Dear ARCOM members, welcome to our first 2005 issue of the newsletter.

In this issue Prof. Farzad Khosrowshahi shares the success of ARCOM 2004 which was held in Edinburgh. (Pages 1-2).

On behalf of the ARCOM committee, the editor would like to thank Dr. Will Hughes for his continuous support to the newsletter. The use of keywords for research publications are often subject to confusion and debate. Will shares his views on the importance of Keywords and their choice, which makes a very interesting reading on Pages (2-3).

Leadership is a rare commodity. Making a difference is what academia is all about. On Pages (2-3), the editor introduces with great pleasure, the portfolio of Prof. Ghassan Aouad, sharing with the readers a leading example of academic excellence and leadership in the field of Construction Management and IT.

The editor would like to thank and congratulate all PhD candidates who have recently passed their PhD and cared to send their articles to the newsletter. The editor hopes to include them in future issues. (Continued on page 2…..)

ARCOM Newsletter

The Success of ARCOM 2004

ARCOM has come of age. Twenty years ago I witnessed the formation of an association, which before long proved to develop into the most persistent association that has embraced the rank and file members of the research community of a relatively young academic discipline. In 1984, the inaugural meeting of the association which was held at South Bank Polytechnic was addressed by a rising star who was later to be known as Sir Michael Latham. Soon after the inaugural meeting, ARCOM held its first ever workshop in Edinburgh. In a well attended session, Peter Lansley AROUSED the participants by demonstrating his management simulation game. Twenty years on, we were back in Edinburgh. During this period, ARCOM has come a long way. Most notably there have been 20 conferences that have taken place every year. In 2004, the ARCOM annual conference was hosted by Heriot Watt University and was attended by a record number of approximately 150 delegates. This was made possible by the hard work that Chris Fortune and Kate Carter put into the organisation of the conference, at a time when organisers of many other events competed for similar provisions in Edinburgh. Of course, as ever, the conduct of the conference owed much of its success to the dedication as well as the wisdom of the ARCOM committee members: normally the organisation of the paper side of the ARCOM conference offers many challenges, but by far the biggest challenge is to maintain the reputation of ARCOM conferences for the quality of papers. This has been achieved by the hard work of the committee members and in Edinburgh we witnessed yet another 3 days of excellent presentations.

As well as the paper presentation sessions covering topics such as project management, procurement, knowledge management, financial management and human resource management we introduced a debate and a Question Time session which were both well received. The debate considered the future of the built environment education and research and at the Question Time session, the panel of experts (Peter Edwards, Mel Lees, Richard Neale and Derek Walker) responded to open questions and provoked some lively discussion amongst the delegates in attendance.

Away from the conference sessions the delegates enjoyed the many benefits that Edinburgh has: informative and entertaining sessions were arranged in the evening that provided a guided walk through Edinburgh’s Old Town area and the conference dinner was enjoyed by all who were treated to fine food, drink and the after dinner speech against the magnificent backdrop of Edinburgh Castle.

The event was marked by the elegant and yet highly witty delivery by the after dinner speaker – Joe Gunning. Table 4, represented by Will Hughes, won the prize for closely (Continued on page 2…..)

By: Prof. Farzad Khosrowshahi
Networks of excellence are fantastic mechanisms for knowledge exchange to engage the academic community. FIDIC-NET, a recently funded EPSRC network of excellence, is one of such good examples. Congratulations to Dr. Issaka Ndekugi as he informs the ARCOM community about the new launch of this network (Pages 6 & 7). Issaka, Will and Nigel, we wish you all the best with the future workshops.

Why not share a smile and pick your project management style on Page 8.

Finally, thanks to all of those who contributed to this issue and those who have expressed interest to be part of it, wishing the ARCOM community happy research days in 2005.

ARCOM Success

estimating the likely duration of the speech by Joe. Other more formal prizes were for the Best Paper awards - Paul Townsend, awarded to Will Hughes, Debbie Ancell, Stephen Gruneberg and Luke Hirst, and the Blackwell Publishing awarded to Michael Brand and Thomas E Uher. The prize-giving event was administered by Paul Stephenson.

Finally, on the 20th anniversary of ARCOM we once again remembered Paul Townsend for his contribution during the formative period of ARCOM and for recognising him as the most faithful industrial partner of ARCOM.

ARCOM 2005

The work for the preparation of the ARCOM 2005 in London has already commenced and this year we are planning to exploit the web technology for the organisation leading to the conference. So if you have a paper then please submit online by visiting ARCOM conference website.

Will’s Corner—Keywords: the pose of adding keywords to published papers. This raises a question about the kind of advice available to authors. Searching for advice about how to choose keywords using the Google search engine on the internet revealed an interesting result. The results were almost exclusively oriented towards choosing keywords for web pages. This is not relevant to the choice of keywords for published papers. Of course, Google can be made to disregard the obviously irrelevant results; and doing this provides a huge number of pages about how to choose keywords when making search of databases. It is intriguingly difficult to find advice about choosing the short list of keywords that ap-

Profile—Professor

It is a great pleasure to share and celebrate with the ARCOM community, the research profile and achievements of Professor Ghassan Aouad, one of the leading figures in the field of Construction Management & IT. His great achievements and contributions to the research community in construction has been witnessed over the years, and sets an example of excellence that many of our readers may wish to follow.

The last fourteen years have been a long journey for Professor Aouad, with short cuts to success through hard work, passion for the field and high commitment. Those who know Professor Aouad, will tell you that his best friend is his laptop. A friend that has visited over 41 countries on academic journeys only to end up in Salford for more sleepless hours. With our readers, we share clips of this journey.

Ghassan Aouad is a Professor of Construction IT & Management and currently the Head of School of Construction and Property Management at the University of Salford, which is 6* research rated and considered to be one of the best in the UK. Professor Aouad is also a Director of the £3M EPSRC IMRC Research Centre (SCRI: Salford Centre for Research and Innovation in the Built and Human Environment) and a Visiting Professor and chairman of the scientific board at ESAI (college of real estates, Lisbon, Portugal).

Many of us know Professor Aouad from his Post Graduate days at the School of Civil and...
Their choice and their importance

pears along with the abstract of a paper. This article is intended to offer such guidance and to answer the question, "why do publishers request keywords?"

Of course, there is some advice about selecting keywords. One publisher, Emerald, advises authors as follows ([http://ceres.emeraldinsight.com/vi1=52230420/cli=96/nw=1/rpsv/literaticlub/authors/selecting.htm](http://ceres.emeraldinsight.com/vi1=52230420/cli=96/nw=1/rpsv/literaticlub/authors/selecting.htm)):

- Pick keywords that reflect the specificity of the paper. Avoid overarching terms like "Management" unless the paper discusses the topic with such a wide focus.
- Use the most common term for a concept.
- Do not make up new terms for an old concept.
- Try to think broadly: if the paper discusses performance appraisal in an electronics factory it may be worthwhile supplying the industry as a keyword.
- If an activity/research takes place in a particular country then supply the country's name as a keyword.

All this is sensible and useful advice that should be heeded more often. On the other hand, it is not something that is widely disseminated or easy to discover. Worse, most people are not particularly worried about keywords, so they would not even look for advice on how to choose them. Quite often, authors' keywords are merely the main words from the title, but choosing keywords in this way seems to miss the point.

Help is at hand in the guise of a British Standard; BS 6529:1984 Examining documents, determining their subjects and selecting indexing terms. This is a very useful source for working out the difference between good practice and bad practice. The first section of the standard, of course, is the list of definitions. Among other things, "concept" and "subject" are defined. A concept is defined as a unit of thought. The semantic content of a concept can be re-expressed by a combination of other and different concepts, which may vary from one language or culture to another. Subject is defined as any concept or combination of concepts representing a theme in a document. Immediately, this jumps out as an important distinction. For example, this explains my discomfort with the widespread practice of simply copying the words of the title into the keywords. The title denotes the subject of the document, whereas the keywords provide indexing terms for the concepts that are dealt with in the document. Clearly, there is scope for some words appearing in both the title and the keywords, but not without careful consideration.

How should we choose our keywords?

Will tells us more about this in the next issue.

Acknowledgements
With thanks to Caroline Collier of CIOB and Maureen Wright, New Caledonia, for their helpful advice during the writing of this article.

References


By: Will Hughes

For Ghassan Aouad

Building Engineering of Loughborough University, as he obtained his MSc in Construction (1987) and his PhD entitled “Integrated Planning Systems for the Construction Industry” (1991), under the supervision of Professor Andrew Price. Prior to that Professor Aouad obtain a BSc in Civil Engineering from Beirut Arab University.

Over the years, Professor Aouad became increasingly known within the academic and industrial community in construction, through his publications which include over 55 refereed journal papers, 113 conference papers, and a number of book chapters and reports. Professor Aouad has been a member of over 20 national and international conference and journal editorial boards, an external examiner to more than 22 PhDs and successfully supervised 11 PhD students at Salford with a similar on going number. He made his landmark in a number of research areas that have had tremendous impact on the research community in areas of Information, Management and Environmental Systems. Professor Aouad became the Director of the Research Centre/Institute for the Built and Human Environment in 1998, when he led this institute into the 6* status.

As a principal investigator of at least 10 EPSRC funded grants, Professor Aouad generated over £5.5M. Parts of this funding contribute to the 3D to nD modelling project, the Salford Innovative Research Centre, the Start Recruit Project and others that enhance the Human and Built Environment Processes and Products.

Professor Aouad has collaborated widely with many UK and international institutions. His humble approach, professional style and intellectual sharpness has enabled him reach a large number of the researchers within the UK community and beyond, and in return made him easily approachable by many others.

On behalf of the ARCOM community, we wish Professor Aouad every success for the future and thank him for being a friend of ARCOM and for continuous support over the years.

By: The Editor
**PhD Abstract**


Organisations of all types, including contractor organisations are increasingly implementing management systems for quality (ISO 9000), health and safety (BS 8800/OHSAS 18001) and environment (ISO 14000). The standard based management systems have developed individually, independently and at different times fulfilling unique demands. However, the structural similarities in the standards have led to the evolution of integrated management systems (IMS). Contractor organisations in the UK have also shown a keen interest in the IMS development, however, there is a clear lack of guidance on the implementation of integrated management systems. Against this background, in this research:

A comprehensive literature review, case studies in some major UK contractor organisations and a questionnaire survey was conducted to encompass the management systems, developments and issues related to integrated management systems (IMS) in construction and other industries. As a result of above, this research: Develops a unique best practice framework for the implementation of integrated management systems (IMS) in construction contractor organisations. The research finds: The UK contractor organisations at varying levels of development from very basic to advance in integrating their management systems. Various different approaches and methods are being applied to develop the integrated management systems in absence of any industry specific guidelines. The industry validated framework, developed in this research project will help contractor organisations and provide a best practice guide, in the implementation of integrated quality, health and safety and environment management systems.

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**CIOB Innovation and Research Awards**

This year’s research paper competition has been won by Prof. Alan Griffith, and co-authors Andrew King and Andrew Knight from Sheffield Hallam University (SHU). The paper entitled *Enhancing Design-Build Tendering Procedures Through Research Collaboration and Dissemination* was based on a major research project carried out at SHU and commissioned by the EPSRC.

The research focused on tendering procedures and evaluation strategies used by clients, in addition to assessing contractors’ tendering experiences with a view to establishing current practice within the industry. Data collected from both clients and contractors were analysed using non-numerical unstructured data indexing, together with searching and theorising software.

Results are presented in the paper from research into tendering during the procurement of design and build construction projects, and outcomes from the research provided identification of best practice for dissemination to both clients and practitioners within construction. The research findings will also provide the opportunity for greater understanding and knowledge of the processes and procedures related to design and build procurement. Since the study included both UK and International collaborations, the findings will have global significance.

Further dissemination has been provided by the publication of a book giving a more in-depth account of the research and findings. The book *Best Practice Tendering for Design and Build Projects* is available from Thomas Telford Publishing.
The first graduates from Loughborough University’s Centre for Innovative Construction Engineering (CICE) were awarded the prestigious degree of Doctor of Engineering (EngD) at the University’s winter graduation ceremony in December 2003. They are the first students in the world to graduate with an EngD in Construction Engineering.

Of the first four graduates Professor David Wallace, the Vice Chancellor said “The December graduation ceremonies saw our first cohort of EngD Research Engineers being presented with their Engineering Doctorates. It was a prestigious occasion, marking not only a first at Loughborough, but a first for Construction Engineering in the UK.”

The CICE was set up in 1999 following an expansion of the Engineering and Physical Sciences Research Council’s (EPSRC) prestigious Engineering Doctorate scheme. It is funded by the EPSRC and a group of more than 30 industrial sponsors, and is unique in being the only centre of its kind devoted to meeting the research and training needs of the construction industry. The Engineering Doctorate is a postgraduate award intended for the UK’s leading research engineers who aspire to key managerial positions in industry.

The graduates theses were entitled as follows:

“Development of an Integrated Business Improvement System for Construction” by S Beatham (sponsored by AMEC)

“Improving Design Management Technique in Construction” by L A Bibby (sponsored by Skanska)

“Detection of Reinforcement Corrosion by an Acoustic Technique” by M J Ing (sponsored by Balvac, a division of Balfour Beatty).

“The Application of Visualisation Techniques to the Process of Building Performance Analysis” by M J Pilgrim (sponsored by Arup)

All four graduates have secured jobs at senior level within their sponsoring companies or other companies. Dr Beatham is now working as an Operations Director at AMEC, Dr Bibby is a Design Manager at HBG Construction, Dr Ing is at Technical Manager at Balvac and Dr Pilgrim is a Solutions Developer at FaberMaunsell. This is a great achievement from their pre Engineering Doctorate positions as a Senior Quantity Surveyor, a Structural Engineer, an Undergraduate student and a Graduate Engineer respectively.

Of his study over the last four years Dr Beatham said: “The four years of the EngD programme has been a very valuable experience. It has allowed me to make major strides in my career while providing me with significant qualifications. I have had the opportunity to develop skills, approaches and knowledge in relation to real industrial problems, which are vital to my new role. As I was working within the industrial sponsor’s organisation I obtained a much deeper understanding of the issues surrounding Design Management and improving business practice than through a traditional PhD. Furthermore, regular contact with Company Directors and industry leaders has been an excellent introduction to implementing strategic change programmes.”

Of the programme Dr Beatham said: “Fantastic experience, the development of the project within the industrial context has meant that I haven’t been labelled “an academic” and can demonstrate the practical applications of the project as used by the industrial sponsor. Returning to work has therefore been far easier than if I had completed a traditional PhD. The cross between an MBA and a PhD enabled me to develop specific business skills, which are now being used in my new role, as well as developing the academic skills needed to provide validated solutions to business problems.”

For further details about the Engineering Doctorate programme at CICE, Loughborough University, visit http://www.cice.org.uk or contact The Centre Administrator, Centre for Innovative Construction Engineering, Loughborough University, Loughborough, LE11 3TU, Tel: 01509 228549 or email cice@lboro.ac.uk.
A particular feature of the use of international contracts is that information on disputes and problems in general rarely gets into the public domain because of the private nature of the Dispute Review Board/Dispute Adjudication Board proceedings and arbitration, dispute resolution methods often used. The chances for users of the contracts to learn from the experience of others have therefore been very limited. Although commercially expedient and extremely useful, there is a disadvantage to this privacy in that knowledge can only be acquired through direct experience or through attendance at expensive international seminars, not a realistic option for project participants from developing countries.

We are therefore pleased to draw to the attention our readers a very interesting study into international construction contracts being funded by the Engineering and Physical Sciences Research Council of the United Kingdom that has just started. The study brings together experts on international construction contracts and users of the FIDIC (The International Federation of Consulting Engineers) family contracts to form a network for sharing knowledge and experience.

The network is the first organized source of feedback on the use of FIDIC contracts that has representation from all stakeholders in international construction. It comprises academics from a wide cross section of counties including the Japan, the USA, Canada, Thailand, and Hong Kong and international contracting companies, consulting engineers, construction lawyers, representatives of project owners and the international development agencies.

The study is concentrating on the four new standard forms of contracts produced by FIDIC in 1999. Knowledge of the operation of these contracts and potential sources of disputes is important for reasons of dispute prevention and efficiency. The aim of the study is to develop and disseminate such knowledge. It entails running multi-disciplinary workshops, conferences and on-line discussion in which specific issues will be subjected to critical examination by members of the network. Acknowledged experts will also be invited to submit papers on
specific aspects of their expertise. Issues of particular interest include:

- extent of use of the forms,
- amendments commonly made and reasons for them,
- the new role of the Engineer,
- evidence of employer's financial arrangement to be supplied to contractors,
- value engineering,
- risk allocation,
- contractor's claims,
- employer's claims,
- dispute resolution by adjudication,
- best practice in contract administration,
- implications for contract policies of international funding agencies.

The project is being led by Dr Issaka Ndekugri (Principal Investigator) of the University of Wolverhampton, Professor Nigel Smith of the University of Leeds and Dr. Will Hughes of Reading University. The study started in July 2004 and will run for three years. The activities of the network are being coordinated by a Network Management Committee comprising the investigators and four industry-based people of outstanding experience in international construction. The practitioner members of the Committee are:

- Dr. Joachim Goedel, Head of the Legal Department of Hochtief International and representative for European International Contractors
- John Bowcock, Consulting Engineer and Former Chairman of FIDIC’s Contracts Committee
- His Honour Judge Humphrey Lloyd QC, Judge of the Technology and Construction Court in England
- Nicholas Gould, Partner, Fenwick Elliott Solicitors

Each workshop/conference will be planned in the first instance by the research leaders and finalized at a meeting of a Network Management Committee. The workshops will be run at various locations with teams of academics and industry-based practitioners as facilitators. Seminars and meetings will be recorded to provide a record for the researchers to use as a basis for detailed analysis and reporting. The outcome of each workshop will be a report detailing the range of viewpoints expressed during discussions of the issues. The report will be available on the network’s website. A summary of the report will be published as a newsletter to members of the network.

Membership of the network is still open. Developing countries, the Middle East and the Eastern European counties are currently under-represented. Members from these regions would, therefore, be most welcome. On account of the limited input by Employers into the drafting of the FIDIC contracts, the project team are also particularly keen to have participation from representatives of organisations that take on the role of Employer. If you would like to join please submit your contact information (name, professional affiliation, address, telephone no., email) on the website for the network: fidic-net.org. Alternatively you may email it to enquiry@fidic-net.org or write to:

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The first workshop will be held on 4th February 2005 whilst the second will be on 16 September 2005. Both workshops will be held in the University of Reading. Attendance at workshops will be restricted to only members of the network. Further details on the workshops and other events will be provided on the network’s website.

Celebration of UK Engineering Research & Innovation

The Engineering Sector of EPSRC together with the Royal Academy of Engineering, played host to the week-long International Review of UK Engineering Research. Two days of which, a major show case event took place at the Excel Centre in London last November. The event brought together over 150 individual exhibits to mark the end of the international review panel's programme of visits. The event was colourful, filled with energy and immaculately organised. It was a real celebration with style, covering twelve themes, including the built Environment.

Congratulations to EPSRC for such a successful event.
**Check your style, with a smile !!**

**Different styles of Project Managers**

If you get in my way, I'll kill you! -- *ideal project manager*

If you get in my way, you'll kill me! -- *somewhat less than ideal project manager*

If I get in my way, I'll kill you! -- *somewhat misguided project manager*

If I get in your way, I'll kill you! -- *a tough project manager*

If you get in will way you! -- *dyslexic, functionally illiterate project manager*

I am the way! Kill me if you can! -- *messianic project manager*

Get away, I'll kill us all! -- *suicidal project manager*

If you kill me, I'll get in your way. -- *thoughtful but ineffective project manager*

If I kill you I'll get in your way. -- *project manager who has trouble dealing with the obvious*

If a you getta ina my way, I gonna breaka you am. -- *project manager from New York*

I am quite confident that there is nothing in the way, so no one will get killed. -- *project manager who is about to get in big trouble*

If you kill me, so what? If you get in my way, who cares? -- *weak, uninspired, lacklustre project manager*

If I kill me, you'll get your way. -- *pragmatic project manager*

Kill me, it's the only way. -- *every project manager to date*

**Get in touch with us and contribute**

For comments, ideas, articles, events, photographs, news in general, research experiences, achievements, workshops, funny stories, serious stories - anything that you would like to share with other members, through this newsletter please contact the editor, Dr Vian Ahmed.

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