Professional Networking and Mentoring Program

Francesca Filippini, Co-Chair

**October 18-19, 2019**

Cologne, Germany

Introduction

- The overall objective of the AESS Mentoring Program is to create active engagement and collaboration between experienced members and our younger AESS members.

- The program was launched on January 1, 2017 with around 80 mentors. Our focused strategy moving forward is to continue to **add quality mentors**, but focus mainly on **showing value to and signing up mentees**.

- These objectives not only provide value to our existing members, but may be relevant to the following goals of Member Services:
  - Grow AESS membership by 1% per year.
  - Recruit student members to full membership upon graduation.
  - Offer assistance to members for elevating to the next grade.

MENTORING

Goal   Advice   Support   Coaching   Direction   Success

The Mentoring Program Statistics

- 93 Mentors currently registered

Mentees
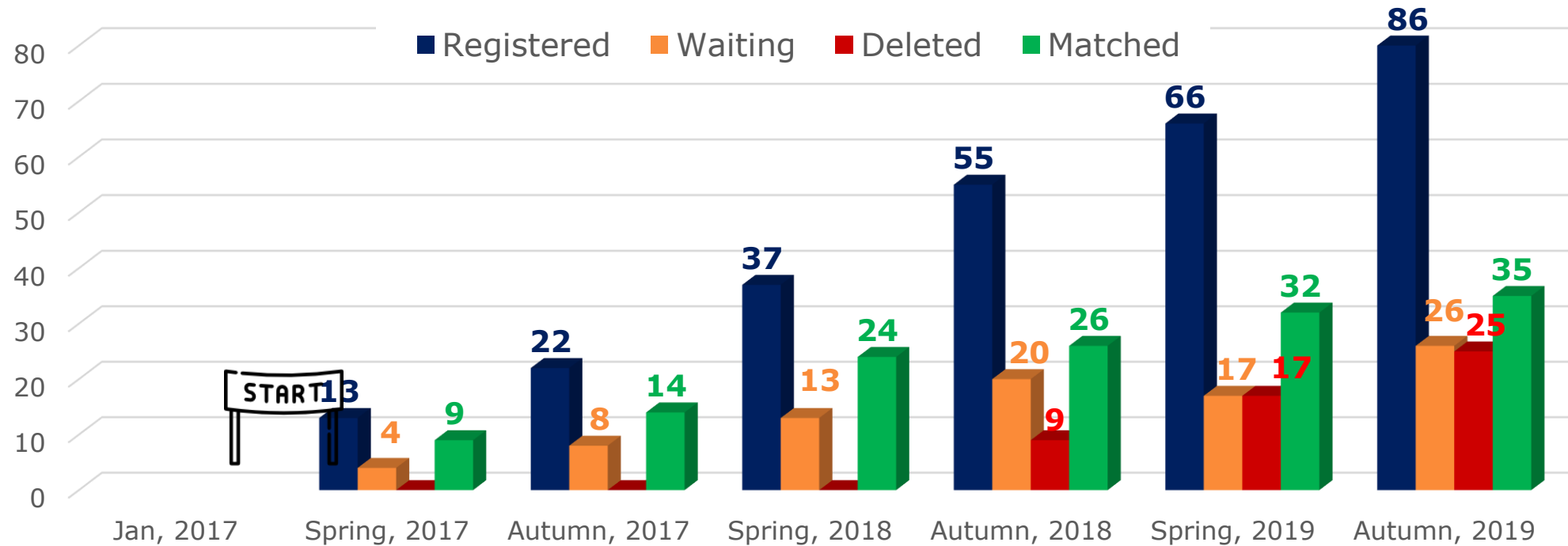
+ 20 new registrations since the last BoG meeting
+ 3 new matches since the the last BoG meeting

Objectives

- **Speed up the registration process**
  Administer the program in a more structured and organized manner

- **Collect Testimonials and Feedbacks**
  Perform surveys across the matched pairs to get feedback, use them to improve the program

- **Improve Recruitment Strategies**
  Increase in number and extent the initiatives implementing recruiting strategies that consider a personal engagement

- **Reward Best Mentee of the Year**
  Identify suitable nomination process and a symbolic prize to annually award one Mentee

- **Highlight the success of the program**
  Give prominence to successful mentorship experiences

Objectives and Ongoing Activities
Objective #1 – Speed up the registration process

- Administer the program in a more structured and organized manner
- Average waiting time between registration and matching is above 3 weeks

Completed actions

- Ethan Lin developed the **IEEE AESS Mentoring Program Signup** form

Backlog

- Integrate the **IEEE AESS Mentoring Program Signup** form in the registration process
- Someone on the Mentoring Program Committee could support Judy on a continuous basis

Objectives and Ongoing Activities
Objective #2 – Collect Testimonials and Feedbacks

- Perform surveys across the matched pairs to get feedback
- Share them with potential new members
- Use them to improve the program

Completed actions
- **New Mentees Testimonials** have been collected
- AESS **Testimonial Page** has been updated with new feedbacks

Backlog
- Keep collecting **Mentees Testimonials**
- Start collecting **Mentors Testimonials**

Objectives and Ongoing Activities
Objective #3 – Improve Recruitment Strategies

- Increase in number and extent the initiatives implementing recruiting strategies that consider a personal engagement:

  - Targeted recruitment at major AESS conferences
  - Dedicated talks at YP Event @ major AESS conferences, workshops etc.
  - Advertising in AESS Publications, including testimonials
  - Engagement of AESS BoG, Mentors, Local Chapters, Panels

Completed actions
- Dedicated **e-mail to all students** promoting the program (+13 Mentees)
- Dedicated talk at the **3rd Italian RRSW** in Rome in May 2019

Backlog
- Organize **YP events** at RADAR2020 and RadarConf 2020

Objectives and Ongoing Activities
Objective #4 – Reward the Best Mentee of the Year

- Reward the Best Mentee of the year with a symbolic prize (e.g. free participation in AESS conference)
- Awarded Mentee could be featured in the QEB and maybe share his/her experience during the talks at YP events

Backlog:

- Identify **suitable process** to grant the award (application, evaluation process, etc.)
- Identity **suitable prize**

Objectives and Ongoing Activities
Objective #5 – Highlight the success of the program

- Give prominence to successful mentorship experiences

Completed actions:

- *Mentoring Program in Action* in the last QEB editions

Backlog:

- Article on Mentoring in the Magazine

  This article should be less about the program and more about mentoring per se. Ideally, it should be the type of article a member will put in front of a student or YP he or she cares about professionally and says "you might like to read this".

Objectives and Ongoing Activities
Objective #5 – Highlight the success of the program

Articles in the last QEB editions

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AESS Professional Networking and Mentorship Program in Action

By Garrett Hall and Walt Downing

The AESS Professional Networking and Mentoring Program offers opportunities for active engagement and collaboration between experienced and young AESS members. The program allows participants the complete flexibility to manage the frequency, duration, and method of interaction in a way that suits both the Mentor and Mentee. As an example of collaboration, this quarterly feature highlights the interactions of professionals and students in the IEEE Central Texas Section - San Antonio.

Brandeis High School Soldering Workshop Outreach. A collaborative event with UTSA's IEEE AESS/HKN/RAS student chapters along with Tau Beta Pi activity). Students working together to build photosensitive circuits.

In 2016, Walt Downing (IEEE Life Senior Member) and Garrett Hall (IEEE Student Member) joined into a mentor/mentee relationship. Garrett was then the AESS Undergraduate Student Representative and Walt was AESS VP of Technical Operations. Garrett helped develop the AESS Professional Networking and Mentoring Program and was eager to put the concept into practice. Garrett and Walt decided to focus their interactions on the development of "soft skills" such as interpersonal communications and leadership within the context of professional societies that rely on the efforts of volunteer members. They met monthly, usually in face-to-face meetings or by telephone, to discuss Garrett's plans and progress toward his educational goals, career objectives and professional development.

Garrett attends the University of Texas at San Antonio (UTSA), where he received a BSEE in 2017, and is currently working on a master's degree in electrical engineering. He is active in several student organizations at UTSA, including the IEEE Student Branch, Tau Beta Pi engineering honor society, and the Kappa Upsilon (KU) chapter of Eta Kappa Nu (IEEE-HKN). Garrett began to involve some of the student leaders of these organizations in the mentoring activities. For example, he asked Walt to become the industry advisor for the IEEE-HKN KU Chapter officers. The monthly mentoring sessions evolved into a series of meetings with the student leaders and, occasionally, with their faculty advisor. These meetings are conducted on a month by month basis over the course of dinner in a casual atmosphere with the current officers from the student Chapter. The meetings focus on celebrating the success of the individuals and Chapter, discussing the implementation of student programs, and creating opportunities within the engineering community.

Through these interactions, Walt joined into a mentor/mentee relationship with Andres Tapia, the current president of Tau Beta Pi at UTSA. Andres and Garrett have worked, with Walt's guidance, to develop technical workshops for students, integrate student chapter activities on campus, create high school outreach activities, and host speaker events covering topics in computer vision, space sciences, and autonomous vehicles. The mentorship has made a significant impact, as seen by the programs and initiatives developed from it.

Under Walt's guidance, Garrett expanded Chapter activities beyond IEEE to include majors from computer science and mechanical engineering departments. They meet monthly for leadership development activities. By interacting with a more diverse group of students, the student body at UTSA can access a larger pool of technical talents that would not otherwise be present to them. This is one of the many ways AESS mentoring can provide the engineering community with its values and culture.

Pictured from left to right: Industrial Advisor meeting with Tiffany Tabourne, Argali Moctezuma, Garrett Hall, Michael Palacious, Walt Downing, Anna Arroyo

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AESS Professional Networking and Mentorship Program in Action

As a part of IEEE AESS Mentorship program, Dr. Ganesh Subramanian and his mentees Aravind and Tamilsevan, successfully rebuild a Hexa copter and Octocopter at their 'Team Dronix' research lab which is located Panimalar Institute of Technology, Chennai, India during October 2018 to January 2019.

The major components were replicated using 3D printer and few of other were semi customized. The Octocopter will be used in RFID based Smart Vehicle Parking System and the Hexacopter with the payload capacity of nearly 6 Kg will be utilized for delivery purpose in a factory environment. They did test both drones on manual pilot mode and advancing towards making them in autonomous mode.

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AESS Professional Networking and Mentorship Program in Action

As a part of IEEE AESS Professional Networking and Mentorship Program, Dr. Ganesh Subramanian has successfully completed his first mentorship assignment. His mentees belong to "Team Dronix." Er. Aravind and Er. Tamilsevan have successfully learned to design various drones, drone piloting, aerial mapping, and surveying.

They were able to develop customized Quad, Octo, and Hexa copters on their due course. Er. Aravind has earned a paid internship to do an aerial survey of slum areas of Oddisa State, Government of India, from 5 June to 5 July 2019. Their mentee experience could be viewed on the YouTube Channel "Team Dronix" IEEE AESS MENTOR–MENTEE JOURNEY 2017 to 2019.

Click Here to Watch

IEEE AESS MENTOR-MENTEE Journey 2017 to 2019

Committee Members

Francesca Filippini

Kameron Lacalli

Judy Scharmann

Fabiola Colone

Fredrik Gustafsson

Lorenzo Lo Monte

Sean Malek

...and invaluable help offered by

Walter Downing

Michael Noble

Ethan Lin