Programme at the Royal Institution

Vacuum Insulation Panels consist of a gas-tight enclosure and a rigid core from which the air has been evacuated. By removing air from fibre, powder, or foam core materials VIPs achieve low U values at a fraction of the thickness of cut-to-fit insulation materials. VIP products are made-to-fit architectural details, with specified service lives for floor, wall, and roof constructions. Quality control of component manufacture is important. Meet the VIP manufacturers, their researchers, and the construction product manufacturers with an interest in meeting your architectural demands.

Wednesday 16 September 2009

18.00 to 20.00  Tour of the Royal Institution Museum

The RI Museum curator Frank James has kindly agreed to give a guided tour for registered IVIS delegates arriving early. There will be drinks in the bar afterwards. To join the free tour please email Ian Abley on abley@audacity.org

Climate Change: The Key Role of Energy Efficiency

Professor Ernst Worrell

Ernst is Professor of Energy, Materials and the Environment at Utrecht University, in the Copernicus Institute. He is also manager of Energy Efficiency at Ecofys, on www.ecofys.com. Ernst led the industrial energy assessment work at Lawrence Berkeley National Laboratory until 2008. Until 1998 he co-led the Energy and Material Efficiency Group at the Department of Science, Technology and Society of Utrecht University, in the Netherlands. He was a visiting scientist at the Center for Energy and Environmental Studies at Princeton University from 1994 to 1995, and a visiting professor at the Universidade de Sao Paulo, Brazil, in 1996. He is author of four IPCC reports, including the 4th Assessment Report. The co-author of over 250 publications, Ernst is Editor-in-Chief of the leading peer-reviewed journal Resources, Conservation and Recycling. He is associate editor of Energy, and editorial board member of the journal Waste Management.

Thursday 17 September 2009

08.30 to 09.30  Registration
09.30 to 09.45  Welcome to IVIS 2009

Professor Ray Ogden and Dr Mauro Overend

09.45 to 10.30  Keynote Speaker

Professor Ernst Worrell

10.30 to 11.00  Refreshments

1  The VIP Challenge
   Materials and Manufacturing

1A  How to identify a high quality VIP
    Gregor Erbenich

1B  VIPs with overlapping edges, and other improvements
    in the ways a VIP can be manufactured
    Roland Caps

1C  Accelerated lifetime testing of VIPs
    Bob Keller

1D  Fibre-powder composite as a core material forVIPs
    Phalguni Mukhopadhyaya

1E  Microscopic investigation of laminates for VIPs
    Samuel Brunner

13.00 to 14.00  Buffet Lunch and Demonstration

17  Vacuumatics - architectural structures and form
    Frank Huijben

2  VIP Innovations
   Product Development

2A  Structural VIPs
    Dwight S. Musgrave

2B  Beyond VIPs – How may it be achieved?
    Bjørn Petter Jelle

2C  High thermal efficiency panels for glazed facades
    Phil Deighton

2D  Gen3 long life high performance VIPs for construction
    Stan Rusek

15.30 to 16.00  Refreshments

3  VIPs in Practice
   Industry Needs and Case Studies

3A  How laminates with Ethylene Vinyl Alcohol film (EVOH)
    improve the performance of VIPs
    Cynthia Teniers

3B  What the residential building sector needs from a VIP
    Clifford Fudge

3C  The development of prefabricated masonry walls using
    traditional materials and incorporating VIPs
    Paul Rogatzki

3D  VIP insulating a 7 storey mixed-use building in Munich
    Martin Pool

17.30 to 17.45  Close of first day before dinner
Thursday 17 September 2009

Gala Dinner - Royal Institution

Dinner at the Time & Space restaurant in the RI starts with drinks at 19.00. At 19.30, before dinner, Professor Richard Horden will talk about the design and production of the vacuum insulated micro compact home, sponsored by O2, and on www.microcompacthome.com

Intelligent Building Facades

Professor Derek Clements-Croome

Derek is Professor of Construction Engineering, Director of the MSc Intelligent Buildings Programme, and Director of Research in the School of Construction Management and Engineering at the University of Reading. He is Chairman of the Natural Ventilation Group and the Intelligent Buildings Group for the Chartered Institution of Building Services Engineers. He was Vice-President of CIBSE for 2007/2008, and is a Board Member for the British Council of Offices. He researches high value design and management processes, individual environmental control, and environmental design for human needs. He is the author of several books, including Creating the Productive Workplace, Routledge, 2005; Intelligent Buildings, Design, Management & Operation, Telford Press, 2004 (also published in Chinese); Electromagnetic Environments and Health in Buildings, E & FN Spon, 2003; Airconditioning and Ventilations of Buildings, Pergamon Press, 1981 (also in Chinese and Russian); and Noise, Buildings and People, Pergamon Press, 1977.

Friday 18 September 2009

08.30 to 09.30 Registration
09.30 to 09.45 Welcome back
Professor Ray Ogden and Dr Mauro Overend
09.45 to 10.30 Keynote Speaker
Professor Derek Clements-Croome
10.30 to 11.00 Refreshments

4 VIP Performance
Optimisation, Testing, and Modelling

4A Expanded polystyrene (EPS) encapsulated VIPs
Martin Tenpierik
4B Comparison of laboratory investigations and numerical simulations of VIPs in various wall structures
Steinar Gryning
4C Dynamic simulation of VIP moisture and heat transport
Andreas Beck
4D Parametric study of a metal sandwich VIP
Kjartan Gudmundsson
4E Parametric feasibility study on active VIPs for buildings
Alex Muir

13.00 to 14.00 Buffet Lunch and Demonstration

18 Regulatory and other barriers to overcome
Rupert Scott

5 VIPs in Service
Monitoring and Evaluation

5A Quality assurance and declaration of vacuum insulation for building application
Samuel Brunner
5B The Economic Case for Vacuum Insulation in Mainstream New Build Construction Applications
Ray Ogden
5C Tests of VIPs in simulation, laboratory, and practice
Georg Wilhelm Mainka
5D VIP-PROVE – Vacuum insulation for buildings in the practical application
Ulrich Heinemann
5E Making the most of Permitted Development Rights
Stephen Ibbitson

16.00 to 16.30 Refreshments
16.30 to 17.45 Discussion and Prospects
6A The Future of VIPs - Challenges and Opportunities
Professor Jochen Fricke
6B It's not just the VIP it's the whole systems offering
Tim Hall

17.45 to 18.00 Close of IVIS 2009

For more information contact

For website issues contact Bousmaha Baiche at Oxford Brookes University by email on bbaiche@brookes.ac.uk