

Cyber Civilization Research Center

Call for Paper Writing Projects Aimed at Journal Publications

The Cyber Civilization Research Center (CCRC) is planning on subsidizing graduate students and post-doctoral researchers at Keio University, and possibly their advisers as co-authors, to write papers with the aim of publications in internationally recognized refereed journals.

1. Topics of invited paper writing projects

CCRC is open to a broad range of proposals in the area of interaction between cyber-physical systems and society. We particularly welcome those proposals that contribute to our thinking in the following three themes the center is exploring:

Theme 1: The Implications of Connectivity on Civilization, Society, and the Self

Networked intelligence, unbound by physical limits and enhanced by key technological advancements, urges humanity to reconsider foundational concepts that have defined civilizations for centuries. For example, the notions of self, autonomy, and responsibility (that provide foundations for the design of many present day social institutions), are being questioned with the emergence of “thinking” machines that collectively function on the network. With such recognition, CCRC seeks to understand and develop the next generation of social principles to govern both the technology and society.

Theme 2: Virtual and Physical Infrastructural Security in a Connected Age

With the advances in IoT (Internet of Things) and AI (Artificial Intelligence), cyber civilization is becoming ever more vulnerable to cyber threats. Without addressing this issue, we will not be able to fully benefit from the promised capabilities of information technologies. By better understanding how pervasive technology has become to individual, national, and international security, we may be able to understand how to defend it from malicious actors and mitigate overflows from the virtual to the physical and vice versa.

Theme 3: Cyber Civilization Risks and Resilience

Beyond direct attacks on information technology systems, cyber civilization can also face a variety of civilization risks. Such risks may include unethical use of powerful technologies for weapons, social instability by loss of jobs, and loss of human control over markets, to name just a few. The consequences of natural born risks, including earthquakes, typhoons, tsunamis etc. would have different character and magnitude in the cyber civilization age from that of previous ones. CCRC thus seeks to explore civilization risks that are of a large

magnitude and can risk both the virtual and physical manifestation of society. Based on the deeper understanding of the nature of the risks, we would also like to explore how technological and societal systems can be resilient, i.e. have the capability to recover from damages quickly, in a cyber civilization.

2. Assistance provided

Up to ¥ 500,000 will be allocated to each project, amounting to a total of six projects. The fund can be provided to hiring students and other expenses, subject to the discretion of the center.

3. Submission of Proposal

Interested students and post-doctoral researchers should write a proposal of about 1000 words and no more than 2000 words in English that contain:

- ① Name of the primary author and his/her affiliation and contact e-mail address.
- ② Tentative title of the paper to be written
- ③ Tentative summary of the paper to be written
- ④ Intended for Journal publication or publication in proceedings of highly competitive and recognized regularly-held academic conferences.
- ⑤ Intended timing of the submission to the journal

Initial proposal deadline is set at **April 26, 2019**. If you are requesting to hire students, please add their CVs.

Shortlisted proposals will be announced in mid-May 2019. Authors will have to report to CCRC on the intended paper submission to any refereed conferences and journals for approval in the next 6 months.

4. Credit

The paper should be submitted to the journal under the Keio University affiliation and should note that the paper was prepared under the sponsorship of Keio University Cyber Civilization Research Center. While we require the submission of the manuscript for the record, we do not ask for copyrights to the papers. We will ask for our right to disclose the names of authors and papers written as output of the center, when the papers are made publicly available.

5. Submissions and Inquiries

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