



Road and Public Space Lighting Workshop

Rockhampton

October 3-5, 2012

CBD venue to be advised, Rockhampton

A three-day intensive workshop based on the new Australian Standard 1158 series: Lighting for Roads and Public Spaces and the latest relevant Austroads Guides encompassing traffic engineering practices and roadway lighting.

Workshop Overview (\$2,290 - 3 days)

This three-day workshop covers the latest practices applying to road and public space lighting design and practice. Used to support learning in the workshop are the relevant Austroads' Guides dealing with roadway lighting, providing a general indication of road lighting standards and practice applicable to traffic routes and to a lesser extent, to local collector and minor roads.

This workshop, however, is based on the Australian Standard AS1158-2005 and associated lighting standards. The workshop provides instruction on the basic principles and extends this instruction to lighting design from first principles through to a design completion for straight roads, intersections and bends in traffic routes, plus local roads and other public spaces such as: outdoor carparks; cycle and pedestrian pathways. Reference is included to other elements including subways; footbridges; ramps; steps; and other City and suburban public spaces.

Participants will have access to a computer for significant interactive learning and case study use throughout the workshop.

Workshop Scope

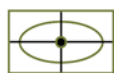
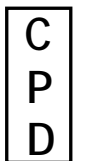
- Roads - major to residential.
- Intersections and bends.
- Public spaces - carparks, walkways, etc.
- Selecting energy efficient lighting hardware.
- Hardware and software for public lighting.
- Inspection and appraisal of public lighting installations.



*Austroads Guide to Road Design
Part 6B: Roadside Environment*



Workshop supported by:



AUSTRALIAN INSTITUTE OF TRAFFIC PLANNING AND MANAGEMENT



CPEE Professional Development

Who Should Attend?

- State road authority, local government and electricity distributors responsible for the provision, approval, design and maintenance of public lighting.
- Consulting engineers and verifiers responsible for road and public space lighting projects.
- Contractors and participants in PPV projects providing public lighting.
- Public lighting hardware and luminaire providers.
- Rail, tram and bus technical staff responsible for lighting of public spaces.
- Retail shopping centre staff responsible for design and safe operation of associated carparks and access roadways and walkways.
- Road design, road safety and traffic management consultants.
- Engineers requiring specialist training in Lighting design.
- Local Government engineers, planners, sustainable energy and infrastructure managers.
- State Road Authority & Tollway operator staff who deal in road safety and traffic engineering.
- Engineering graduates looking for specialist skills for career development.

Lighting Installations Evening Tour

The tour will be on a chartered coach and will visit various selected sites for delegates' inspection and appraisal of the installed lighting. The workshop lecturers will point out examples of good and poor lighting and will provide commentary linking the workshop learnings with actual examples.

The Presenters

Dr Steve Jenkins: Steve has a long association with lighting research and is currently chairman of the CIE Australia. He worked previously in the Department of Defence and ARRB. He is currently a member of Standards Australia committee on Road Lighting and is chairman of SA's committee on Retro reflective Devices. He works in private consulting in the visual ergonomics field.

John Rogers: John is a Lighting Engineering Consultant with the United Group Infrastructure Division. He is a long standing member of Standards Australia Committee LG/2 and a contributor to the Austroads Guide to Traffic Engineering Practice part 12: Roadway Lighting. John previously worked as Technical Manager at GEC Lighting and Rexel Lighting.

CPEE Professional Development (CPD)

This course is facilitated and delivered by recognised practitioners in the field and is of such technical content that the number of hours involved should be fully acceptable toward Continuing Professional Development (CPD) standing.

Organisers and Endorsements



CPEE: This course is presented by the Centre for Pavement Engineering and Education, a non-profit, specialist private provider (roads and pavements) of tertiary education, founded by AUSTROADS and the Australian Asphalt Pavement Association (AAPA). CPEE offers Graduate Certificate & Master of Technology qualifications in roads and pavement engineering, and Graduate Certificate & Graduate Diploma qualifications in infrastructure asset management and has formal links to La Trobe University, the University of Tasmania & the Chifley Business School.

This course is supported by the following professional groups:

- Austroads
- AustStab
- Institute of Transportation Engineers Inc (ANZ section)
- Australian Institute of Traffic Planning and Management Inc (AITPM)
- APESMA and Chifley Business School
- IPWEA
- Australian Local Government Association (ALGA)
- SRA



Workshop Program

DAY 1			
Time	Morning	Time	Afternoon
8.15am	Tea and Coffee on Arrival & Registration	1.00pm	Lunch Break (lunch provided)
8.45am	"Official Opening - Setting the Scene" Senior Manager – tba	1.30pm Session 3	Introduction to AS/NZS series <ul style="list-style-type: none"> • Category "V" vehicle route lighting • Discussion
		3.30pm	Afternoon Tea Break
9.05am Session 1	<ul style="list-style-type: none"> • Introductions • Public lighting & sustainability • Basics of light & lighting 	3.45pm Session 4	<ul style="list-style-type: none"> • Category "P" pedestrian lighting • Discussion
10.45am	Morning Tea Break		
11.00am Session 2	<ul style="list-style-type: none"> • Basics of light & lighting (continued) • Lighting hardware & energy efficiency • Discussion • Introduction to the principles of computer aided lighting design for vehicles and pedestrians • Discussion 	5:15pm	Session ends followed by drinks and informal discussions with delegates and presenters

DAY 2			
Time	Morning	Time	Afternoon
8.30am	Tea and Coffee Review of Day 1 Learnings and Outcomes	1.00pm	Lunch Break (lunch provided)
9.00am Session 5	<ul style="list-style-type: none"> • In principal design exercise for computer verification • Category "V" traffic routes – straight sections, intersections, bends • Category "P" pedestrian lighting • Exercise discussion 	1.30pm Session 7	<ul style="list-style-type: none"> • Design exercise continued • Individual instruction at computer • Discussion of group design solutions
10.15am	Morning Tea Break	3.00pm	Afternoon Tea Break
10.30am Session 6	<ul style="list-style-type: none"> • Computer aided design exercise using perfect lite software • Step by step design instruction using software for traffic routes, intersections & roundabouts, collector/residential roads, traffic management devices, car parks, cycle paths, walkways, and public spaces • Discussion of group designs comparing in principal design to CAD solutions 	3.15pm Session 8	<ul style="list-style-type: none"> • Design exercise continued • Review and discussion
		5.00pm	Session ends
		6.00pm	Dinner at Workshop Hotel
		7.15pm - 9.30pm	Informative bus tour of lighting installations outlining design to practise. Please bring visibility vest.

DAY 3			
Time	Morning	Time	Afternoon
9.00am Session 9	<ul style="list-style-type: none"> • Discussion on tour highlights • Computer aided design exercise continued 	1.00pm	Lunch Break (lunch provided)
10.30am	Morning Tea Break (flexible)	1.30pm	<ul style="list-style-type: none"> • Road lighting hardware and software • Luminaire photometry • AS/NZS 1158 Part 6 Luminaire Standards • Lamp & luminaire circuits • Maintenance factor in road lighting design • Introduction to underpass lighting design • Discussion, review & evaluation
10.45am Session 10	<ul style="list-style-type: none"> • Discussion on group designs • Trees • LED's • Using supplier catalogues and information • Design exercise for evaluation 	Session 11	
		3.30pm	Workshop Closing Forum
		4.00pm	Workshop Close

Workshop Participants MUST bring:

Copy of Standards AS1158 series
 1:500 scale; Calculator; Pencil and eraser, and
 Visibility Vest for night tour

Program Subject to change

What to Bring?

Participants will also need their own copy of the new Australian Standard AS/NZS 1158, a calculator, a 1:500 scale, pencil and eraser. Participants are also requested to bring their reflective vests for the night inspection tour - an essential part of the training.

Workshop Content

The design and provision of public lighting is often arranged separately from other road improvements. It is therefore important for its design, installation and maintenance to be properly integrated with road design and traffic management practices to enhance the full achievement of traffic and community objectives.

All participants will be provided with a copy of workshop and speakers' notes. This documentation will be an ongoing useful technical resource for all traffic engineering and planning practitioners that have exposure to road and public space lighting design.

Participants will have access to computer for significant interactive learning and case study use throughout the workshop.

- Public lighting: A community service and safety issue - crash counter measure
- Basics of Light and Lighting - Concepts, terminology and units - lamp types
- Introduction and use of Standard AS/NZS 1158 series
- Principles of road and public space lighting design
- Road Lighting as a performance based standard
- Sustainable Lighting Design - energy efficient lighting
- Selection and design of lighting
- Vehicle Route Lighting
- Lighting design for underpasses
- Pedestrian Lighting for carparks, pathways, transport interchanges & terminals
- Design exercises for roads and public spaces (carparks, walkways, rail crossings, etc)
- Lighting hardware - Luminaire Photometry
- Lamp & Luminaire Standards
- Maintenance of lighting systems and IP ratings
- Evening lighting inspections and appraisals - Coach tour on day 2 in the evening

Course Enquiries

Content: John Cullen; email: johnccg@optusnet.com.au Ph: 0409 787 958

Course Size & Management

Due to its practical nature, participant numbers are limited for this course so it is advisable that you register quickly to avoid disappointment. Due to its unique and targeted content, it is unlikely this course will be offered again in this location for some time.

Cancellation Policy

If you are unable to attend this event a substitute attendee may take your place, without penalty. However, if you wish to cancel your registration a full refund, minus a \$100 (inc GST) service fee, will be given provided you have notified us in writing, at least 10 days before the start of the event. No refund is available for cancellations under 10 days. See Registration Form for full details.

CPEE Professional Development (CPD)

This course, with content based on the relevant CPEE postgraduate distance learning study Unit is facilitated and delivered by recognised practitioners in the field and is of such technical content that the number of hours involved should be fully acceptable toward continuing Professional Development (CPD) standing.



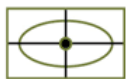
- Understanding Road Construction - Materials & Practices
- Surface Treatments - Understanding & Assessing Options
- Road & Public Space Lighting Workshop
- Maintenance & Rehabilitation - Understanding & Evaluating Options
- Maintenance & Rehabilitation WORKSHOP - from Theory to Practice
- Pavement Design - Principles & Practices
- Mechanistic Pavement Design - Circly
- Pavement Design - Advanced
- Circly Pavement Design in Practice - a practical hands on WORKSHOP
- Insitu Stabilisation
- Pavement Management
- Road Sector Construction Contract Law
- Dispute Resolution & Construction Claims - in the roads sector

This course is supported by

Austrroads: Austrroads is the Association of Australian and New Zealand road transport and traffic authorities. Austrroads members are the six Australian state and two territory road transport and traffic authorities, the Department for Infrastructure, Transport, Regional Development and Local Government, the Australian Local Government Association (ALGA), and the New Zealand Transport Agency.



APESMA & Chifley Business School



CHIFLEY BUSINESS SCHOOL

The Association of Professional Engineers, Scientists and Managers, Australia is the largest national non-profit organisation representing professional employees, inclusive of engineers, scientists, managers, architects, and many other professionals.

Chifley Business School is one of the longest-standing independent higher education institutions and Registered Training Organisations (RTO) in Australia providing business management training across Australia and internationally - from short courses to nationally accredited certificate and diploma and postgraduate programs including specialist graduate certificates.

Pavement Recycling and Stabilisation Association (AustStab): The Australian Stabilisation Industry Association is a national organisation set up to educate and inform the civil engineering industry of the environmental and economic advantages of road recycling and all types of stabilisation. Its members are contractors, binder suppliers, government road authorities and plant manufacturers.



IPWEA: The Institute of Public Works Engineering Australia is a professional organisation providing member services and advocacy for those involved in and delivering public works and engineering services to the community. Previously known as the Institute of Municipal Engineering Australia (IMEA), the organisation has expanded its traditional local government engineering focus to public works and thereby covering all levels of government and private practice.

SRA: State Road Authorities are responsible for the management of the road network, which includes planning, designing, construction and maintaining road use through registering vehicles, licensing drivers and traffic management, and providing information and other road user services. The SRA also provides quality assured integrated investigation, testing and design services in the pavement technology and geotechnical engineering disciplines, and provides support to CPEE in developing expertise and undertaking education in all aspects of the flexible pavements industry.



For Management and Registration Enquiries, please contact the respective parties below!

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Registrations

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CHIFLEY BUSINESS SCHOOL





CPEE SHORT COURSE ENROLMENT FORM



Centre for Pavement Engineering Education

WWW.PAVEMENTEDUCATION.EDU.AU

1300 853 377

* Indicates mandatory fields. Please ensure these fields are completed. Incomplete applications will not be processed.

PERSONAL DETAILS

Title* Dr Mr Mrs Miss Ms Other

First Name* Surname*

Position/Title*

Organisation*

Day Telephone* () Mobile

E-mail*

Special Dietary Requirements Date of Birth

PREFERRED CORRESPONDENCE ADDRESS*

Is this address Home or Work / Business

Address

Suburb State Postcode

COURSE TITLE	CITY	DATE	FEE* AU\$
Road & Public Space Lighting Workshop—3 days			\$2290 per person \$2090 pp for 3 or more registrations

* Fees include G.S.T. Total \$

REFUND AND CANCELLATION POLICY

Payment	Payment of course fees must be made at least 10 working days prior to the commencement of the course. Payment can be made by credit card - either via phone or cheque (payable to Chifley Business School Pty Ltd) or authorised purchase orders. Late registrations (bookings received within 10 working days of the course commencement date) will only be accepted with payment (credit card, cheque or purchase order) or nominate a replacement.
Withdrawals	Written notification of withdrawal from a course is required 10 working days or more prior to the course date. Alternatively, a participant may choose to transfer to another course (see Transfers).
Transfers	A participant may not transfer out from a course within 10 working days prior to the course commencement date. If you wish to transfer your registration to another course more than 10 working days prior to the course commencement date, there is no charge provided the replacement course has the same fees as the original course. There is a limit of three (3) transfers per participant per year for a single registration.
Late Withdrawals	When a written notification of withdrawal from a course is received within 10 working days prior to the course date, no refund of the course fee will be made and the participant may not transfer to another course. As the participant has paid for a place in the course, an alternate participant may be nominated at no extra charge.
Course Cancellations	Chifley Business School/CPEE reserves the right to cancel any course. When a course has been cancelled by Chifley Business School/CPEE full refunds are offered to all registered participants.

PAYMENT*

Please choose a payment option that suits you. To ensure your place, payment **must** accompany this form. If payment is not enclosed, Purchase Order details should be completed. Payment must be received prior to the commencement of the course.

1. Cheque	Enclosed is my cheque for AU\$ (please make cheques payable to Chifley Business School Pty Ltd)
2. Credit card	Please debit my credit card AU\$ <input type="checkbox"/> AMEX <input type="checkbox"/> Diners <input type="checkbox"/> VISA <input type="checkbox"/> MasterCard Card Number <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Cardholder's name Expiry date <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> CCV/CID Number <input type="text"/> located at the back of the card (AMEX at the front of the card) Cardholder's signature
3. Telegraphic transfer	Please contact us for bank details should you wish to pay by this method.
4. Govt./Council order	A copy of your purchase order must accompany this form.

PRIVACY STATEMENT*

Chifley Business School/CPEE respects your privacy and strictly controls use of personal information. Personal information you provide on this form will be used solely for the provision of our services to you. You may obtain details of your personal information held by Chifley Business School or the privacy statement of our parent company, APESMA, by contacting the Privacy Officer on 03 9695 8800 or visiting www.apesma.asn.au.

Please complete this form and return to:

Post: Chifley Business School | GPO Box 1272, Melbourne VIC 3001 Facsimile: 03 9695 8901

Confirmation of your registration will be forwarded to you in writing within 5 working days. If you do not receive confirmation, please contact us.