ISIF Board of Directors statement – Prof. Paul Thomas

Biography

Paul is a Fellow in the UK MOD's Defence Science and Technology Laboratory (Dstl), and holds a visiting Professorship in Sensor Fusion and Autonomy at the University of Loughborough, UK.
Paul has 24 years' experience in the area of data fusion, sensor management and sensor autonomy and has led diverse research areas in the UK Ministry of Defence such as chemical and biological source term estimation; the University Defence Research Collaboration (UDRC) for signal processing; and SAPIENT (www.gov.uk/sapient), the concept, standard and architecture underpinning sensor modular autonomy coupled with information fusion.
Most recently Paul initiated and leads the Stone Soup project (https://github.com/dstl/Stone-Soup), which is the open source framework for comparison of tracking and state estimation algorithms. This initiative[*], where algorithms, data and models are openly shared, aims to change the culture of the global fusion community since it encourages practitioners to adopt the paradigm of code sharing and algorithmic transparency.
Paul has many publications on the subject of fusion and served as a Conference Co-Chair for the Sensor Signal Processing for Defence (SSPD) conference (2009-2018); Member of the Organising Committee for the IET Intelligent Signal Processing (ISP) conference; Member of Technical Programme Committee for ISIF Fusion conferences (multiple years); as well as IEEE MFI; and SPIE Counterterrorism, Crime Fighting, Forensics and Surveillance Technologies conferences. Paul also serves as Chair of ISIF's Open Source Tracking and Estimation Working Group (OSTEWG)[†].

Vision

I am passionate about code-sharing and open-data. For too long the fusion community has suffered from a reproducibility problem, since the primary dissemination mechanism has been conference and journal papers, rather than algorithms rendered into code My aspiration is that fusion researchers enjoy the same culture of code-sharing and open-data as the machine learning and computer vision communities, and benefit from the research acceleration that this brings. I have already started this work with OSTEWG and if elected I will bring this philosophy to the values of ISIF.
I believe in transitioning state of the art fusion ideas into practical capability. One key way of bridging the gap between academic innovation and real-world implementation is to challenge the algorithms with real data. I believe ISIF should host open data access for challenging datasets to inspire researchers.
I am a fervent supporter of diversity and inclusion. Engineering disciplines such as information fusion traditionally suffer from poor diversity. This robs us of needed talent.

[*] See Perspectives March 2019 (http://confcats_isif.s3.amazonaws.com/web-files/perspectives/IFIP FUSION 2019 Vol. 2 (June 2019).pdf).
[†] https://isif-ostewg.org/