

Call for Programme Fellows

Introduction to the Programme

The Assuring Autonomy International Programme, funded by the Lloyd's Register Foundation and the University of York, was set up in response to the Foundation's [2016 Foresight Review of Robotics and Autonomous Systems \(RAS\)](#).

The Programme is developing a Body of Knowledge that will cover the state-of-the art techniques, methods and processes for engineering, assuring, deploying, regulating and operating RAS across multiple domains. The University will work directly on the development of the BoK, but it is expected that much of the content will arise from demonstrators – work on assurance of real-world RAS – or from more focused applied research tasks.

The Programme will support a range of technical work, and the detailed objectives will vary across demonstrators and research tasks, but two of the overarching aims are to:

1. Establish agreed, and evidence-based, means of assuring and regulating RAS (including the use of AI), that are as common as possible across domains;
2. Redefine design practices so systems are “risk aware” and can self-adapt and self-certify.

The Programme will also build an international community, intended both to provide input on the activities of the Programme, and to help disseminate its results. Programme Fellows are part of, and contribute to, this community.

Programme Fellows

“As a representative of industry, participation in the AAIP provides me with valuable access to cutting edge research that I can transfer back into my day-to-day work.”

*Dr Simon Burton, Programme Fellow
Director and Chief Expert Vehicle Computers, Software, Safety and Security (Robert Bosch GmbH)*

We invite applications for visiting Fellowships to contribute to the strategic development of the Programme and to engage with our vibrant research group. Successful Fellows will work with one or more members of the Programme team, and will be supported throughout. Each Fellowship will be different, but it is hoped that Programme Fellows will contribute in one or more of the following areas:

- Defining ‘Critical Barriers to Assurance and Regulation’ (C-BARs) that help to focus the Programme, and to provide results that are usable cross-domain;
- Analysis and certification frameworks for systems using artificial intelligence;
- Design and assurance principles for systems using learning and artificial intelligence;
- Dynamic risk assessment frameworks for systems that learn in operation;
- Structuring and populating parts of the BoK;
- Writing joint publications and further proposals for collaboration;
- Developing a strong community of interest and practice.

We have already welcomed a [number of Fellows to the Programme](#). They have been involved in diverse areas of the Programme, including working with members of the team on published research, writing blog posts, and contributing to the development of the Body of Knowledge.

Each Fellowship application will be considered on its individual merits, and funding will support reasonable travel, accommodation and subsistence expenses to enable Programme Fellows to take up a one-month residency at the University of York, either as a single period, or a series of shorter visits where this is more practical and economical.

“By bringing together a range of contributors, including academia, charities, government and industry, the AAIP is well positioned to address an urgent problem from a pragmatic perspective, without sacrificing a sound theoretical basis. I very much wanted to be a part of AAIP, to work alongside some very talented people and to try and make my own small contribution to overcoming the challenge we face. Being able to make this important work more accessible to Dstl was another key motivation.”

*Rob Ashmore, Programme Fellow
Dstl Fellow (Dstl)*

Eligibility

- We invite applicants from industry, academia, and regulatory organisations to submit proposals indicating how a Programme Fellowship would support the Programme’s objectives and including outline costs (expected maximum £8,000).
- Funds can be used to pay for reasonable travel costs, accommodation and subsistence expenses for Fellows to take up a one-month residency at the University of York.
- Funds may not be used to pay for salary or overhead costs and should normally be claimed by the visiting Programme Fellow, not their employer or any other party.
- Reasonable expenses to present at or attend one conference or event within 6 months of the start of the Programme Fellowship may be included – Programme Fellows are expected to promote the Programme and seek engagement from stakeholders at this event.
- Programme Fellows are expected to take up their residency at the University of York within three months of acceptance of the Fellowship and must have agreement on dates from their employer and from the Assuring Autonomy International Programme before arranging any travel.
- The Programme Fellows will liaise with the Programme Administrator to arrange travel and accommodation, and will submit expense claims to the University of York within 30 days of the last expenditure.

Application process and assessment criteria

It is strongly recommended that prospective applicants contact a member of the Programme team (likely one of the academic leads, Senior Research Fellow or Programme Manager) to discuss their interest in applying, before submitting their application. The Programme team is happy to recommend the best collaborator at the University of York if the applicant does not already know who they would like to collaborate with, and can assist in refining the scope of the fellowship.

The applicant should submit a single pdf file, no longer than 4 sides of single spaced 11pt Arial text and with a 20mm margin. The PDF file must contain the following sections:

1. Applicant details: name, position, organisation, address, e-mail and telephone number
2. 2 page CV of applicant
3. Case for support covering:
 - Aims of the Fellowship
 - How the Fellowship will contribute to the Programme's objectives
 - Any match contributions (e.g. 1 month of applicant's salary costs met by their employer)
 - Budget requested and justification of costs e.g. economy flights, additional travel, visas, accommodation, subsistence (calculated on a per diem basis – the Programme Manager can provide guidance on accommodation costs in York if required)
 - Proposed dates (if known)

Assessment criteria

Applications are assessed by the Assuring Autonomy International Programme Technical Team, who meet every month. Outcomes will normally be communicated to applicants within one month.

Proposals are assessed against the following criteria:

- Applicant profile
- Proposed contribution to the Programme's objectives

Submission

Applications may be submitted at any time by email to the Programme Manager (ana.macintosh@york.ac.uk) as a single PDF file of no more than 4 pages (see details above).