



## Second Call for Feasibility Studies

### **EPSRC Centre for Innovative Manufacturing in Intelligent Automation**

#### **Background**

There are many manufacturing industries, such as automotive and electronics, within which the use of automation is widespread however in others, such as aerospace, it is either limited or non-existent. The reasons for this are many but include cost versus volume, part variability and process complexity. To increase the levels of economically viable automation within these industries the deployment of intelligent automation is a possible solution. The concept of intelligent automation requires systems that can automatically adapt to process, physical or environmental variations and maintain the integrity and quality of the manufacturing process. The concept of intelligent automation also seeks to expand and utilise human skillsets to provide an optimal division between automated and manual operations.

The EPSRC Centre in Intelligent Manufacturing in Intelligent Automation was established in 2011 to be a centre of excellence in this field and to develop new paradigms for intelligent automation working closely with industry and other stakeholders.

Current research themes within the Centre include:

- Human robot interaction and collaboration
- Capture of human skills
- Adaptive automated welding
- Automated assembly

The concept of intelligent automation is multidisciplinary requiring research cutting across mechatronics, human factors, business economics among others. To further broaden the knowledge base in intelligent automation a number of funded feasibility studies are to be launched. These aim to identify and develop ideas and approaches from other disciplines that can be applied to novel intelligent automation systems. The call is particularly focused on developing research areas that have not been applied widely within the manufacturing domain before. Possible areas might include:

- Psychology
- Service robotics
- Computer science and artificial intelligence
- Soft robotics
- 3D machine vision

However, this list is not exclusive and any eligible research proposals will be considered.

## Funding available

The maximum funding available for each feasibility study is £20,000. Grants will normally be of a maximum of six months duration. The studies are being funded at 80% fEC i.e. if your bid is successful you will gain a maximum of £20,000.

## Equipment

The funding is intended to cover the costs of the PI and support staff in the completion of the feasibility study. Estates/indirects, consumables or equipment costs are not included in the grant. Any additional support you may need could be through matched funding.

## Eligibility

All academic staff at UK Universities and associated Research Institutions who are able to hold a UK Research Council grant as Principle Investigator are eligible to apply.

## Key dates

Call launched	29 June 2015
Closing date for applications	28 July 2015
Assessment panel	28 August 2015
Grants announced and feedback given	01 September 2015
Expected start of funded projects	15 September 2015

## How to apply

Feasibility study applications should be submitted by email to [connect@intelligent-automation.org.uk](mailto:connect@intelligent-automation.org.uk) using the format provided below.

### Project Title:

### Summary

*(Max 150 words)*

### Background of Applicant Group

*(Max 150 words)*

### Description of Proposed Activities and Their Context

*(This should include any planned interaction with the EPSRC Centre)*

*(Max 500 words)*

### Outline of Project Costs and Any Match Funding Available

*(Identification of additional support will be looked upon favourably)*

*Max 200 words)*

*Please also attach a diagrammatic work plan (max 1 A4 page) to outline proposed timescale and order of work*

## **Assessment process**

Submissions will be considered by the Centre Management Board (CMB) which consists of academics and industrialists. The evaluation criteria for funding these projects in order of importance are as follows:

1. Novelty of the proposal and in particular its relevance to intelligent automation in manufacturing.
2. Potential for the development of a larger funded project.
3. Evidence of active industrial interest especially in support for any follow on project.
4. The general achievability of the project and the justification of the resources requested.
5. Relevance to the interests of the core industrial partners and founding academic institutions.
6. Track record of proposers in this area.

## **Contacts**

For more details please contact the Centre Director, Professor Mike Jackson

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