**Intensive Course on Electrical Contacts, 2023**

**The 2023 course will be held at the Hyatt Olive 8 in Seattle, WA, USA, U.S.A. from October 4th to October 7th prior to the 68th IEEE Holm Conference on Electrical Contacts (October 8th to 11th). Below is the course background.**

Dear Colleague,

I am writing to tell you that the IEEE Holm Conference will again be hosting the Intensive Course Electrical Contacts. Drs. Jackson (Contact fundamentals & fretting), Martens (Surface Finishes, Corrosion & Contact Degradation, Lubricants), Slade (The electric arc, circuit interruption & the effect of arcing on switch performance), McBride (Switch design & switch contact materials, MEMS Switches), and Timsit (design & failure of electrical connections), each of whom are considered world-class experts in their field, will be the Course lecturers; each has made major advances in the understanding of electrical contact phenomena. Three have received the Ragnar Holm Scientific Achievement Award in recognition of their scientific contributions to the subject.

The 2023 Intensive Course reflects recent needs in understanding very low contact force phenomena and the effects of high frequency currents. The course covers the broad range of electrical contact situations, from very low currents that are seen in electronic circuits, to medium currents (e.g., automobile and household level values) to high currents expected in distribution circuits. Listed below are examples of typical topics:

* Making contact and surface finish effects
* Making connections and connector design [low and high current]
* Switching contacts ac and dc design considerations [low and high current]
* The effects of arcing on contacts, erosion, welding, and contamination
* Contact materials for connectors and for switching contacts
* Contact finishes
* Contact lubrication
* Contact failure mechanisms and how to analyses them
* Corrosion and the effects of ambient environments
* Elements of switch design
* Elements of connector design

The Course includes problem-solving exercises where participants will learn how the Course material can be applied. A participant in this Course will thus leave the sessions with a thorough and broad knowledge of the subject. The four days allows our teaching approach to include practical examples of a wide variety of contact use. It also gives practicing engineers detailed knowledge of contact technology to resolve their own practical design problems. In 2023 we will again link the Course closely to the IEEE Holm Conference on Electrical Contacts by holding the Course the 4 days before the Conference. Thus, the Course will run from Wednesday, October 4 to Saturday, October 7. The Conference begins on Monday, October 9.

We are doing this for several reasons:

1. There has been a persistent request by the Conference participants for an in-depth review of the complete subject of Electrical contacts. This is not possible in a 3-day Conference where the latest scientific studies are being presented. Thus, we present the Course just ahead of the Conference to satisfy this need. It also gives those who are new to the subject an excellent grounding in the subject that will enable them to participate more fully in the Conference.
2. The Intensive Course has been extended from 3-days to 4-days to expand the course’s content, to give the participants more time to interact with the lecturers, and to allow time for a more in-depth discussion of specific topics
3. Although this means working over the weekend, it does give participants some leverage when requesting time to attend the Course in these times of strict budget guidelines and budget restrictions in Engineering Departments.

Each participant will receive the full lecture notes plus the 1200-page book Electrical Contacts: Principles and Applications (2nd Edition) that was published in 2013. One important aspect of the course will be the 3 sessions where the participants can ask about their own real-world problems or unique questions. The Lecturers will address them and lead any discussion that may arise from other participants. Over the past 40 years the course has continually evolved to ensure that it remains relevant to the contact problems of the day.

I believe that if you send your new engineers and your engineers who are new to the subject of electrical contacts, they will benefit enormously. Please click on the Holm Conference Web Site to see details of how to enroll:

<https://ieee-holm.org/>

Of course, I am always available to answer any questions you may have about this course.

My very best wishes,



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Director of the Intensive Course on Electrical Contacts