

# Technical Operations

AESS Board of Governors Meeting

September 22-23, 2017

St. Petersburg, FL

**Walt Downing**

**VP Technical Operations**



# Strategic Objectives

1. Develop and implement a technical panel review process
2. Expand technical panel participation in all AESS sponsored conferences
3. Promote technical panels and chapters collaborations
4. Promote synergy and collaboration with AESS Educational Activities to expand distinguished lecturer coverage and develop continuing professional development activities for all AESS fields of interest
5. Prepare guidance in the form of best practices and recognize outstanding technical panels
6. Increase AESS member participation in all technical panels

# Initiatives

## Strategic Objective 1

Develop and implement a technical panel review process

### Initiatives:

- Develop matrices identifying alignment of technical panels with AES conferences, distinguished lecturers, IEEE standards, etc.
- Perform gap analysis on these matrices to identify opportunities to increase alignment
- Filling the gaps

# Highlights

## Strategic Objective 1 - Metrics/Scorecard

Technical Panels	Aerospace Control & Guidance Systems	Aerospace Systems Integration Engineering	Avionics Systems	Cyber Security	Gyro and Accelerometer	Navigation Systems	Radar Systems	Space Systems	Target Tracking Systems	Unmanned Aerospace Vehicles
Chair	Brian Lee	Koti Tatipamula	Paul Kostek	Kathleen Kramer	Randall Curey	Michael Braasch	Braham Himed	Cosimo Stallo	David Crouse	Vince Socci
Vice Chair or Co-Chair	Marge Draper-Donely	Dante Bolatti			Reese Sturdevant		Raviraj Adve	Marina Ruggieri		Phillip Hall
Number of Members							30-45			
Number of Committees	5	"4-7"	5	None Currently	2		7	3 "Areas"	4	Ad Hoc
IEEE Standards					Sensors - 292, 293, 517, 528, 529, 647, 671, 813, 836, 952, 1293, 1431, 1554, Systems - 1559, & 1780		Terminology - 521 & 686 Ultrawideband Radar - 1672			
Meetings per Year	Semi-annual	2+	2+	2+	6 meetings/yr.		4+	2+	2+	2+
Conference Participation			DASC & ICNS	DASC & ICCST	PLANS	PLANS	Multiple	Aerospace & RAST		
Responsibility for AES Awards							Nathanson & White	Resnik		
Distinguished Lecturer Coverage	4	9	3	1	1	3	12	6	11	5

# Initiatives

## Strategic Objective 2

Expand technical panel participation in all AESS sponsored conferences

### Initiatives:

- Utilize gap analysis to identify conferences that lack AESS member participation
- Identify cognizant technical panel for each conference and encourage increased participation
- Encourage all technical panels to participate in at least one AESS conference per year

# Highlights

## Strategic Objective 2 - Metrics/Scorecard

AES Financially Sponsored/Cosponsored Conferences	Financial Cosponsors	Next Conference	Last Held	AESS Attendees			AESS Technical Panel
				2017	2016	2015	
IEEE Aerospace Conference		March 3-10, 2018 Big Sky, MT	March 4-11, 2017 Big Sky, MT				Space Systems
Navigation, and Surveillance Conference (ICNS)	AIAA DATC	April 10-12, 2018 Herndon, VA	April 18-20, 2017 Herndon, VA				Avionics Systems
Position Location and Navigation Symposium (PLANS)	ION	April 23-26, 2018 Monterey, CA	April 11-14, 2016 Savanah, GA		14	19	Navigation Systems Gyro & Accelerometer
IEEE International Radar Conference (RadarCon)		April 23-27, 2018 Oklahoma City, OK	May 8-12, 2017 Seattle, WA			133	Radar Systems
Metrology for AeroSpace (MetroAeroSpace)	IEEE IM Society	June 20-22, 2018 Rome, Italy	June 21-23, 2017 Padua, Italy				
IEEE AUTOTESTCON	IEEE IM Society	September 18-21, 2018 National Harbor, MD	September 12-15, 2017 Schaumburg, IL		25	24	Board of Directors
IEEE/AIAA Digital Avionics Systems Conference (DASC)	AIAA DATC	September 23-27, 2018 London, GB	September 16-21, 2017 St. Petersburg, FL		20	14	Avionics Systems

- Aerospace Control and Guidance Systems Panel is separate 501.c.3 that conducts semiannual meetings with technical sessions and short courses that are not affiliated with IEEE.
- Gyro and Accelerometer Panel meets for two days every two months to develop sensors and systems standards.
- Radar Panel and Space Panel are actively engaged with several meetings and conference in their fields of interest
- Aerospace Systems Integration Engineering Panel is engaged with IEEE Systems Council and conferences
- Cybersecurity Panel and UAV Panel are engaged with other IEEE and Professional Society conferences.

# Initiatives

## Strategic Objective 3

Promote collaboration between technical panels and chapters

### Initiatives:

- Identify technical panel members and their local IEEE sections
- Develop matrix of technical panel membership vs. IEEE sections for regional coverage
- Analyze matrix to identify regions that have critical mass and ensure that there are local AESS chapters in these regions to promote further collaboration
- Survey local AESS chapters to identify which AESS fields of interest, if any, are predominant among their members
- Use this information to inform and encourage member participation in relevant technical panels

# Initiatives

## Strategic Objective 4

Promote synergy and collaboration with AESS Educational Activities to expand distinguished lecturer coverage and develop continuing professional development activities for all AESS fields of interest

### Initiatives:

- Utilize gap analysis to identify needs for distinguished lecturers in specific fields of interest
- Utilize AESS chapter fields of interest and local experts to identify new distinguished lecturer candidates
- Explore concept of short courses proposed by educational activities to increase collaboration



# Highlights

## Strategic Objective 4 - Metrics/Scorecard

	Aerospace Control & Guidance Systems	Aerospace Systems Integration Engineering	Avionics Systems	Cyber Security	Gyro and Accelerometer	Navigation Systems	Radar Systems	Space Systems	Target Tracking Systems	Unmanned Aerospace Vehicles
Maruthi Akella								X		X
Yaakov Bar-Shalom		X							X	
Erik Blasch	X	X							X	
Eli Brookner							X		X	
Larry Chasteen		X	X				X			
Fred Daum		X					X		X	
Mark Davis							X		X	
Walt Downing			X			X		X		X
Giuseppe Fabrizio		X					X		X	
Alfonso Farina							X		X	
Maria Sabrina Greco							X		X	
Hugh Griffiths							X		X	
Phillip Hall										X
Lorenzo LoMonte							X			
Wolfgang Koch	X	X					X		X	
Kathleen Kramer				X		X				
Surendra Pal	X	X						X		
Zihua Qu										X
Bob Rassa		X								
Avid Roman-Gonzalez								X		
George Schmidt	X	X	X		X	X				X
Michael Wicks							X	X		
Peter Willett							X		X	
Ji Wu								X		

# Initiatives

## Strategic Objective 5

Prepare guidance in the form of best practices and recognize outstanding technical panels

### Initiatives:

- Collect information for each technical panel
- Identify best practices
- Share ideas among technical panels

### Highlights:

#### Outstanding Technical Panel of the Year Awards:

2016 – Unmanned Aerial Vehicles

2015 – Gyro and Accelerometer

2104 – Aerospace Control and Guidance Systems

2013 – Radar Systems

# Initiatives

## Strategic Objective 6

Increase AESS member participation in all technical panels

### Initiatives:

- Utilize AESS chapter fields of interest and local experts to identify and engage emerging leaders
- Inform and invite AESS members to participate in AESS activities through improved communication efforts including letters, email, AESS website, QEB and social media

# Highlights

## Strategic Objective 6 - Metrics/Scorecard

### Status

- Updating AESS website with current information
- Preparing articles for QEB
- Increasing participation in social media activities
- Collaborating more effectively with student branches
  - Having chapter meetings at local universities
  - Sponsoring student projects
- Engaging with UTSA IEEE-HKN chapter to create opportunities to increase student involvement in AESS
  - AESS undergraduate student representative is active in this chapter
  - AESS VP, Technical Operations invited to become industrial advisor
    - Meeting with the chapter officers periodically
    - Serving as a mentor for students in the chapter