

PSMA Capacitor Committee Minutes/Agenda APEC 2020

Attendees June 3, 2020

Fred Weber – Future Technology Worldwide

Pierre Lohrber – Würth

Wilmer Companioni – KEMET

William Mak - KEMET

Eduardo Drehmer – TDK

Rob Haywood – Gore

Scott Franco – CDE

Ed Lobo - CDE

Mark Scott – Miami U / IEEE

Hengzhao Yang – New Mexico Institute of Mining and Technology / IEEE

John Horzepa - PSMA

Frank Puhane – Würth

Nick Visic – AISHI Capacitors

Thomas Gietzol – Collins

Mike Dombrow – Faratronic

Mike Dombrow Jr – Faratronic

Ed Herbert – PSMA – Magnetics Workshop

Joe Horzepa – PSMA

Matt Wilkowski – Magnetics Committee – Workshop

Phil Whitmire – CDE

Victor Boyadzhyan – AITech Systems

Raj Pulugurtha – Florida International University

Kevin O’Conner – Caporus Technology

Committee Webpage

The PSMA Webpage have been completely updated, please take a moment and check them out!!!

We can always use more!!! If you have a training presentation or file please upload it to the following DropBox and let me know:

<https://www.dropbox.com/request/Nq4EYFznmfUKY7Qdiicu>

Webinar

Capacitor Fundamentals 401 – How to Define and Choose Your Capacitor

- Need to define Title
- **Need Volunteer(s) to present – non-Capacitor FAE. Need product designer – Wilmer checking. Ralph Taylor considering candidates.**
- Define Agenda
- Choose a date

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What about an Automotive focused Capacitor choosing Webinar – John Rice of Maxim has volunteered.

Roadmap Webinar 2021 Ideas – Reviewing Options

Mark Scott – Conditional Monitoring for Capacitors- Good for ½ of the Webinar

Need to pair this research with a manufacturing partner to discuss technologies or processes that will help with reliability

Mark Scott will submit a bullet list of Film Cap points to give prospective film cap suppliers a picture of what the first half of the Webinar will reflect. – May 15

FUTURE ROADMAP Webinar Ideas

NEED IDEAS!!!

New technologies for Broadband application Capacitor support
Tantalums

New in Ultra Caps – Takata, more than ELC – Hybrid package?

Application Driven – how different technologies behave – Filtering, Inverters (DC Link), Power Supplies, compare and contrast technologies and certain parameters for each technology.

Also include Environmental technology discussion (i.e. Heat, Vibe, EMI).

Würth – Power Supply - DC Link / MLCC DC bias

EPCOS – Filtering X/Y Caps, Rob Haywood – Gore's new dielectrics, Würth - Polymers with higher capabilities

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Workshop Mission Statement –

The PSMA Capacitor Committee Annual Workshop aligned with APEC has a mission to educate the attendees on capacitor trends, technologies, and innovations. Wherever and whenever applications need energy, Capacitors are at the spotlight, and as energy moves the world it is incumbent for everyone to keep their finger on the pulse of capacitor issues. PSMA's Capacitor Committee is committed to present the best material available to meet the industry's needs.

Workshop 2021 – Overview –

2021 Theme Ideas

Design Techniques for the 21st Century – Make sure you use the correct Capacitor.

Compare simulations to reality

Datasheets – what's important and what is marketing

Using manufacturer's design software.

Include some of the suggestions

Keep the Academic & Manufacturing balance

Capacitor Characterization – Cap impedance – parallel usage – FPGA Application

Thermal modelling – Magnetic Modelling

Connecting cap to PCB – methods, layouts, etc.

Output capacitor – ripple voltage signature (Tantalum vs Ceramic)

Possible subject or 2 on Energy Storage & Their Applications

Workshop – Continuing Education

Mark Scott has registered both the Capacitor Workshop and the Magnetics Workshop for Continuing Education Certificates. Attendees wanting credit will be charged \$5.00 to receive their certificate.

Here is the link to the information:

<https://www.ieee.org/education/continuing-education.html>

Here is the link for the application:

http://fm34.triple8.net/fmi/iwp/cgi?-db=IEEEapps_v117&-loadframes

Add Poster Session for more Academic Input.

To be added to demo area 2021!

There will be no posters this year. We will try again next year. We had 2 posters scheduled before everything changed.

NEED TO PLAN 2021 WITH IN-PERSON & VIRTUAL FORMATS IN PARALLEL!

Industry Session 2020 –

Shooting for 3 subjects per session (30 minutes long with 10 minutes of Q&A each / 2 hours) at 9:00 CDT on July 14 and July 21. Wilmer will sort the subjects to allow for a theme for each day.

Capacitors That Stand Up to the Mission Profiles of the Future
– eMobility, Broadband

THEMES FOR 2021

Energy Storage & Their Applications (for ½ of IS)

**Subset of Capacitor Committee
Start having the Energy Storage & Their Applications as a subset of the Capacitor Committee with the eye on getting them large enough to stand alone. Would need to work out defining overlap responsibilities.**

Add the PSMA logo to all slides, on bottom left of their slides. The presenter can also add their corporate logo to the upper right. (Discreet Branding)

2nd slide should be bio of the presenter.

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- I. Raj looking for possible presenters for PowerSoc Conference in Philadelphia

GET MORE COMMITTEE PARTICIPANTS

Next Meeting Wednesday, June 24, 2020
at 10:00 CDT