

Transforming Cyber-Physical Systems Education with Emphasis on the Power Grid

Dates and Location

The workshop will be conducted on Saturday, July 26, 2014 (8:30 am to 6:00 pm) and Sunday, July 27, 2014 (8:00 am 12:00 pm) in Westin Arlington Gateway Hotel - **F. Scott Fitzgerald AB**.

Please register ASAP at the following website for the workshop. The registration is free.

<http://ece.k-state.edu/research/workshops/nsf-peec/index.html>

On-Site Registration (Badge pickup and new registration)

Friday, July 25: 6:00 to 7:00 pm Pre-Function AB

Saturday, July 26: 7:00 am onwards F. Scott Fitzgerald AB

Agenda

Saturday, July 26:

7:30 to 8:30 Continental Breakfast

8:30 to 8:45 Opening Remarks – Anil Pahwa and Samir El-Ghazaly

Session 1: Chair – Samir El-Ghazaly

8:45 to 9:15 Pramod Khargonekar, Assistant Director, ENG
Power Systems, CPS, and Engineering Education – NSF Role

9:15 to 9:45 Kishan Baheti, Program Director, ECCS/ENG
NSF Programs in Energy and Power

9:45 to 10:15 Theresa Maldonado, Division Director, EEC
Power Systems Education in the Context of Engineering Research Centers

10:15 to 10:30 Break

10:30 to 11:00 Don Millard, Program Director, DUE/ EHR
Stimulating Innovation in Engineering Education

11:00 to 11:30 Rathindra DasGupta, Program Director, I-Corps
I-Corps™: Transitioning Ideas from Lab to Market

11:30 to 12:00 Stephen Phillips, Arizona State University

A fully online undergraduate electrical engineering degree program: early experience at Arizona State U

12:00 to 12:15 Question & Answer

12:15 to 1:15 Lunch

Session 2: Chair – Anil Pahwa

1:15 to 1:45 Magnus Egerstedt, Georgia Institute of Technology
Mechanics of an Engineering MOOC: The Good, The Bad, The Ugly

1:45 to 2:00 Question & Answer

2:00 to 2:20 Dennis Ray, Sukumar Brahma, Henry Louie
State of Power and Energy Programs in US and Canada

2:20 to 2:40 S. S. (Mani) Venkata, Alstom Grid
The Importance and Current Status of Microgrid Resilience

2:40 to 3:00 Break

3:00 to 3:30 Peter Sauer, University of Illinois – Urbana-Champaign
New Courses and Curricula for the Smart Grid

3:30 to 4:00 Ned Mohan, University of Minnesota
Online Master's Courses in Power and Power Electronics

4:00 to 5:30 Breakout roundtable discussions on following topics

- Integration of renewable resources
- Microgrid resiliency
- Cyber security
- Integration of CPS aspects in the power and energy curriculum
- Curriculum using MOOCS, on-line education, etc.
- Other issues

See the list at the end for breakout group assignments. Unassigned attendees can chose any group.

Discussion leaders:

Group 1 – Kevin Tomsovic and Karen Butler-Purry

(Ernest Hemingway Salon 1)

Group 2 – Dagmar Niebur and Brian Johnson

(Ernest Hemingway Salon 2)

Group 3 – Joe Chow and Joydeep Mitra

(Ernest Hemingway Salon 3)

Sunday, July 26:

7:00 to 8:00 Continental Breakfast

Session 3: Chair – Peter Sauer

8:00 to 9:30 Presentations by the breakout groups

9:30 to 9:50 Break

9:50 to 11:45 **Session 4: Chair – Radhakisan Baheti**

Open discussions (Scribes: Siddharth Suryanarayanan, Sukumar Brahma)

- Best practices and strategies to address the needs of the future.
- Topics for future funding by NSF.

11:45 to 12:00 Closing Remarks and conclusion of the workshop

Group 1 – Ernest Hemingway Salon 1

Discussion Leaders: Kevin Tomsovic and Karen Butler-Purry

1. Visvakumar Aravinthan
2. Ran Dai
3. Sairaj Dhople
4. Mohamed Y. El-Sharkh
5. Amir Etemadi
6. Masayuki Fujita
7. David Wenzhong Gao
8. Rajesh Kavasseri
9. Charles Kim
10. Kwang Lee
11. Hanif Livani
12. Yuri Podpaly
13. Dennis Ray
14. Sarika Solanki
15. Wencong Su
16. Sid Suryanarayanan
17. Edvina Uzunovic
18. S. S. Venkata

Group 2 –Ernest Hemingway Salon 2

Discussion Leaders: Dagmar Niebur and Brian Johnson

1. Leonard Bohmann
2. Sukumar Brahma
3. Chen Chen
4. Ahmed Eltom
5. Aya Ishizashi
6. Syed Islam
7. Alireza Khaligh
8. Alberto Lamadrid
9. Wei-Jen Lee
10. Yuan Liao
11. Johanna Mathieu
12. Hashem Nehrir
13. Takashi Ohama
14. Anil Pahwa
15. Maya Prica
16. Saifur Rahman
17. Wei Sun
18. Suleyman Uludag

Group 3 - Ernest Hemingway Salon 3

Discussion Leaders: Joe Chow and Joydeep Mitra

1. Kana Asano
2. Magnus Egerstedt
3. Mohamed El-Sharkawi
4. Johan Enslin
5. Mingguo Hong
6. Sukumar Kamalasan
7. Andre Manitus
8. Sudip Mazumder
9. Osama Mohammed
10. Ned Mohan
11. Nirmal Nair
12. Stephen Phillips
13. Satish Ranade
14. Peter Sauer
15. Jignesh Solanki
16. Volker Sorger
17. Anurag Srivastava
18. Le Xie