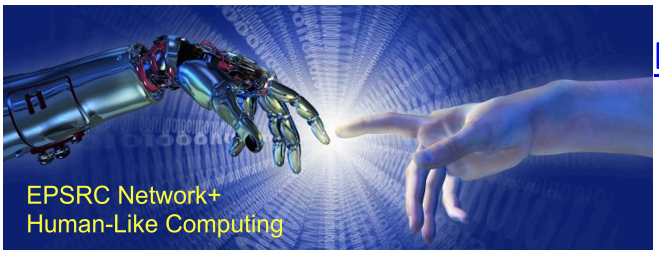

Human-Like Computing

Imperial College London

EPSRC Engineering and Physical Sciences Research Council

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

HLC YEAR 4 CALL FOR PROPOSALS FOR INNOVATE UK ENDORSEMENTS 2021

Closing date:
7th May 2021

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

SUMMARY

The EPSRC Network+ on Human-Like Computing is inviting proposals for Innovate UK endorsements.The Committee will review applications for endorsements of projects to be submitted by HLC members to Innovate UK. If successful, endorsements will be provided in the form of a Letter of Support from the HLC network. For further details, please contact Dr Ali Anjomshoaa (E: ali.anjomshoaa@ktn-uk.org).

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 take place at Cumberland Lodge from 30th June to 3rd 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.

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THIS CALL

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 **INNOVATE UK ENDORSEMENT**

The submission should contain a cover letter, a copy of the Case for Support and the Budget summary for an Innovate UK application.

ELIGIBILITY AND CONDITIONS

Applicants must be based in institutions eligible to apply for EPSRC funding.

Your submission title on EasyChair should include "Proposal for X: ...", where X is either for Network membership or for an Innovate UK endorsement. You will not need to first apply for membership before applying for an endorsement.

Please note that when you apply for an endorsement 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 to opt out.

The investigators of the proposal in this call are expected to become core members and play an active role in Human-Like Computing Network+.

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APPLICATION AND SELECTION

All submissions are via EasyChair (https://easychair.org/conferences/?conf=hlc2021) and should be submitted by 7th 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	8th March 2021
PROPOSALS SUBMITTED	7th May 2021 initially and then on an on-going basis
RESULT ANNOUNCEMENT	By 9th July 2021
RESEARCH PERIOD	1st December 2021 – 31st May 2022 initially and then on an on-going basis