IEEE Advancing Technology for Humanity

Thinking Machines in the Physical World

IEEE 2016 Conference – Norbert Wiener in the 21st Century

Final call: Work-in-Progress, Practitioner, Student Abstracts

Submission deadline: **16 April**

- 16 April 2016: Deadline for Abstracts (2 pages)
- Confirmation of acceptance 30 April.

We invite you to participate in Thinking Machines in the Physical World. The conference will focus on opportunities and threats presented by advances in cognitive computing, and will explore both technical and societal perspectives.

We invite Abstract submissions from perspectives across applied, hard, and social sciences, as well as the humanities, fine arts, and professional/industry practice. Conference topics will include:

- Cognitive computing in theory and practice.
- Technical fields of work (cybernetics, information theory, philosophy, life sciences, interval computation, fuzzy sets, Brownian motion, analysis under uncertainty…).
- Societal concerns (information ethics, innovation and economic development, robots and work, cyber warfare and crime, science fiction as social commentary, cybernetics and literature, art and design…)

Norbert Wiener was a mathematician, philosopher, scientist and engineer whose pioneering work in mathematics, computer science, systems control, biology and engineering led to cybernetics (the origin of "cyberspace" and "cyborgs"). This conference follows the successful inaugural conference in Boston, June 2014.

Abstract Submissions

All submissions will be online via the conference web site http://21stcenturywiener.org

- Abstracts (up to 500 words) for research-in-progress, practitioner and student presentations will be assessed for relevance to the conference, as will student posters (A2).

Student research abstracts/posters strongly encouraged

Keynotes:

- Prof Brian Anderson - Distinguished Professor at ANU College of Engineering and Computer Science.
- Dr James Hughes - Executive Director of the Institute for Ethics and Emerging Technologies
- Prof M. Vidyasagar - Cecil & Ida Green Chair in Systems Biology Science
- Prof Judy Wajcman - Anthony Giddens Professor of Sociology, London School of Economics
- Cognitive Computing - IBM Watson

Contact us:

NorbertWiener-2016@unimelb.edu.au

Conference Chairs

Technical Program: Prof Iven Mareels, University of Melbourne
General chair: Dr Greg Adamson, University of Melbourne
Keynote Speakers: Prof Rob Evans, University of Melbourne
Sponsorships: Prof Saeid Nahavandi, Deakin University
Publications: Dr Valery Ugrinovskii, UNSW Canberra at ADFA
Related events: Philip Hall, University of Melbourne
Facilities: Kerry Ellen Beachen, University of Melbourne
Finances: Jennifer Nguyen, Conference Treasurer

Professor Graeme Clark, AC Laureate Professor Emeritus

"It gives me great pleasure to have the opportunity to welcome your interest in the work of Norbert Wiener and invite you to Melbourne to participate in this important conference." Professor Graeme Clark, AC Laureate Professor Emeritus, leader in pioneering cochlear implant research, the winner of numerous awards and honors and who continues to research the convergence between engineering and biology at the University of Melbourne.

IEEE SMC **NASSCOM** **IFAC** INTERNATIONAL FEDERATION OF AUTOMATIC CONTROL **CSS** **SSIT** IEEE Victorian Section