Twelfth LACCEI Latin American and Caribbean Conference for Engineering and Technology (LACCEI'2014)
"Excellence in Engineering To Enhance a Country's Productivity" July 22 - 24, 2014 Guayaquil, Ecuador.

Students Developing as Leaders and Global Professional Engineers

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ABSTRACT

With technology advancing at an exponential rate, global communication is becoming more and more commonplace. By simply pressing a button, a company's headquarter in Los Angeles, California can have a meeting with a subdivision in New York City, New York through a video conference call. That same company can even have a video conference call with its distributors in China. This ability to communicate with people all across the world has presented a new challenge in the field of engineering. With more and more engineers taking on leadership positions in companies with increasing global outreach, they are finding themselves having to innovate their skills.

The purpose of this paper is to examine how engineering students in the United Sates are developing the leadership skills necessary to be global professional engineers. The subject of the study is the College of Engineering and Computer Science at Florida Atlantic University. During research, it was found that FAU does in fact have initiatives such as the Society of Hispanic Professional Engineers, Institute of Electrical and Electronic Engineers, Innovation Leadership Honors Program, and the Tau Beta Pi Engineering Honor Society that help develop the global professional leadership skills of students.

Keywords: engineering students, leadership development, globalization.

1. INTRODUCTION

There are many key points that would help Engineers in order to become Leaders within global organizations. Leaders are innovative, dependable, competent, charismatic, take initiative, seek

opportunities, are mentors, and last but not least, good communicators. A leader does not wait for things to happen, a leader makes things happen. Being an Engineer Leader, involves these characteristics in order to create solutions and to solve problems for the world. Florida Atlantic University offers different organizations within campus that develop leadership as professional Engineers. Some of those organizations are SHPE, IEEE, TBP, etc. Undergraduate students from FAU have taken advantage of having these global and national organizations for innovative and competent students, willing to take risks and start something new. These and many more organizations around the world are the ones that help undergraduate and graduate students to develop as global leaders.

2. FAU's INNOVATION LEADERSHIP HONORS PROGRAM

Some say leaders are born with the ability to lead. Others say they are crafted through years of learning and experience. Nevertheless, the Innovation Leadership Honors Program (ILHP) offered by the College of Engineering and Computer Science provides students with the tools and knowledge necessary for becoming leaders. Every year just 30 out of over 2000 engineering students from all departments in their junior year are hand selected to join the program. The selection process helps to distinguish the academic leaders from all the rest. In order to be eligible for the ILHP, students must have a cumulative GPA of 3.25/4.0 or above. For some departments there is even a specific grade requirement for certain classes. For example, Civil Engineering students must earn a minimum grade of B+ in Statics, and Geomatics Engineering students must also earn a minimum grade of B+ in Plane Surveying. These are just the eligibility requirements to get into the ILHP, which don't come close to the requirements to remain in it. Once accepted students must complete a variety of requirements; however, the top two most effective at developing leaders are having to take a specific set of extra courses, and being actively involved in a student organization.

Engineering students are notorious for taking longer than the traditional four years to graduate college due to the amount of demanding courses they must take. Having to prolong the already extended graduation by taking classes such as Leadership Development Workshop 1 & 2, Entrepreneurship, and an Honors Directed Independent Study only makes it worse. This would usually deter average students, but not prospective ILHP students who have already shown the academic leadership qualities necessary to understand that these classes can help them become better leaders. For instance, students get to learn about what makes a successful leader in the first Leadership Development Workshop through mini lectures combined with group activities, and then take that knowledge and apply it in a multidisciplinary hands on project involving the entire class. During the Entrepreneurship course, the students learn about what it takes to be a successful leader in the business world as an entrepreneur. Finally in the Honors Directed Independent Study, ILHP students have to start from ground zero with a project and must demonstrate their leadership skills to their advisor, while also using their knowledge from Entrepreneurship to secure funding.

The fostering of leadership doesn't stop with the required classes, but continues further with having to be an active member of a student organization. This portion of the program is significantly effective in terms of developing leaders. By joining student organizations, the future engineers in the ILHP get an up close view of the leadership taking place in their organizations. They can observe and learn from their peers as the officers lead meetings, projects, events, or activities. However, by being an active member and becoming an officer, ILHP students can dramatically increase the development of their leadership

skills. In doing so they must learn to cooperate with a variety of people and opinions, be responsible for managing those people, and take care of the administrative work required to host events or activities. In some cases such as traveling to conferences or competitions, FAU only offers a travel reimbursement, which may not be feasible for those that require plane tickets and extended stays at hotels. For situations like these the officers may have to seek travel grants from third parties, which is no simple task. The officers must be able to convince the benefactors through their leadership skills that the grant is an investment, and will not be wasted.

With such requirements asked of the students in the Innovation Leadership Honors Program in the College of Engineering and Computer Science, some may question whether or not the program is worth pursuing. Sure students can still join organizations at FAU without having to be in the ILHP, and even become officers of their organizations. And sure, they might pick up a few a leadership skills. But it is through the ILHP that they will be able to gain and value the communication, technical, time management, motivational, and people skills necessary to become a leader.

3. DEVELOPING LEADERSHIP THROUGH PROFESSIONAL SOCIETIES

Professional societies for engineers provide scholarships, fellowships, awards, conferences, competitions, leadership training workshops, and publications that are assessable to student through the student chapters at their university. Links to resources for the societies are shown in the following tables (Larrondo Petrie, 2012). Table 1 shows a listing of engineering professional societies. Table 2 lists the engineering related honor societies. Table 3 lists engineering, technology, science and educational societies that specifically target underrepresented minorities, and the list in Table 4 targets women in these disciplines. There is an organization to students managed by undergraduates who wanted to develop themselves as global engineering leaders and to have their voices heard as to how engineering education should develop to help them confront future problems. This organization called Student Platform for Engineering Education Development, SPEED, is developing hemispheric chapters. The Latin American and Caribbean Consortium of Engineering Institutions, LACCEI, is the umbrella organization for the SPEED Americas chapter. LACCEI hosts national, hemispheric and the global engineering student competitions, and develops leadership workshops for their student chapters.

Table 1. Engineering Professional Societies (Larrondo Petrie, 2012)

Engineering Professional Organization	Web link
AAAI American Association for Artificial Intelligence	http://www.aaai.org
AACEI Association for the Advancement of Cost Engineering	http://www.aacei.org/
AAES American Association of Engineering Societies	http://www.aaes.org
ABET Accreditation Board for Engineering and Technology	http://www.abet.org
ACCE American College of Clinical Engineering	http://www.accenet.org/
ACEC American Consulting Engineers Council	http://www.acec.org/
ACM Association for Computing Machinery	http://www.acm.org/
ACTE Association for Career and Technical Education	http://www.acteonline.org/
AEE Association of Energy Engineers	http://www.aeecenter.org/
AEG Association of Environmental & Engineering Geologists	http://www.aegweb.org/i4a/pages/index.cfm?pageid=1
AFE Association for Facility Engineers	http://www.afe.org
AIA American Institute of Architects	http://www.aia.org/index.htm
AIAA American Institute of Aeronautics and Astronautics	http://www.aiaa.org/
AIChE American Institute of Chemical Engineers	http://www.aiche.org/

AIH American Institute of Hydrology	http://www.aihydrology.org/
AIMBE American Institute of Medical and Biological Engineers	http://www.aimbe.org
AIME American Institute of Mining, Metallurgical and Petroleum Engineers	http://www.aimeny.org/
ANS American Nuclear Society	http://www.ans.org
ARI Airconditioning Heating and Refrigerating Institute	http://www.ahrinet.org/
ASA American Society of Agronomy	http://www.agronomy.org
ASABE American Society of Agricultural and Biological Engineers	http://www.asabe.org
ASAE American Society of Agricultural Engineers	http://www.asae.org
ASCE American Society of Civil Engineers	http://www.asce.org
ASEE American Society of Engineering Education	http://www.asee.org
ASHE American Society for Healthcare Engineering of the American Hospital Association	http://www.ashe.org
ASHE American Society of Highway Engineers	http://www.highwayengineers.org
ASHRAE American Society of Heating, Refrigeration and Air Conditioning Engineers	http://www.ashrae.org/
ASM International (The Materials Information Society)	http://www.asminternational.org/portal/site/www/
ASME American Society of Mechanical Engineers	http://www.asme.org/
ASNE American Society of Naval Engineers, Inc.	http://www.navalengineers.org/
ASNT American Society for Nondestructive Testing, Inc.	http://www.asnt.org/
ASPE American Society of Plumbing Engineers	http://www.aspe.org
ASSE American Society of Safety Engineers	http://www.asse.org
ASTC Association of Science Technology Centers	http://www.astc.org
ASTM American Society for Testing & Materials	http://www.astm.org/
AWAA American Water Works Association	http://www.awwa.org/
AWS American Welding Society	http://www.amweld.org/
ECUK British Engineering Council	http://www.engc.org.uk/
ENSMP European Federation of National Engineering Societies	http://www.cri.ensmp.fr/feani/
ESA Ecological Society of America	http://www.esa.org/
FMB Federation of Master Builders	http://www.fmb.org.uk
FMS Federation of Materials Societies	http://www.materialsocieties.org/
HKIE Hong Kong Institute of Engineers	http://www.hkie.org.hk/
HFES Human Factors and Ergonomics Society	http://www.hfes.org
IBET Institute of Biomedicl Engineering Technology	http://ibet.asttbc.org/
ICE The Institution of Civil Engineers	http://www.ice.org.uk/
ICHEME The Institution of Chemical Engineers	http://www.icheme.org.uk/
IEE The Institution of Electrical Engineers	http://www.iee.org/
IEEE Institute of Electrical and Electronic Engineers	http://www.ieee.org/
IES Illumination Engineering Society of North America	http://www.iesna.org/
IEST Institute of Environmental Sciences and Technology	http://www.iest.org/
IFCE International Federation of Consulting Engineers	http://www.fidic.org/
IFEES International Federation of Engineering Education Societies	http://www.ifees.net
IIE Institute of Industrial Engineers	http://www.iienet.org/
IMechE Institution of Mechanical Engineers	http://www.imeche.org/Home
INFORMS Institute for Operations Research & Mngmt. Sciences	http://www.informs.org
ITEA International Technology Education Association	http://www.iteaconnect.org/
IWITTS Institute for Women in Trades, Technology & Science	http://www.iwitts.com/
JETS Junior Engineering Technical Society	http://www.jets.org
Marine Technology Society	http://www.mtsociety.org/
NACE International – National Association of Corrosion Engineers	http://www.nace.org/
NAE National Academy of Engineering	http://www.nae.edu
NAS National Academies (of Sciences, Engineering and Medicine)	http://www.nas.edu
NASA National Aeronautics and Space Administration	http://www.nasa.gov/audience/foreducators/index.html
NCHES National Capital Healthcare Engineering Society	
NGWA National Ground Water Association (Association of Ground Water Scientists and Engineers)	http://www.ngwa.org/
NICE National Institute of Ceramic Engineers	http://www.ceramics.org

NSF National Science Foundation	http://www.nsf.gov/
NSPE National Society of Professional Engineers	http://www.nspe.org
SAE Society of Automotive Engineers	http://www.sae.org/
SAME Society of American Military Engineers	http://www.same.org
SFPE Society of Fire Protection Engineers	http://www.sfpe.org
SIM Society for Industrial Microbiology	http://www.simhq.org/
SME Society of Manufacturing Engineers	http://www.sme.org/
SNAME Society of Naval Architects and Marine Engineers	http://www.sname.org/
SPE Society of Petroleum Engineers	http://www.spe.org/
SPIE International Society of Optical Engineers	http://www.spie.org

Table 2. Engineering Honor Societies (Larrondo Petrie, 2012)

Engineering Honor Society	Web link
Alpha Sigma Mu Metallurgy and Materials Engineering Honor Society	http://www.alphasigmamu.org
Chi Epsilon National Civil Engineering Honor Society	http://www.chi-epsilon.org/
Eta Kappa Nu Honor Society for Electrical & Computer Engineers (HKN)	http://www.hkn.org/
Omega Chi Epsilon National Chemical Engineering Honor Society	http://www.omegachiepsilon.org/
Pi Tau Sigma International Mechanical Engineering Honor Society	http://www.pitausigma.net/
Sigma Chi Honor Society for Scientific and Engineering Research	http://www.sigmaxi.org/
Tau Alpha Pi National Honor Society for Engineering Technology	http://www.taualphapi.org/
TBP Tau Beta Pi National Engineering Honor Society	http://www.tbp.org/pages/main.cfm
The Order of the Engineer (Order of the Ring)	http://www.order-of-the-engineer.org/
UPE Upsilon Pi Epsilon Honor Society for Computing & Information	http://www.acm.org/upe/

Table 3. Sites for Minorities or Ethnic Groups in Engineering, Science, Technology or Mathematics (Larrondo-Petrie, 2012)

Minority Professional Organizations	Web link
AABE American Association for Blacks in Energy	http://www.aabe.org/
AHETEMS Advancing Hispanic Excellence in Technology, Engineering, Math & Science	http://www.ahetems.org
AIMD American Institute for Managing Diversity, Inc.	http://www.awm-math.org/
AISES American Indian Science and Engineering Society	http://www.aises.org
AMSE Association of Muslim Scientists and Engineers	http://temp.amseweborg.officelive.com/default.aspx
ASEE MIND (Minority in Engineering Division)	http://www.webster.edu/spacecoast/Ali_Shaykhian/MIND/
ASPIRA Association for Puerto Ricans in Science and Engineering	http://www.aspira.org/
GEM Nat.l Consortium for Graduate Degrees for Minorities in Engineering and Science	http://www.nacme.org/
HENAAC Hispanic Engineer National Achievement Awards Conference	http://www.henaac.org/
HESTEC Hispanic Engineering Science & Technology Week	http://www.hestec.org/
La Familia Network: the Hispanic family embracing technology	http://lafamilianet.net/
LACCEI Latin American and Caribbean Consortium of Engineering Institutions	http://www.laccei.org
NACME National Action Council for Minorities in Engineering	http://www.nacme.org
NAMEPA National Association of Multicultural Engineering Program Advocates	http://www.namepa.org
NCOURAGES National Coalition of Underrepresented Racial and Ethnic Advocacy Groups in Engineering and Science	http://www.ncourages.org
NSBE National Society of Black Engineers	http://www.nsbe.org/
SACNAS Society for Advancement of Chicanos and Native Americans in Science	http://www.sacnas.org/
SECME formerly Southeastern Consortium for Minorities in Engineering	http://www.secme.org/
SHPE Society of Hispanic Professional Engineers	http://www.shpe.org

Table 4. Engineering, Technology, Science and Mathematics Societies for Women (Larrondo Petrie, 2012)

Professional Organizations for Women	Web link
AAUW American Association of University Women	http://www.aauw.org/
AAWD American Association of Women Dentists	http://www.aawd.org/
AAWR American Association for Women Radiologists	http://www.aawr.org/
ABIWT The Anita Borg Institute for Women and Technology	http://www.iwt.org/ or http://www.anitaborg.org/
AMWA American Medical Women's Association	http://www.amwa-doc.org/
ASEE Women in Engineering Division	http://wied.asee.org/
ASWA American Society of Women Accountants	http://www.aswa.org/
AWC Association for Women in Computing	http://www.awc-hq.org/
AWG Association for Women Geoscientists	http://www.awg.org/
AWID Association for Women Industrial Designers	http://www.awidweb.com
AWIS Association for Women in Science	http://www.awis.org/
AWISE Australian Women in IT, Science and Engineering	http://www.awise.org.au/
Cambridge AWISE Cambridge Association for Women in Science and Engineering	http://www.camawise.org.uk/
AWM Association for Women in Mathematics	http://www.awm-math.org/
AWP Association for Women in Psychology	http://www.awpsych.org/
AWMI Association of Women in the Metal Industries	http://www.awmi.com/
AWSS Association of Women Soil Scientists	http://www.womeninsoils.org/
CWSE Committee on Women in Science and Engineering	http://www7.nationalacademies.org/cwse/
FWE Forum for Women Entrepreneurs	https://www.fwe.ca/
IWITTS Institute for Women in Trades, Technology & Science	http://www.iwitts.com/
SCWIST Society for Canadian Women in Science and Technology	http://www.harbour.sfu.ca/scwist/
SWE Society of Women Engineers	http://www.swe.org/
SWEP Society of Women Environmental Professionals	http://www.swepweb.com/
Systers On Line (community for women in computing)	http://anitaborg.org/initiatives/systers/
WAM Women and Mathematics Network	http://www.mystery.com/WAM/network/Index.html
Women in Bio	http://www.womeninbio.org/
WEPAN Women in Engineering Programs and Advocates Network	http://www.wepan.org
Women's Engineering Society (in UK)	http://www.wes.org.uk
WIEC (IEEE Women in Engineering Committee)	http://www.ieee.org/portal/pages/committee/women/
WiSE Women into Science and Engineering	http://www.wisecampaign.org.uk/
WITI Women in Technology International	http://www.witi.com

4. SHPE LEADERSHIP TRAINING PROGRAMS

Being a leader is not only about telling people what to do, being the face of the organization, or being the one who takes the credit. Being a leader means to work side by side with everyone, to know that some may be disappointed along the way, and to learn how to share the credit. The Society of Hispanic Professional Engineers has helped its members to improve in the way they express themselves with others and being able to accept different points of view. Having a leader position allows you to learn from other members as well as to listen to their thoughts, work with them and make things happen. All of these characteristics will develop leadership, relationships and great interpersonal skills. SHPE has a special way to develop their upcoming leaders. The most important milestone of this training starts at the National Institute of Leadership Advancement (NILA), where young SHPE members are trained to become better leaders, public speakers and role models. SHPE, through its chapters and members, is making a huge impact in growing the number of Hispanics pursuing degrees and careers in STEM (Science, Technology, Engineering, and Mathematics). Since its inception in 1986, NILA has grown to become an event widely anticipated by members and highly respected by corporate sponsors.

The NILA agenda provides leadership training to the new-elected students, professional chapter presidents and officers of approximately 318 existing chapters. They will receive the premier leadership training as well as get to network between all the SHPE chapters throughout the country. Becoming part of NILA is an important step for every executive board member, in order to make their chapters the best that they can be. NILA ensures that all participating members take a final test once the training is completed, in order to prove that you have achieved the knowledge and that you are able to take your chapter to the next level by receiving a diploma of certification. The intense four-day program that NILA offers includes the following:

- Interactive workshops on group dynamics, team building, goal setting, strategic planning and project management.
- Hands-on activities designed to motivate and empower leaders, which include tips on thinking "outside the box" and implementing change.
- Networking opportunities with SHPE chapter officers and corporate representatives.
- Team case study projects focusing on SHPE and STEM related topics.
- Overview of available resources from SHPE, local universities, partnering chapters and surrounding communities.
- Training on effective chapter leadership and chapter success.
- Obtaining knowledge of the national organization infrastructure and process.

Furthermore, another important part of the NILA agenda is the SHPE Corporate Readiness Program. This program was design and focused on helping the undergraduate chapter leaders to make the difficult transition from being a student to an early career as a professional in the corporate world. This is a critical step for undergraduates to succeed in their careers and navigate to the "un-written rules" of the corporate world. The SHPE Corporate Readiness Program has two phases. Phase I consists of two training sessions of the Corporate Readiness Program. Phase I is completed at NILA as a workshop entitled Leadership Competencies. In the other hand, Phase II is completed at the SHPE National Conference at a session entitled Corporate Readiness. Participants are required to attend the Corporate Readiness training session and a private reception/certificate ceremony at the SHPE Conference.

After the completion of the NILA program attendees are recognized for their successful completion of the program by receiving the Certificate Chapter Leader (CCL) Certification. In order to get this certificate the participant must have perfect attendance at the NILA workshops. No more than 10 minutes late to two (2) workshops; Score of 80% or higher on the NILA post-test. The CCL Certification is considered a true achievement by SHPE, and it also states that the SHPE members are now equipped with innovative leadership skills, which will help them get to the next level within their careers.

In conclusion, SHPE strives for the best; making sure that all of the chapter leaders have the necessary tools to compete globally, make changes and find solutions for the world. By enhancing leadership development with specialization in public speaking, communications, leadership ethics, networking and training from industry-leading corporations and agencies will create a better leader, who strives to outstand. There is always a window to improve yourself; the sky is the limit of your success.

5. INVOLVEMENT AND NETWORKING

Involvement and networking are two crucial aspects of becoming a developed global leader that Florida Atlantic University's College of Engineering and Computer Science has promoted on campus

through organizations such as IEEE. The Institute of Electrical and Electronic Engineers is the world's largest professional organization, and being an active branch of this massive organization has opened the doors of opportunity for networking to many of the chapter's members. In addition to the expectations FAU's IEEE chapter has laid out for its officers and members, there are requirements in order to be a student leader at Florida Atlantic University that equip students with the necessary tools to professionally network. These include maintaining a certain level of academic excellence, attending iLead Workshops that has been developed by Student Involvement and Leadership (SIL) office at FAU for student chapter leaders across all colleges. These are held on a semester-basis and budgeting for organizational expenses. By bringing back an intense level of activity and involvement on and off campus this past year, IEEE student leaders have seen their own time-management and self-discipline skills progress immensely.

This past semester, FAU's IEEE branch became more active than it had ever been before, and began getting involved more in depth within the community surrounding FAU as well as other engineering organizations on campus. Collaboration is incredibly crucial when leading others; the leaders within FAU's IEEE chapter made a point to not only interact with the members of the organization, but also made an effort to interact with the other engineering student leaders. The IEEE chapter joined forces with some of the members from Tau Beta Pi in order to host weekly workshops such as the Applied Electronics Bootcamp or AEB. AEB was a fantastic success within the student population as it brought relevant applications to the theoretical concepts taught in the classroom. Additionally, several social events were held in a joint effort with the ASME, ASCE and SHPE chapters on campus which made the events that much more successful than those the IEEE chapter tried to operate alone. This concept of collaboration also holds true for the surrounding community; in order to have the positive impact that the IEEE chapter wanted to have on the local area, this past year, IEEE hosted weekly SeaPerch Robot building workshops to Boca Raton High School. Additionally, the chapter participated in SECME and various middle and high school STEM competitions off campus, as well as acting as one of the main host workshops during Engineers Week at the Boca Raton campus. FAU's IEEE chapter strives to be relevant to the community and creates projects that reflect those motives. Currently, a group from the IEEE branch is in the process of designing a PES (Power and Energy Society) project with a solar-powered battery station for the golf carts used around campus. The IEEE chapter looks forward to seeing how this collaborative effort develops and flourishes in this upcoming academic year. Along with the chapter's preparation to co-host and compete in the Region 3 SouthEast Conference the spring of 2015, the leaders of FAU's IEEE chapter cannot wait to see continue expanding the branch's networking horizons.

6. DEVELOPING LEADERSHIP THROUGH HONOR SOCIETIES

The involvement of engineering honor societies within engineering disciplines is very important. Having the presence of an engineering honor society at the College of Engineering and Computer Science increases the motivation of engineering students to perform well in their academics in order to be eligible to join. The College of Engineering and Computer Science at FAU has two honor societies established, Tau Beta Pi and Upsilon Pi Epsilon. Tau Beta Pi is the oldest engineering honor society and the second oldest academic honor society in the United States, established in 1885 at Lehigh University. Tau Beta Pi promotes excellence and integrity in engineering by recognizing outstanding academic achievement within engineering disciplines. For students to be eligible they must be within the top $1/8^{th}$ of their junior class or $1/5^{th}$ of their senior class. They must also have good character and breadth of interest, determined by the membership through various activities. Among the many activities Tau Beta Pi participates in, its two main programs are Engineering Futures and MindSET. Engineering Futures (EF) is a program that consists of five modules: People Skills, Team Chartering, Group Process, Analytical Problem Solving,

and Effective Presentation Skills. These workshops are free for all students and are run by trained Tau Beta Pi EF Facilitators; they provide training for soft skills in the workplace which are often not taught in the engineering curriculum. MindSET is a program that focuses on K-12 student outreach through tactile learning. At these workshops Tau Bates and inductees volunteer by carrying out a short lecture that pertains to the math or science topic being covered in class and then having the students apply this knowledge to a hands-on activity, such as building bridges, catapults, robots, or circuits. This program promotes science and engineering to young students and trains teachers and parents to engage students in hands-on activities for more effective learning. Tau Beta Pi has a very positive influence on its members. There are countless opportunities for leadership positions, networking, professional development, scholarships, and enjoyable community outreach along with hands-on activities.

Upsilon Pi Epsilon is the computing and information honor society. Upsilon Pi Epsilon was established in 1967 at Texas A&M University and has grown into an international organization. Upsilon Pi Epsilon recognizes students for their academic achievements and provides activities for professional development. There are many scholarships available to members which encourages other computing disciplines to strive for high academic achievement. Having honor societies designated for the disciplines offered by the College of Engineering and Computer Science is a great way to stimulate engineering students so that they can all reach their full potential as an engineer and a leader.

7. CONCLUSION

It is up to students to find activities, experiences and resources to develop their global and leadership skills. This paper presents opportunities that students have found helpful at FAU to lead the student chapters of the Engineering societies. Links to societies that offer scholarships, leadership opportunities and competitions for students are listed. Laccei is headquartered at FAU and has joined forces with SPEED to host hemispheric and global Engineering Student competitions. Students are invited to network, find opportunities that build their leadership and global skills, and come together to share needs and experiences under the LACCEI SPEED of the Americas Chapter to compete at a nation, hemispherical and global level with other like-minded student leaders and develop a global leadership training program for engineering students.

8. REFERENCES

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http://www.laccei.org