#### Western South Carolina Local Section



# The Western Palmetto Informer

**American Institute of Chemical Engineers** 

#### November 2016

Volume 16, Issue 3

### In This Issue:

- Next Meeting: November 15<sup>th</sup>
- October Meeting Thank-You
- Open Officer Positions
- 2016-17 Calendar of Events
- 2016-17 Officers and Executive Committee
- Clemson Scholarship

## **Contact Information**

Visit our website: www.aiche.org/wsc

E-Mail us at: sec@wscaiche.org

## November 15th, 2016 - Powering the Next Generation of Robotic Space Exploration

WSCAIChE welcomes Dr. Erik Brandon, Technical Group Supervisor for the Electrochemical Technologies Group at the NASA Jet Propulsion Laboratory (JPL)! We will be hosting a joint meeting with the Western Carolinas local section of the American Chemical Society (ACS) at the Michelin Conference Center.

All spacecraft require a source of electrical power. To enable the next phase of robotic space exploration will require the development of power sources that can operate in extreme environments. This talk will provide an overview of the new materials and technologies under development, to power solar system exploration in the coming decades.

Erik Brandon received the B.S. degree in Chemistry from Texas Lutheran University in 1991 and the Ph.D. degree in Inorganic Chemistry from the University of Utah in 1997. Following a Postdoctoral position at Caltech, he joined the staff at the NASA Jet Propulsion Laboratory in 1999. His work has



*November* 2016

focused on a wide range of development efforts in the areas of materials and devices for power generation, energy storage and sensors for space exploration. Specific efforts he has led include the development of integrated passive components and micro-batteries for miniaturized power sources, flexible electronics and multi-functional materials for deployable space structures, advanced thermoelectric couples for power generation and supercapacitors and supercapacitor/hybrid battery technologies for extreme environment applications.

## **October Meeting Thank-You**

A warm thank you to all who shared their experience and advice during the panel discussion with the Clemson University AIChE chapter! The panelists included Mary Ferris, Don Gurney, Marty Milne, Lee Rich, Steve Sferra and Anil Wagle. Students and professionals alike learned much about the opportunities for, and the value of, continuing education and advanced degrees post-graduation, advanced certifications, career advancement, and more. Many thanks to the Clemson University AIChE students for arranging the food, meeting room, and graciously hosting WSCAIChE.

## **Open Officer Positions**

We have a couple of unfilled officer positions for the 2016-2017 season. Take a look at the position descriptions below, and consider if you are able to help out!

### Secretary

- Update monthly newsletter
- Send monthly newsletter to distribution list using MailChimp software
- Collect RSVPs received the weekend before next meeting
- List names from RSVPs and forward to Treasurer

#### Webmaster

- Create meeting announcement on WSCAIChE website
- Post newsletter to WSCAIChE Facebook page
- Keep distribution list up-to-date
- Maintain WSCAIChE domain name (yearly)

## *November* 2016

## **AIChE November Meeting Information**

TITLE:	Powering the Next Generation of Robotic Space Exploration
DATE:	Tuesday, November 15 <sup>th</sup> , 2016
TIME:	5:30 PM Social 6:00 PM Dinner 7:00 PM Presentation
LOCATION:	Michelin Conference Center 517 Michelin Rd Greenville, SC 29605 (864) 422-3300
DIRECTIONS:	Take Interstate-85 to Exit 46B for SC-291/S Pleasantburg Rd Continue straight (south) onto Augusta Rd Follow Augusta Rd/ US 25S to Antioch Church Rd (at the Spinx Gas Station) Turn Left onto Antioch Church Rd Go 1.4 miles and turn right on Michelin Rd Go 0.3 miles and take the second left into the parking lot across the road from the conference center
DINNER COST:	\$10 for WSCAIChE members \$15 for Non-members

## To guarantee dinner, RSVP by 5 PM - Friday, November 11, 2016 to: WSCAIChE Secretary - sec@wscaiche.org

#### Please note that dinner starts at 6:00 PM instead of 6:30 PM

The dinner portion of the meeting is not mandatory. Plan to arrive by 7:00 pm if you would like to attend the presentation without dinner. Both the dinner and meeting are open to all interested people - no AIChE membership is required!

#### Only RSVP if you plan to dine with us.

#### *November* 2016

## 2016-2017 Calendar of Events

DATE	LOCATION	ΤΟΡΙϹ		
13 Sept 2016	CH2M	Project Management - John Brady, CH2M		
11 Oct 2016	Clemson University Madren Center	Panel Discussion on Chemical Engineering Careers		
15 Nov 2016	Michelin Conference Center	ACS Joint Meeting: Powering the Next Generation of Robotic Space Exploration - Erik Brandon, NASA JPL		
Dec 2016	None	Happy Holidays!		
10 Jan 2017	CH2M	Energy Choices and Consequences - Prof. H.L. (Lee) Dodds, Univ. of Tennessee		
14 Feb 2017	TBD	TBD - Professor, Clemson University		
14 Mar 2017	TBD	Chemical Process Equipment - RE Mason		
11 Apr 2017	Shaw Industries Central, SC	Plant Tour - Shaw Industries		
09 May 2017	TBD	WSCAIChE May Social		

*November* 2016

## 2016-2016 Officers and Executive Committee

This is YOUR local section of the American Institute of Chemical Engineers. If you have ideas or concerns regarding operation of the WSCAIChE, or if you are a member who would like to help out, please contact any of the Officers or Executive Committee members listed below:

POSITION	NAME	COMPANY	E-MAIL	
Chair	Jacob Lindler	aeSolutions	jllindler@yahoo.com	
Vice-Chair	Marty Milne	<b>PinPoint Solutions</b>	martymilne@gmail.com	
Secretary	VACANT			
Treasurer	Rick Vogel	Fulcrum BioEnergy	rvogel1@hotmail.com	
Webmaster	VACANT			
Historian	David Hine	Fujifilm	dhine@fujifilm.com	
Former Chair	Mary Ferris	Michelin	maryferris@charter.net	
Executive Committee	Don Gurney	Retired	degurney@charter.net	
	Karl McCaleb	Mitsubishi	kmccaleb2@bellsouth.net	

## **Clemson Scholarship Support to Continue**

The Executive Committee has again agreed to support a single student enrolled in Clemson's Chemical and Biomolecular Engineering program with a \$1,000 scholarship. The scholarship is open to all ChBE students who will be graduating between August 2017 and May 2018. The scholarship will be awarded during the February 2017 WSCAIChE - Clemson AIChE joint meeting. The application is attached to this newsletter.

#### WESTERN SOUTH CAROLINA AICHE SECTION SCHOLARSHIP

The Western South Carolina Section of the American Institute of Chemical Engineers is pleased to support the Chemical Engineering program at Clemson University by offering a \$1,000 scholarship. This scholarship is to be awarded to a returning Chemical Engineering student with a projected graduation date between August 2017 and May 2018.

The \$1,000 award will be presented at the joint meeting between the Clemson Student Chapter and the Western South Carolina AIChE Section on February 14, 2017.

Completed applications are due to the Western South Carolina AIChE Section Secretary at sec@wscaiche.org by midnight on January 22, 2017, in PDF or Word format. The Secretary will reply by e-mail on receipt of application.

Name of Student:		_		
Student email address:	Phone:			
Student ID #	AIChE Student Chapter Member?	Yes	No	
Expected Graduation Date:		-		
ChBE Course Name	Semester Cou was complet		Credits	Grade
Calculate the average of <i>only the</i>	courses listed above to determine your	r chemical	engineering GPA:	
List extracurricular activities and deso	cribe special duties (e.g., offices held, o	etc.)		
Attach two written essays (250 words	maximum per essay, typed):			

1) Describe your career goals as a chemical engineer.

2) Describe (in words that a freshman engineering student could understand) what a practicing chemical engineer does.