

## **Meeting Minutes IEEE SPS Synthetic Aperture Technical Working Group**

**17 March 2023**

1. Group members in attendance were Kumar Vijay Mishra, Peter Vouras, Ahmet Elbir, Arpan Chattopadhyay, Naveen K. D. Venkategowda, Shobha Sundar Ram, Theresa Scarnati, Yu Rong, Samuel Pinilla.
2. Theresa presented an overview of her current research: sparse reconstruction SAR techniques, AI/ML using RF data, and sparse distributed apertures. During the follow-up discussion, Shobha suggested possibility of creating an open dataset for SAR. Other follow-up questions on the presentation were asked by Arpan, Peter, Samuel, and Yu.
3. TWG members presented updates on the special issues (SIs) related to synthetic apertures (SAs) they are leading:
  - Peter: J-STARS SI on phase less apertures has been approved. T-AP SI has been submitted. Under preparation: SPM, WCM (with Arpan and Naveen), and J-SAC (with Arpan and Naveen) on AI/ML for SAs.
  - Ahmet: J-STSP and WCM on near-field signal processing approved. In preparation: SPM, J-STSP (with Naveen), J-STARS, Comms Standard Magazine, and T-AES (with Shobha).
  - Shobha: Under preparation: T-AES SIs on ISAR and stochastic geometry.
  - Vijay (update on behalf of Raghu): J-STARS SI is submission-ready and a possible SPM SI on SAs under preparation.
  - Arpan: J-STSP submission-ready. Under preparation: WCM (with Peter and Naveen) and J-SAC (with Peter and Naveen).
  - Naveen: Will start working on WCM (with Arpan and Peter) and J-STSP (with Ahmet) SIs in April 2023.
  - Yu: J-BHI SI submission-ready.
  - Samuel: To explore possibility of an SI on phase retrieval for SAs.
4. Peter and Vijay asked TWG members to help with the reviews of submission in the 2023 ICASSP workshop on SAs: <https://sagroups.ieee.org/sps-sasc/icassp-2023-workshop/>
5. Vijay reported the status of the TWG proposal for a regular "Special Section on Computational Imaging for Synthetic Apertures" in the IEEE Transactions on Computational Imaging. The proposal has been submitted and strongly supported by both SPS President and T-CI EiC. Final approval is awaited.
6. Peter and Vijay reported the status of the proposal for annual SPS workshop dedicated to Synthetic Apertures. Boulder, Colorado is likely to be the permanent venue for the workshop with tentative dates in early fall. Peter and Aly are exploring support from NIST, Boulder, which will be crucial in organizing the workshop.
7. Vijay and Peter proposed organizing the 2nd free & virtual mini-workshop on Synthetic Apertures in late spring via Whova platform. Details will be discussed during the next TWG meeting.
8. As SASC Chair, Peter provided updates on SASC standards activities, including asking new TWG members to contribute to SASC within their domain expertise.
9. Our next meeting will be on ***Thursday, April 13 at 1:00 pm ET.***