



March 2023

QLD CHAPTER NEWSLETTER



IESANZ – QLD CHAPTER

March 2023





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The Illuminating Engineering Society of Australia and New Zealand is an organization with Chapters in the five mainland States of Australia and New Zealand. The Society operates under the name: IES: The Lighting Society.

The aim of the Society is the advancement of the art and science of illumination and the dissemination of knowledge to all interested parties. The Society's diversified membership includes engineers, architects, educators, students, contractors, manufacturers and designers.

Arcus

Arcus is the official newsletter of the QLD Chapter of the Illuminating Engineering Society of Australia and New Zealand.

Memberships

There are two types of membership available: individual and corporate (or company).

For further information on membership contact Queensland Chapter at the below address or visit the ies website.

QLD Chapter Management Committee

President / Secretary: Andrew Chase Vice President: Steve Hare Board Representatives: Scott Forbes Treasurer: Michael Davies Communications / Arcus: Richard Ralph Lighting Innovation Awards: Lee Wegner Membership ____ Technical Meetings: Martijn Warren Advocacy: Paul Doig Annual Dinner: Andrew Chase, Lee Wegner & Richard Ralph Lighting Design Awards: Ricky Combs & Jason McKander Education / Courses: Mark Devin

Advertising

To advertise into Arcus please contact the QLD Chapter Secretary at the email address provided on this page.

Pricing for advertising is \$20 for members and \$50 for non-members.

Member Page

IES Qld Chapter members are welcome to submit information on employment changes – including new positions, promotions, and 'available for hire', for inclusion in Arcus. Members wishing to be included are requested to send a photo and a short blurb (20 – 30 words) for inclusion in the newsletter, to the editor, **Richard Ralph**, at <u>richard.ralph@inlite.com.au</u>

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Visit the Lighting Society at (click on icon)



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PRESIDENT'S MESSAGE

Welcome all members to the March instalment of Arcus for 2023

I have some exciting developments to share with you. as mentioned in the last edition of ARCUS, our Technical Meeting CMC Member has been able to organize Brett Whiteford to speak about all things AS/ANZ1158. The Event is on at the Bulimba Golf Club starting around 6pm on Tuesday the 28^{th of} March. I urge all members and non-members to head down for a snack and great company. The event is sponsored by our friends at Sylvania Schreder, and we thank them for their assistance in putting on this event. look forward to seeing you all there.

Other news on the awards the entry portal is due to open in April. Anybody contemplating entering projects for judging please do not hesitate to register as this is an important part of our program for 2023.

For the awards night itself we are looking into a few venues after reviewing the costs associated with last year's venue. As a non-for-profit organization, we want to give you value at the award night but need to break even at the same time. We will announce the venue in the next ARCUS I am certain. Until then please enjoy this month's edition.

https://www.linkedin.com/company/iesanz---the-lighting-society Illuminating Engineering Society of Australia and New Zealand Ltd | Brisbane QLD | Facebook

Or feel free to message me at qldpresident@iesanz.org









WHO'S WHO

As we all celebrated "International Women's Day" this month, we would like to acknowledge some of the special women in our industry.



Anna Rosti Senior Lighting Designer - FPOV

Q. how did you first get started in the industry.

A. I've always been fascinated how the cities and the buildings look very different at nighttime, and how this difference was just because of what the lighting was revealing, specific details that were not accentuated during the day. I decided that I didn't want to be a simple architect, but an architect of lights. So, after the classic 5 years of architecture, I decided that I could have probably studied a little more to become a lighting designer. and now here I am practicing as a lighting designer.

Q. what do you enjoy about lighting and/or lighting design.

A. every project has its own challenges, and this is what keeps it interesting and fascinating. Coming up with new ideas on how revealing a space with light it's always very challenging and so satisfactory, when at completion, you see a big smile on the client face happy with the result.

Q. what do you hope for the future women in lighting.

A. I think there are already awesome women in the lighting industry and the number will keep growing. We just need to keep growing together and support each other, like we are doing now.







Adrianna Barr Senior Lighting Designer - WSP

Q. how did you first get started in the industry.

A. While I was studying Industrial Design at QUT my lecturer encouraged me to enter a luminaire I had designed into the Student IES awards.

Q. what do you enjoy about lighting and/or lighting design.

A. The endless opportunity that light as creative medium can provide.

Q. what do you hope for the future women in lighting.

A. That there will be just as many women as men in the industry one day.





A Humble Debate to Enlighten one's Understanding.

In recent years, the domain of public lighting has seen more changes than in the preceding 100 years. A lot of these changes have emanated from the "impact of climate change" debates and the call for more carbon neutral solutions. In 2007 the first publications were made in Australia regarding the phasing out of inefficient light sources.

The days of the humble incandescent light bulb where numbered 127 years after Thomas Alva Edison patented the first economically viable model for this light source. I remember being present at the QPAC lyric theatre in 2007, where a delegation from the national government explained the need to phase out this little light bulb for the more modern compact fluorescent light sources. However, the age of the CFL lamp was quickly overshadowed by the emergence of the high efficiency Light Emitting Diode. This emergence was not instantaneous but the result of years of work in laboratories experimenting with different doping materials.

The first blue LED using magnesium doped gallium nitride was created at Stanford university in the early 70's which resulted in the creation ultimately of the green LED (US patent US3819974). However, it was not until the late 1980's and early 1990's that saw the development of the first high brightness blue LED's. this was made possible by the innovations made in doping materials (p-type doping) (Boston university, Nichia corporation et al) Soon after the first white LED's were created using the high efficiency Blue LED with a Y₃ Al₅ O₁₂ (known as YAG) or CE-YAG (cerium) doped phosphor coating, which produces a yellow light via fluorescence (YAG glass-ceramic phosphor for white LED (II): Luminescence characteristics- Kyoto University et al). This revolutionised the lighting industry and made it possible for LED's to be used as efficient light sources.

In today's world of LED luminaires replacing the older style versions of light sources we see the emergence of new challenges. One of these challenges is the perceived brightness and the effect that this light source has on the environment. Examples of these are the increase in glare complaints from LED sources but also the perceived environmental effects related to colour temperature. For interior lighting applications, there are more freedoms to choose which colour temperature works best in a particular environment. Although more research has produced better understanding these days of colour temperature and intensity and its effect on circadian rhythms (Optimising Daylight Glare and Circadian Entrainment in a Daylight-Artificial Light Integrated Scheme – Veena Matthew, Ciji Pearl Kurian, Nevin Augustine et al)

In the realm of the public lighting there is come contention regarding the emissions of spectral frequencies in the 300 to 450nM range (Blue Light) of LED sources. On the one hand, it is believed that blue light emissions have a negative impact on the environment. Ergo, the notion that lower colour temperatures are more beneficial are more beneficial to the environment due to minimisation of the above-mentioned range of spectral frequencies. On the other hand, blue light stimulates serotonin which helps improve concentration, which in turn is beneficial for motorists.

This has resulted in a discourse of ideas that would make for a great debate.

I would like to propose the following motion and organise a debate in the style of the Intelligence squared initiative in the UK or the Canadian series of Munk debates for one of this year's technical meetings. The motion will be as follows: *"is 4000K better than 3000K in the public lighting domain"*.

If you would like to participate in this debate either on a team to support one side of the motion or as voting audience, please write to me at qldevents@iesanz.org Martijn Warren





TECHNICAL MEETINGS......KEEP THE DATE FREE





Dear Members and Non Members with an interest in Lighting.

Welcome to 2023.

To Kickstart the New year with a fresh footing i would like to invite all interested members and Non Members who are intersted in lighting to our first Technical Meeting of 2023.

We have found a new location for our Technical meetings and other events at the Beautiful Bulimba Golf Club. The Club is situated in a beautiful historical area of Bulimba and will hopefully provide us with many nights of technical talks on lighting and friendly banter under the enjoyment of a drink and some fingerfood.

The First meeting shall be held on the 28th of March from 18:00 till approximately 21:00.

The Speaker for this night will be Brett Whiteford.

Brett is an Electrical RPEQ Engineer who has build over the years, an extensive knowledge base of the AS/NZS1158 Series of standards and together with his role with Brisbane City Council can provide a in depth perspective in relation to the recent changes to this series of standards and also how these affect new designs as well as other parameters beyond these standards that designers in todays world need to take into account when performing road lighting designs.

If you are new to the dicipline of Road lighting then this will certainly be a night not to mis.

DATE: Tuesday the 28th of March 2023 PLACE: Bulimba Golf Club, 105 Quay Street, Bulimba







MEMBERSHIP

LES: THE LIGHTING SOCIETY NEWSLETTER / DUFENSIAND CHAPTER



Become a member of IESANZ. Join a community of professionals advancing the art and science of lighting.

To become a member of IES: The Lighting Society a person must first join the Society as an Associate member.

Currently, enrolled students in a lighting or lighting related course can also join as an Associate member with a Student Discount.

If you are an existing member, you can upgrade your membership to higher levels of membership including Technician - Tech IES and Member - MIES.

To upgrade your membership, you will need to log in to the Member Dashboard.



CORPORATE MEMBERS

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<u>The Illuminating Engineering Society</u> <u>Queensland Chapter</u> Phone:02 9431 8663 Email: <u>gldsecretary@iesanz.org</u> Website: <u>www.iesanz.org</u>