



ICOCO 2010 / International  
Control room design  
Conference  
Paris 2010 25<sup>th</sup> – 26<sup>th</sup> October

## Provisional Programme

### Keynote speaker

Dr Toni Ivergard

New approaches for the design of future control rooms

Nowadays, control rooms and their related control/computer systems go beyond the traditional tasks of process monitoring and supervision and can also be used for the purposes of education, learning and simulation training. The control system can also be used to optimise and develop existing business systems and processes. It is evident that as control centre tasks become more complex, so the levels of competence, necessary education and experience of operators have increased. It is also evident that creative development and executive management tasks have or will in the future become an integral part of control centre work.

Toni's research focus has been on ICT, automation and organisational design, methods of change, and feedback processes in relation to people and the society. His speciality is to be interdisciplinary, creative and to have holistic understandings of complex systems and processes.

This paper has been co-authored by Brian Hunt, Senior Lecturer at Mahidol University, Bangkok.



### Keynote speaker

Robert Simpson

Technology trends in electronic displays

This talk will summarise the requirements of control room overview displays in respect of resolution and information content. These will be related to the available technologies both in respect of the display itself and the means of image acquisition. The performance of mature display systems will be reviewed, and room for improvement assessed. The status of emerging display technologies, such as OLED, electro-wetting, and laser scanned phosphor will be reviewed.

Robert S Simpson is Director of the international Electrosonic Group which he co-founded in 1964. He is a frequent writer and lecturer on audio visual and lighting control topics, his books include "Effective Audio Visual", "Videowalls - The Book of the Big Electronic Image" and "Lighting Control - Technology and Applications". He has worked on many corporate, control room, EXPO, museum, theme park and permanent exhibition audio visual projects. He is a member of the SMPTE, the SID, and the IESNA (all USA) and is a Fellow of the BKSTS (UK).



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# Papers

## New technology in control rooms

- Paper based artefact to electronic tool: two user-evolved artefacts for the management of station areas in a railway signalling environment. Rebecca Anderson-Palmer, Nottingham University, UK
- Acoustic alarm signals for a control room composed by a musician, based on ergonomic guidelines. Dr Jan Kokken, Fysergo BV, Netherlands
- Graphical visualisation of automation – integration with a process mimic display. Jonas Andersson, Chalmers University of Technology, Sweden
- Touch the future. Adam Parkes, CCD Design & Ergonomics, UK
- Control room design and the benefits of systems integration. David Watts, CCD Design & Ergonomics, UK
- A measure of situation awareness for rail signalling. Dr David Golightly, Nottingham University, UK
- Activity Analysis Timeline as a tool for HF investigation in the rail control room. Dr Laura Pickup, Nottingham University, UK

## Physical design of control rooms

- Real-time simulation as a design tool for en-route air traffic control rooms. Dr Hugh David, R+D Hastings, UK
- The control room of the future, a reality? Dr François-Olivier Tayssier, EDF-DG2S, France
- Front-End Ergonomic Design Analysis (FEEDA) in layout design of control room centres. Dr Jan Kokken, Fysergo BV, Netherlands
- Improving human performance by ergonomic architectural detailing in the control room design of a chemical plant. Dr Erminia Attaianese, University Federico II of Naples, Italy
- A socio-technical approach to control centre design. Joanne Stokes, Lloyds Register: Human Engineering Ltd, UK
- A room with a view: the experience from down under. Helen Beazley, Consultant, Australia
- A structural system approach to functional design of control rooms. Dr Alexey Anokhin, Obninsk Institute for Nuclear Power Engineering, Russia
- A review and discussion of lighting issues for petrochemical control rooms. Douglas Spranger, Control Room Design, LLC, USA
- Retro to new-retro: challenges to planning and design of nine control room layouts. Conne Bazley, JimConna, Inc, USA
- Ergonomics in control rooms: lessons learnt from practice. Dr Cláudia V Carestiato Cordeiro, COPPE/UFRJ, Brazil
- Basic principles and ergonomic guidelines for offshore control room design. Dr Carolina Conceição, Technical University of Denmark, Denmark
- Meeting human factors challenges in a railway control room...and winning. Mike Stearn, CCD Design & Ergonomics, UK
- Lessons learnt from the design of railway station control rooms. Balraj Sreenivasan, CCD Design & Ergonomics, UK
- The control room and the control centre design as part of the ergonomic approach of plant design. Pierluigi La Montagna, TECHNIP Rome, Italy
- The interaction between large screen displays vs. overview displays vs. effective control room layout: a workshop on effective control room design. Dr Dal Vernon Reising, Human Centered Solutions, LLP, USA
- Planning and managing control room projects. John Ryder, Arcadis Vectra, UK

## Control rooms of the future

- The human operator revisited: autonomous machines as equals (or not quite) in the control room of the future. Derek John Smith, High Tower Consultant Ltd, UK
- Re-design of an en-route air traffic control room for modern control methods. Dr Hugh David, R+D Hastings, UK
- Proper control room design facilitates critical decision-making. Mary Jo Nye, The Control Room Group, USA
- Human supervisory control in green power generation. Dr Xilin Li, University of Queensland, Australia
- Control room design & Hollywood. John Wilson, CCD Design & Ergonomics, UK
- Designing for future systems – the CERN Large Hadron Collider and the ITER fusion reactor. John Wood, CCD Design & Ergonomics, UK
- Fault finding in rail maintenance control centres. Nastaran Dadashi, Nottingham University, UK
- Transfer of control system interface solutions from other domains to the thermal power industry. Prof Anna-Lisa Osvalder, Chalmers University of Technology, Sweden

## Overview displays

- Reducing graphics to improve process overviews. Dr Ruud Pikaar, ErgoS Engineering & Ergonomics, Netherlands
- Upgrade of the Kursk NPP Main Control Room. Dr Alexey Anokhin, Obninsk Institute for Nuclear Power Engineering, Russia
- Design of an overview display for rapid perception of plant status. Lars-Ola Bligård, Chalmers University of Technology, Sweden
- Visualising automatic process – integration with process mimics display. Jonas Andersson, Chalmers University of Technology, Sweden
- Supporting operator situation awareness with overview displays: studies evaluating information requirements vs. visualisation methods. Dr Dal Vernon Reising, Human Centered Solutions, LLP, USA

## The changing role of the operator

- Operator collaboration in control room design – a case study at Australian Vinyl's process facility. Mark Andrew, GHD Pty Ltd, Australia
- Higher efficiency in operations can be achieved with more focus on the operator. Per Lundmark, ABB AB, Sweden
- Beyond ergonomics: experiencing socio-cultural aspects of control room design in the Asia Pacific. Ass Prof Peer Sathikh, Nanyang Technological University, Singapore
- Application of ergonomics standards in control centre design in the Norwegian petroleum industry. Andreas L Aas, Scandpower AS, Norway
- Entering the conceptual age: implications for control room operators and safety. Elise G C Crawford, Central Queensland University, Australia
- The changing role of the control room operator in Metro Rail: automation and the challenge of maintaining situation awareness. Suzanne Heape, Invensys Rail, UK

## Posters

- How to build a better mousetrap: participative design strategies to minimise design-induced errors in new technologies for rail control rooms. Ron Day, Central Queensland University, Australia
- Ergonomic design in control rooms. Parastoo Lak, Medical Devices, Iran

# Conference venue

The conference will take place from 25 to 26 October 2010 at Eurosites Republique, 8 Bis rue de la Fontaine au roi, 75011 Paris.

The Republique is a lively and vibrant quarter of Paris with a central square of shops and cafes offering all the facilities you need to enjoy your stay in Paris.

# Accommodation

The Crown Plaza Paris-Republique is the nearest hotel to the conference venue and is just a few minutes walk at 10 place de la Republique, 75541 Paris.

Single en suite rooms can be booked by delegates for 175 euros inc tax. Double rooms are also available at 190 euros. To book a room please visit [www.crowneplaza.com/republique](http://www.crowneplaza.com/republique) using the code RGO to obtain the preferential rate. Or you can telephone +33 1 43 14 43 50, or email [cpparis@whgeu.com](mailto:cpparis@whgeu.com).

# Booking

The IEHF Member delegate rate is 650 euros plus VAT. Non member delegate rate is 750 euros plus VAT.

The delegate rates include the two days of conference papers with keynotes, poster presentations and workshops, and all refreshments. On the first evening, Monday 25th October, a conference dinner is included at a traditional French restaurant. Accommodation is not included.

Book online at [www.icoco2010.org](http://www.icoco2010.org).

# Further details

This conference is organised by the Institute of Ergonomics & Human Factors. If you need more information about this event, please visit the conference website at [www.icoco2010.org](http://www.icoco2010.org) or contact Sue Hull, IEHF Conference Manager, telephone +44 1509 234904 or email [s.hull@ergonomics.org.uk](mailto:s.hull@ergonomics.org.uk).

