towards the monument have led to the creation of different types of lighting, more associated to the character of the building itself and to its artistic style than to the urban environment that influenced it.

In fact, there are now a great number of lighted monuments in our cities, as there is a great amount of criticism on them. Especially because of the difficulty in balancing the application of light to the monument and the night lighting of public spaces.

It is particularly important to integrate the monument within the structure of contemporary cities at night. The idea is to avoid the appearance of monuments as phantasmagoric beings within an indefinite and obscure urban environment.

Some unusual cases: The Alhambra is lighted but its surroundings are not, the accesses, the path to the Generalife; in Paris, Notre-Dame is lighted but Ile de la Cité is not; in Madrid, the Royal Palace is lighted but the Prince Gardens are not, etc.



The concept of heritage has evolved towards the consideration of monument sites inserted in the environmental landscape. Policies and the concept of application of light to monuments must also evolve, in order to not contribute to breaking or disfiguring the night composition of cities.

This environmental application of light is starting to be perceived in some night performances of the cultural heritage, as a result of the application of "directing schemes of light arrangement". The idea is to light simultaneously and complementarily the monument and the surrounding urban arrangement. In this way, the night image of the monument can be perceived with all its external environment: accesses, geographical space, magnitude, and above all, environment.

These criteria will lead to "night productions on large sites, conceived globally and treated with circles of successive readings, from the urban structure scale to the slightest ornamental details. The lighting of the monument is not only studied in order to emphasize it from its background, but for the

different planes which compose the vision and the surrounding architectures. The image is worked from a pictorial point of view, with successive touches, with additions or subtractions of lighted urban elements, orchestrating the values of intensity and the tonalities of light on the complete site" (Narboni, 1995).

Of course, this implies conceiving the project in a completely different way from the classical concept; then, there existed a point of observation, now it will exist as an experience space with a great number of points of observation; then, projectors were placed according to the point of observation, now, projectors have to be placed according to this spatial concept in such a way as to emphasize the different views of the monument and the surrounding spaces; then, one had to take into consideration a very limited scale of lights, now, one must recourse to all lights possible to contribute to a better perception of space.

In sum, from a lighting point of view the project is now freer because its conception allows more light tonalities, many more points of observation, and unlimited lighting directions to achieve a true play with intensities, shadows and chiaroscuros. Globally this



5

**References:** Bonfanti, E. (1973) "Architectura per i centri storici". Rev. Edilizia Popolare. Florencia. Camps, C. (1994) "La luz: herramienta para modificar el espacio". Rev. Luces Cei. nº 4. Madrid. Capito, A. (1983) "Metamorfosis de monumentos ó teorías de la restauración". Alianza Editorial. Madrid. Caland P. (1990) "Architecture, Monuments, Lumière". Les Cahiers de la Section Française de L'Icosmos. Rouen. Di Elefant, R. (1987) "Le Monument pour L'Homme". Icosmos/Information. Juillet/Septembre nº 3. Forcolini, G. (1997) "Illuminazione di Esterni". Hoepli. Milano. Jouve, F. (1994) "Paris: City of Light. Light or Illumination". International Lighting Review. 1994/4. Louas Meyer, J. (1992) "The Landscape Lighting Book". John Wiley & Sons, Inc. New York. Matau, M. (1994) "Consideraciones generales sobre alumbrado exterior". Rev. Luces Cei. nº 4. Madrid. Narboni, R. (1995) "La lumière Urbaine". Le Moniteur. Paris.

will allow a true spatial experience of the site, a global experience that must reach the lighting of the surrounding urban spaces and streets.■

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Francisco Gómez Vicente Sifre

(Reprinted with permission from the International Lighting Review)

Continued from page 12

This set of colour-matching functions is representative of the colour-matching properties of observers with normal colour vision for visual field sizes of angular subtense from about 1° to about 4°, for vision at photopic levels of adaptation.

*Colour-matching functions for the CIE 1964 supplementary standard colorimetric observer*

This set of colour-matching functions is representative of the colour-matching properties of observers with normal colour vision for visual field sizes of angular subtense greater than about 4°, for vision at sufficiently high photopic levels and with spectral power distributions such that no participation of the rod receptors of the retina is to be expected.

The draft standard has been sent to CIE National Committees for comments and sales to interested parties. It is still subject to changes and may not yet be referred to as a CIE Standard. When approved by the CIE NCs, it will be published as a CIE Standard and later on as a joint ISO/CIE standard

**CIE Draft Standard DS 014-2.2/E:2004  
Colorimetry - Part 2: CIE Standard  
Illuminants**

CIE standard illuminants are used in colorimetry to compute the tristimulus values of reflected or transmitted object colours under specified conditions of illumination. This Draft International Standard specifies two illuminants for use in colorimetry:

*CIE standard illuminant*

A This is intended to represent typical, domestic, tungsten-filament lighting. CIE standard illuminant A should be used in all applications of colorimetry involving the use of incandescent lighting, unless there are specific reasons for using a different illuminant.

*CIE standard illuminant D65*

This is intended to represent average daylight. CIE standard illuminant D65 should be used in all colorimetric calculations requiring representative daylight, unless there are specific reasons for using a different illuminant. Variations in the relative spectral power distribution of daylight are known to occur, particularly in the ultraviolet spectral region, as a function of season, time of day, and geographic location. However, CIE standard illuminant D65 should be used pending the availability of additional information on these variations.

The draft standard has been sent to CIE National Committees for comments and sales to interested parties. It is still subject to changes and may not yet be referred to as a CIE Standard. When approved by the CIE NCs, it

will be published as a CIE Standard and later on as a joint ISO/CIE standard.

**Lighting design methods for Obstructed interiors  
CIE 161:2004**

Traditional lighting calculation methods assume a clear room volume allowance for the influence of room contents. Objects located between light source and task will act to block direct light and will result in some light being absorbed by the object and some reflected from its surface. This may cause both local and general reductions in planar illuminance over a whole installation. This report draws together design related material on the subject. It is intended as specialist reference for use in conjunction with relevant design guidance. It contains information on the magnitudes of likely losses in different types of building interior and design guidance to ameliorate the effects of these light losses.

A major part of the report is concerned with calculation methods for obstructed interiors lit by general lighting systems. Modifications to traditional lighting design calculation methods to acknowledge the influence of room contents, above and below the working plane are described. Advice on the application of computer programs for lighting design and analysis to solution of problems involving obstructed interiors is given.

The report is written in English, with a short summary in French and German. It consists of 32 pages with 8 figures and 7 tables.

**FORTHCOMING EVENTS**

**CIE Midterm Meeting and International Lighting Congress**

May 12-21, 2005, Leon, Spain

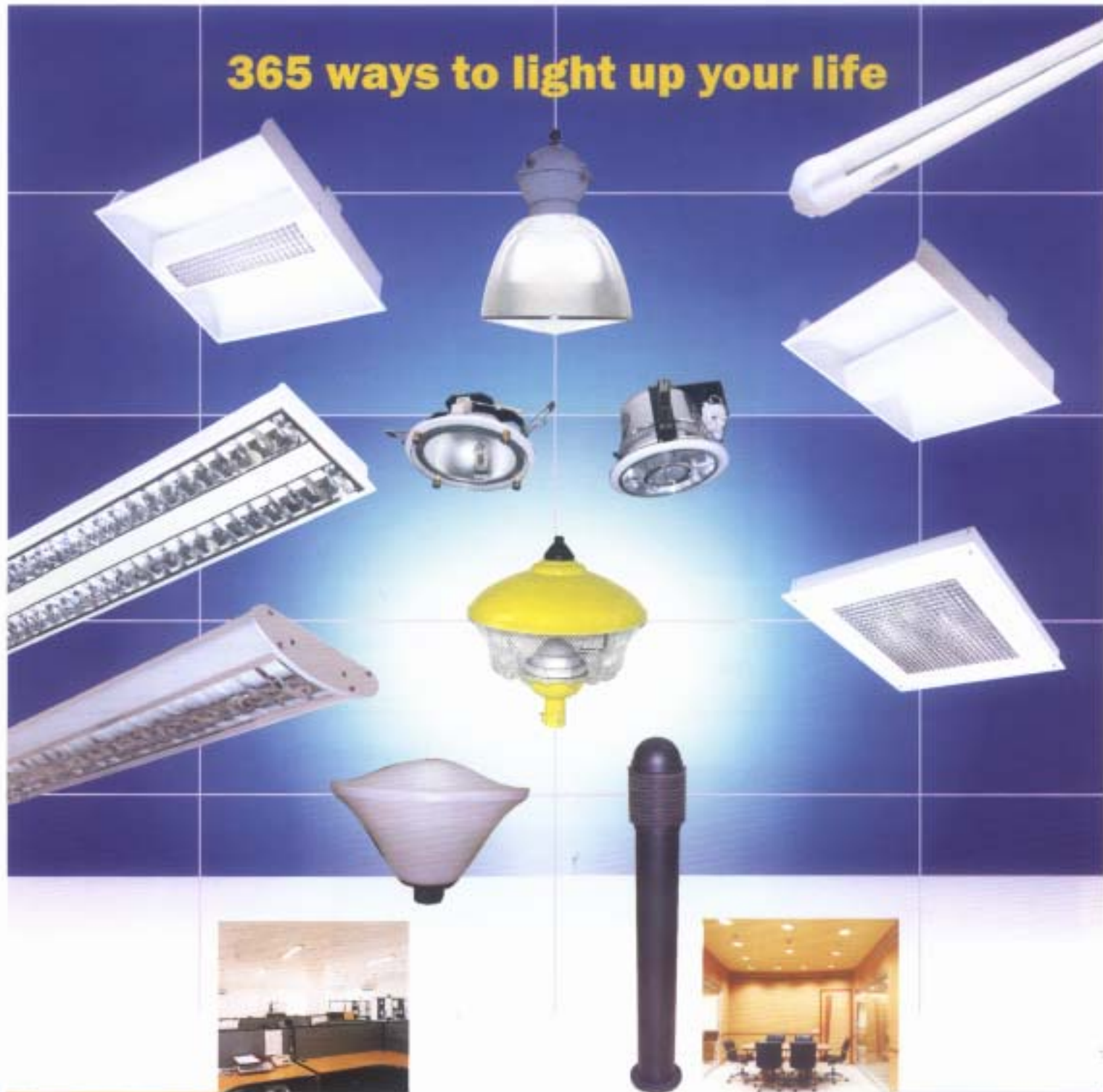
The Spanish National Committee on Illumination (CEI) is organising the CIE Midterm Meeting and Leon '05 International Lighting Congress that will take place in Leon, Spain, in May 2005.

The CIE Midterm Meeting sessions will be held at the Hostal San Marcos from May 12 to 17; and the International Lighting Congress will take place at the Auditorium of the city of Leon, from May 18 to 21, 2005. The two places are very near from each other and they are within walking distance in Leon downtown.

The CIE Midterm Meeting timetable is:

- May, 12 Thursday CIE Division Directors and Finance Committee meetings.
- May, 13 Friday CIE Board Meeting
- May, 14 Saturday CIE General Assembly

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Four CIE Divisions and TCs will meet in Leon on May 16 and 17.

The International Lighting Congress will take place from May 18-20. The main theme of the Congress is "Lighting for the XXI century. The congress will cover the following subjects:

- Image Technology
- Photobiology and Photochemistry
- LEDs and Applications
- Economics of Lighting
- Lighting and Signalling for Transport
- New Light Application
- General Aspects of Lighting
- Indoor Lighting and Signalling for Transport
- Colour and Vision
- Lighting Instruments

These subjects will be discussed at conferences, presented papers, round tables and posters.

The Congress will bring together lighting scientists, research and professional people involved in the lighting field from different countries, to exchange scientific ideas and latest technology and innovation developments.

During the conference there will be a CIE Expert Symposium on Vision and Lighting in Mesopic Conditions (see Vol IV October 2004 for details)

*For further information contact:*

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## 5th Lux Pacifica

July 25-27, Cairns, Australia

The 5th Lux Pacifica will be held in Cairns in north Queensland from 24th to 26th July, 2005. Details of the conference and related events can be viewed at the new website [www.arch.usyd.edu.au/~luxpacific](http://www.arch.usyd.edu.au/~luxpacific). Program details, tours and registration information is given.

The theme is "Towards a sustainable lighting future" and this has scope within it to present your story on lighting, whether it be in scientific research, lighting energy policy, use of new design techniques, new products and services, environmental issues or development issues.

Paper proposals should sent, as a Word document, to Hari Mamak ([harimamak@hotmail.com](mailto:harimamak@hotmail.com)) as soon as possible, in the form of an abstract, with sufficient information to assess the topic and the quality of the ideas. You will be informed by early March if your paper is

accepted and you will need to produce the full paper by the end of May, 2005.

*For further information contact:*

Dr Warren Julian]  
IESANZ

email: [warren@arch.usyd.edu.au](mailto:warren@arch.usyd.edu.au)  
[www.arch.usyd.edu.au/~luxpacific](http://www.arch.usyd.edu.au/~luxpacific)

## Urban Nightscape 2006

21 - 24 September 2006, Delphi, Greece

The Hellenic Illumination Committee (HIC) is organizing an international conference on the topic "Urban Nightscape" in Delphi/Greece. The scientific committee of the conference will include scientists representing Divisions 4 & 5, which are expected to hold their annual meetings at the same venue, namely the European Cultural Center of Delphi.

The topics are

- Light pollution
- Lighting master plan strategies & policy
- Measurement of vacuum ultraviolet radiation with diamond photo sensors
- Light and colour in the city
- Illumination of public spaces and objects
- Illumination of private spaces and objects in urban context
- Luminous advertisements
- Evaluation of the artificial neural network for color discrimination - discrimination of non-learned colors
- Photodynamic effects
- Night vision
- Developments in digital addressable lighting control Abstracts (Word documents in Arial 10 of 1 page max.) accompanied with a remark for the respective topic, can be sent until 30th November 2005 for selection to the Headquarters of HIC:

*For further information contact:*

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## SPECIAL REPORT

### Illumination on Course — Jadavpur Revisited

*P.K. Bandyopadhyay*

I am writing this from Calcutta (now officially Kolkata). My wife and I came here to attend couple of weddings in the family and to sort out some personal



*Aurobindo Bhavan, the main building of Jadavpur University*

matters. That was in the last week of November 2004. As is well known even to the occasional visitors to this city with wide interest that Calcutta or Kolkata with its mild and pleasant winter at this time of the year immediately puts its arms around those visitors and welcomes them in.

So we decided to extend our stay till the beginning of February 2005 and were immediately rewarded. This is the time when there are several Fairs and Exhibitions on all aspects of Arts and Culture, Musical soirees, Seminars etc.

The scientific community, for example, organised lectures to mark the centenary of the publication in 1905 of Albert Einstein's three groundbreaking papers on Photoelectric Effect, Brownian Motion and Special Relativity.

But the most illuminating and satisfying experiences for me were derived from the south-east part of Kolkata – Jadavpur.

### ***Birth Centenary Celebration of Dr. Triguna Charan Sen***

On 24<sup>th</sup> December 2004, the Alumni Association, NCE Bengal & Jadavpur University, launched the Birth Centenary Celebration of Dr. Triguna Charan Sen, builder of Jadavpur University, on his 100<sup>th</sup> birthday. Dr. Sen was the Principal of the College of Engineering and Technology – the forerunner of Jadavpur University – from 1944 to 1955. When the West Bengal legislative assembly enacted the Jadavpur University Bill on 24<sup>th</sup> December 1955, coincidentally the day Dr. Triguna Sen completed 50 years of age, he became the first Rector of Jadavpur University in 1956 (the post was re-designated as Vice-Chancellor) and retired in 1966. During 1958-59 he also had the added responsibility as the Mayor of Calcutta Corporation.

On the request of Dr. Sarvapalli Radhakrishnan, the then President of India, Dr. Sen joined Benaras Hindu University in 1966; got elected as a member of Rajya Sabha in 1967 and became the Education Minister, Govt. of India. On the request of Prime Minister Mrs. Indira Gandhi, he became the Union Minister of Petroleum, Chemicals

and Minerals in 1969-71, leaving the same to take active part in the fight for freedom of Bangladesh. That was achieved in December 1971 and Triguna Sen joined Sree Ma Anandamayee's Ashram and remained there till 1986.



*Dr. T.C. Sen*

The great educationist, nationalist, humanist and lover of all people in distress, Dr. Triguna Charan Sen left this world on 11<sup>th</sup> January 1998. It was very uplifting to remember the great man together with all large number of alumni members, many of whom I met after many years. In our time the total intake of students in the College of Engineering and Technology was 200 and Dr. Sen headed the selection panel interviewing the candidates who got through the entrance examination. So our personal interaction with him started from Day One so to say.

Older ISLE members will remember that Dr. Triguna Charan Sen came as Chief Guest to the National Seminar on "Light and Environment" of ISLE organised at Calcutta in 1988 and how lucidly he described the importance of Light in our life and encouraged us to carry forward the message through ISLE.

### ***Fortyninth Annual Convocation - Jadavpur University***

That same day i.e. on 24<sup>th</sup> December 2004 the above event took place. The new Governor of West Bengal, Shri Gopalkrishna Gandhi, attend the Convocation as the new Chancellor. Highlights from the address of Prof. A.N. Basu, Vice-Chancellor, are:

- The University would celebrate its Golden Jubilee this year. (Inauguration ceremony of the Golden Jubilee Year was held on 28<sup>th</sup> December 2004; Chief Guest was Sri Buddhadev Bhattacharjee, Chief Minister, Govt. of West Bengal. A yearlong programme started from that day.)
- The predecessor of Jadavpur University was the National Council of Education (NCE), Bengal started in 1906 "to impart education - literacy, scientific as well as technical and professional - on national lines and exclusively under national control to incorporate with the best Oriental ideals of life and thought, the best assimilable ideals of the West, and inspire students with genuine love for and desire to serve the country". So NCE, Bengal would also start its yearlong centenary celebration in 2005 and there would be several joint programmes by the NCE, Bengal and the University.
- The long list of Council's founding fathers included a galaxy of great leaders of action and thought like Aurobindo Ghosh (Sri Aurobindo), Rabindranath Tagore, Bipin Chandra Pal, Chittaranjan Das, Rashbehary Ghosh, Gooroodas Banerjee,

Surendranath Banerjee and Satish Chandra Mukherjee.

- Birth Centenary celebration of Dr. Triguna Charan Sen started also on the same day.
- All India Council for Technical Education (AICTE) has approved full-time 2-year P.G. courses in 7 new disciplines – one of them is Illumination Engineering. 5 of these courses including Illumination Engineering have already started from the current academic session.
- The Faculty of Engineering and Technology has been selected as a Lead Institution under the World Bank assisted Technical Education Quality Improvement Programme (TEQIP) of the Government of India, which has been formulated to meet the necessity of improving the quality of technical manpower in view of the spurt in opening of R&D establishments in high-tech areas.
- Different funding agencies of the Government of India have provided grants primarily for research purposes. There are many other commendable achievements, which space does not permit to list. But all these together clearly demonstrated why Jadavpur University has been accredited with the “Highest Grade (Five Star)” award by the Government of India and recognized as one of the top five Universities of the country. The University Grants Commission has identified Jadavpur University with “Potential for Excellence”.

### ***Illumination Engineering Courses at Jadavpur University***

Prof. Tapas Kumar Basak, Head of the Electrical Engineering Department and faculty members of the Illumination Engineering Section invited me to visit them on 11<sup>th</sup> January 2005 and address the students and see the progress made since my last visit a year ago. It was very thoughtful of them to invite Dr. Sunil Ranjan Bandyopadhyay, my friend and pioneer in the field of lighting education in India, as well.

Prof. Basak welcomed me in the Department and again in the Seminar Hall with “We are proud to have fulfilled your ‘Dream’ of starting a full fledged course in Illumination Engineering at Jadavpur University and completed the work initiated by Dr. S.R. Bandyopadhyay.” Indeed it was a dream come true, for which I tried to help Sunil in his efforts by talking to successive Vice-Chancellors, organising lectures by colleagues from Philips and Indian Society of Lighting Engineers and visits by experts from abroad and data and references from many others.

It was a great pleasure to see two smiling faces in the faculty, for whose growth I had a role to play. Both of them are Readers in Illumination Engineering Section. Dr. Mrs. Saswati Mazumdar was selected as a Lecturer in

Illumination Engineering in 1987 and I was on the selection board. Dr. Biswanath Roy was selected as a Research Scholar in 1994 for an ISLE sponsored Research project given to Jadavpur University and I was on the selection committee along with Mr. Mrinal Kanti Samanta, Prof. J.R. Biswas (HOD of Electrical Engineering) and Sunil.

At the outset I have told the faculty members that at the end of the day I would prepare a visit report for publication in the Light Newsletter and for that purpose I requested them to give detailed answers to my questions.

### ***On how the P.G. Course in Illumination Engineering came about***

*Dr. Mrs. Saswati Mazumdar (SM):* Jadavpur University is the pioneering Institute in India in Lighting Education in the sense that the undergraduate course in Illumination Engineering was first offered here under the Department of Electrical Engineering with the leadership of Dr. S.R. Bandyopadhyay. He was the founder of the Illumination Engineering Section. It has a long history of the last twenty years.

The beginning was in 1981 with the offering of 3-week course in Illumination Engineering by the Department of Electrical Engineering through the Adult Continuing Education Centre of Jadavpur University (at present Department of Adult Continuing Education & Extension). The response was encouraging. At that time the Department offered only five specialisations in Control systems, High Voltage, Machines, Measurements & Instrumentation and Power systems in its B.E.E. Course. The Department moved further ahead by approving Illumination Engineering specialisation in the existing B.E.E. course at the Faculty of Engineering & Technology Meeting in 1983 and the course was subsequently approved by the University Grants Commission [UGC] in 1984. The course started in 1984 under the leadership of Dr. S.R. Bandyopadhyay.

### ***UGC recommended that***

“The Department proposes to add an undergraduate programme in Illumination Engineering. However, it is recommended that it is first tried out as an optional stream in the final year for a couple of years. After evaluating the response of students and industries, a full-fledged programme in this area be considered.”

The initiation of this course was strongly supported by the largest lighting company of India – Philips India Limited. You, Mr. P.K. Bandyopadhyay, then Chief Engineer of the Lighting Design and Engineering Centre of Philips India Limited was actively associated with Electrical Engineering Department for formation of this new course.

**Dr. Sunil Ranjan Bandyopadhyay (SRB):** Towards the end of my tenure, the UG course was almost coming to a dead end. At that time Prof.S.C.Som was the Vice-Chancellor of Jadavpur University. I invited Prof.S.C.Som to visit the Illumination Engineering Lab at the Electrical Engineering Department and he expressed his satisfaction with the existing lab facility. Prof.Som, being an eminent scientist and educationist in the field of optics & optoelectronics, expressed his positive views regarding the need of lighting education in India and he was satisfied with the long effort put in by me for development of this lab. At the end of my official association with the lab I earnestly requested Prof.S.C.Som to provide a more sound foundation for the Illumination Engineering course at Jadavpur University.

**Dr. Biswanath Roy (BR):** The School of Illumination Science, Engineering and Design (SISED)-JU was the brainchild of Prof.S.C.Som, and the name of the School was set by him. The purpose was to include expertise of different departments of the University under the umbrella of SISED-JU for promoting R&D as well as manpower development in the different perspectives of Illumination – the science, engineering and design involved in it.

Unfortunately, Prof.S.C.Som had to retire before SISED-JU came into reality. But he requested his successor, the present Vice-Chancellor Prof.A.N.Basu to continue with the support, which Prof.Basu did. Prof.S.K.Sanyal, present Pro-Vice-Chancellor and Former Dean, Faculty of Engineering and Technology also rendered his support in the formation of SISED-JU.

Prof.S.Chakraborty, Director and Prof.K.Goswami, Joint Director of SISED-JU and Dr.Mrs.Saswati Mazumdar played an important role during the formation of SISED-JU.

**Prof. T.K. Basak (TKB):** After the retirement of Dr. S.R. Bandyopadhyay, the responsibility of the Illumination Engineering Section was taken over by Dr. Mrs. Saswati Mazumdar, Reader, in the year 1997. She was the lone teacher at that time until Dr. Biswanath Roy joined as Reader in November 2000. The above Reader post was earmarked for Illumination Engineering by the then HOD Prof. Samiran Chaudhuri. The Section received support from a number of faculties of the Department during its acute shortage of manpower. Under the leadership of Dr. Mazumdar the R&D facilities in the field of electronic ballast was initiated and another two laboratories have been set up viz. electric power conditioning lab and ballast testing lab. Dr. Mazumdar and Dr. Roy then took up the unfinished work of Dr. S.R. Bandyopadhyay and applied for the P.G. course to the AICTE.

In March 2004 an AICTE representative visited Jadavpur and in June 2004 approved the M.E.Illumination

Engineering course allowing an intake of 18 students of B.E. / B.TECH. in Electrical, Electronics or equivalent qualification for M.E. Illumination Engineering degree. The first year of this course has already started from this academic session 2004-05 with 10 students.

The Illumination Engineering Section crossed another milestone with the addition of this postgraduate course along with the existing B.E.E. course with illumination specialization, which was started in 1984.

**BR:** For this approval the Illumination Engineering Section received strong support from all the faculty members of the Electrical Engineering Department, specially from the present Head of the Department Prof. T.K. Basak and former Head of the Department Prof. T.K. Ghoshal. Moreover, Prof. A.N. Basu, Vice-Chancellor, Prof. S.K. Sanyal, Pro-Vice-Chancellor and Prof. M.K. Mitra, Dean, Faculty of Engineering and Technology are the sources of inspiration for initiation of this Post-Graduate course.

#### ***On how an M.E. course can be managed with two faculty members***

**TKB:** The same question was raised by AICTE representatives. I have assured them that the entire Electrical Engineering Department would teach various subjects depending on individual specialization. For example, I am taking classes on “Optical Radiation & Health”.

**SM:** It is true, we have pressure, but we manage.

**BR:** It is not only M.E. and regular B.E.E. courses discussed before, but we have part-time evening UG course in which Illumination Engineering specialization is taught to final year students from 1987 and is also taught to all pre-final year students as a compulsory subject.

#### ***On the relation between Jadavpur University and Indian Society of Lighting Engineers***

**SM and BR :** The Illumination Engineering Section of Jadavpur University had associated with ISLE since its inception. Prof. S.R. Bandyopadhyay, then Prof-In-Charge of the Section was one of the founder members of ISLE, Calcutta State Centre and was its second Past Chairman.

One of the objectives of ISLE is to promote lighting education in India and the Illumination Engineering Section played an important role in it. This Section helped in the formation of lighting courses at different academic institutes of the country like Manipal Institute of Technology, Manipal. In the beginning of 90s, Late Prof. K.V. Adiga, the then HOD of MIT came to Jadavpur with other colleagues for orientation. Subsequently, Prof. Radhakrishna S. Aithal also came for research work. Recently help was given to Bengal Engineering and Science

University (former Bengal Engineering College, Shibpur, Howrah). Prof. Dr.S.R. Bandyopadhyay was given a CIE Award for his pioneering contribution in lighting education in India at the 24th Session of the CIE at Warsaw, Poland in 1999.

On the other hand, several ISLE members from Calcutta and Bombay have given lectures at Jadavpur University. ISLE also sponsored its first Research Project "Architectural Models Under Artificial Sky" at this Section with Prof. S.R. Bandyopadhyay as Principal Investigator. This was also the first Research Project at this Section. Mr. Biswanath Roy, Research Scholar of this project, was awarded Ph.D. for his work. That was the first Ph.D. award in Illumination Engineering in India.

Late Prof. A.K. Ghosh, Past Chairman of the ISLE, Calcutta State Centre and Professor of Department of Applied Physics of Calcutta University helped in the development of our Illumination Engineering specialisation in the B.E.E. course.

ISLE also awards scholarships to the best B.E.E. students of Illumination Engineering every year since the ISLE scholarship was instituted.

Mr. M.K. Samanta, Past Chairman of ISLE, Calcutta State Centre and Past Chairman of Education Committee of ISLE Governing Body was visiting faculty of Illumination Engineering Section for many years and helped us in many ways including formation of SISED-JU. Mr. Onkar Mitra also helped us a lot. You, Mr. P.K. Bandyopadhyay, are still the Adviser to SISED-JU on Design aspects.

*In the past 20 years several seminars and training courses were conducted at Jadavpur University with the help of ISLE.*

The discussions were interrupted at this stage for the meeting at the Seminar hall.

### **Lecture**

Dr. Mrs.Saswati Mazumdar introduced the speaker to the students as the person who was first to draw the attention of the world on the need to develop Lighting Education in India.

I addressed the M.E. and about 16 B.E.E. final year students with Illumination Engineering as specialisation on what would be expected of them when they step out of this college, the need to think independently and creatively beyond the stated outline of this course, and advantages of taking up practical application-oriented project work, particularly by M.E. students, promising them as much help as I could. I also spoke about the Lii 2005 urging both students, particularly the M.E. ones, and faculty members to actively participate in this event. I have

requested Prof. Basak to give credit points to students who would attend Lii 2005 and to support the staff members. He promised all support.

I have urged all the students to become ISLE members immediately. Prof.Basak has agreed to become a member of ISLE.

After the meeting I visited all the Laboratories devoted to Illumination Engineering. The present status of the Illumination Engineering Laboratory is very encouraging and suitable for Higher Education and Research in



*Dr. Saswati Mazumdar, Dr. T.K. Basak and Mr. P.K. Bandyopadhyay*

Lighting. It has a fully equipped Photometry Laboratory, Electric Power Conditioning Laboratory, Ballast Testing Laboratory, Artificial Sky Laboratory and Computer Laboratory. The latest support for the development of this Laboratory came from AICTE under the MODROB scheme of amount Rs.15 lakh in 2002 for modernization of the Illumination Engineering Laboratory. The University provided its support by almost doubling the floor area of existing Photometry Lab, housing three important Photometric equipment - Large Integrating sphere, Large Mirror Distribution Photometer and Goniophotometer including LMT make photocells. All were donated by Philips India when Mr. R.B. Putatunda was the Director of Lighting Division.

Dr. Mazumdar informed me that for the installation of these Photometric equipment help and guidance were



*The audience at the lecture*





*Photometry laboratory*

received from Prof. Madhu Bhattacharya, who has retired from the Mechanical Engineering Department recently, and Mr. Ranjan Ghosh Dastidar, ex-Philips and ISLE member, who was a guest-faculty in the year 2003-04.

The Section has two non-teaching staff members: Mr. Gairik Saha, Diploma in Electrical Engineering, Lab Technician and Mr. Pradip Pal, Junior Mechanic. I found Mr. Saha to be a very good addition. He is well experienced and enthusiastic enough to be of help to any practical project work.

I also met Mr. Sujit Goldar, Research Scholar, doing Ph.D. thesis in the Department. The paper submitted by him along with Dr. Mrs. Saswati Mazumdar to the last CIE Session has been published in the October 2004 Issue of the Light Newsletter.

The Section also has another registered Research Scholar, Mr. Sujoy Pal, an ISLE member, whom I did not meet.

Dr. Mazumdar and Dr. Roy briefed me on the status of various Research Projects done in the Section:

#### **Ph.D. Research Work Conducted so far**

1. *Mr. Biswanath Roy*, ISLE Research Scholar, (now Reader, JU), awarded in 1999; Title of Thesis – Studies



*Students working in the lab*

on Mathematical and Physical Simulation of Indoor Daylighting. Worked under the guidance of Prof. S.R. Bandyopadhyay in the Research Project sponsored by ISLE.

2. *Mr. Radhakrishna. S. Aithal*, Reader, (now Professor and HOD), Department of Electrical & Electronics Engineering, Manipal Institute of Technology, awarded in 2001. Title of Thesis - Some Studies and Optimisation Techniques on Energy Efficient Lighting with reference to Indian context. Worked under the joint guidance of Dr. Biswajit Ghosh and Dr. Mrs. Saswati Mazumdar.
3. *Mr. Soumen Basu*, Deputy Director, Technical Education and Training Department, Government of West Bengal, awarded in 2002. Title of Thesis - Some studies on the Energy conservation in Building with special reference to Illumination. Worked under the joint guidance of Dr. Mrs. Saswati Mazumdar and Dr. Biswajit Ghosh.

#### **Ongoing Ph.D. Research:**

1. *Mr. Sujoy Pal*, Lecturer, Calcutta Technical School, registered in 2002. Topic - An Approach for Optimization of Energy Use in a Building System with Daylighting and Thermal Comfort Model. Joint Guides: Dr. Subhasis Neogi and Dr. Biswanath Roy.
2. *Mr. Sujit Goldar*, JU Research Scholar, registered in 2004. Topic- Studies on Energy Efficient High Performance Electronic Ballast and Control-gear for Solar Energy Based Interior and Exterior Lighting System. Joint Guides: Dr. Mrs. Saswati Mazumdar and Prof. Kalyan Kumar Roy.

#### **Research Projects**

1. "Architectural Model under Artificial Sky" supervised by Dr. S.R. Bandyopadhyay. Sponsored by ISLE of Rs.1.092 Lakh; *Completed*.
2. "Illumination redesign of thermal power plant" supervised by Dr. Mrs. Saswati Mazumdar, funded by JU Minor Research Fund of Rs.0.30 Lakh; *Completed*.
3. "Development of High Performance Electronic Ballast for Energy Efficient Illumination & Improved DSM" supervised by Dr. Mrs. Saswati Mazumdar, funded by AICTE of Rs.5.00 Lakh; *Completed*.
4. "Determination of Spectral Power composition & colour rendition of light sources" supervised by Dr. Biswanath Roy funded by JU Minor Research Fund of Rs.0.50 Lakh; *Completed*.
5. "Development of overload trip circuit using a current sensing principle for renewable energy sources" supervised by Dr. Mrs. Saswati Mazumdar, funded by WBREDA of Rs.0.35 Lakh; *Completed*.
6. "Development of efficient High Intensity Discharge lighting system with decentralized non conventional energy sources" supervised by Dr. Mrs. Saswati

Mazumdar, funded by UGC of Rs.4.785 Lakh; *On going.*

7. "Modernisation of Illumination Engineering Lab" supervised by H.O.D. EE Dept. and convenor was Dr. Mrs. Saswati Mazumdar funded by AICTE (MODROB) of Rs.15.00 Lakh; *Completed.*

At the end of this very informative visit, I requested Dr. Mazumdar and Dr. Roy to keep the Light Newsletter posted with regular Progress Reports and take a leading position in organising Lecture programmes and Seminars as frequently as possible. Finally I also mentioned that we would look forward to welcoming a large delegation from Jadavpur at Lii 2005.

*Pranab K. Bandyopadhyay  
Associate Editor, Light Newsletter and  
Past President ISLE.*

## WEBWATCH

With the help of our member Anool Mahidharia we have introduced this new column to share with our readers some items of interest from the internet. Let us know what you think.

### **Utility Administrators: Learn About Lighting**

The LRC is planning its first lighting seminar designed especially for utilities and public agencies responsible for energy conservation programs. Administrators and personnel are invited to attend the jam-packed two-day seminar titled, "What you always wanted to know about lighting but didn't know who to ask," scheduled for early May.

<http://www.lrc.rpi.edu/resources/news/enews/Jan05/general217.html>

### **Brightest ever LED array**

Lamina Ceramics breaks technology barrier with brightest-ever LED array. The company unveils 13,300-lumen solid state RGB light engine

<http://www.laminaceramics.com/news/101804.aspx>

### **Wireless Lighting Controls to be Study Topic at Berkeley**

Miniature, low-power radio technology being developed by the University of California, Berkeley (UCB), will be used to create a flexible, low-cost lighting control system that has wireless capabilities.

The objective is to develop and demonstrate a working prototype of a programmable, wireless lighting control system that can be used for both retrofit and new construction and to utilise wireless motes and relays that would be installed in individual lighting fixtures, with a

wireless, remote switch capable of controlling any combination of light fixtures.

[http://www.cbe.berkeley.edu/research/wireless\\_lighting.htm](http://www.cbe.berkeley.edu/research/wireless_lighting.htm)

### **Light NOW magazine**

LightNOW, the popular on-line magazine from Lightsearch.com has been relaunched with new content and features.

<http://www.lightsearch.com/lightnow>

### **Investigation of Technological Research Trend on the Pacific Basin Lighting Congress -LUX PACIFICA-and on the Lighting Culture of the Conference Host Country**

With the 5th Lux Pacifica Conference just six months away, this analysis of the trends and impressions of the different Lux Pacifica conferences makes interesting reading.

This report covers the changes in technological research trends in each technological field during the period from the first conference of the Pacific Basin Lighting Congress -LUX PACIFICA- (held in Shanghai in 1989) through the fourth conference (held in New Delhi in 2002), as well as the activity status at each conference, the response of our country (Japan), and lastly our impression of each host city including the lighting culture of the conference host country.

[http://www.ieij.or.jp/english/event/2003lux\\_result01.html](http://www.ieij.or.jp/english/event/2003lux_result01.html)

Section 4 : Notes on Impression of Venues (Being Exposed to the Lighting Culture of Venues) is especially interesting :

[http://www.ieij.or.jp/english/event/2003lux\\_result03.html](http://www.ieij.or.jp/english/event/2003lux_result03.html)

## NEWS ABOUT MEMBERS

### **ISLE Members Win International Lighting Awards**

It is with great pleasure that we report that our members Ms Sudeshna Mukhopadhyay and Mr. B. Joardar





and their colleagues have given India the top spot in the 19<sup>th</sup> Philips International Lighting Contest by getting two first prizes and one third prize.

We give below some details of the three projects.

**JP Morgan Chase Offices, Mumbai, India: 1<sup>st</sup> Prize - Office and Commercial Space Lighting**

(For more information on this project see Vol IV No I, January 2004)

JP Morgan Chase, India has set up multi-location operations in Mumbai, with facilities in most upcoming and posh Office Complexes in Mumbai-the Business Capital of India. Typically all these Office Complexes are multi storied, with top corporate offices, especially Multinational IT companies, Banking and Insurance Offices occupying one or more floors. It is inevitable that “Image Creation thru Lighting and Architecture” is what all owners strive for.

“Design something exclusive but not ostentatious” was what Geri Shirley , the Project Director told the LIDAC Team based in Mumbai. The Lighting needed to provide Comfortable Vision, Healthy mind, be attractive and in line with any International office. Most importantly all facilities are 24x7 operations so Energy Costs are of paramount importance.

Initial Cost, Delivery Lead Times and Commissioning Support were key selection criteria during Vendor Approval.

*Lighting Designer* : Praveen Thampi , Nehal Shah  
*Project Director* : Mr Geri Shirley  
*Architects* : Karim Noorani and Associates  
*Electrical Consultants* : Mr H K Paranjape, Project Engineering Services  
*Project Owner* : J P Morgan Chase , India

**Lighting of City Roads of Twin City of Hyderabad-Secunderabad - 1<sup>st</sup> Prize - Traffic & Transport**

The twin city of Hyderabad –Secunderabad (referred as Hyderabad only in this report) is the capital base of

Andhra Pradesh, a Southern State of India, then headed by the IT savvy Chief Minister, Mr Chandrababu Naidu.

His aspiration was to “sell” Hyderabad to the World as the preferred IT destination in India and publicly announced intentions of Upgrading and Re-Urbanisation of the City.

The Client was convinced that planned and good Road Lighting was indeed a tool to Uplift the City Image. It would also optimise inventory, reduce energy wastage and improve Visual conditions

Lighting Standards needed to comply with local Bureau of Indian Standards and their Road Classifications.

*Lighting Designer* : Prashanth Karanth , S S Nagaraj, Jitendra Agrawal, Sudeshna Mukhopadhyay

*Project Owner* : Municipal Commission of Hyderabad Secunderabad

**Decorative Lighting of Gardens of Ramoji Film City - 3<sup>rd</sup> Prize - Decorative Floodlighting**

Ramoji Film City (RFC) is possibly the largest comprehensive film studio complex in the world. Located about an hour’s drive from the airport of Hyderabad, RFC offers an entire range of movie production and post production facilities and services for film makers all over the world.

Professional designers, landscapists and architects have worked on this vast 2000 acre complex to ensure that movie makers can shoot in a picturesque Indian village or recreate a street in Switzerland! Filmmakers can choreograph a song and dance in any of the gardens and later change the appearance of the Gardens/ Fountains, Streets, buildings etc, to give a totally different locale impression!

*The Client wanted*

- Lit Gardens as backdrop for Night Shooting
- Visitors must feel they are in a Film Environment



- Long distance viewing- attraction from a distance
- Gardens not be treated as general Municipal Gardens
- Installation cannot be permanent as landscape elements keep changing
- Provision of dynamic lighting with multi scenes
- Local availability of luminaires/spares/components - no long lead time items!
- Preferred not to use catalogue items. Customised solutions wherever required!

The Project Owners decided to open the facilities for public viewing and position it as a prime tourist attraction. One of the key steps was to light up a few gardens in the spirit of Indian Commercial Bollywood Films , which are usually very “colourful in nature”!

*Lighting Designer* : B Joarder, Sudeshna Mukhopadhyay

*Electrical Consultant* : Venkatmahalingam & Associates, Secunderbad

*Project Owner* : Ramoji Rao

## MEMBERSHIP APPLICATIONS APPROVED BY GOVERNING BODY

### List of new members admitted on 28.01.05

M. No	Name & Addresses	Grade	Centre
F-0510	Mr. Alak Sundar Basu AB 163, Sector 1 Salt Lake Kolkata 700 064	Fellow	Calcutta
F(L)-0511	Mr. Suresh Chander Jarrel D 281, Nirman Vihar Delhi 110 092	Fellow (Life)	Delhi
F(L)-0512	Mr. Jagdish J. Shah Sanghavi Chambers 27 Janmabhumi Marg Mumbai 400 001	Fellow (Life)	Mumbai
F-0513	Mr. Tapas Kumar Basak Electrical Engineering Dept Jadavpur University Kolkata 700 032	Fellow	Calcutta

F- 514	Mr. Shyamal Sengupta 14/147 Golf Club Road Kolkata 700 033	Fellow (Life)	Calcutta
M(L)-1158	Mr. Saurabh Patodi 25/36 Industrial Estate Pologround Indore 452 007	Member (Life)	Indore
M(L)-1159	Mr. Rajendra Siroliya 57 Varuchi Marg (near Gurudwara) Freegang Ujjain	Member (Life)	Indore
M(L)-1160	Mr. Jitendra Ar. Mehta 102 Navneet Plaza (1st Floor) 5/2 Old Palasia Indore 452 001	Member (Life)	Indore
M(L)-1161	Mr Deepak Jajodia 9 Ganji Compound Behind Nagar Nigam Indore 452 007	Member (Life)	Indore
M(L)-1162	Mr. Hemant Jain 154/47 New Agrawalnagar Indore 452 001	Member (Life)	Indore
M(L)-1163	Mr. Manish Nagar 9 Shastri Market Indore 452 007	Member (life)	Indore
M(L)-1164	Mr. Anish Shah G-12 Chetak Chambers R N T Marg Indore 452 001	Member (Life)	Indore
M(L)-1165	Mr. Anil Rawat 106 Rounak Plaza 8 B South Tukoganj Indore	Member (Life)	Indore
M(L)-1166	Mr. Charudutt Saxena 47 Shakti Nagar Kanadia Road Indore 452 001	Member (Life)	Indore
M(L)-1167	Mrs. Alka Kemkar Abhilasha Apt. (Ground floor) 585- 2B M G Rd., New Palasia Indore 452 001	Member (Life)	Indore
M(L)-1168	Mr. Anil Samaria 55 Ramghat Marg Ujjain	Member (Life)	Indore
M(L)-1169	Mr. Samir Chawla Light Zone M-14, 15 Navneet Darshan 16/2 Old Palasia Indore 452 001	Member (Life)	Indore
M(L)-1170	Mr. Lawkesh Tiwari 581 M. G. Road, (1st Floor) Maya Mansion Indore 452 001	Member (Life)	Indore
M-1171	Mr. Aashish Sharma 102 Arayas Aptt. 16 Brijeshwari Annex Kanadia Road Indore 452 018	Member	Indore
M-1172	Mr. Vinay Mishra Hagemeyer India Ltd G 2 Swadesh Bhawan 2 Press Complex A B Road Indore	Member	Indore

M-1173	Mr. Rajesh Hasanandani 112 Rajarai Muharai Complex MTH Compound Indore 452 001	Member	Indore	A-0830	Ms. A. Hemlatha No 1 New Magazine Road Vyasarpadi Chennai 600 039	Associate	Chennai
M-1174	Mr. Himanshu S. Dudwadkar 10/4 Film Colony South Tukoganj Indore	Member	Indore	A-0831	Ms. S. Sangeetha K-Lite Convention Centre 2 Nunga Bakkam High Rd. Chennai 600 034	Associate	
M-1175	Ms. Shreya Bhargava Design Cell 407 Chetak Centre 12/2 RNT Marg Indore	Member	Indore	A-0832	Mr. V. Karthikeyan No 9 Rajarajeshwari Nagar Kamarajapuram East Tambaram Chennai 600 073	Associate	Chennai
M-1176	Mr. Naveen Goyal Essen Energy Technologies 109 DH IDA Scheme 74 C Indore 452 010	Member	Indore	A-0833	Ms. R. Meenakshi 15 Kodambakkam High Rd. Nungambakkam Chennai 600 034	Associate	Chennai
M(L)-1177	Mr. Bharat Goel W-111/3 Lane No 6 Anupam Gardens Sainik Farms New Delhi 110 068	Member (Life)	Delhi	A-0834	Mr. M. Palvannanathan 5/184 Caldwell Colony IIIrd Street Tuticorin 8	Associate	Chennai
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A(L)-0827	Mr. Mahendra Jain RN 69, 4th Floor Dawa Bazar Indore 452 001	Associate (Life)	Indore	S-0174	Mr. G. Satheesh Krishnan Aradhana (Opp: Shetty Icecream) Kulai Mangalore	Student	Karnataka
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S-0177	Mr. R. Jeyachandran Room No 18, K3 Block MIT Hostel, MIT Manipal 576 104	Student	Karnataka
S-0178	Mr. Vikas Rana Room No 19, Xth Block MIT Hostel, MIT Manipal 576 104	Student	Karnataka

**Transfer of grade**

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M(L)-1181	Mr. Navin Ratilal Shah Diamond Building, 3rd Floor Phatak Wadi Lohar Chawl Mumbai 400 002	Transferred from Mumbai Associate (A-0042) to Member (Life)	
A(L)-0837	Mr. Shyam K. Menon Srivatsam 40/266 Layam Road Ernakulam Kochi 682 011	Transferred from Chennai Student (S-0150) to Associate (Life)	

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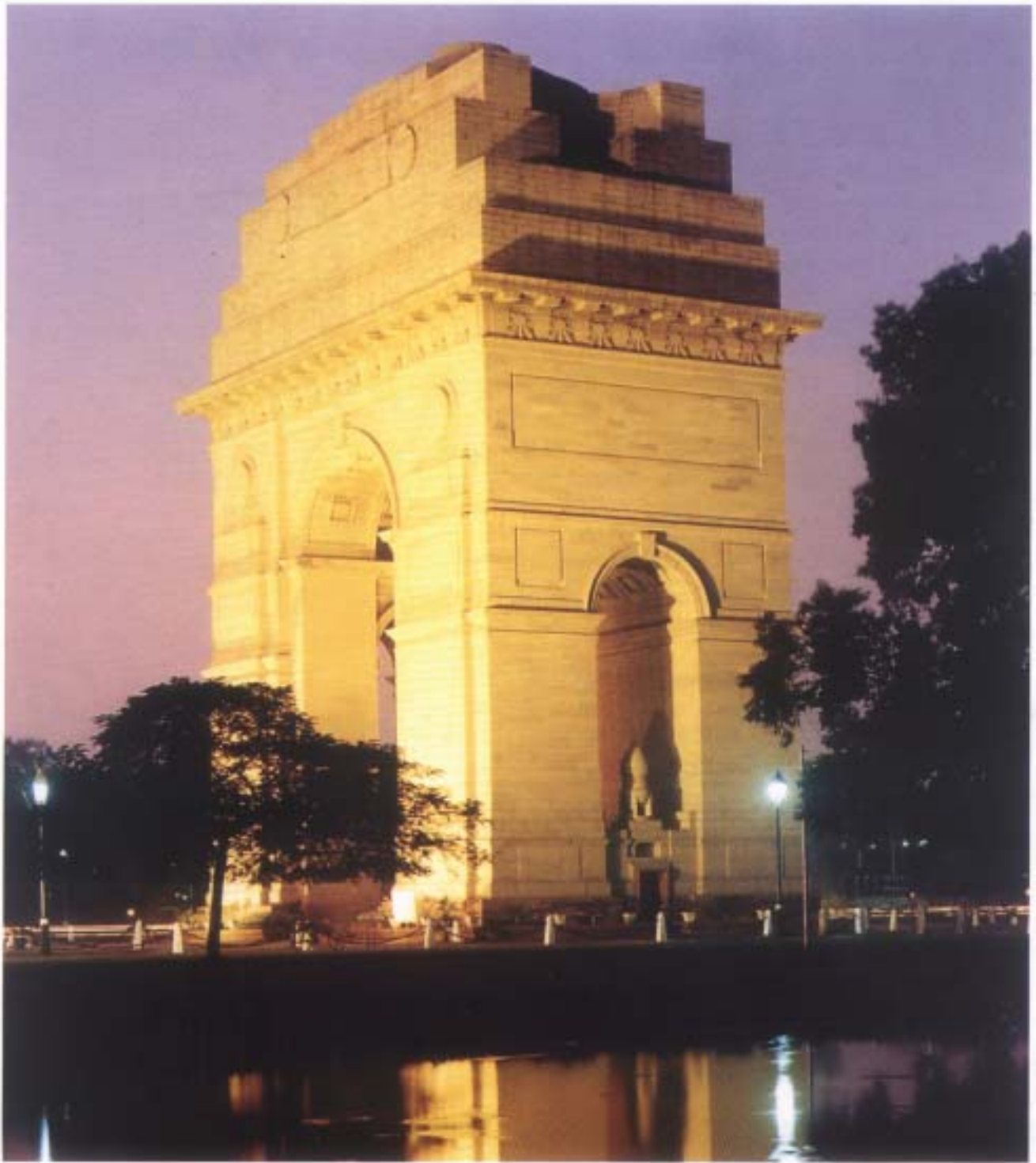
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