



# IEEE Aerospace Electronic Systems

*VP Publications*

*Lance Kaplan*

*AESS Spring 2023 Board of Governors Meeting*

*San Antonio, Texas, USA*



- Strengths
  - High quality publications
  - Significantly faster review cycles
- Weaknesses
  - Identification of emerging areas of interest; especially related to Industry
- Opportunities
  - Collaborate with other AESS committees for content in our various publications
  - New journal (OJSE and TRS) can increase exposure for AESS and provide new content
- Threats
  - TRS could take papers away from TAES
  - Need continual tracking of open access policies
  - China publication policies

- Lance Kaplan
- Dale Blair
- Peter Willett
- Stefano Coraluppi
- Roberto Sabatini
- Arik Brown
- Sabrina Greco

- TAES is currently a ‘transformative journal’ under Plan S for 2023
  - Must increase OA adoption by 5% to remain on the ‘transformative’ list
  - TAES OA adoption (currently 6%) has grown slowly since 2014
  - Not clear that we need to be on the ‘transformative’ list
- TAES has a large backlog of papers
  - Increased page budget from 4500 to 7500 pages for 2023 and 2024
  - IEEE will start charging for papers as they appear in early access instead of waiting to charge when they appear in an issue
- Magazine special issue for the 50<sup>th</sup> Anniversary of IEEE AESS published in January
- Operations manual for TAES and Magazine are under development
- Still need to work with Industrial Relations to provide content in the Magazine that better serves industrial members

# Status of TAES



## TAES EiC



### **Gokhan Inalhan**

Cranfield University

- 📍 Region 8 (Africa, Europe, Middle East)
- ✉ Email

## TAES Associate EiC

2022 - Present



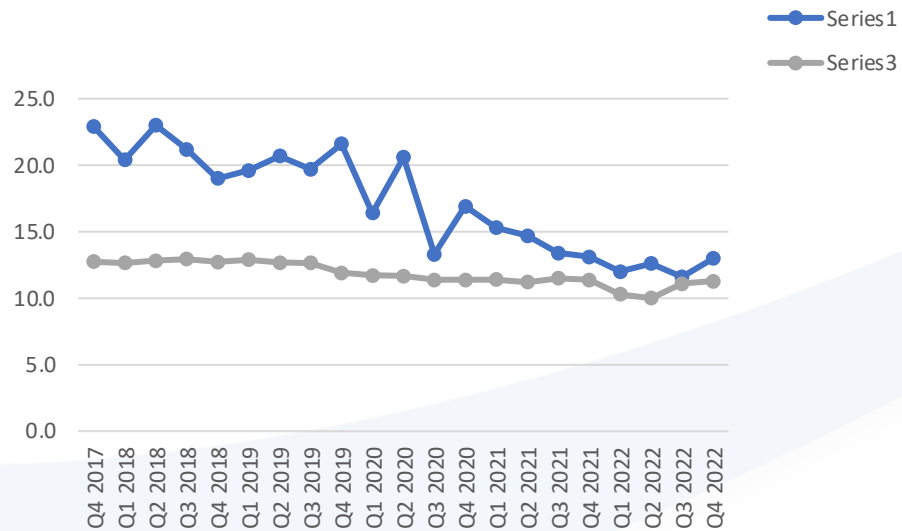
### **Lyudmila Mihaylova**

University of Sheffield

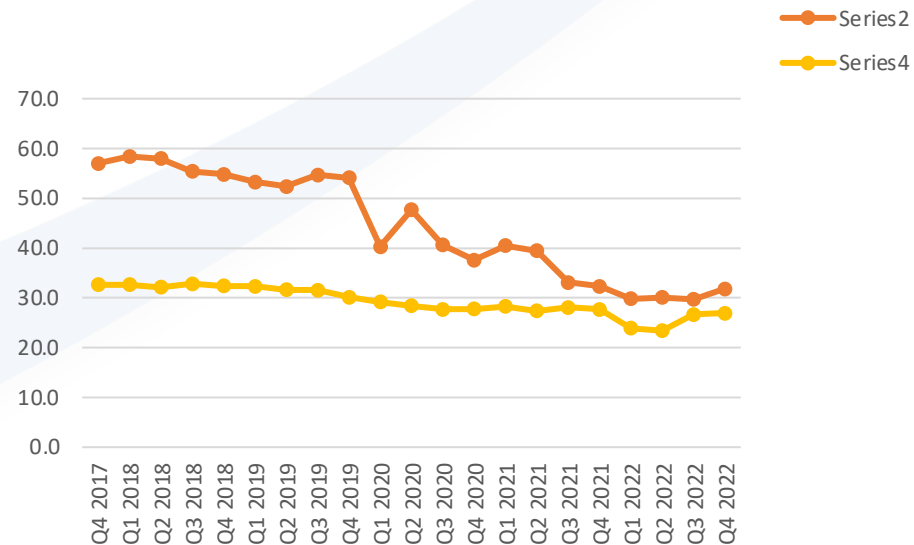
- 📍 Region 8 (Africa, Europe, Middle East)
- ✉ Email

Publication Title (Sponsors)	Number of Articles Included	A. Average Weeks Submitted to First Decision	B. Average Weeks Submitted to Online Post
<b>Quarterly Summary of These IEEE Publications by Publication--Journals**</b>	<b>15,858</b>	<b>11,3</b>	<b>26,9</b>
Aerospace and Electronic Systems, IEEE Transactions on	126	13	31,8

Average Number of Weeks to First Decision



Average Number of Weeks to Online Post



## ▶ New Senior Editors

- Andrea L’Afflitto (R2), Autonomous Systems (replaced Gokhan Inalhan)
- Julien Marzat (R8), Fault Tolerant Systems (replaced Guillaume Ducard)
- Inseok Hwang (R4), Guidance & Control (replaced Moshe Idan)
- Genshe Chen (R2), Intelligent Systems (replaced Pham Khanh)
- Thakshila Wimalajeewa (R1), Networked Sensor Systems (replaced Domenico Ciuonzo)
- Luke Rosenberg (R10), Radar Systems (replaced Shannon Blunt)

▶ Note: all five SEs were replaced by term limits. This is the second round of term-limit replacements at the SE level. Switch happened at RS as Shannon became EiC of T-RS.

▶ Letters were discontinued. Corresponding SE Marcus Baum thanked for his contribution

- **Autonomous Systems**
  - Bohui Wang (R10)
  - Elisa Capello (R8)
  - Kamesh Subbarao (R5)
- **Communication System Networks**
  - Andreas Knoop (R8)
  - Slim Alouini (R8)
- **Fault Tolerant Systems**
  - Paolo Rech (R8)
  - Luis Entrena Arrontes (R8)
- **Guidance and Control**
  - Zhenbo Wang (R3)
  - Roberto Furfaro (R3)
  - Efstathios Bakolas (R3)
  - Lee Taeyoung (R2)
  - Dengfeng Sun (R4)
- **Networked Sensor Systems**
  - Priyadip Ray (R6)
  - Engin Masazade (R8)
- **Radar Systems**
  - Igal Bilik (R8)
  - Stéphanie Bidon (R8)
  - Jingwei Xu (R10)
  - Braham Himed (R2)
  - Justin Metcalf (R5)
  - Weijian Liu (R10)
- **Target Tracking**
  - Junkun Yan (R10)
  - Luigi Chisci (R8)
  - Anne-Laure Jousset (R8)



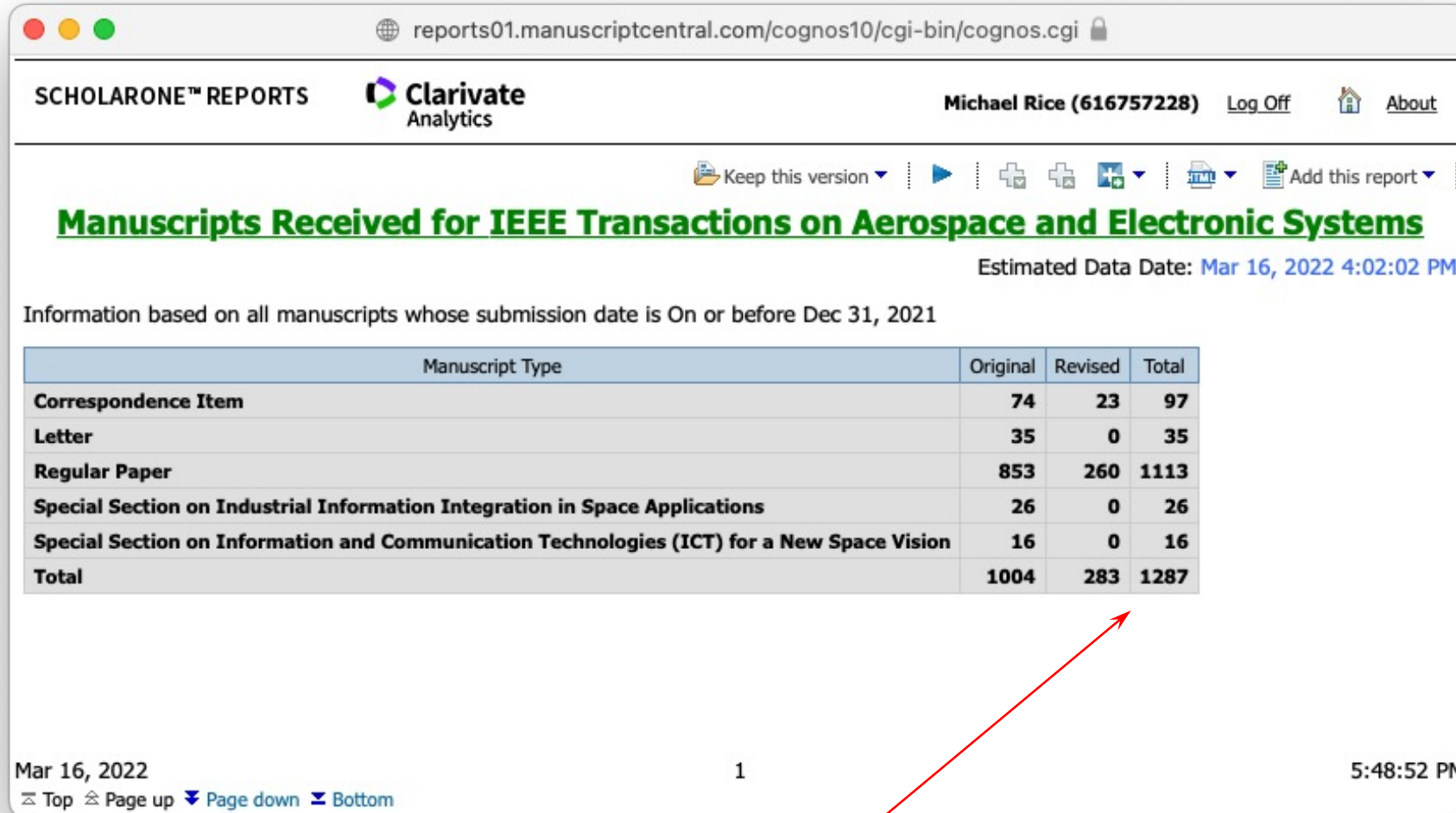
- Criteria
  - Good feedback to authors for Reject, Major Revision, Minor Revision decisions.
  - Timely processing: <70 days for each decision.
  - More than six assignments met the first two criteria
  - Selected by EiC and AEiCs
- Recognition
  - AESS-branded gift (coffee mug)
  - Certificate
  - Appreciate Letter for EiC
- Special thank you to Amanda for collecting addresses and shipping all this stuff!

# Outstanding AE Awardees


- Jihwan Choi (Communications) – winning the second time
- Akram Al-Hourani (Communications)
- Chen-Fen Huang (Signal Processing) – winning the second time
- Fulvio Gini (Radar)
- Stephane Le Menec (Guidance and Control)
- Anthony Martone (Radar)
- Yuri Shtessel (Guidance and Control) – winning the second time
- Vijitha Weerackody (Communications)
- Rong Yang (Navigation)


- Current Special Sections (currently reviewing papers)
  - Deep Learning for Radar Applications
    - Guest Editors: Sevgi Gurbuz, Igal Bilik, Luke Rosenberg
  - Machine Learning Methods for Aerial and Space Positioning and Navigation
    - Guest Editors: Keegen Yu, Michael Braasch, Pau Closas, Jindrich Dunik, Fabio DAVIS
  - Automotive Imaging and Super-Resolution Radar Systems
    - Guest Editors: Igal Bilik, Joseph Tabrikian, Fulvio Gini

- ▶ Select best paper published in 2019
- ▶ The selection process was organized and managed by Barry Carlton Award Executive Committee including Prof. G. Inalhan (Cranfield University, UK – Editor-in-Chief) and included Prof. L. Mihaylova (University of Sheffield, UK - Associate Editor in Chief) and Prof. A. L’Afflitto (Virginia Tech, USA - Senior Editor).
- ▶ Detailed evaluation process involving papers
  - External nominated
  - Editorial nominated by SEs/AEs
  - Top cited papers
- ▶ The Barry Carlton Award Evaluation Committee : Prof. L. Mihaylova (University of Sheffield, UK - Associate Editor in Chief), Prof. A. L’Afflitto (Virginia Tech, USA - Senior Editor), Dr. L. Kaplan (Army Research Lab, USA), Dr. J. Barr (Defence Science and Technology Laboratory, UK), and Dr. T. Pham (MITRE Corporation, USA)
  - Evaluated in terms of scientific relevance, number of citations, demonstrated ability to advance the state-of-the-art, and applicability
- ▶ Winner will be announced by VP Awards
- ▶ For future awards (2027+)
  - New tab for AEs to recommend papers for award during accept decision (2023 onwards)



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## Manuscripts Received for IEEE Transactions on Aerospace and Electronic Systems

Estimated Data Date: Mar 16, 2022 4:02:02 PM

Information based on all manuscripts whose submission date is On or before Dec 31, 2021

Manuscript Type	Original	Revised	Total
<b>Correspondence Item</b>	<b>74</b>	<b>23</b>	<b>97</b>
<b>Letter</b>	<b>35</b>	<b>0</b>	<b>35</b>
<b>Regular Paper</b>	<b>853</b>	<b>260</b>	<b>1113</b>
<b>Special Section on Industrial Information Integration in Space Applications</b>	<b>26</b>	<b>0</b>	<b>26</b>
<b>Special Section on Information and Communication Technologies (ICT) for a New Space Vision</b>	<b>16</b>	<b>0</b>	<b>16</b>
<b>Total</b>	<b>1004</b>	<b>283</b>	<b>1287</b>

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A record number of new submissions to TAES for a total of 10 months

## Manuscripts Received for IEEE Transactions on Aerospace and Electronic Systems

Estimated Data Date: [Apr 24, 2023 11:28:02 PM](#)

Information based on all manuscripts whose submission date is Between Jan 1, 2022 and Dec 31, 2022

Manuscript Type	Original	Revised	Total
Automotive Imaging and Super-Resolution Radar Systems	8	0	8
Correspondence Item	118	83	201
Deep Learning for Radar Applications	21	2	23
Letter	38	1	39
Machine Learning Methods for Aerial and Space Positioning and Navigation	12	0	12
Regular Paper	1418	740	2158
Special Section on Industrial Information Integration in Space Applications	9	38	47
Special Section on Information and Communication Technologies (ICT) for a New Space Vision	0	15	15
<b>Total</b>	<b>1624</b>	<b>879</b>	<b>2503</b>

**A record number of new submissions to TAES in a calendar year!**

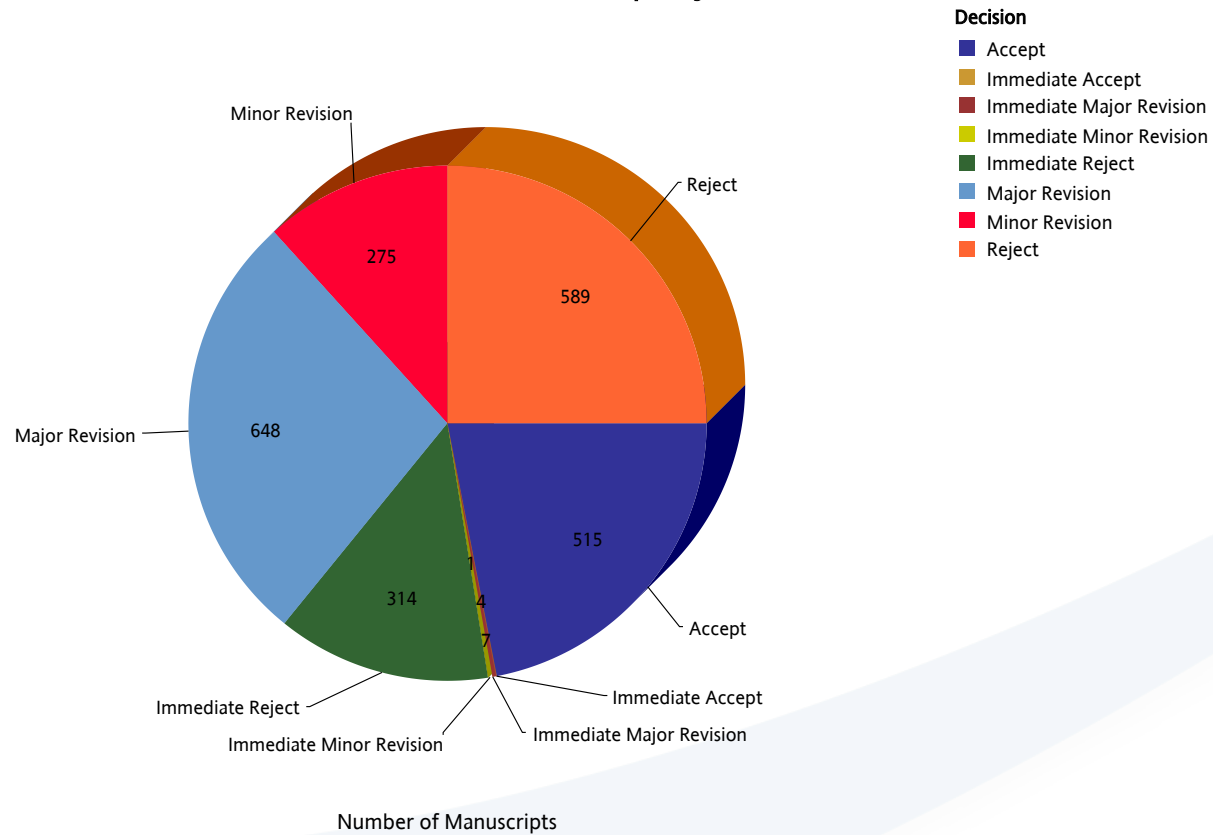
## Technical Area report

# of Manuscripts	Accept	Pending	Reject	Withdrawn	Summary
Autonomous Systems	17	6	55		78
Avionics Systems	1	11	16	1	29
Communication Systems and Networks	31	11	64	4	110
Electro-optic and Infrared Systems	4	3	3		10
Electronic Warfare Systems	8	8	29		45
Energy Conversion Systems	7	1	13		21
Fault Tolerant Systems	13	5	21		39
Guidance and Control Systems	74	45	154		273
Intelligent Systems	16	13	35		64
Navigation	25	26	98	1	150
Networked Sensor Systems	12	4	16		32
Radar Systems	106	40	180	5	331
Signal Processing in Aerospace and Acoustic Systems	29	24	69	1	123
Space Systems	15	6	55		76
Target Tracking and Multisensor Systems	44	26	89	1	160
			1		1
<b>Summary</b>	<b>402</b>	<b>229</b>	<b>898</b>	<b>13</b>	<b>1,542</b>

Information based on all manuscripts whose decision date is Between Jan 1, 2022 and Dec 31, 2022

Grouped by: Manuscript Decision

No. of Manuscripts by Decision



Manuscript Decision	Number of Manuscripts	Percentage of Total
Accept	515	21.9%
Immediate Accept	4	0.2%
Immediate Major Revision	7	0.3%
Immediate Minor Revision	1	0.0%
Immediate Reject	314	13.3%
Major Revision	648	27.5%
Minor Revision	275	11.7%
Reject	589	25.0%
<b>Total:</b>	<b>2353</b>	<b>100.0%</b>

Acceptance rate is  $\approx 45.6\%$



# Submissions by Country (1/2)

Author Country/Region	Original	Revised	Total
Algeria	4	1	5
Argentina	1	0	1
Australia	20	9	29
Austria	1	1	2
Bangladesh	1	0	1
Belgium	3	1	4
Brazil	17	9	26
Canada	29	15	44
China	966	487	1453
Cyprus	2	1	3
Czech Republic	0	1	1
Denmark	1	2	3
Egypt	3	0	3
Finland	2	3	5
France	10	13	23
Germany	22	14	36
Greece	2	1	3
Hong Kong	19	6	25
India	60	13	73
Indonesia	1	0	1
Iran (the Islamic Republic of)	29	7	36
Ireland	2	3	5
Israel	12	9	21
Italy	27	41	68
Japan	11	4	15

Korea (the Republic of)	62	35	97
Kuwait	2	1	3
Luxembourg	4	6	10
Malaysia	4	1	5
Mexico	3	0	3
Morocco	2	0	2
Netherlands	7	4	11
New Zealand	1	0	1
Norway	1	0	1
Pakistan	4	0	4
Poland	6	2	8
Portugal	3	3	6
Qatar	3	0	3
Romania	1	0	1
Russian Federation	7	2	9
Saudi Arabia	3	2	5

#1

#3

# Submissions by Country (2/2)

Author Country/Region	Original	Revised	Total
Singapore	12	4	16
Slovenia	1	0	1
South Africa	2	2	4
Spain	21	6	27
Sweden	10	5	15
Switzerland	1	1	2
Taiwan	12	13	25
Thailand	1	0	1
Tunisia	1	0	1
Turkey	21	17	38
United Arab Emirates	7	1	8
United Kingdom of Great Britain and Northern Ireland	19	15	34
United States	157	116	273
Viet Nam	1	2	3
Summary	1624	879	2503



#2

# Status of AES Magazine



**Systems Magazine EiC**

2021 - 2022



**Daniel W. O'Hagan**

Fraunhofer FHR Institute for High Frequency  
Physics and Radar Techniques

📍 Region 8 (Africa, Europe, Middle East)

✉ Email

- Scott Bawden (Energy Conversion Systems)
- W. Dale Blair (Tutorials)
- Erik Blasch (Aeronautics and Astronautics)
- Stefan Brueggenwirth (Applications of Artificial Intelligence and Machine Learning to Aerospace Systems)
- Michael Cardinale (EO/IR Systems and Image Processing)
- Mauro De Sanctis (Signal Processing and Communication in Aerospace Systems)
- Dietrich Fraenken (Fusion & Signal Processing)
- Giancarmine Fasano (Unmanned Aircraft Systems)
- Jason Gross (Navigation, Positioning)
- Raktim Bhattacharya (Space Systems)
- Khanh Pham (Space Communications)
- Federico Lombardi (Student Highlights)
- Daniel O'Hagan (EiC and AE for Radar Systems)
- Roberto Sabatini (Avionics)
- Samuel Shapero (Book Reviews)
- Ruhai Wang (Systems Engineering)
- Marco Frasca (Quantum Technologies in Aerospace Systems)
- **Michael Brandfass** (Radar Systems)

## Recent

- SI for AESS 50th Anniversary (Griffiths, Koch and Farina)
  - Published in January 2023

## Upcoming

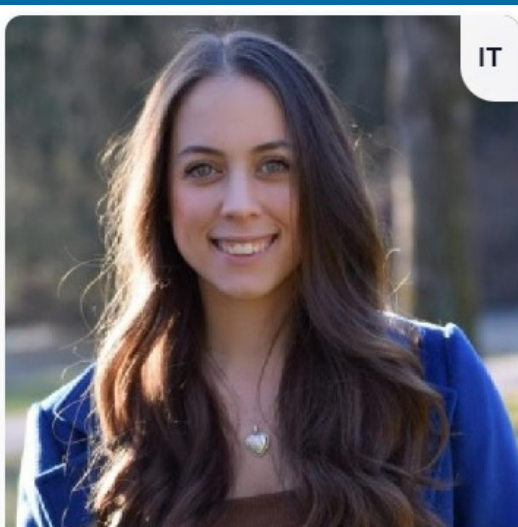
- Urban Air Mobility and UAS Airspace Integration: Vision, Challenges, and Enabling Avionics Technologies (Fasano, Crespillo, Sabatini, Roy, Ogan)
  - To be printed in the May 2023 Issue
- ~~Special Issue on Systems and Solutions for Arctic Challenges (Reese, McGee, Eicken, Mahoney, Bawden)~~ Has been cancelled
- Special Issue on Space Domain Systems (Blasch, Linares, Jah)

- **Deep learning assisted Computer Vision and Visual Analytics in Autonomous Unmanned Aerial Vehicles** (Lead GI: Dr. Carlos Enrique Montenegro Marin, District University Francisco José de Caldas, Bogotá, Colombia). CfP will be published in May/June Issue 2023.
- **Ethics, Values, Laws, and Standards for Responsible AI** (Lead GI: Wolfgang Koch). CfP will be published in May/June 2023
- **Sensor Technologies for Hypersonic Missile platforms and Hypersonic Missile Defence (HMD)** (Lead GI: Daniel W. O'Hagan). CfP will be published in June/July 2023
- **Future of Aerial Robots and Autonomous System with 6G and Beyond Networks** (Lead GI: Dr. E. Laxmi Lydia, Professor & Dean R&D, Vignan's Institute of Information Technology, Visakhapatnam, Andhra Pradesh, India). CfP will be published in June/July Issue 2023.

*In all cases mentioned – draft CfPs exist. Other SI proposals are expected but these are not yet in draft stage.*

- Nathan Goodman: We (Magazine) should expect to receive more regular contributions from the Radar Systems Panel (RSP)
- AE community to seek contributions for SIs within their professional sector
- Harry Rowe Mimno Award for best paper published in 2021 has been selected
- AESS Magazine Editorial Calendar provided to Naylor in January 2023

# Quarterly Email Blast



**Francesca Filippini**

Infineon Technologies AG

📍 Region 8 (Africa, Europe,  
Middle East)

✉ Email



**Philipp Markiton**

Fraunhofer FHR

📍 Region 8 (Africa, Europe,  
Middle East)

✉ Email



# Update on 2023 Objectives



## Achieved

- Introduce (and keep) more technical diversity in “Story behind a success” section.
- Improve layout and readability:
  - More compact and easier to navigate
  - Table of content at the beginning



## Work in progress

- Monitor statistics.
- Review content:
  - Based on: Number of clicks / opened links.
  - Potentially reduce or improve to generate more interest and awareness.
- Include contents for Industry (maybe a new column?).

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**IN THIS ISSUE:**  
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[UPCOMING EVENTS](#)  
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[50TH ANNIVERSARY](#)  
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[2023 VDL SERIES](#)  
[MEMBER NEWS](#)  
[CHAPTER NEWS](#)  
[PUBLICATIONS NEWS](#)  
[CONFERENCE NEWS](#)

**QUARTERLY EMAIL BLAST**  
OFFICIAL NEWSLETTER OF THE IEEE AEROSPACE AND ELECTRONIC SYSTEMS SOCIETY  
01/2023

**FROM THE EDITORS**  
Dear AESS Members,  
Welcome to the first QEB of this year, we hope you all had a great start into 2023. This year marks the 50th anniversary of the AES society, and we have planned many activities to celebrate this important milestone with all of you. The first celebration was held on 15 February. Scroll through this newsletter to learn more.  
Students and YPs have been on the move this last quarter. Tunisian students and YPs ended 2022 with a major highlight at the Tunisian Students and YP Conference and YPs in Space. IEEE YPs started the new year off in Las Vegas at the Rising Stars Conference. You will find articles about both events in this edition.  
Furthermore, you will find an inspiring story behind the success from the recipient of the Robert T. Hill Best Dissertation Award 2022, and you will learn about the Moonshine equipment in our History Column.  
We hope that you will enjoy the first edition of the QEB for 2023! We look forward to your suggestions, comments, complaints, and ideas to make this newsletter increasingly useful and interesting.  
Have fun reading!  
Francesca Filippini and Philipp Markiton  
Editors-in-Chief, AESS QEB

**2022 IEEE AESS Robert T. Hill Best Dissertation Award**  
The Robert Hill Award recognizes candidates that have recently received a Ph.D. degree and have written an outstanding Ph.D. dissertation in the Field of Interest of the Aerospace and Electronic Systems Society.  
Hear from this year's recipient, [Leonardo M. Milafiori](#), and learn about his journey from high school to landing a position at CNR in La Spezia.  
[Read More](#)

**AESS 50th Anniversary Celebration**  
On 15 February 2023, AESS members and leaders, IEEE, and industry members gathered in Princeton, New Jersey, USA. Check out the photos from the event on our [Facebook page](#).  
[Watch the AESS Anniversary video](#) to learn more about the history of the Society and its activities.  
[Read More](#)

**The History Column: Moonshine**  
Radar jammers often include pulse repater modes. Modern systems may use a digital RF memory (DRFM), which digitizes incoming pulses, allowing them to be retransmitted multiple times with different time delays, amplitudes and Doppler signatures. However, the concept of pulse repater jamming is not new and such techniques were first used in the UK in WW2, using an airborne equipment called Moonshine.  
[Read More](#)

**2023 Virtual Distinguished Lectures**  
Register today for one of the 27 remaining Virtual Distinguished Lecture webinars in 2023.  
Registration is free but required. The webinars will be recorded and made available after the event on the [IEEE Learning Network](#).  
[Read More](#)

**Member News**

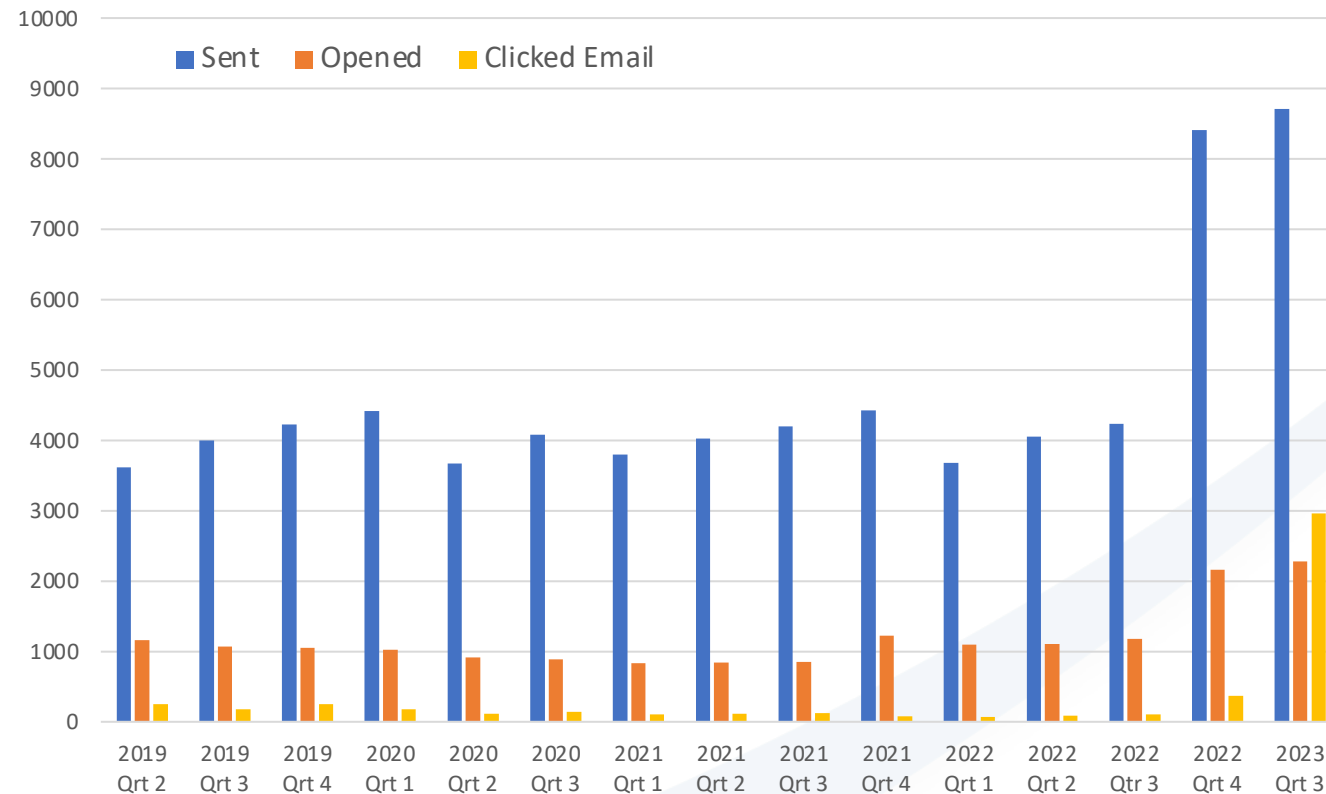
**2023 Rising Stars**  
AESS is a proud sponsor of the 2023 Rising Stars Conference. Kathleen Kramer presented on AESS and Evolving Cyber Systems in Avionics.

**2022 TSYP Congress**  
More than 1000 students and YPs attended the event in Sousse, Tunisia hosted by IEEE ESPRIT Student Branch – Tunisia Section.

**2023 Travel Grants**  
AESS is offering travel grants to AESS YP at three of its financially sponsored conferences this year.

**National Academy of Engineering 2023 Class**  
Alfonso Farina was selected as one of 106 Members and 18 International Members added in 2023.

**Special Message FROM THE PRESIDENT**



- Larger number of sent emails (**no longer sent only to current AESS members**).
- The percentage of opening email over sent emails remained approximately constant (~25%).
- The number of clicks substantially increased at the beginning of 2023 (**new template introduced**). This trend must be confirmed during the year.

# Status of TRS



Shannon Blunt  
EIC



Fabiola Colone  
Assoc. EIC



Martin Vossiek  
Assoc. EIC

- Launch: Oct. 20, 2022
- 19 Associate Editors on the Editorial Board
- 96 submissions
- Terminal decisions: 5 accept, 17 rejects, 17 out of scope
- Two special sections
  - Fully Digital Arrays
  - Innovations in Radar Spectrum
- Planned special section
  - Advance in Radar Imaging
- Formalizing process for external special section proposals
- Expected to far exceed minimum publication goal of 20 in 2023

## Status of OJSE



W. Dale Blair  
EIC



Ljiljana Trajkovic  
Assoc. EIC

- Launch: April 2022
- 5 Associate Editors on the Editorial Board
- 26 submissions
- Terminal decisions: 10 accepts, 0 rejects, 1 out of scope
- Four special sections
  - Artificial Intelligence and Systems Engineering
  - Resilience in Systems Engineering
  - Front-end Need Analysis
  - System Engineering Processes for Predictive Maintenance
- Types of paper: Regular Technical Papers, Technical Surveys, Tutorials, Problem Definition with Challenge Problems
- Expected to exceed minimum publication goal of 20 in 2023



# Questions?