Please send news and information you would like to be included in the e-Newsletter to Sirina at sirinath.jamieson02@imperial.ac.uk. Many thanks.

CIBSE Intelligent Buildings Group

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1. NEWS


CIB World Building Congress 2010: Building a Better World, 10-13 May 2010, University of Salford, UK.

The congress is now linking up with the WHO, OECD, ECTP (European Construction Technology Platform), UN, and the UK National Platform for the Built Environment. CIBSE IBG, in association with CIB W098 Intelligent and Responsive Buildings, is organising the session on “Sustainable Healthy Intelligent Buildings for the Future” for which the abstract submission deadline has been extended. Selected peer-reviewed papers will be published in a special issue of Intelligent Buildings International journal.

Abstracts can be submitted online at www.cib2010.org by clicking on “Abstract Submission”, and then “create an account”. After your account is created, you will be lead to the submission page. Please remember to select the theme “W098 Intelligent and Responsive Buildings”.
• **Building Controls Industry Association (BCIA) Awarded to Professor Clements-Croome**

Professor Derek Clements-Croome received the Building Controls Industry Association (BCIA) 2009 Awards on the recognition for his contribution to education and training in the controls sector.

The judging panel (which included representatives from leading controls manufacturers, BSEE magazine and the ECA) highlighted the important work Derek has been doing at Reading University, and with his many publications, which promote the creation of intelligent buildings and technologies. His accomplishments in advancing knowledge in this sector was also acknowledged.

• **Member discussion forum**

Discussion forum is now active for our members to post the topics/questions for discussion. It can be accessed through here. CIBSE IBG webpage can be found here.

• **Henley Management College to install beta site of step change technology Intelligent Building Solution**

The beta site installation of Newera Control’s Generic Control System (GCS) at the world renowned Henley Management College is now imminent. GCS is a step change in the provision of Environmental Control of buildings by being exclusively based on software (no proprietary hardware is required), and is the foundation of a total intelligence based solution for buildings whatever their size or location. More information will be provided in the next issue on the functionality provided and reduced costs of delivery.

For more information go to [www.newera-controls.com](http://www.newera-controls.com)

• **The High-Performance Commercial Building Partnership (HPCGBP) has been established in the US**

“The partnership was established to bring together leading organisations across all aspects of the building community to further development of the high-performance commercial buildings.”

The partnership includes:
- the design professions, including national associations of architects and of professional engineers;
- the development, construction, financial, and real estate industries;
- building owners and operators from the public and private sectors;
- academic and research organisations, including at least one national laboratory with extensive commercial building energy expertise;
- building code agencies and organisations, including a model energy code-setting organisation;
- independent high-performance green building associations or councils;
- experts in indoor air quality and environmental factors;
- experts in intelligent buildings and integrated building information systems;
- utility energy efficiency programs;
- manufacturers and providers of equipment and techniques used in high-performance green buildings;
- public transportation industry experts; and
- non-governmental energy efficiency organisations.

Further information can be found at [http://www.hpcgbp.org/](http://www.hpcgbp.org/)

2. ARTICLES

• **You Don’t Have to be Big to be “Intelligent”**

*by Ken Gray, Performance Building Partnership*

Looking back over the ‘intelligent building’ projects I have been involved in, one of the common themes appeared to be the scale. One could term them ‘major’ projects and one of the obvious side effects of technology integration was quite simply the benefits associated with ‘economies of scale’. The general opinion, perhaps misguided, was that you can’t economically integrate technology on small projects. I am now glad to report that ‘You Don’t Have to be Big to be ’Intelligent’, or at least have a degree of intelligence.

A recent feasibility study for a small hotel, that is about 30 rooms, produced some extremely interesting results. Hotels can have high energy costs and high staff costs, facility management, cleaning etc. is quite labour intensive. Most of the energy consumed is, obviously, in the bedrooms, where the users
are free to switch on the air conditioning, open the windows, turn on the taps and basically consume the maximum power available at all times. In this industry, customer service is everything and an army of managers, cleaning and maintenance staff is the first line response.

Hotels are also often served by a host of ‘island solutions’, such as temperature control, lighting control, security, access control, room management, BMS, SOS alarms, point of sale systems, all with various degrees of success when integration is applied. On large scale projects, the effort to integrate can be worth it, on a 30 room hotel project an economic solution would be a challenge. Payback has to satisfy institutional standards.

A small hotel in Croatia held lots of the answers. They have installed a new integrated, mainly wireless, room control and management system from a new supplier in this arena. They have taken the usual hotel ‘island solutions’, integrated them in one system and added further benefits for facility management and business improvement.

Energy savings are now achieved by changing room set points when no one is in the room, further enhanced by the security element switching off the air conditioning when a guest opens a window. Access control also controls energy by monitoring when rooms are not occupied. Separate systems now sharing information. Leave your tap running when you leave your room, the system shuts down the water flow. The cleaning staff knows when the room is occupied or ready for cleaning. Open the minibar, the system now knows, lose something from your room, the management can tell you who and when someone was in your room. All of these benefits, and much more, on a small scale. Money saved on energy and even more on efficiency improvements.

The feature which impressed me most was the ability of the system to present information in any language, both for the guest and duty management either on site, remotely or even via a mobile phone.

I now have a solution for my own particular feasibility study and the possibility of successfully applying to any accommodation which has cellular or flexible space.

If you would like further information on this particular system please contact me via kengray@performancebuilding.co.uk

- Mismanagement of the “Building Colleges for the Future” Programme – an Opportunity?

by Richard Everett - Intelligent Builders Limited

The review of the Building Colleges for the Future programme by Sir Andrew Foster concluded that the programme was mismanaged. Is there now an opportunity to correct the many aspects of the programme (including the lamentable situation where ICT infrastructure as well as whole life and operational costing of buildings are ignored) that were bungled. This précis summarises an article for the New Review of Information Networking that has examined the issue of green and intelligent buildings as part of a sustainable approach. It concludes that not to address whole life (operational and business) costing is tantamount to wasting public money and suggests that in a modern world of technology, in green and intelligent buildings, ignoring the approach is tantamount to “financial negligence”. The full article explains the rationale behind the conclusion.

Today’s educational establishments provide the skills for the country to compete globally. The importance of our retaining a leading place in that global economy requires a thorough competence in Information and Communication Technology (ICT) – this can only be attained if the environments within which education is delivered are up to date and possess capable ICT infrastructures supporting a green approach. This is recognised by the Learning and Skills Council (LSC) who acknowledge that “ICT is now an inevitable and essential element in all college buildings”. Without the essential ICT infrastructure in place the automation, control and systems processes vital for success cannot be realised. The achievement of an intelligent and green building requires a coherent approach by professionals who need to work closely together. The current financial planning arrangements used by the ‘mismanaged’ LSC programme cannot deliver that.

Unfortunately not everyone has a level of care, or application, to ensure that our scarce energy resources are conserved. If one understands how patterns of work take place at what times, at what places, for how long, and with what functionality in a building – one can plan suitable responses to the demands of the business predictively and automatically lessening the carbon impact.

Good architecture takes into account learner performance, motivation, ability and opportunity and makes sure that individuals’ needs are met (with control) – resulting in higher productivity. The “delight” of the students enhances their learning and also creates effective deployment of resources.
and staff. The full article examines some examples in an educational setting.

It is often argued that ICT is a part of the problem when it comes to the green or sustainability agenda – on the corollary it is really a major part of the solution with ‘intelligent’ buildings typically delivering massive reduction in capital cost and huge reduction in running costs. A point emphasised is that productivity increases of smaller than 1% are capable of justifying additional capital expenditure. It cites Doncaster College paying for its Identity and Access Management strategy out of efficiency gains. The article also identifies that decreases in temperature resulted in an increase in productivity and cites Ofsted guidance on the subject.

The article argues that sustainability definitions are totally in alignment with the definitions of intelligent buildings adding up to a powerful case for taking into account the running, or full life, cost of buildings, including ICT infrastructure, rather than the rather narrow construction cost currently being considered by ill conceived feasibility and design processes. It also suggests that to make significant inroads into the green/environmental sustainability agenda whole life costing has to be taken into account citing that we have to design and manage heating ventilation and lighting systems more appropriately and particularly how we actually use them over time. It adds that this needs to be planned at the beginning of the design and financial planning process.

The article quotes a report for the LSC which indicates that additional capital expenditure could improve overall quality and reducing running costs and states that sustainability is important and good communication is essential. It points out that Architects, M&E consultants, ICT consultants, Engineers, Government funding bodies and Agencies, College management etc. need to keep an open mind to include hitherto unfamiliar experts from different settings and to include them in the design process.

The article concludes that the next generation of educational buildings should be intelligent and green and that such buildings result in running cost savings and sustainability gains. It quotes the Joint Information Systems Committee (JISC) who predict a 15% reduction in global carbon emissions by 2020 through the intelligent use of ICT.

Richard posits that the green and intelligent building approach will give us the sound building and pedagogical foundations for the future that will cement our place at the forefront of the worlds education.

3. EVENTS

- **CIBSE/IB Group Seminar Series**

  Some presentations from the CIBSE IB past seminars can be found [here](#).

  Upcoming CIBSE/IBG seminars:

  - 20th October 2009
    - *Evolutionary Optimum Building Design*
    - CIBSE Headquarters, London
  
  - February 2010
    - *System Integration*
    - CIBSE Headquarters, London

- **International CIB W098 in association with CIBSE IBG Workshop on Intelligence in Assisted Homes**

  24-25 September 2009, Bruges, Belgium

  A 2-day workshop in which the plenary sessions include *The intelligent home*, *Ambient Assisted Living*, *Telecare/Telemedicine at home* and *Good practices in Europe*.

  There will be a visit to the In-HAM Livinglab, Gits, an experience-based and user-centred testing facility, regarding assistive technology for elderly and disabled people.

  Contact: Professor Derek Clements-Croome at D.J.Clements-Croome@reading.ac.uk

4. CALLS

- [http://www.epsrc.ac.uk/CallsForProposals/default.htm](http://www.epsrc.ac.uk/CallsForProposals/default.htm)
- [http://www.researchresearch.com/entry/entry.htm](http://www.researchresearch.com/entry/entry.htm)
- [http://www.britishcouncil.org/science-research.htm](http://www.britishcouncil.org/science-research.htm)

5. ONLINE

- [http://www.cmips.org.uk/index.htm](http://www.cmips.org.uk/index.htm)
- [http://www.bre.co.uk/page.jsp?id=725](http://www.bre.co.uk/page.jsp?id=725)
- [http://www.ibrg.rdg.ac.uk/](http://www.ibrg.rdg.ac.uk/)
- [http://www.caba.org/index.html](http://www.caba.org/index.html)
- [http://www.vtt.fi/?lang=en](http://www.vtt.fi/?lang=en)
- [http://www.austin.co.uk](http://www.austin.co.uk)
- [http://www.health-smarthomes.org/index.html](http://www.health-smarthomes.org/index.html)
7. COURSES AND TRAINING

- **MSc Intelligent Buildings**, University of Reading.
- **MSc Intelligent Building Technology and Management**, The Hong Kong University of Science and Technology.
- **LEED® & Intelligent Buildings Online Seminar**
- **CIBSE courses**
- **Intelligent NextGen Buildings**: Combining Technology with Improved Building Systems.

This biannually newsletter is for our group communication and the sharing of information.

If you would like details of your news, articles, seminars, photos, research, courses, new technologies to be included in the e-Newsletter; please e-mail me at sirinath.jamieson02@imperial.ac.uk.

Many thanks.

Best wishes,

Sirina