

SCSC Autonomous Systems Safety

Working Group – Terms of Reference

Rob Alexander, 31 August 2018 (minor update 12 October 2018)

Statement of the Problem

To realise the positive potential of autonomy, the autonomous systems community needs to have ways of making such systems demonstrably safe. The specific safety challenges of autonomous systems and the technologies that enable autonomy are not adequately addressed by current practices and standards. Autonomous systems can introduce many new paths to accidents, and it may not be practical to adequately analyse autonomous system technologies using accepted current practice. Whilst there are differences between domains, in detail and in standards, many of the underlying challenges appear similar and it is likely that common approaches to core problems will prove possible.

Vision

To produce clear guidance on how autonomous systems and autonomy technologies should be managed in a safety related context, throughout the lifecycle, in a way that is tightly focussed on challenges unique to autonomy.

Objectives

1. Produce and maintain cross-sector guidance
2. Identify what (current or emerging) standards we can and should influence.
3. Identify other public groups working on similar efforts, and determine our relationship to each of them.

Proposed Working Strategy

- Meet 3-4 times a year to reach agreements and resolve contentious points
- Between meetings, carry out detailed work (independently, or by collaborating electronically)
- Produce an update of the guidance each year, in time for the SCSC Symposium (usually in February). All members will have the opportunity to comment on a late draft before publication.
- Continue to operate until it is clear that the group is no longer required (most likely because formalised standards have caught up with our guidance)

Membership

Membership is open to all interested parties – membership of the SCSC is encouraged but not required. In practice, membership merely involves being on the group mailing list and agreeing to the copyright policy. To request membership, email rob.alexander@york.ac.uk.

Sharing of Documents

For most sharing, we use a Google Groups mailing list and a shared Google Drive folder (membership of the list grants access to the folder). For working on group reports, we also use Overleaf projects with restricted access.

Copyright

The purpose of the SASWG is to support the System Safety community by undertaking activities such as sharing best practice, developing guidance documents, and influencing research programmes and the development of standards. This is achieved by putting the major outputs from WG activities in the public domain without restriction on use and adaption. WG members contributing to the activities do so on the basis that their contribution will become public and that they, and/or their employer, agree to this. Contributors to WG outputs will normally be listed but individual contributions will not be identified and contributors, and/or their employers may be omitted from the list on request.

It is the responsibility of each WG member to ensure that, if appropriate, their employer supports their involvement.

Naming of Contributors

Reports published by SASWG will contain a “List of Contributors” subdivided into three sub-lists:

- “Current Participants” (attended a meeting, or made significant written contributions, within the last year)
- “Previous participants” (was a Current Participant in previous years)
- “Reviewers” (participated as a reviewer on this version of the document)

Prior to publication of any report, everyone on the three lists will be emailed to note that they are on the contributors list for a report, and asked to let us know if they do not want to be included. Anyone who does not respond will be included. By default, individuals will be listed with their affiliation, but they may specify that we do not include this.

Review of Terms of Reference

Annually, at first meeting after the anniversary of last review.