

IEEE-CPMT Society TC-1 Committee on Electrical Contacts
Meeting Minutes
Tuesday October 14, 2014
5:20 PM
Hilton New Orleans Riverside, New Orleans, USA

Chair: G. Witter
Vice-Chair: Bob Malucci
Secretary: C. Leung (sub. For John Shea)

Attendees:
Holm Conference Attendees

Opening: G. Witter

· TC-1 of IEEE-CPMT meeting was called to order by Chairman G. Witter.

1. Approval of minutes of previous meeting - G. Witter

· 2013 meeting minute has been posted at www.ewh.ieee.org/soc/cpmt/tc1/ web page. It was approved..

2. Preliminary Report on 60th IEEE-Holm Conference – Brett Rickett

· Total registration is >140 registered attendee with 23 from the Intensive Course. 60 technical papers, Mort Antler Lecture and 10 posters filled 3 full days of technical sessions.

· Conference sponsor program is excellent with sufficient income to give every attendee the newly published 2nd edition of the Electrical Contact book..

· The Dr. Morton Antler Invited Lecture was given by John Yurtin, Delphi, “So ...What’s all this wireless power transfer stuff about anyway??”

· Electronic means for Abstract submission in 2014 using Exorder is not working so good. G. Witter is working on alternative system, such as START to manage the technical program. IEEE will not manage the technical program in the future.

· 2015 Holm will be in San Diego

3. Report on 2014 Intensive Course on Electrical Contact - Paul Slade

· 31 registered for the course with mostly good reviews. Several future lecturers also sat in as part of succession planning for the course instructors.

·The course is really necessary for the industry with a mix of mostly mechanical engineering backgrounds. 5 students from overseas and 1 from India. New technology such as windmills on power generation are examples of the value of the course.

- The 2014 course agenda is included.
4. Report on CPMT Transaction –John McBride
- CPMT journal and the Holm Conference Proceedings are disjoint since the proceedings are considered by IEEE to be archived work. Many papers now are submitted directly to CPMT and the quality is not as good as in the past when reviewed by holm technical committee.
 - For 2015, CPMT will try to have a special edition with selected papers from the Holm conference to be added to the transaction, with some changes. Ron Coutu will help in the selection process with 7-8 papers to be selected and resubmitted to transaction.
5. Publicity – G. Witter
- Website by John Shea is working good.
6. International Conference on Electrical Contact ICEC2014, June at Dresden, Germany – Volker Behrens
- 280 attendee with 4 days of technical presentations and 48 posters.
 - The conference proceeding is also included in the 2014 Holm DVD
 - Committee is satisfied with the results
 - Special Albert Kiel Awards were bestowed to Paul Slade and Manfred Lindmeyer for their lifetime contribution to the science of electrical contacts.
7. 5th International Conference on Reliability of Electrical Products and Electrical Contact ICREPEC - Z.K. Chen
- Conference will be Nov 16-18, 2014 at Wenzhou, China. This is a big conference on reliability of electrical products. 86 papers are on the agenda and >200 professionals to attend. Papers from US, Japan, Germany are included besides many Chinese university and industry papers.
 - See TC1 weblink to the conference
8. TC1 sub-committee Reports:
- Material restrictions and substitution – Dr. Volker Behrens ROHS July 2014 has 3 decrees in regard to end of life of automotive, electrical equipment, and medical electrical equipment. The exemption of Cd use will run out in 2017 if no addition exemption is granted. The expectation is Cd exemption will be allowed to expire. Technical issues with Pb use in special press-fit interconnections are still not resolved and will be extended. REACH will include Cd and Cd compounds, Be is now on the list NEMA is in talks about the Cd in contacts Ban of Gold Cyanide plating in China Boric acid use in Nickel plating is now ok in Europe
 - High Frequency Connectors – Roland Timsit

25Gbit/s, thru connectors, shielding, 40 pin connectors, design , good quality dielectrics are all challenges Flat connectors, minimized crosstalks, increased density of pins, minimum cost are required..

- MEMs and micro-contact technology – Ron Coutu
Good year for MEMs with some research funding GE developed FR MEM as a huge breakthrough.
Hilton Head Workshop show some interests in funding MEMS Holm papers are appropriate with MEM contents and will try to reach out to the MEM consortium
- NEMA contactors –Henry Czajkowski
Inertia to change is not there but many will have IEC line in the planning Standards harmonization on contacts are far away while MV standards are coming along good The practice of global companies are likely to specify IEC products for installations while smaller contractors would prefer NEMA products NEMA products are generally viewed as overbuilt and overpriced vs IEC products Energy efficient motors may see inrush of 10x to 20x rated currents. How to specify the test standard will be an issue. Another IEC utilization class will likely emerge for 8x and 10x rated inrush
- Circuit Breakers – Xin Zhou
Higher voltages for LV circuit breakers IEC standards for photovoltaic DC600V and 1-2A currents. PV do not have high short circuit currents, new inverters for 1000-1600V are required. Arc fault current detection and protection for 600VDC connection is required. AFCI-GFCI are now required by NEC code
Market pushing for AFCI at the receptacles
- Connectors – Rod Martin
Glad to see plating people attending this conference again Cost is still the big driver for technology with improved under plate. Different environmental corrosion issues in Asia. New mixed flowing gas standards? Contact with AI Socket testing with probe contacts
- DC high voltage switching - Sawa
DC high voltage and high current relays in the works in Japan by Panasonic and Omron
TC94 is planning new standards for DC high capacity relays <1000VDC to 100A .

Respectfully submitted, Chi Leung, 10/2014

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