

**Student Activities Report to Members Council**  
**From the meeting of June 24, 2017, Long Beach, CA**

Members Present

**Russell Marcks, Chair**  
**William Simpson, Vice - Chair**  
**Ben Oliver, Reg II**  
**James Piscopo, Reg III**  
**Megan Tosh, Reg IV**  
**Janice Means, Reg V**  
**Eric Sturm, Reg VI**  
**Vaughn Nichols, Reg VII**  
**Chris Ahne, Reg VIII**  
**Adam Davis, Reg X**  
**Jared Larson, Reg XI**  
**Sam Hui, Reg XIII**  
**Michel Hayek, RAL**  
**Michael Brandemuehl, ABET BoD**  
**David Cassel, ABET EAC**  
**Mansour Zenouzi, ABET ETAC**  
**Joe Chin, Consultant**  
**Robin Bryant, Consultant**  
**Erich Binder, BoD Ex-O**

Guest

**Adam Parker**  
**Kevin Amende**  
**Buzz Wright**  
**Gerardo Alfonso**  
**Manuel Belino**  
**Ioan Dobosi**  
**Carrie Kelty**  
**Stephanie Mages**  
**Rachel Romero**  
**Keith Yelton**  
**Jim Butler**  
**Matt Clarke**  
**Enrica Galasso**

Staff

**Katie Thomson**

Action Item Summary

EXCOM Action Items:

Action Item	Person(s) Responsible	Due Date
Subcommittee assignments and conference call times	Bill/Subcommittee Chairs	July 2017
New Chair MBO's	Bill	Ongoing
Update the Student Zone	Subcommittees	Ongoing

Grants Action Items:

Action Item	Person(s) Responsible	Due Date
Improve Undergraduate Program Equipment Grant visibility amongst all members	Grants Subcommittee	Ongoing for 2017-18 round
Clarify the intention of the grant program by improving the website verbiage	Grants subcommittee	August 2017
Investigate potential for additional grants or an opportunity fund	Grants subcommittee	Ongoing

ABET Action Item:

Action Item	Person(s) Responsible	Due Date
Review outcome of Long Beach Forum and accreditation criteria of HVAC&R engineering programs	ABET Subcommittee/staff	January 2018
Explore current and possible ABET Evaluators	Staff	Ongoing

K-12/STEM Action Items:

Action Item	Person(s) Responsible	Due Date
Finalized gamification STEM kit	K-12/STEM Subcommittee	January 2018
Increase the number of K-12 school visits	K-12/STEM Subcommittee	Ongoing
Promote STEM champion role and STEM awards to Chapters	K-12/STEM Subcommittee	Ongoing
Encourage SA Chairs to complete online STEM activity report	RVCs	Ongoing

Post High Action Items:

Action Item	Person(s) Responsible	Due Date
Provide RVC's with information regarding inactive student branches so that they can encourage chapter follow up for reinstatement	Post High Subcommittee/Staff	January 2018
Review current promotional items and marketing material	Post High Subcommittee/Staff	Ongoing
Finalize schedule for Chicago student program	Post High Subcommittee/Staff	July 2017
Work with CEC to introduce badge scanning for Chicago student program	Post High Subcommittee/Staff	December 2017
Modify student orientation to Chicago to a webinar a few weeks prior to the Winter Conference	Post High Subcommittee/Staff	December 2017
Finalize best practices guide for Student Branches	Post High Subcommittee/Staff	September 2017

Encourage collaboration between SMACNA and ASHRAE student branches	Post High Subcommittee/Staff	ongoing
Continuously improve marketing material for student members	Post High Subcommittee/Staff	ongoing

Design Competition Action Items:

Action Item	Person(s) Responsible	Due Date
Finalize 2018 Applied Engineering Challenge and post to website	Design Competition Subcommittee/Chris Ahne/Staff	July 2017
Release 2019 Design Competition Details early	Design Competition Subcommittee/Staff	January 2018
Modify judging rubric to include additional clarification on scoring	Design Competition Subcommittee	April 2017

Centralized Training Action Items:

Action Item	Person(s) Responsible	Due Date
Review format and increase attendance for 2018	Centralized Training Subcommittee/Staff	June 2018

1) Subcommittee Reports

a) Executive Committee:

Student Members

- The total number of student members as of May 31, 2017 is 8,093
  - May 31, 2016 is 7,213.
  - May 31, 2015 is 6,324
  - May 31, 2014 is 5,868.
  - May 31, 2013 is 6,247
  - May 31, 2012 is 6,452
  - May31, 2011 is 6,415
- Review of all subcommittees were made.

- The Chair reviewed the status of this year's MBOs – see attachment A.
- b) Grants Subcommittee
- Subcommittee reviewed application form and judging criteria
  - The Grants description on the website has been updated and is on Basecamp awaiting ASHRAE IT to implement
  - The subcommittee updated the scoring rubric to include more detailed directions for judges
  - Russ gave the subcommittee examples of successful Grant funds usage and the subcommittee would like them uploaded to the website
  - The Grants subcommittee plans to investigate new Grant opportunities
- c) ABET Subcommittee Report
- David Cassel provided an update on the Engineering Accreditation Commission and Mansour Zenouzi provided an update on the Engineering Technology Accreditation Commission
  - Mike Brandemuehl informed the subcommittee of the Program Criteria Update and the Forum at the Conference, Accreditation for HVAC&R Engineering Programs – Who Cares?
  - Katie Thomson will reach out to all SBAs to identify which student branches are from Engineering Technology programs
- d) K-12/STEM Subcommittee Report
- Staff provided an update on the activity report, kit requests, and K-12/STEM Chapter Leadership Awards
  - Involvement with STEM Scouts will necessitate development of HVAC related STEM Kits “modules” for as part of curriculum
  - The subcommittee approved the Honorary Student Membership card
  - Chris Ahne introduced the Gamification STEM kit draft which will be finalized by the K-12/STEM Subcommittee
  - The subcommittee discussed the development of additional kits while also continuing to focus on promoting youth outreach to regions/chapters
  - The K-12/Subcommittee will assign a volunteer to evaluate the Student Zone website to cater to K-12 students and their parents/teachers
- e) Post High Subcommittee Report
- Most student branch status reports have been submitted and RVC's will reach out to branches that have not submitted.
  - Two nominations were reviewed for the SBA of the Year Award. The committee voted unanimously for King Yeong Jin from the UTAR Student Branch in Malaysia.
  - Subcommittee will review and update marketing material and promotional items.
  - A best practices guide for Student Branch officers has been finalized and will be sent to marketing.

- The subcommittee discussed the production of an ethics plaque to provide to new student branches in their welcome pack. Staff will look into associated costs.
- The Race to Zero Competition was discussed and there was unanimous support to continue sponsorship in 2018 with a maximum commitment of \$5,000. This funding will come out of the 2017-18 Student Activities budget.
- Student Membership
  - The total number of student members as of May 31, 2017 is 8,093 (12% increase from May 2016)
  - Branches – 21 pending branches bringing the 2016-2017 total to 52 new branches

Region	Student Branch	Location	Sponsor Chapter
RAL	Shri Ram College of Engineering & Management (SRCEM), Palwal	Palwal, Haryana, India	India
RAL	UK Midlands	Loughborough, UK	Sub-Region B
XIII	Singapore Polytechnic	Singapore	Singapore
RAL	Budapest University of Technology and Economics (BME)	Budapest, Hungary	Danube
VIII	Lamar University	Beaumont, Texas	Houston
RAL	Pusa Institute of Technology	New Delhi, India	India
RAL	SOS Technical Training Institute	Rawalpindi, Pakistan	Northern Pakistan
RAL	Government College of Technology Rawalpindi	Rawalpindi, Pakistan	Northern Pakistan
V	Ball State University	Muncie, IN	Central Indiana
VII	Marshall University	Huntington, WV	West Virginia
RAL	Mehran UET SZAB	Sindh, Pakistan	Pakistan
IV	Wake Technical Community College (Wake Tech)	Raleigh, NC	Triangle
RAL	University of Management & Technology (UMT) Lahore	Lahore, Pakistan	Central Pakistan
RAL	Université Libanaise, Faculté de génie II (ULFG2)	Roumieh, Lebanon	Lebanese
XII	Universidad Santo Tomas	Bogota, Colombia	Colombia

RAL	Swedish College of Engineering and Technology Wah Cantt	Wah Cantt, Pakistan	Northern Pakistan
XII	Nicaragua (Universidad Nacional de Ingenieria & Universidad Centroamericana)	Managua, Nicaragua	Central and South America
RAL	University of Girona	Girona, Spain	Spain
XII	Schneider Electric Alliance	Buenos Aires, Argentina	Argentina
XII	Universidad del Atlantico	Barranquilla, Colombia	Colombia

### Design Competition Subcommittee Report

- 65 Design Competition projects were submitted this year.
  - Design Calculations – 19
  - System Selection – 16
  - ISBD – 24
  - Applied Engineering Challenge - 6
- 34 Design Competition submissions were judged at Society Level with four considered as Rising Stars. The Winners of each category are:
  - Design Calculations
    - First Place - San Jose State University
    - Second Place - King Fahd University of Petroleum and Minerals
    - Third Place - Lakehead University
    - Rising Star - Texas A&M College Station
  - System Selection
    - First Place -Warsaw University of Technology
    - Second Place - The Pennsylvania State University
    - Third Place - University of Nebraska - Lincoln Team 1
    - Rising Star - The University of Texas at Arlington
  - Integrated Sustainable Building Design
    - First Place - University of Central Florida
    - Second Place - The Catholic University of America
    - Third Place - Montana State University Team 1
    - Rising Star - None
  - Applied Engineering Challenge
    - First Place - Cal Poly San Luis Obispo
    - Second Place - Bandung Institute of Technology

- Third Place - University of Nebraska - Lincoln
  - Rising Star -None
- Information for the 2018 Design Competition has been published on the website and the AEC will be finalized in July. The goal is to release the 2019 Design Competition information in January 2018 to allow southern hemisphere schools to compete.

**Attachment A**

<b>2016-2017 MBO's Student Activities Committee</b>			
<b>Russell Marcks, Chair</b>			
<b>MBO #</b>	<b>Description</b>	<b>Who</b>	<b>Due</b>
<b>1</b>	<b>Review Design Competition</b>	Design Comp	
	a. Develop new Applied Engineering Challenge project and incorporate the Presidential Theme.		Winter Meeting 2017 <i>Complete</i>
	b. Review / Modify the 'Openness' of the AEC		Winter Meeting 2017 <i>Complete</i>
	c. Determine a general judging process for the AEC		Summer Meeting 2017 <i>Ongoing</i>
<b>2</b>	<b>Increase the number of K-12 school visits</b>	K-12	
	a. Promote the STEM Champion chapter position in the student activity team through RVC (at CRC)		Continuing <i>Ongoing</i>
	b. Continue the promotion of classroom visitations through the RVC (at CRCs) and local chapter SA Chairs to general membership. Illustrate to membership how important and easy it is to conduct a K-12 classroom visit by performing a hands-on activity		Continuing <i>Ongoing</i>
	c. Continue development of STEM Activity kits		Continuing <i>Ongoing</i>
	d. Clarify relationship with STEM Scouts and develop relationship if appropriate		Added <i>Ongoing</i>
	e. Make connections with at least one other organization with STEM related activities in each Region to create a partnership and combined effort		Continuing <i>Ongoing</i>
<b>3</b>	<b>Improve visibility of the Undergraduate Program Equipment Grant Program among all members</b>	Grants	
	a. Highlight and promote the Grants program by inviting two grant recipients to present at the Winter Conference Student Program		Winter Meeting 2017 <i>Complete</i>
	b. Identify and test new, creative ways to increase student contact of Grant program		Continuing through 2016-2017 <i>Ongoing</i>
	c. Concentrate on promoting the grants program to two-year schools <i>Grant applications have increased. Chair emphasized the necessity to promote the grants to 2 year programs.</i>		Winter Meeting 2017 <i>Ongoing</i>

<b>4</b>	<b>Increase number of new student branches with a goal of one new or reactivated branch per region</b>	All	Ongoing <i>Significant progress outside of the US</i>
	a. Provide RVC's with information regarding student branches that have disbanded in the past 5 years so that they can encourage chapter follow up for reinstatement.		September 2016 <i>Complete</i>
	b. Review the current materials available to SA chairs to help with establishing new branches. Discuss with chairs that have recently established branches and have them provide feedback on any additional materials or information that may be required		Winter Meeting 2017 <i>Complete</i>
<b>5</b>	<b>Increase Student retention to 7.5%</b>	Post High	Ongoing <i>Staff to report to committee</i>
	a. Work with MP to determine tracking process with SmartStart (i.e.: Exit Interview) to help define the number of students that transfers vs. graduates.	Post High with MP	Summer Meeting 2017 <i>Ongoing</i>
	b. Continue to collaborate with YEA and MP. Communication and coordination through conference calls and face to face meetings at the winter and annual meeting with YEA and membership committee		Continuing through 2016-2017 <i>Ongoing</i>
	c. Review current promotional material (including posters and video) and develop new material that will be attractive to students.	Post High K12	Winter Meeting 2017 <i>Complete</i>
	d. Along with MP and YEA, complete the "Developing Leader Path" to assist young and new members with their involvement in ASHRAE		Continuing through 2016-2017 <i>Ongoing with YEA</i>
<b>6</b>	<b>Student Activities Committee General</b>	All	Ongoing
	a. Each member (RVCs and Vice Chair) shall complete MBOs and then measure against their MBO at the winter meeting and by continuing reports		August 2016 <i>Delinquent.</i>
	b. Ensure current branches submit their reports		May 2017 <i>Complete</i>
	c. Modify K-12 Subcommittee name including various awards, etc.	K-12	Winter <i>Under consideration</i>
	d. Work with ABET subcommittee to better integrate them into SAC and to recruit more ASHRAE PEVs	SAC Post High ABET	<i>Ongoing. Some improvement noted.</i>

	e. Promote ASHRAE to other degree programs such as Architectural, Arch Eng, Civil, Construction Mgt, Energy, etc.	Post High	Continuous <i>Ongoing</i>
	f. Promote HVAC industry and better support Community College and Technical school involvement	Post High K-12	Continuous <i>Ongoing</i>
	g. Promoting BEQ throughout colleges & universities via Design Competitions, etc.  <i>Mike Brandemuehl reported on the progress of the Adapt bEQ ad hoc committee. A full 3 credit college course has been developed. The student activities committee is being engaged to work with student branches along with APPA. Mike reported that resources are on the Student Zone and that full course content will be available in approximately one month. Mike will report at the Student and SBA congresses. Mike also encouraged RVCs to target student branches for pilot campuses. The ad hoc committee has not determined how the course content will be released to university faculty.</i>	Post High Design Comp	Continuous
	h. Promote all SA Awards to Chapters through RVC (at CRC). Concentrate on K-12/STEM Leadership Award and Youth Outreach Award and raise the level of awareness	All	Continuing <i>Ongoing</i>
	i. Complete the Student Branch Advisor / Student Branch Officer Best Practices guide	Post High	Winter Meeting 2017 <i>In progress</i>
	j. Review and develop new program criteria for college level HVAC programs	ABET	Winter Meeting 2018 <i>Under review</i>
<b>7</b>	<b>Training</b>	ExCom	Summer meeting
	a. Review the effectiveness of the newly developed SA centralized training. Modify the presentation and training as required		Continuous <i>Complete</i>
	b. Consider two tracks for CT (New vs. Returning)		Winter Meeting 2017 <i>Premature - Defer to future years.</i>
	c. Increase the attendance at SA Centralized training by 30%. This will require support from the DRCs & RVCs to stress the importance of the training the SA Chair		Summer Meeting <i>Did not attain</i>
	d. Redefine the CRC training to have a more hands on and applied format customize to each region.		Consultant assigned to review <i>Complete</i>