



## Human-Like Computing

Imperial College  
London

**EPSRC**  
Engineering and Physical Sciences  
Research Council

<http://hlc.doc.ic.ac.uk/>

### **HLC YEAR 4 CALL FOR PROPOSALS FOR INDUSTRIAL ENGAGEMENT GRANT 2021**

Closing date:  
7<sup>th</sup> May 2021

Funded by the Engineering and Physical Sciences Research  
Council (EPSRC)

#### **SUMMARY**

The EPSRC Network+ on Human-Like Computing is inviting proposals for an industrial engagement funding grant.

Funding of up to £2K will be provided against matched funding for events/tutorials/projects involving engagement with UK-based companies. Applicants are encouraged to ask advice from the Knowledge Transfer Network on possible companies to approach. For further details, please contact Dr Ali Anjomshoaa ([E: ali.anjomshoaa@ktn-uk.org](mailto:ali.anjomshoaa@ktn-uk.org)). Success of such events will be taken into account in consideration of Innovate UK grant submission endorsement.

The funding should be spent between 1<sup>st</sup> December 2021 and 31<sup>st</sup> May 2022.

#### **BACKGROUND**

Human-Like Computing (HLC) research aims to endow machines with human-like perceptual, reasoning and learning abilities which support collaboration and communication with human beings. Such abilities should support computers in interpreting the aims and intentions of humans based on learning and accumulated background knowledge.

The development of computer systems which exhibit truly human-like computing and co-operative properties requires sustained inter-disciplinary collaboration between disparate and largely disconnected research communities within AI and Psychology. The proposed Network is needed in order to forge a new UK-based scientific community involving collaboration between leading groups in these disciplines. The Network builds on the successful interactions of leading AI and Psychology groups represented at the EPSRC work-shop on Human-Like Computing meeting (Bristol, 17-18 February 2016) and the EPSRC funded Machine Intelligence 20 workshop on Human-Like Computing (Cumberland Lodge, 23-25 October 2016). Machine Intelligence 21 workshop on Human-Like Computing took due to take place at Cumberland Lodge from 30<sup>th</sup> June to 3<sup>rd</sup> July 2019.

A book, co-authored by HLC network members, entitled 'Human-like Machine Intelligence' is due to be published by Oxford University Press during 2021. Additionally, the Royal Society has agreed to support a Hooke Scientific meeting at their London premises during 2022 on "Cognitive Artificial Intelligence", associated with the HLC network, with papers published in the Proceedings of the Royal Society.

# HLC YEAR 4 CALL FOR PROPOSALS FOR INDUSTRIAL ENGAGEMENT GRANT 2021

## THIS CALL

The Network+ will provide funds for an industrial engagement grant.

Key objectives for the HLC area were identified by the community during the MI20 HLC meeting (October, 2016). We aim to order these community-generated objectives into a series of Roadmap Themes which relate to key topics associated with the development of HLC from **Foundational Components of HLC** (Years 1+2), **Scaling-up HLC systems** (Year 3) to **Applications of HLC** (Years 4+5).

Year	Phase	Topic 1	Topic 2
Y1	Foundational (1)	Comprehensibility	Representation Change
Y2	Foundational (2)	Small data learning	Memory and forgetting
Y3	Scaling-up	Bridging high and low-level	Verbal and non-verbal
Y4	Applications (1)	Intelligent tutoring	Programming assistance
Y5	Applications (2)	Social agents	Scientific assistance

The topics above will be used by the Management and Grants Committee as a guide to preferred areas for funding of submitted industrial engagement funding and travel grants projects in successive years of the network. Although all submissions will be encouraged in the indicated areas, the committee will also support strong applications in other areas of HLC research.

## APPLICATION GUIDELINES FOR INDUSTRIAL ENGAGEMENT FUNDING

The application process for this call is deliberately lightweight. The submission should contain:

- A maximum of a 2-page project proposal which is expected to include the background, research programme and justification of resources. It should follow EPSRC formatting guidelines. All submissions should be in single column format and use 11-point fonts for the main text. We strongly encourage using EPSRC proposal styles: "all (PDF) attachments must be completed in single-spaced typescript in Arial 11 or other sans serif typeface of equivalent size, with margins of at least 2cm Arial narrow and Calibri are not allowable font types. Text in embedded diagrams or pictures, numerical formulae or references can be smaller, as long as it is legible. Text in tables and figure labels not within embedded diagrams or pictures should be at least 11 point."
- An outline budget will be accepted. If you successful you will be required to provide a full costing on your institutes costing tool (for e.g. Infoed Worktribe, pFACT, X5, Lucre or Unit 4).
- Prices should be quoted without VAT.
- The research should be costed at 100% full economic cost however it will be funded at 80% full economic cost.
- Your proposal can include a co-investigator. No co-investigator costs will be provided.
- **HLC Network reserve the right to reject applications that do not meet these requirements.**

# HLC YEAR 4 CALL FOR PROPOSALS FOR INDUSTRIAL ENGAGEMENT GRANT 2021

## ELIGIBILITY AND CONDITIONS

Applicants must be based in institutions eligible to apply for EPSRC funding. An investigator can submit at most one industrial engagement proposal for this call. Grants will not be made retrospectively.

Your submission title on EasyChair should include "Proposal for X: ...", where X is either for Network membership or for an industrial engagement grant. You do not need to first apply for membership before applying for funding.

Please note that when you apply for a grant then everybody named in the application, will automatically be added to the HLC Network membership list. If you don't wish to be added to the HLC Network membership list, please email Bridget Gundry on [bridget.gundry@imperial.ac.uk](mailto:bridget.gundry@imperial.ac.uk) to opt out.

The investigators of projects funded in this call are expected to become core members and play an active role in Human-Like Computing Network+. **They are required to complete a final report.**

The funders are committed to full and open publication of the research outputs, in line with normal academic practice. The funding and contract will be subject to the EPSRC's standard terms and conditions; a draft copy of the contract can be made available on request.

## APPLICATION AND SELECTION

All submissions are via EasyChair (<https://easychair.org/conferences/?conf=hlc2021>) and should be submitted by 7<sup>th</sup> May 2021. In the box for "Keywords", please include HLC topics which are most relevant to your proposal.

Proposals will be assessed by a panel of experts from academia, industry and government, who will judge the proposals on quality, viability and significance.

Enquiries regarding the academic scope and objectives of this call should be directed to [Dr Alireza Tamaddoni-Nezhad](#), Technical Director. Enquiries regarding the application process should be addressed to [Bridget Gundry](#), Administrator.

## KEY DATES:

CALL PUBLISHED	8 <sup>th</sup> March 2021
PROPOSALS SUBMITTED	7 <sup>th</sup> May 2021
RESULT ANNOUNCEMENT	By 9 <sup>th</sup> July 2021
RESEARCH PERIOD	1 <sup>st</sup> December 2021 – 31 <sup>st</sup> May 2022