

## About the IEEE Aerospace & Electronic Systems Society Newsletter



Dear AESS Members,

In this second update of 2019 we bring you the latest on the outstanding successes of our members, and we talk about our educational activities and share with you whatâ€™s on our horizon.

Among the many interesting articles included in this edition, I would like to draw your attention to the article commemorating the 50th Anniversary of Apollo Missions 8 and Apollo 11 lunar missions.

I am indebted to George T. Schmidt, AESS VP Technical Operations, for writing such a fantastic article that leverages his own experience and takes a fascinating personal perspective on the events. I warmly suggest our youngest members and all enthusiasts of history of technology to read on for the full story.

Enjoy this new edition and, if you have any input on what you would like to read about in the next editions or if you would like to contribute an article, please contact us!

Warmest regards,  
Fabiola Colone  
Editor-in-Chief, AESS QEB  
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## The Story Behind a Success

**Congratulations to Patrick McCormick,  
winner of the 2018 Robert T. Hill Best  
Dissertation Award!**

[Read Story](#)



## Inside Apollo

**Inside Apollo:  
Heroes, Rules and  
Lessons Learned in  
the Guidance,  
Navigation, and**

# Control (GNC) System Development

By George T. Schmidt, AESS V.P. Technical Operations

I am writing this in March 2019 which is halfway between the 50th Anniversary of Apollo 8 (Dec 1968) and Apollo 11 (July 1969). Those 2 flights were among the greatest explorations of mankind.



[CLICK HERE TO READ FEATURED STORY](#)



## Apollo's Daring Mission Season 45 Episode 18



Apollo astronauts and engineers tell the inside story of how the first mission to the moon, Apollo 8, pioneered groundbreaking technologies that would pave the way to land a man on the moon and win the space race.

[WATCH HERE](#)

## Elevated AESS Members

### 2019 IEEE Senior Members

Senior Membership is the highest grade for which application may be made and shall require experience reflecting professional maturity; a candidate should be an engineer, scientist, educator, technical executive, or originator in IEEE-designated fields in professional practice for at least ten years and shall have shown significant performance over a period of at least five of those years. For more information, go to the IEEE Senior membership section of the [IEEE website](#).

Visit our [website](#) to view the complete list of our 2019 Senior Members.

## Membership Opportunities



2019 marks the third year of this innovative AESS program that helps connect students and young professionals with more experienced AESS members for two-way exchange. This program has been a great success.

Our vision is a flexible international program that is carefully implemented, attentively supported, and singularly focused on providing benefits to AESS members.

We have an excellent core of distinguished international members distributed across industry, academia, and government, who are experts in their field and who are willing to share their time and experience to develop future leaders within the AESS.

More information is available on the [AESS website](#). Mentors and Mentees, it is easy to sign up for the program. Join us today!

[Sign Up Today](#)



AESS Members have free access to the [AESS Resource Center](#)! The Resource Center is a robust, web-based, technical learning and research center that is tailored to support the educational, career, and research needs of AESS members. It is a one-stop shop for AESS Video Tutorials, Publications, educational material, interviews, and more!

## AESS Resource Center Submissions Invitation

The IEEE Aerospace and Electronic Systems Society (AESS) is pleased to invite submissions of tutorials and short courses for inclusion on the [AESS Resource Center](#). This provides an opportunity for authors to support the professional development members of the field and extend the reach of their training material to a global audience. Tutorials may be submitted under a non-exclusive agreement, which does not transfer ownership to IEEE. Further submissions process instructions may be found on the [AESS website](#).

## AESS Membership Certificates are now available!

Follow these steps to download and print your certificate:

- Log into [Collabratec](#)
- Click on your name in the top right of the screen and select "Member Certificates" from the drop-down menu
- From the "Member Certificates" page, click on the "Download PDF" link to the right of "IEEE Aerospace and Electronic Membership"
- Open the PDF and print it

## Membership News

### 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.

## 2019 Young Professionals Reception

A Young Professionals Reception and Networking opportunity will be held at the 2019 Radar Conference on Thursday, 25 April 2019. The event is free for IEEE YP members. Come and join the fun, food and drink, and network with your peers!

**IEEE** youngprofessionals **AESS** **IEEE**

### 2019 YOUNG PROFESSIONALS RECEPTION

**@RADARCONF 2019**

Thursday, April 25, 2019 at 6:00 PM  
The Weston Waterfront Hotel

Networking & Social Engagement Opportunity

Drinks & Appetizers Available

Free for IEEE YP Members

**GUEST SPEAKERS**

**FRANCESCA FILIPPIN**  
"THE AESS MENTORSHIP PROGRAM"

**KAMERON LACALLI**  
"BENEFITS OF BEING A YP" AND "THE AESS RESOURCE CENTER FOR YP"

**NETWORK. LEARN. BUILD. GROW.**

**IEEE** youngprofessionals

## Chapter News

5 March 2019 AESS Italy Chapter -  
Celebrating the UNESCO RADIO  
DAY 2019

[Click Here to Read](#)

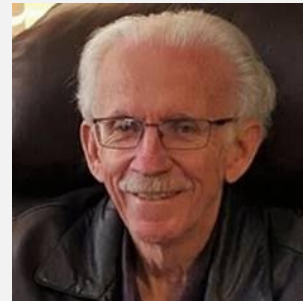
2018 AESS Annual Report - East  
Ukraine Joint Chapter

[Click Here to Read](#)

## AESS Awards

### Presentation of the 2018 Judith A. Resnik Space Award

The 2018 AESS Judith A. Resnik Space Award was presented to Dr. Walter Howard Delashmit, Jr. for his work on the Apollo Space Program Preflight and Postflight GNC analyses (with emphasis on Apollo 13) and early Skylab Program.



[Read More](#)

## AESS Technical Panels

Currently the AESS has eight Technical Panels:

- [Gyro and Accelerometer](#)
- [Radar Systems](#)
- [Space Systems](#)
- [Aerospace Control & Guidance Systems](#)
- [Cyber Security Panel](#)
- [Unmanned Aerial Vehicles](#)
- [Avionics Systems Panel \(ASP\)](#)
- [Navigation Systems Panel](#)

The panels hold multiple meetings per year throughout the world, typically where conferences relevant to their technical interests are taking place. Creation of IEEE standards and support of IEEE Conferences are major thrust of technical panels. Each panel operates under its own charter and bylaws. Be sure to click the appropriate Technical Panel button above for more information on that panel.

Please contact [George Schmidt](#), VP Technical Operations, the Technical Panel Chairs or any member of the Board of Governors if you're interested in participating in the work of a technical panel.

Distinguished Lecturers are wanted to support the Panel's technical areas, as well as, in all the AESS areas of interest; for more information contact VP Education, [Lorenzo Lo Monte](#).

[Click Here to Read Panel Posts on Recent Activities](#)

# AESS Distinguished Lecturer Program

All AESS Chapters and IEEE Sections are encouraged to take advantage of the AESS Distinguished Lecturer and Tutorial Program for their regular or special meetings, that allows them to select from an outstanding list of truly distinguished speakers who are experts in the technical fields of the society. For more information, please see the [AESS website](#).

## Conferences



### 2019 IEEE Radar Conference

22-26 April 2019 in Boston, MA, USA.

[Visit the Conference Website](#)



### 2019 IEEE International Workshop on Metrology for AeroSpace

19-22 June 2019 in Torino, Italy.

[Visit the Conference Website](#)



### 2019 IEEE/AIAA 38th Digital Avionics Systems Conference (DASC)

8-12 September 2019 in San Diego, California, USA.

[Visit the Conference Website](#)



### 2019 IEEE AUTOTESTCON

9-12 September 2019 in National Harbor, Maryland, USA.

[Visit the Conference Website](#)

### 2019 International Carnahan Conference on Security Technology (ICCST)

1-3 October 2019 in Chennai, India.

[Visit the Conference Website](#)

Have a conference you'd like advertised in the AESS Quarterly Email Blast?

Contact [Judy Scharmman](#) for details on how to have it included.

[View More Conferences](#)

## Publications

### ***Journal of Miniaturization for Air and Space Systems***

**J-MASS** is a technical journal devoted to covering the rapidly evolving field of small air and space systems such as drones and small satellites. These platforms offer new, low-cost ways to accomplish a wide range of sensing functions for applications ranging from agriculture to land use and ocean surveys.

To submit a manuscript for the *Journal of Miniaturization for Air and Space Systems* (J-MASS), [click here](#).

### ***IEEE Aerospace and Electronic Systems Magazine***

The *IEEE Aerospace and Electronic Systems Magazine* is a monthly magazine that publishes articles concerned with the various aspects of systems for space, air, ocean, or ground environments as well as news and information of interest to IEEE Aerospace and Electronic Systems Society members. Our goal is to inform the readers of technologies, state of the art, design trades, etc. so that they will gain insights into a field heretofore unknown to them. We want to introduce technical specialties to readers in the hope that something in the articles will give them some insight for their own fields of endeavor.

### ***IEEE Transactions on Aerospace and Electronic Systems***

*IEEE Transactions on Aerospace and Electronic Systems* (T-AES) focuses on the organization, design, development, integration, and operation of complex systems for space, air, ocean, or ground environment. These systems include, but are not limited to, navigation, avionics, spacecraft, aerospace power, radar, sonar, telemetry, defense, transportation,

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automated testing, and command and control.

**2019 AESS Officers**

**AESS 2019 Board of Governors**

**AESS YP and StM Representatives**



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