CIE Activities January 2019 – December 2019

2019 saw many activities for the CIE, including the 29th Session of the CIE (see Figure 1), and 22 publications issued - many of these publications being a result of the completion of the work of CIE Technical Committees (TCs), which is of course due to the voluntary contribution of technical experts from around the world. The financial contributions provided by the CIE members play a crucial element in providing the administrative resource that supports the work of the CIE TCs and the CIE in general.

Figure 1 – CIE Presidency hand-over from Yoshi Ohno (right) to Peter Blattner (left) at the 29th Session of the CIE, Washington, June 2019

In the sections below the much of the outcomes of CIE work for 2019 are listed, but you might ask what actually happens in CIE Central Bureau (CB), the operation of which is funded by the CIE member contributions. The figure below (Figure 2) gives a high-level breakdown of the effort spent in the various CIE CB cost centres.

Figure 2 – Distribution of work hours of CIE CB staff

As can be seen in the figure the highest proportion of time is spent on administrative matters. The administrative work of CIE CB covers a wide variety of tasks, such as: advice to NCs (when requested), support for the various statutory meetings of the CIE, preparation of quarterly and
annual financial accounts, preparation of the annual budget, support and training of TC Chairs, support for WebEx meetings by TCs and other groups, management of the CIE databases (including Collaboration Tools – “CollTools”), preparation and circulation of CIE Newsletters and other social media, to name a few.

Considerable CB effort is also spent on external liaison. External liaison has been given more resource in the past few years in order to improve our liaison presence with partners such as ISO, especially ISO/TC 274.

CIE has liaison with over 30 ISO bodies (TCs, WG, SCs), this reflects the importance of “light and lighting” in many aspects of daily life and new technologies. CIE CB works with ISO both at a high (liaison) level and at an administrative level.

High level matters have included working along with the CIE Vice-President Standards on the new ISO/CIE Partner Standards Development Organization (PSDO) cooperation agreement, which replaces the previous Memorandum of Understanding (MoU) – see Figure 3. As part of this PSDO CIE (including CIE CB) actively participates in ISO/TC 274 “Light and Lighting”, and its Chair Advisory Group (CAG) and Joint Advisory Group (JAG). Other work includes discussion and negotiation with ISO Central Secretariat (CS) on matters such as ISO bodies with overlapping scope with the CIE. On the administrative side CIE CB has worked with CIE Divisions in submitting comments on ISO documents, as well as managing the systematic review of the ISO/CIE dual logo standards and their subsequent revision.

Figure 3 – CIE Vice-President Standards, John O'Hagan, CIE General Secretary, Kathryn Nield, ISO Secretary General, Sergio Mujica, at the PSDO signing event held at the Austrian Standards Institute (ASI) in Vienna, Austria

Regarding liaison with external organizations CIE has Liaison Officers (LO) who volunteer their time to provide an interface with ISO/TCs or subcommittees. CIE CB has in the past year initiated a procedure to support LOs in their roles – this procedure will be further developed in the coming year.

Looking ahead to 2020 CIE CB will be able to provide the same level of service to the CIE community. One focus for this year will be the migration of the CIE data from Collaboration Tools to the new IEC-provided Collaboration Platform. CIE CB and Board of Administration (BA) members are currently trialling the new system and we expect to migrate our “CollTools” users to Collaboration Platform towards the end of the first half of this year.

During 2020 there is an initiative to trial brief webinars based upon newly issued CIE publications. In addition to these webinars CIE will continue to have available WebEx for the meetings of CIE bodies, including the BA, General Assembly (GA), Divisions, TCs and Research Fora (RF). WebEx is also available for our NCs to run their own internal meetings upon request to CIE CB.
Staying on the topic of WebEx meetings, there is an intention to hold WebEx meetings to improve participation in the various ballots that the CIE runs. CIE ballots include those for the enquiry and approval of CIE publications. Informative WebEx meetings, supported by the TC Chair and CIE CB, will be trialled to provide information on the contents of documents under ballot, and how to participate in the ballot to Division Delegates and NCs (in the case of International Standards).

There are of course many other activities happening at CIE CB, and we hope the information above gives you a glimpse into the work of CIE CB and how it supports the operation of CIE.

Lastly, CIE will be represented at the Frankfurt Light + Building event in March this year, at a stand hosted by the German lighting society (LiTG). CIE CB staff will be there to promote the work of the CIE, perhaps we might see you there!

**Documents published**

*Technical Reports:*
- CIE 236:2019 Lighting for Pedestrians: A Summary of Empirical Data
- CIE 235:2019 Optical Measurement of LED Modules and Light Engines
- CIE 233:2019 Calibration, Characterization and Use of Array Spectroradiometers
- CIE 232:2019 Discomfort Caused by Glare from Luminaires with a Non-Uniform Source Luminance
- CIE 231:2019 CIE Classification System of Illuminance and Luminance Meters
- CIE 230:2019 Validity of Formulae for Predicting Small Colour Differences
- CIE 140:2019 Road Lighting Calculations, 2nd Edition
- CIE 018:2019 The Basis of Physical Photometry, 3rd Edition

*International Standards:*
- CIE S 025-SP1:2019 Test Method for OLED Luminaires and OLED Light Sources
- ISO/CIE 17166:2019 Erythema reference action spectrum and standard erythema dose

*Technical Notes:*
- CIE TN 009:2019 The Use of “Accuracy” and Related Terms in the Specifications of Testing and Measurement Equipment
- CIE TN 010:2019 Determination of the Optical Beam Axis, Centre Beam Intensity, and Beam Angle of Directional Light Sources
Proceedings:
• CIE x046:2019 Proceedings of the 29th Quadrennial Session of the CIE, June 16–19, 2019, Washington DC, USA

Position Statements:
• CIE Position Statement on the Blue Light Hazard (April 2019) Translated into several languages by CIE NCs
• CIE Position Statement on Non-Visual Effects of Light - Recommending Proper Light at the Proper Time, 2nd edition (October 3, 2019)

LeD Professional Review Articles:
• LpR 71 (February 2019) “Glare” is to Light as “Noise” is to Sound – CIE Research Roadmap on Glare
• LpR 73 (June 2019) Horticultural Lighting - The Root to International Standards

Documents currently in CIE approval process (status of 2019-12-13)
• TC 2-29 Measurement of Detector Linearity
• TC 2-82 Revision of CIE S 014-2
• TC 2-76 Characterization of AC-driven LED products for SSL applications
• TC 2-74 Goniospectroradiometry of optical radiation sources

Systematic Reviews of CIE/ISO International Standards
• ISO/CIE 23603:2005 Standard method of assessing the spectral quality of daylight simulators for visual appraisal and measurement of colour
• ISO/CIE 23539:2005 The system of physical photometry
• ISO/CIE 19476:2014 Characterization of the performance of illuminance meters and luminance meters

New Technical Committees, since January 2019
(List of all active TCs - http://www.cie.co.at/technical-work/jtcs)
• TC 2-89 Measurement of Temporal Light Modulation of Light Sources and Lighting Systems
• TC 2-90 LED Reference Spectrum for Photometer Calibration
• TC 2-91 Optical Measurement Methods of LED Packages and LED Arrays
• TC 2-92 International Standard Format for the Electronic Transfer of Luminare Optical Data
• TC 2-93 Revision of ISO 23539:2005(E)/CIE S 010/E:2004 Photometry - The CIE system of physical photometry
• TC 2-95: Measurement of total transmittance, diffuse transmittance, and transmittance haze
• TC 4-58 Obtrusive Light from Colourful and Dynamic Lighting and its Limitation
• TC 4-59 Guide for Lighting Urban Elements
• TC 4-60 Road Traffic Lights – Photometric Properties of Roundel Signals
• TC 4-61: Artificial Lighting and its Impact on the Natural Environment
• JTC 12 (D1/D2/D8) The measurement of sparkle and graininess
• JTC 14 (CIE-ISO) Integrative Lighting
• JTC 15 (CIE-ISO) Lighting of Indoor Workplaces – Revision of ISO/CIE 8995-1
• JTC 16 (D1/D8) Validity of Chromatic Adaptation
• JTC 17 (D1/D2/D8) Gloss measurement and gloss perception: A framework for the definition and standardization of visual cues to gloss
• JTC 18 (D3/D4) Lighting Education

New Research Fora

• RF-03 Matters related to colour rendition

Terminology work

CIE JTC 8 Terminology in Light and Lighting
• Revision of current version of the ILV (CIE S 017:2011), considering
  • coordination with IEC regarding harmonization with IEC 60050-845 (Subject Area 845 of the IEV) (IEC/TC 34/MT 2)
  • coordination with ISO regarding harmonization with ISO 80000-7 (ISO/TC 12/WG 19)

Status of 2019-12:
  FDIS 017 ILV: International Lighting Vocabulary, 2nd Edition circulated for voting to CIE NCs, BA, Divisions (Deadline 2020-02-20)
  Note: Terms and definitions of FDIS 60050-845 and CIE FDIS 017 have been harmonized.
• ISO 80000-7:2019 *Quantities and units — Part 7: Light and radiation, 2nd Edition* published in 2019-08
  Note: Terms and definitions of ISO 80000-7:2019 have been harmonized with those in FDIS 60050-845 and CIE FDIS 017.

Past CIE Events

• CIE 2019 CIE 29th Quadrennial Session
  June 14–22, 2019, Washington, United States of America, 353 abstracts submitted

Future CIE Events

• 5th CIE Symposium on Colour and Visual Appearance, Hong Kong, April 20–25, 2020
• CIE Workshop on Obtrusive Light, Ostrava, Czech Republic, May 20, 2020.
• CIE 2021, Midterm Meeting, April 17–25, 2021 (conference from April 20–22), Georgetown, Malaysia – in preparation
• CIE 2023, 30th Quadrennial Session of the CIE, September 2023, Slovenia.
External Representation

- IEC/SMB Meeting, Montreux, Switzerland, February 19, 2019, General Secretary
- IEC/TC 34/MT 2 Meeting, Arlington, US, February 20, 2019, Technical Manager (by Zoom)
- GLASE, DLC, ASABE, virtual meetings to connect with experts in the field of horticultural lighting, March 2019, DD6 and GS.
- IPWEA 4th International Street Lighting+Smart Controls Conference – Sydney, Australia, April 2–4, 2019, DD4
- IEC/TC 34/AG 15, Horticultural Lighting, Beijing, April 25, 2019, Technical Manager
- ISO/TC 274 Plenary Meeting, Stockholm, Sweden, May 22–23, 2019, General Secretary, Technical Manager
- International Scientific and Technical Greenhouse Lighting Conference, VNISII, Moscow, Russia, September 9, 2019, "Metrics and quantities for horticultural lighting", President.
- IEC/TC 34 AG 15, Horticultural Lighting, Moscow, Russia, September 10, 2019, Technical Manager
- CCPR Meeting, BIPM, Paris, France, September 19–20, 2019, D2 Secretary.
- Signing of the ISO/CIE PSDO Agreement, Standards Austria, Vienna, October, VPS, GS.
- Svetlo Conference, Pilsen, Czech Republic, October 22–24, 2019, "Current activities in the CIE", GS and DD2.
- SLG Seminaire, Lausanne, 27.11.2019, "Danger de la lumière bleue des LEDs – prise de position de la Commission Internationale de l'Éclairage (CIE)", President
- Liaison with President of the International Commission of Optics, on future ways of working together, Milan, Italy, November 12, 2019, President, GS.
- Liaison with AIDI on re-formation of NC Italy, Milan, Italy, November 13, 2019, President, GS.
- OSA Webinar on the Blue Light Hazard, presented by VPS, December 17, 2019.
- ISO/TC 274 Chair Advisory Group and Joint Advisory Group Meetings, by WebEx. 4 meetings each during the year, General Secretary, Technical Manager, Division 3, 4 experts
- Commenting on documents and work item proposals of external organizations, GS, TM, DMTs.
- LED Professional Review articles –DDs, BA, and other technical experts, co-ordinated by GS.