

ECCE 2018 Special Session on

Sustainable Energy Systems and Energy Sustainability



CHAIR:

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Chair, IEEE PELS Technical Committee on Sustainable Energy
Systems (TC5)

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Outline of the Special Session:

Energy sustainability and sustainable energy systems are the basis of long-term sustenance of human existence, advancement, and prosperity, social equity and mobility, energy security and surety, and environmental sustenance. It is, therefore, incumbent on us – the IEEE Power Electronics Society (PELS) – to play its part in making an attempt to explore, propose, pursue, and validate ideas that attempt to at least partly address and resolve these grand challenges using plurality of pathways ranging from component-level innovations to system-of-systems solutions that address plurality of issues ranging from economy of scale, universality, environmental compatibility, compactness and portability, energy surety and security to enhanced energy-conversion efficiency and efficacy. Overall, the main objectives of this Special Session, championed by IEEE PELS Technical Committee on Sustainable Energy Systems (TC5), is to bring together leaders and experts in related areas to share their vision and expertise with the broad ECCE'18 audience. The goal is to have a series of invited presentations throughout a full-day event and intersperse them at regular intervals with questions from the target audience to create an engaging and exciting session.

Date and Location of the Special Session: Wednesday, September 26, Room: B114

Intended Audience:

This special session is intended for a wide spectrum of researchers, industry professionals, and students reflecting the typical distribution of ECCE'18 audience.

Special-Session Chair:

- Sudip K. Mazumder, FIEEE, University of Illinois at Chicago; Chair, PELS TC on Sustainable Energy Systems

Special-Session Invited Speakers:

- Isik Kizilyalli, Program Director, Advanced Research Projects Agency – Energy
- Alan Mantooth, FIEEE, PELS President, Professor at University of Arkansas
- Hendrik F. Hamann, Distinguished Researcher and Senior Manager, IBM
- Frede Blaabjerg, FIEEE, Danish NAE, PELS President-Elect; Professor, Aalborg University
- Vladimir Blasko, FIEEE, Senior Research Fellow, United Technologies
- Deepak Divan, FIEEE, US NAE, Past PELS President, Professor, Georgia Tech
- Ty McNutt, Director, Business Development, Cree/Wolfspeed
- Liuchen Chang, Canadian NAE, PELS VP Conference, Professor, University of New Brunswick

Presentation Schedule:

8:30 am – 8:40 am: Sudip K. Mazumder, University of Illinois at Chicago

- Special session outline and format and introduction of first four speakers

Invited Presentations:

8:40 am – 9:15 am: Isik Kizilyalli, ARPA-E

9:15 am – 9:25 am: Q&A

9:25 am – 10:00 am: Alan Mantooth, University of Arkansas

10:00 am – 10:10 am: Q&A

10:10 am – 10:30 am: Break and networking

10:35 am – 11:10 am: Hendrik F. Hamann, IBM

11:10 am – 11:20 am: Q&A

11:20 am – 11:55 am: Frede Blaabjerg, Aalborg University

11:55 am – 12:05 pm: Q&A

12:10 pm – 2:00 pm: Lunch and interactions

2:00 pm – 2:10 pm: Sudip K. Mazumder, University of Illinois at Chicago

- Special session outline and format and introduction of last four speakers

2:10 pm – 2:45 pm: Vladimir Blasko, United Technologies Research Center

2:45 pm – 2:55 pm: Q&A

2:55 pm – 3:30 pm: Deepak Divan, Georgia Tech

3:30 pm – 3:40 pm: Q&A

3:40 pm – 4:00 pm: Break and networking

4:05 pm – 4:40 pm: Ty McNutt, Cree/Wolfspeed

4:40 pm – 4:50 pm: Q&A

4:50 pm – 5:25 pm: Liuchen Chang, University of New Brunswick

5:25 pm – 5:35 pm: Q&A

5:35 pm – 5:40 am: Sudip K. Mazumder, University of Illinois at Chicago

- Special session conclusion and acknowledgement of invited speakers