



POETS Workshop on High Ambient Temperature Systems October 4-5, 2018

The Chancellor Hotel - University of Arkansas
70 North East Avenue, Fayetteville, AR 72701

October 4, 2018 - Day 1: What are the current needs/pains/roadblocks with high ambient temperature technologies? What are POETS capabilities which may align with these challenges?

12:00 - 13:00	Workshop Lunch	Eureka Springs CD
13:00 - 13:30	Welcome and Introduction to the Workshop (D.G. Senesky & D. Huitink) - Workshop timeline + goals/outcomes	Eureka Springs AB
13:30 - 15:00	Industry Panel: What are the industrial needs/pains/roadblocks in the area of high ambient temperatures? What is the high ambient temperature roadmap or future product lines? (4 panelists from 4 industry sectors: semiconductor, automotive, heavy equipment, aerospace) - 15-minute presentation from panelists [Brian K. Peaslee (GM); Thomas Baker (Caterpillar); Parag Kshirsagar (UTC); John Fraley (Wolfspeed)] - 30-minute Q&A	Eureka Springs AB
15:00 - 15:20	Break	
15:20 - 17:20	Overview of Existing High Ambient Temperature Technology within POETS - <u>Topic #1 (30 mins): High ambient temperature materials and devices</u> (D. Senesky & A. Mantooth) - <u>Topic #2 (30 mins): High ambient temp. packaging and modeling</u> (S. Ang & S. Smith) - <u>Topic #3 (30 mins): High ambient temp. systems/motors/testbeds</u> (K. Haran & J. Balda) - <u>Topic #4 (30 mins): Reliability for high ambient temp systems (e.g., devices & batteries)</u> (D. Huitink & P. Wang)	Eureka Springs AB
17:20 - 17:45	Get Ready to Brainstorm: Prep. for Day 2 - Compile themes and “hot” topics identified from industry panel and faculty presentations - Review breakout session questions for Day 2 - Assign 4 breakout groups (Team #1: Materials/Device, Team #2: Packaging/Modeling, Team #3: Systems, Team #4: Reliability), moderators, and scribes	Eureka Springs AB
18:00 - 19:30	Dinner - Hog Haus Brewing Co. 430 W. Dickson St. Fayetteville, AR	Reservation name: POETS

October 5, 2018 - Day 2: How can we solve/address/innovate high ambient temperature technologies?

07:30 - 08:00	Buffet Breakfast	Eureka Springs CD
08:00 - 08:30	Recap of Day 1 and goals for Day 2 (D.G. Senesky & D. Huitink) <ul style="list-style-type: none"> - Summary of Day 1 - Day 2 timeline & goals/outcomes 	Eureka Springs AB
08:30 - 09:30	Breakout Sessions (4 teams answer the questions below) Team #1 & Team #4 <ol style="list-style-type: none"> 1. What would it take to enable a 500°C integrated circuit? 2. What can POETS do today to help address limitations/emerging applications? 3. How do we define the appropriate engineering specifications? 4. Are there gaps in the POETS portfolio? How can we integrate and extend current efforts? Team #2 & Team #3 <ol style="list-style-type: none"> 1. What are current limitations in high ambient temp. technologies? 2. What are the new emerging industrial applications? What could we do/enable with new high ambient temperature technologies? 3. How do we define the appropriate engineering specifications? 4. Are there gaps in the POETS portfolio? How can we integrate and extend current efforts? 	Eureka Springs AB Eureka Springs CD Bella Vista Lost Bridge
09:30 - 09:45	Break	
09:45 - 10:45	Report Out on Breakout Sessions <ul style="list-style-type: none"> - The 4 breakout groups spend 10 minutes each reporting on their findings/highlights. - Followed by feedback from industry 	Eureka Springs AB
10:45 - 11:45	Develop High Ambient Temperature Program Pitches <ul style="list-style-type: none"> - Form new breakout groups (multidisciplinary) - Pretend you are in DC, what would your group pitch to the program manager? 	Eureka Springs AB
11:45 - 12:00	3-minute Program Pitches	Eureka Springs AB
12:00 - 12:15	Next steps/Wrap-up/Adjourn	