EPSRC Network+
Human-Like Computing

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

Human-Like Computing

Imperial College London

EPSRC
Engineering and Physical Sciences
Research Council

YEAR 2 CALL FOR PROPOSALS FOR KICK-START GRANTS 2019

Closing date:
13th May 2019

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

SUMMARY

The EPSRC Network+ on Human-Like Computing is inviting proposals for Kick-start grants.

This call is for approximately £40K to be spent between 1st December 2019 and 31st May 2020.

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 is due to take place at Cumberland Lodge from 30th June to 3 July 2019.

THIS CALL

The Network+ will provide funds for Kick-start projects. These funds will cover PDRA time and a contribution towards staff supervision at the Institution to which the Kick-start is awarded by the Network. Two Kick-start projects are planned to be awarded each year. Each project will be funded at an approximate level of £40K.

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 Kick-start projects in successive years of the network. Although Kick-start submissions will be encouraged in the indicated areas, the committee will also support strong Kick-start applications in other areas of HLC research.

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

- A maximum of a 3-page project proposal with an additional page for references, following EPSRC formatting guidelines. Your proposal is expected to include the track record, background, research programme and justification of resources.

- 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."

- CVs of the investigators and named researchers.

- A detailed breakdown of costs with justification including, for example, investigator time & research assistant time. An outline budget will not be accepted and a full costing is required on your institutes costing tool at the time of submission (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.

- All costs will be set at a fixed (maximum) monthly rate as per the table below:

Research Assistant/Associate salary (approximately 4 to 4.5 months)	£4,439
Academic Supervision (lead institute only)	£508
Technician	£116
Estates	£1,583
Indirect/Overheads	£4,078

- Please note that no travel, subsistence, consumables and other related costs will be allowed.

- 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.**

ELIGIBILITY AND CONDITIONS

Applicants must be based in institutions eligible to apply for EPSRC funding. An investigator can submit at most one Kick-start 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 a Kick-start grant. From 2019, 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 to opt out.

Only investigators need apply for network membership although researchers are also welcome to apply.

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=hlc2019) and should be submitted by Monday 13th May 2019. In the box for "Keywords", please include HLC topics which are most relevant to your proposal.

Proposals will be assessed by a panel of analysis, testing, and verification 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	15th February 2019
PROPOSALS SUBMITTED	13th May 2019
RESULT ANNOUNCEMENT	By 8th July 2019
RESEARCH PERIOD	1st December 2019 – 31st May 2020