5th international symposium

Human Behaviour in Fire

Programme

19th - 21st September 2012

Cambridge, UK

"BUILDING ON A STRONG FOUNDATION"

Human Behaviour in Fire is the study of human response including; people's awareness, beliefs, attitudes, motivations, decisions, behaviours and coping strategies in exposure to fire and other similar emergencies in buildings, structures and transportation systems. The study of human behaviour in fire is highly multidisciplinary, involving practitioners from the fields of engineering, architecture, computer science, mathematics, law, sociology, psychology, human factors, communications and ergonomics to mention just a few. The primary focus of human behaviour research and its translation into practice is to minimise the risk to people from fire. This is achieved by generating and collecting quantitative and qualitative data and information on human responses which can be used to develop human fire response theory for use in fire safety engineering design, performance based regulatory systems, computational models and fire safety management.

The 5th international symposium has a thematic umbrella of, "building on a strong foundation" and alongside the 43 technical papers and 20 poster papers there will be Panel Sessions addressing two specific areas:

- Life Safety Options for People with Disabilities - How far have we come? - Implications of Our Aging Society on Design and Management of Buildings, and
- Fundamentals of Egress Calculations for Life Safety Assessments

There will also be a Workshop on the ***Ethics of Behavioural Studies*** which the international Programme Committee under the Chairmanship of Prof. Jim Shields believes to be an issue of growing importance.

The Programme Committee invites all those interested in this broad research area to join colleagues in Cambridge this autumn to exchange views and ideas in the stunning collegiate setting of Downing College.

Registration is Now open!

interscience communications

www. intersciencecomms.co.uk

LOCATION

The City of Cambridge is one of the most important and beautiful in the country, famous throughout the world for its university and colleges. Cambridge is a compact cosmopolitan city with outstanding architecture both old and new but retains the ambience of a historic medieval town, yet it is the birthplace of some of the most recent scientific advances.

Cambridge is within easy reach of London, Heathrow and Stansted Airports, with good motorway, rail and bus connections to other parts of the United Kingdom.

Downing College was founded under Royal Charter in 1800. The College has a unique and magnificent setting amid 20 acres of lawns and trees, yet is in the very centre of Cambridge, (just 5 mins walk from cafes, restaurants and shops of Market Square). The neo-classical style buildings convey a sense of elegance and spaciousness, enhanced by harmonious proportions, graceful columned porticos, and delicate pink and yellow stone.

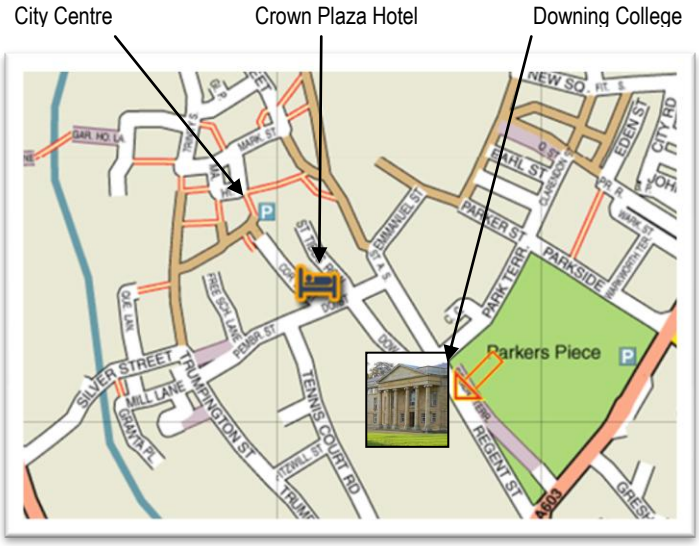
The symposium will be housed in the new Howard Theatre and Howard Buildings surrounding a sunken garden connected by covered walkways. The auditorium has seats crafted from the finest Italian leather and state of the art AV facilities. Break-out rooms, refreshment and poster areas all enjoy the same high standard of facilities.

Accommodation at the College is grouped around the conference complex and so delegates only have a short walk to the lecture theatre or the Delegate Lounge, reception, bar and refreshment area. Bedrooms are of a very high standard and we would encourage delegates to stay at the College to make the most of the collegiate atmosphere. Smoking is prohibited in any college buildings but there are designated smoking areas.

Howard Theatre

Conference Complex

Central Cambridge Map



WEDNESDAY 19th

09.45	**Welcome: T Jim Shields, Conference Chairman**	
10.00	**Keynote: Dr. Jake Pauls, Consultant** *Refocusing On The Way Forward While Building On Our Roots*	
10.30	**Keynote: Dr. Steve Gwynne, Hughes Associates, Inc and University of Greenwich, UK; Dr. E Kuligowski, National Institute of Standards and Technology, USA; Dr M. Spearpoint, University of Canterbury, NZ.** *More Thoughts on Model Defaults*	
11.00	**Coffee**	
	DEVELOPING THEORIES IN HUMAN BEHAVIOUR IN FIRE	
11.30	Theory Building: An Examination of the Pre-evacuation Period of the 2001 WTC Disaster *Erica Kuligowski, NIST, USA*	
11.50	Towards Perceptually Driven Simulations Of Pedestrian Dynamics In Fire: A Cognitive Modelling Approach *Wassim Abu Abed, V Berkhahn, Leibniz University of Hanover, Germany*	
12.10	Psychophysical Relation Laws For Pedestrian Flows Parameters *Dimitry Samochin, V Kholshevnikov, Academy of State Fire Service of Russia, Russia*	
12.30	Discussion	
12.45	Lunch	
	THE INFLUENCE AND IMPACT OF CULTURE ON HUMAN BEHAVIOUR IN FIRE	**EVACUATION BEHAVIOUR IN SCHOOLS**
14.00	Investigating the Impact Of Culture on Evacuation Behaviour – A Polish Data-Set *Ed Galea, G Sharp, M Sauter, S Deere, Lm Filippidis, University of Greenwich, UK*	Walking Speed Data of Fire Drills at an Elementary School *Rosaria Ono, University of San Paulo, M Valentin Vargas Valentin Projetos, F Vittorino Inst for Technological Research San Paulo, Brazil*
14.20	The Effects of Cultural and Social Differences between the West and Saudi Arabia on Emergency Evacuation *Majed Almejmaj, B Meachem, Worcester Polytechnic Institute, USA*	Children Evacuation: Empirical Data and Egress Modelling *Arturo Cuesta, J Capote, D Alvear, O Abreu, University of Cantabria, Spain*
14.40	The UK BeSeCu Fire-Fighter Study: A study of UK Fire-Fighters' Emotional, Cognitive and Behavioural Reactions to Emergencies *Lynn Hulse, E Galea, University of Greenwich, UK*	Behavioral Aspects of Movement Down Stairs During Elementary School Fire Drills Accounting for a Gender Difference *A Larusdottir, A Dederichs, Technical University of Denmark, Denmark*
15.00	Discussion	Discussion
15.15	**Tea**	**Tea**
	EFFECTIVE FIRE ALERTING SYSTEMS FOR BUILDINGS	**EVACUATION FLOW DYNAMICS**
15.40	Recollection, Identification and Perceived Urgency of The Temporal Three Evacuation Alarm in an Australian Sample. *Michelle Ball, T Farley, Victoria University, Australia*	Study on Congestion in the Staircase during Phased Evacuation in a High-rise Building *Hiroyuki Kadokura, Tokyo Research Institute, M Yajima, T Sano, Waseda University, A Sekizawa, S Mauda, Tokyo University of Science, Japan*
16.00	How to Efficiently Inform People About Fire in a High Rise Building? *Piotr Tofilo, M Cisek, School of Fire Service, Poland*	Effective Density Measurement Methods on Stairs *Bryan Hoskins, University of Maryland, USA*
16.20	**EVACUATION SIMULATION IN DIFFERENT ENVIRONMENTS** LabCUBEegress: A Laboratory For a Selective Study on People Movement and Human Behaviour During Egress Situations *Elia Tosolini, L Cinzia Pecile, S Grimaz, Università degli Studi di Udine , Italy*	Investigating Stair-Floor Merging Phenomena and the Impact of Single and Multiple Entry Points *Shrikant Sharma, D Brocklehurst, Buro Happold SMART Solutions, UK*
16.40	Fire and Evacuation Simulation of the Fatal 1985 Manchester Airport B737 Fire *Z Wang, F Jia, E Galea, University of Greenwich, UK*	Experimental Study on Crowd Flow Through an Opening Connected to a Crowded Corridor *Tomonori Sano, Waseda University, A Jo, Takenaka Corp, Y Ikehata, Taisei Corp, Japan*
17.00	Discussion	Discussion
17.20	**POSTER SESSION 1**	
18.00	**STUDENT WORKSHOP AND NETWORKING EVENT**	
19.00	**WELCOME DRINKS AND BUFFET**	

The programme is correct at time of publication but the organisers reserve the right to make amendments to the programme when necessary.

THURSDAY 20th

8.50	**WORKSHOP:** ***Ethics In The Study Of Human Behaviour In Fire*** **.FACILITATORS Daniel Nilsson, Lund University, Sweden & Karen Boyce, University of Ulster, UK** **Dr Daniel Nilsson** is associate professor at the Department of Fire Safety Engineering and Systems Safety, Lund University. His research has involved evacuation experiments both in the laboratory and the field. These types of experiments require careful consideration of ethical aspects, and examples of relevant issues include informed consent and protection of integrity. Most of the experiments have required ethics review according to the Swedish Ethics Act. Daniel has also taught research ethics in graduate and post-graduate courses at Lund University **Dr Karen Boyce** has been a member of the human behaviour research team at the University of Ulster for over 20 years. Her research has been varied and comprised unannounced evacuations, experimental work and interview programmes with human participants and often with vulnerable populations (people with disabilities, those who have experienced fires in their home or elsewhere). Much of this work has necessitated consideration and adherence to ethical principles, whilst striking a balance with research validity.	
09.50	Coffee	
	BEHAVIOURAL INFORMATION DISTILLED FROM REAL FIRE INCIDENTS	**ENHANCING THE LIFE SAFETY POTENTIAL OF VULNERABLE PEOPLE**
10.25	Behaviours, Motivations and Timescales: Towards the Development of a Comprehensive Database of Human Behaviour in Dwelling Fires *Owain Thompson, D Wales, Kent Fire & Rescue Service, UK*	Evacuation Characteristics of Blind and Visually Impaired People: Walking Speeds on Horizontal Planes and Descending Stairs *Anne Dederichs, J Sørensen, Technical University of Denmark, Denmark*
10.45	An Investigation into Fatal Dwelling Fires Involving Children Aged Five Years and Under *Amy Harpur, K Boyce, N McConnell, University of Ulster, UK*	Evacuation of People with Disabilities on Stairs *Erica Kuligowski, B Hoskins, R Peacock, NIST, USA*
11.05	A Study Of Human Behavior in an Actual Apartment Fire that Resulted in Seven Fatalities in a Staircase –Investigation by the Swedish Accident Investigation Board *Kristin Andrée, Staffan Bengtson, Brandskyddslaget AB, Lena Kecklund, MTO Säkerhet AB, Sweden*	An Analysis of the Performance of Trained Staff using Movement Assist Devices to Evacuate the Non-Ambulant *Aoife Hunt, E Galea, P Lawrence, University of Greenwich, UK*
11.25	Fire Safety and Evacuation Implications from Behaviours and Hazard Development in Two Fatal Care Home Incidents: Rosepark and Frampton House *David Purser, Consultant, UK*	Ergonomic Evaulation of Manually Carried and Track-Type Stair Descent Devices used for the Evacuation of High Rise Buildings *Steven Lavender, J Mehta, S Park, The Ohio State University, G Hedman, P Reichelt, K Conrad, USA*
11.45	Discussion	
12.05	Lunch	
	HUMAN BEHAVIOUR IN LARGE CONTROLLED PUBLIC EVENTS	**ENHANCING THE LIFE SAFETY POTENTIAL OF VULNERABLE PEOPLE CONTINUED**
13.20	The Collection and Analysis of Data from a Fatal Large-Scale Crowd Incident *Maria Pretorius, E Galea, S Gwynne, University of Greenwich, UK*	Train Evacuation Inside a Tunnel: An Interview Study with Senior Citizens and People with Disabilities *Karl Fridolf, D Nilsson, H Frantzich, Lund University, Sweden*
13.40	A Behavioral Survey On Fukushima Residents Requiring Emergency Evacuation Outside Of The Residence Municipality By Nuclear Accident *Tomoaki Nishino, A Hokugo, Kobe University, S-i Tsuburaya, Mitsubishi Heavy Industries, T Tanaka, Kyoto University, Japan*	Evacuating vulnerable and dependent people from a fire in a building *David Charters, D Crowder, BRE Global, UK*
14.00	Estimation of Crowd Density by Pressure on Human Body under Experimentally Overcrowded Condition *Hidemasa Yoshimura, Osaka Institute of Technology, Japan*	Evacuation Time And Movement In Elderly Long Term Care Buildings *Weiwen Tseng, T Deng, T Shen, Central Police University, Taiwan*
14.20	Mathematical Modeling of Command and Control in Evacuation involving Large Public Gatherings *Lei Feng, E Miller-Hooks, V Brannigan, University of Maryland, USA*	Microscopic Modelling of Agents with Mobility Restrictions and Small-Size Social Groups *Volker Schneider, R Könnecke, IST GmbH, Germany*
14.40	Discussion	
14.55	Tea	
15.25	**DISCUSSION PANEL:** ***Life Safety Options for People with Disabilities - How far have we come?*** ***- Implications of Our Aging Society on Design and Management of Buildings*** **-Introduction, Ai Sekizawa,** Tokyo University of Science, Japan • Implications of Changing Demographics on Code Development Internationally, *Robert Solomon, NFPA, USA* •Which Factors are Important for the Fire Safety in Small Care Facilities? *Anne Steen-Hansen, SINTEF NBL, Norway* •Mixed Ability Evacuation – Real Experiences and Implications for the Future *Karen Boyce, University of Ulster, UK* **Discussion Panel chaired by Facilitator: Rita Fahy, NFPA USA**	
17.00	**POSTER SESSION 2**	
19.15	**SYMPOSIUM RECEPTION AND DINNER**	

FRIDAY 21st

08.50

DISCUSSION PANEL

The Fundamentals Of Egress Calculations For Life Safety Assessments

FACILITAT0R : Erica Kuligowski, NIST

The purpose of the panel is to allow data users (i.e., consultants and engineers who assess the life safety of structures and regulators who approve these assessment) the opportunity to discuss the current state of egress analysis (from their perspective). In other words, what datasets do engineers/consultants consistently use to assess the life safety of structures? How useful are these data and what additional data should/could data collectors and model developers provide to them to improve the quality of their work in the field. Consultant Engineers on this panel are individuals who have knowledge of human behavior in fire and thus, understand the assumptions that they make (or have to make) on a daily basis for various reasons.

Panelists Include :Steve Gwynne, Hughes Associates UK; David Barber, Arup Australia (invited); Mattias Delin, DeBrand Sweden; Anne Dederichs, Technical University of Denmark; Peter Thompson, IES, Ltd. UK

10.15 Coffee

	DESIGNING FOR THE SAFE EVACUATION OF BUILT ENVIRONMENTS	HUMAN BEHAVIOUR IN AND EVACUATION OF TRANSPORTATION SYSTEMS
10.45	Modelling Human Factors and Evacuation Lift Dispatch Strategies *Michael Kinsey, E Galea, P Lawrence, University of Greenwich, UK*	Response Time Data for Large Passenger Ferries and Cruise Ships *Ed Galea, S Deere, R Brown, L Filippidis, University of Greenwich, UK*
11.10	A Risk Perception Analysis of Elevator Evacuation in High-Rise Buildings *Axel Jonsson, J Andersson, D Nilsson, Lund University, Sweden*	Evacuation from Trains *Lena Kecklund, MTO Safety AB, Sweden*
11.30	Use of Refuge Areas in the Evacuation of Multi-Storey Buildings: The End Users' Perspective *Nigel McConnell, K Boyce, University of Ulster UK*	Design of Evacuation Systems in Underground Transport Systems *Karl Fridolf, D Nilsson, H Frantzich, Lund University, Sweden*
11.50	Discussion	Discussion
12.10	Lunch	Lunch
13.30	Analysis of Egress Calculation Assumptions and Findings for Large Shopping Centre Life Safety Assessments *Mahmut Horasan, R Kilmartin, Scientific Fire Services Pty Ltd, Australia*	Decision Making and Evacuation in Road and Rail Tunnels *Peter Johnson, D Barber, L Henderson, Arup, Australia*
13.50	Modelling Evacuation in a Cinema Complex: Validation Study and Comparison Between Different Egress Strategies *Nicolas Henneton, CTICM, France*	Effects of Information and Behavioral Training on Human Behavior in Smoke Filled Tunnel: Reports from Studies in Virtual Reality and the Real World *Max Kinateder, Andreas Mühlberger, Mathias Müller, Paul Pauli Universität Würzburg, Germany*
14.10	Controlled Evacuation in Historical and Cultural Structures: Requirements, Limitations and the Potential for Evacuation Models *Elisabetta Carattin, Università IUAV di Venezia Italy, V Brannigan, University of Maryland, USA*	Optimising the Arrangements for the Evacuation Of Users From a Road Tunnel *Christelle Casse,University of Grenoble, E Méneroud, Openly, B Perrin, Centre d'Etudes des Tunnels (CETU), France*
14.30	Discussion	

14.45

PLENARY SESSION:

Prioritisation of Human Behaviour in Fire Research

Delegates will be presented with research related issues distilled before and during the symposium. After open discussion on each issue delegates will be asked to rate the issues presented in terms of their relative importance using Turning Point ™ technology.
The outcomes obtained will be a symposium consensus on current human behaviour issues and their relative importance.

15.50 CLOSE

16.00 TEA AND DEPART

Session 1 (Wednesday) POSTERS Session 2 (Thursday)

Experiments of Egress Behavior When Subway Car Stops on Track *Jong-Hoon Kim, W-H Kim, Kyungmin University, S-K ROh, Kwangwoon University, D-H Lee,amd W-S Jung Korean Railroad Research Inst, Korea*	Implementing Social Theories in Egress Simulation *Mei Ling Chu, K Law, Stanford University, USA*
From Unbalanced Initial Occupant Distribution to Balanced Exit Usage in a Simulation Model of Pedestrian Dynamics *Tobias Kretz, A Grosse, PTV Planung Transport Verkehr AG , Germany*	Which Acoustic and Optical Signals are Best Suited for Evacuation Alarms? *Robin Palmgren, J Aberg, D Nilsson, Lund University, Sweden*
The use of Computational Models for Crowd Safety/Management: a study taking the Relative Distance between Exits (RDBE) as a safety factor for assemblies *Rodrigo Machado Tavares, IPT (Instituto de Pesquisas Tecnologicas), R Ono, University of Sao Paulo, Brazil*	Experimental Study on Accident Perception by Smoke at an Initial Fire *Yoshifumi Ohmiya, Tokyo University of Science, T Sano, Waseda University, Japan*
Modelling Crowd Movement Through Narrow Bottlenecks *Timo Korhonen, VTT Technical Research Centre, S Heliovaara, H Ehtamo Aalto University, Finland*	The Problems of Elderly People Safe Evacuation from Senior Citizen Heath Care Buildings in Case of Fire *Dimitry Samochin, V Kholshevnikov, R Istratov, E Anokhin,Academy of State Fire Service of Russia, Russia*
Evacuation Strategy for Mobility on Disaster of Hospital Ward Patients *Shin'ichi Tsuchiya, T Takagi, Y Hasemi, Waseda University, Japan*	Safe Escape Route Arrangements for Newly Assigned Functional Areas in a Historic Building *Nuri Serteser, Istanbul Technical University, Turkey*
Numerical Simulations on Evacuation of Mixed-Ability Passengers from Subway Stations" *C.S. Jiang, Y.F. Deng, W.K. Chow, M. Wu, C. Hu H.Ding, Hong Kong Polytechnic University, Hong Kong*	In Search of Risk: An Exploration of Coronial Data Highlighting Risk Factors Implicated in Australian House Fire Fatalities Where a Working Smoke Alarm was Known to be Present and Functional. *Erin Doolan, M Ball, Victoria University, Australia*
Status Report on the Development of The Resna Performance Standard for Emeregency Stair Travel Devices *Glenn Hedman, Univ of Illinois Chicago, USA*	Human Behaviour In Crisis Situations: A Cross-Cultural Investigation in Order to Tailor Security-Related Communication *Lena Kecklund, MTO Safety AB, Sweden*
A New Fire Safety Concept for Bedrooms in Hospital Buildings *Björn Peters, P van de Leur, M Millius, R Boekholtz, DMGR Consulting Engineers, Netherlands*	Numerical Modelling of the Evacuation of Shopping Centres *Maria Rosário Reis, J Rodrigues University of Coimbra, Portugal, E Pinto, Federal Univ of Rio Grande do Norte, Brazil*
Human Wayfinding Abilities to Reach an Area of Refuge In a Virtual Environment *Elisabetta Carattin, V Tatano,Università IUAV di Venezia, E Labate, C Meneghetti, F Pazzaglia, University of Padua, Italy*	Case Study Regarding A Group Of Pupils Fire Evacuation from „Vasile Pogor" Museum in Jassy, Romania Dan Diaconu-Sotropa, D Rosu, D Robu, G Gheorghiu, Gheorghe Asachi Technical University, Romania
Calculation Method of Ease to Find Escape Routes by Configuration Factor of Installed Signs *Yuki Akizuki, University of Toyama, T Tanaka, Kyoto University, S Okuda, Doshisya Womens College, M Iwata, Setsunan University, Japan*	

PROGRAMME COMMITTEE

Jim Shields, Chair
Univ of Ulster, UK

Jason Averill,
NIST, USA

Karen Boyce,
Univ of Ulster, UK

Dorothy Bruck,
Victoria Univ of Tech, Australia

Rita Fahy,
NFPA, USA

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Univ of Sao Paulo, Brazil

Amanda Robbins,
BRANZ, New Zealand

Ai Sekizawa,
Tokyo Univ of Science, Japan

Ian Thomas,
Victoria Univ of Technology, Australia

SOCIAL PROGRAMME

Delegate Lounge

Welcome Bar, Tuesday 18th

Delegates arriving Tuesday night will be hosted to a welcome drink from the bar in the Delegate Lounge (see photo).

Registration will be available until late in the Delegate Lounge. The bar will be open for drinks throughout the evening.

A wide choice of restaurants is located right outside the College gates for those who wish to enjoy a meal with colleagues.

Welcome Buffet, Wednesday 19th

The Welcome Reception Buffet and drinks reception will take place in the magnificent grounds of Downing College on Wednesday after the poster session. This informal evening is an ideal opportunity for networking and catching up with friends and colleagues.

A ticket to the Reception is included in the Full Delegate Registration Fee. Tickets for one day delegates and guests are available at a cost of £40 + VAT.

Conference Dinner, Thursday 20th September

The formal Conference Dinner will take place in the resplendent Downing College Hall with pre-dinner drinks in the inner sanctum of the Fellows Garden (weather permitting) on the evening of the second day of the Symposium. A ticket to the Conference Dinner is included in the Full Delegate Registration Fee.

Tickets for one day delegates and guests are available at a cost of £70 + VAT.

ALTERNATIVE ACCOMMODATION

Cambridge offers a good variety of accommodation. For more accommodation options please go to:
Visit Cambridge at

http://www.visitcambridge.org/VisitCambridge/Home.aspx

Cambridge Rooms:
http://www.cambridgerooms.co.uk

Hotels close by are:

The University Arms Hotel Cambridge **** (The hotel is directly opposite the Downing College entrance)
Regent Street, Cambridge
Tel: +44 (0)118 971 4700.
Web:
www.univeristyarms.info/index.htm

Crown Plaza Cambridge ****
(The hotel is approx 5 minutes walk from Downing College)
20 Downing Street,
Cambridge
Tel: 44-0871-942 9180
Web:http://www.ichotelsgroup.com/h/d/cp/1/en/hotel/cbguk

College - Single

College -Twin

College -Double

Accommodation DOWNING COLLEGE****

Single 4* Single Occupancy En-suite Accommodation and breakfast £85.00 + VAT
Double/Twin 4* Double Occupancy En-Suite Accommodation and breakfast £115.00 + VAT

4* Hotel standard rooms at Downing College can be booked during the registration process via Interscience Communications website.

The Accommodation is the best university accommodation available in Cambridge and is of a 4* standard set in beautiful surroundings. All rooms are within the conference complex and the spacious, well appointed rooms enjoy en-suite facilities, vanity packs, bathrobe, flat screen tv, internet broadband (ethernet cable provided), tea and coffee making facilities and hair dryer. All residents have access to the campus gym.

Rooms are available from **Tuesday 18th September to Friday 21st September inclusive**. Check in from 2.00pm and check out by 9.30am
Please note that there are no rooms available outside these dates but Cambridge offers a wide variety of alternative accommodation for those wishing to stay a little longer. See box for further details.

For more information please visit the Downing College website: http://www.downing-conferences-cambridge.co.uk/quality-en-suite-accommodation/ensuite-rooms

Symposium Fees

Full Delegate Fee £660 + VAT
Attendance at all three days of conference sessions, conference documentation including conference proceedings, ticket to the welcome reception (Wednesday 19th Sept) and conference dinner (Thursday 20th September).

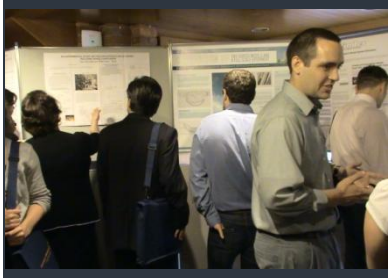
Day Delegate Fee £300 + VAT
Attendance at one day of the conference and conference documentation including conference proceedings.

Reduced rates apply for Speakers (1 per paper) and Student discounts are available - Please contact Interscience for more information.

VAT is payable by all delegates attending the symposium at the current rate. (20%)

Terms and Conditions: Refunds cannot be given after **31st August** but substitutions can be made at anytime. Cancellations made before **31st August** must be received in writing and a £60 admin cost will be levied.
All bank transfer payments are subject to a 2.5% transaction fee. All credit card payments are subject to a 2.5% transaction fee.

SYMPOSIUM ANCILLARY EVENTS



STUDENT WORKSHOP

Students are welcome at the symposium and a special subsidized rate is available to encourage participation. Spaces are limited and allocated on a first come basis. The cost is £250 + VAT.

An informal Workshop will be organized to ensure students get to meet each other and have an opportunity discuss their academic research and to network away from the mainstream event.

EXHIBITION

A table top exhibition will run alongside Human Behaviour in Fire. The exhibition area is located in the main breakout area for registration, refreshments and welcome reception, thus giving your company maximum exposure.

Table top size/Exhibition Space (approx 1m x 2m) £500 + VAT
(All exhibitors must register a full delegate)

COMPUTER MODELLING

An area will be set aside for the demonstration of Computer Modelling Software. Contact organisers for details.

WAYS TO REGISTER (click on link below)

SYMPOSIUM ORGANISERS

Interscience Communications Ltd,
West Yard House,
Guildford Grove,
London SE10 8JT, UK

Tel +44 (0) 208 692 5050

Fax +44 (0)208 692 5155

On-line via credit payment

Online with invoice request

Download a Registration Form to fax or mail

www.intersciencecomms.co.uk/html/conferences/hb/hb12registration.htm

email: **office@intersciencecomms.co.uk**

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