

INDUSTRY ADVISORY BOARD MEETING MINUTES

August 10, 2011

Chair – Brianna Lutes of Infrastructure Engineering Corporation

Vice Chair – Maria Charles of Hamilton Sundstrand

I. Welcome & introductions

The August 10, 2011 San Diego MESA Alliance (SDMA) Industry Advisory Board (IAB) meeting was called to order at 1:10 pm by B. Lutes.

Members present

Name	Company	Phone	Email
1. Al-Jafri, Abu-Bakr	Caltrans	619-296-8110	
2. Bakhiet, Raga	Southwestern College MESA	619-296-8110	
3. Charles, Maria-Victoria	Hamilton Sundstrand	813-200-0110	
4. Chavez, Thelma	SDSU Maximizing Sci. Potential	619-296-8110	
5. Gooden, Carol	NASLAND Engineering	813-200-0110	
6. Haynes, Kathy	Kennedy/Jenks Consultants	813-200-0110	
7. Lutes, Brianna	Infrastructure Engineering Corp.	813-200-0110	
8. Pamintuan, Eric	SPSD/MESA	619-296-8110	
9. Sheridan, Phillip	Bio4Front Inc.	813-200-0110	
10. Umphres, Peggy	MWH Americas, Inc.	813-200-0110	
11. Yang, Angeline	SPSD/MESA	619-296-8110	

Name	Affiliation
1. Diallo, Aliou	SDSU NSBE
2. Gutierrez, Eliseo	SDSU SHPE
3. Jimenez, Carlos	SDSU SHPE

Please contact
San Diego MESA
 Alliance staff @
<http://alliance.sdccmesa.com/about/staff> for
 contact info.

Guests present

II. SDSU College of Engineering Welcome: Dean David T. Hayhurst

San Diego State University (SDSU) College of Engineering Dean David T. Hayhurst thanked the IAB for their continued support and involvement in the MESA programs and shared details about projects going on at the College of Engineering.

SDG&E and SPAWAR have travelled to Imperial Valley to provide mentorship to middle and high school students in the MESA Schools Program.

The National Science Foundation has established a \$40 million Engineering Research Center (ERC) for Sensorimotor Neural Engineering based at the University of Washington with SDSU and the Massachusetts Institute of Technology as research partners. SDSU will be seeking industry partners to work in power systems and wireless communications.

The College of Engineering is also proud to have been selected for funding by the National Science Foundation's Troops to Engineers and S.E.R.V.I.C.E. programs to provide special services to veteran students.

The College of Engineering continues to see growth to the point where they are running out of classrooms. Diversity continues to be strong with minorities making up 51% of the college. Females are in the 17-20 percentiles. This number has not changed over years. To see an increase, this would need to be addressed at the middle to high school level. The new president, Elliot Hirshman, agrees that the STEM field must be a priority in education.

III. Review & approval of minutes

A motion to approve the June 8, 2011 meeting minutes was made by K. Haynes and seconded by M. Charles; the minutes were then approved. B. Lutes noted that past meeting minutes can be found online at <http://alliance.sdccmesa.com>.

IV. SDMA pipeline spotlight: Student Organizations

- A. SDSU Society of Hispanic Professional Engineers (SHPE)** – President C. Jimenez and Vice-President E. Gutierrez presented on behalf of the student organization. In October they will co-host the Engineering in the Barrio event in Barrio Logan. The purpose of the event is to enhance educational opportunities to students in the fields of engineering and science. They also just finished attending two other conferences, a high school conference where they helped facilitate hands on demonstrations of engineering projects and NILA. At the Joint Planning Conference hosted by Raytheon, they were able to collaborate with the SHPE organizations at UCSD and Southwestern College to plan an event that will capitalize on school career days to introduce students and families to engineering.
- B. SDSU National Society of Black Engineers (NSBE)** – President A. Diallo presented on behalf of the student organization and shared the organization’s history, mission, and the types of events, conferences, and initiatives they traditionally have done or will plan to do. During the summer they participated as mentors in the Summer Engineering Experience for Kids (SEEK) program where they helped 160 third to eighth graders develop better written, oral, and communication skills, as well as develop a more positive self-image and be exposed to positive images of engineers.

V. Focus topic: Planning

A. NSF STEP grant update:

- **Current STEP grant** – titled STEP Partnership of San Diego (SPSD) was awarded back in 2007 to the MESA programs at SDSU, San Diego City College, and Southwestern College. The grant funding ends September 2012, which includes the funding of the Summer Team Internship program. Originally the grant was written so that the MESA Schools Programs at Imperial Valley and SDSU were to be included, but NSF rejected it stating that the proposal was too ambitious. With the awarded grant, there were various goals and objectives set in place such as increasing student participation, retention, graduation rate, internship and research opportunities, etc. As determined by an outside evaluator, the Institute of Public Health, all are either on track to be met by the end of the grant period or have already been met.
- **New STEP grant** – The SPSD team will again write a proposal for a new STEP grant that will include the MESA Schools Programs at Imperial Valley and SDSU. It will also include a Summer Bridge program based on a pilot that San Diego City College has just completed and a formal mentoring chain utilizing the San Diego MESA Alliance pipeline. If funded, this new grant will build upon MESA and will build upon SPSD. The Summer Bridge program and the mentoring chain are two out of five proven, intensive interventions for underrepresented minorities in STEM, whilst the other three are already being done with the current grant by SPSD.

- B. San Diego MESA Alliance signature events** – Most MESA events are traditionally done on an annual basis around the same timeframe. Please refer to the SDMA website at <http://alliance.sdccmesa.com> for the Google Calendar of events and description of joint MESA events. Upcoming signature events include the Walk on Water Competition on October 22, 2011 at Southwestern College, Shadow Day on November 17, 2011, at various host companies, Leadership Summit in February 2012 at Indian Hills Camp, MESA Days competitions on Saturdays throughout February, March, and May 2012, the Olympics and Robotics Competition on April 28, 2012 at San Diego City College, and the Summer Team Internship poster presentations in August 2012.

VI. SDMA past event recaps events

- A. San Diego MESA Alliance Summary Report** – summarizes each joint activity and lists each industry volunteer. It will be sent via e-mail and posted to the SDMA website at <http://alliance.sdccmesa.com>. Prior reports are also archived online as well.
- B. NSF/MESA Summer Team Internship** – The poster presentation was held at SDSU’s Alumni Center on August 2, 2011. 23 companies and 46 students participated in the program. The reason why there are more than 36 students is because industry was able to compensate their interns beyond the \$1,250 stipend at 100 hours.

A. Yang reiterated that the current grant's funding ends next year and with that, this would be the last summer for the summer team internship, unless a new grant is funded. Please forward any internship recruiting opportunities to A. Yang. Actual recruiting for the summer team internship program won't begin until December or January, and actual internship work will be done over the summer.

C. **San Diego Region Joint Planning Conference for Engineering and Science Chapters hosted by Raytheon on August 5th** – Student diversity engineering and science chapters at SDSU, San Diego City College, Southwestern College, and UCSD campuses were able to collaborate with industry and other organizations on a master calendar and gain leadership skills. For instance, Raytheon conducted a 'Diversity Theatre' skit in which their staff acted out various scenarios that officers would face themselves in. One scenario was where a treasurer was borrowing money from the organization fund for personal use. The event was from 8:00 – 4:15 pm, hosted and sponsored by Raytheon.

VII. MESA program key updates

A. **SDSU MEP/MSP** – Students were also accepted into the program last semester during spring, since SDSU opened admissions on campus. Typically admittance into the program is done once a year, every fall semester. 78 new students will be accepted into the program this semester, with 53 of those being engineering and 15 physical science majors.

VIII. Southwestern College MESA – has near 200 students in its program and saw 24 students transfer out this past spring semester. Several students received Microsoft certificates and went to satellite Southwestern College campuses and local libraries to educate the community in digital literacy by providing hands-on training.

Southwestern College is also an educational partner of the Engineering Research Center (ERC) for Sensorimotor Neural Engineering. One student will be receiving an all expenses paid internship at the University of Washington. There will also be opportunities for campus faculty to be involved in research. Industry can also apply to the ERC's sub-grants to become research partners as well.

IX. Other topics

A. **Company announcements** – A. Yang announced that today was her last day as SPSD Program Coordinator. She will be working at UCSD Science and Technology. She has been with MESA since 1997 and plans to continue to support MESA and expects to still cross paths with IAB.

B. **IAB agenda building** – Please e-mail E. Pamintuan for topics to be added to the agenda and for any other preferences.

X. Adjournment

The formal meeting adjourned at 2:57 pm. Minutes submitted by E. Pamintuan on October 11, 2011.

NEXT MEETING:

Wednesday, October 12, 2011

1:00 – 3:00 pm

Hamilton Sundstrand*

4400 Ruffin Road

San Diego, CA 92123

*RSVP in advance for security clearance