<u>Meeting Minutes IEEE SPS Synthetic Aperture Technical Working Group</u> <u>13 April 2023</u>

- 1. Group members in attendance were Kumar Vijay Mishra, Peter Vouras, Ahmet Elbir, Arpan Chattopadhyay, Naveen K. D. Venkategowda, Shobha Sundar Ram, Wei Liu, Jim Fienup, Ramesh Annavajjala, and Igor Shevkunov.
- 2. Igor presented an overview of his current research: phase retrieval, lensless imaging, and hyperspectral imaging. Follow-up questions on the presentation were asked by Jim, Ramesh, and Vijay.
- 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: Published.
 - T-AP SI on SA antennas: Revise and resubmit decision.
 - Under preparation: SP-M, WC-M (with Arpan and Naveen), and J-SAC (with Arpan and Naveen) on AI/ML for SAs.
 - Ahmet
 - J-STSP and WC-M SIs on near-field signal processing: Published.
 - Comms Standard Magazine SI on SA and ISAC standards: Published.
 - SP-M, SP, and J-STARS SIs: Submitted.
 - Under preparation: T-AES (with Shobha).
 - Shobha
 - Under preparation: T-AES SIs on ISAR and stochastic geometry.
 - Raghu (updated on his behalf by Vijay)
 - J-STARS SI on distributed SAs: Published.
 - Under preparation: SPM SI on SAs.
 - Arpan
 - J-STSP SI: submission-ready.
 - Under preparation: WCM (with Peter and Naveen) and J-SAC (with Peter and Naveen).
 - Suggested: J-SAC/J-STSP on cybersecurity for SA/ISAC.
 - Naveen
 - Under preparation: WCM (with Arpan and Peter) and J-STSP (with Ahmet) SIs.
 - Yu (updated on his behalf by Vijay)
 - J-BHI SI: Submitted.
 - SP-M SI: Under preparation.
 - Igor:
- J-STSP SI: Submitted.

- Possible: IP and SIAM SIs.
- Ramesh
 - Will work on proposing the J-STSP/J-SAC SI on modeling.
- 4. Discussion on annual workshop on SAs: Vijay and Peter will meet with Aly to discuss the proposal further.
- 5. Discussion on 2nd free and virtual mini-workshop: The members decided that it will be more appropriate to discuss the planning for this mini-workshop after the status of the annual workshop is finalized. The annual workshop is to be tentatively held in September/October. The ICASSP workshop is in June. Therefore, it may not be very productive to have a mini-workshop so close to ICASSP and annual workshops. In case the annual workshop is approved, then the TWG will organize only one miniworkshop per year in spring.
- 6. Peter provided SASC updates:
 - Collaboration initiated with EMBS on new working groups related to MRI and ultrasound.
 - New PARs to be initiated on ISAC related standards.
- 7. Vijay provided SASC updates:
 - Radar study group became Radar Working Group.
 - The multi-channel SAR sub-group is now under consideration to become a working group.
- 8. Vijay brought up the proposal by Yu Rong on organizing SA-TWG webinars. Wei asked about the difference between the webinars and mini-workshop talks. Peter suggested that the webinars are a good platform for detailed 1-hour talks while the workshop talks are limited to only 20 minutes. The members also decided that the workshop planning should be left to a sub-committee within the group. Further, the speakers should be selected based on a mix of volunteers, online applicants, and invited speakers. Vijay will follow-up with the SAM-TC Chair and SPS President on necessary approvals.
- 9. New business: Ahmet asked the interested members to contribute papers to the special session on near-field SP he is co-organizing with Vijay at the 2023 CAMSAP in Costa Rica.
- 10. Our next meeting will be organized as the hybrid (in-person & virtual) meeting at the 2023 ICASSP in Rhodes, Greece. It will be co-chaired onsite by Peter and online by Vijay. The in-person ICASSP meeting will be held in the Sheraton Kamiros. Meeting day/times are as follows:

Greece/Turkey time: Wednesday, *June 7* at *12:00 pm - 1:30 pm* US EST: Wednesday, *June 7* at *5:00 pm - 6:30 pm* India time: Wednesday, *June 7* at *2:30 pm - 4:00 pm* Sweden time: Wednesday, *June 7* at *11:00 am - 12:30 pm*.