

Minutes of teleconference meeting of the IEEE P1789

Date: 5/28/09

Start time: 12:00 PM

End time: 1:00 PM

Attendees:

Clint Chaplin, John Halliwell, Brad Lehman(chair), Steve Paolini, Conor Quinn, Anatoly Shteynberg, Regan Zane

1. The agenda and the last meeting minutes were presented. The meeting minutes were entered without any objection.
2. Brad Lehman discussed that there were no new LinkedIn discussions. This led to the PAR1789 officers to propose the strategy of dividing into subcommittees that would discuss and draft important portions of our PAR1789 recommended practice report.
 - i. Epileptic/Photosensitive Seizures *Leader: Arnold Wilkins*
 - ii. Glossary of Terms *Leader: OPEN, temporarily Faisal Khan*
 - iii. Methods of Frequency Modulation in LEDs *Leader: Brandon Oakes*Members are asked to contact the leaders and Brad Lehman directly to join the subcommittee groups as soon as possible. Brad Lehman will help coordinate any administrative details as requested by the leaders (membership lists, posting of materials, LinkedIn Support, etc.) The groups will create their draft reports and then present them to the group at a later telecon. The goal is to have the small draft report completed sometime this summer.
3. A discussion followed on LED lighting with phase modulated dimmers. It was mentioned that there could be a very low frequency component that is less than 1 Hz present. This had not appeared in the literature before and was new to most people. It was decided that the draft report of frequency modulation should include this topic.
4. A technical discussion occurred on the difference between current modulation through LEDs and brightness modulation. There is research ongoing to build optical filters/diffusers that may be able to filter out the visual effects of LED flicker. Presently used phosphors do not have slow enough time constants to do this, but any report should clarify that brightness flicker is of primary concern and that modulation of the current through the LED is a cause to create the flicker.
5. Data-communication by transmitting optical signals through LEDs was discussed. This seems to be an emerging application in traffic lights, signage, etc., and the application should be addressed in our reports.
6. Meeting was adjourned.

IEEE Approved Scope of PAR1789 (any modifications must be approved by the IEEE Standards Board of Governors)

The scope of this standard is to: 1) Define the concept of modulation frequencies for LEDs and give discussion on their applications to LED lighting, 2) Describe LED lighting applications in which modulation frequencies pose possible health risks to users, 3) Discuss the concept of dimming of LEDs by modulating the frequency of driving currents/voltage 4) Present recommendations for modulation frequencies for LED lighting and dimming applications to protect against known adverse health effects.

