

Looking Forward: ARCOM 2007 Belfast



By: David Boyd

The stage is set for another great ARCOM conference this 3-5th September in Belfast. Like many people I had not been to Belfast until exploring it for this conference. What we know about Northern Ireland is about the 'troubles'. These are long past, although not forgotten, and to a great extent the country is stronger and more confident than it has ever been. As you will see Belfast is regenerating as a major European city; cleaning its past beauty and creating new exciting environments. The city is composed by a world class setting with a sea lough at its front and a sweep of green mountains at its rear.

Our venue the Europa hotel has a history that matches that of Belfast. In its refurbished state it is one of the best hotels in the country. You will see the grandeur of the City, the mountains and sea from our main conference room on the 14th floor. I hope that this will inspire you to develop ideas about the construction management of our world and find an association with people from around the earth.

The programme will start with a keynote address from Professor Robert Geyer from Lancaster University who will explore the application of complexity theory for the construction industry. The Monday evening will involve a short city tour followed by a buffet with Irish Music in the famous (or infamous) Crown Pub. Surviving the first day will allow you to participate in a breakfast event with practitioners from the Northern Ireland industry. Following lunch we will have our second keynote from Dr Amin Habboub, a construction lawyer from Dubai, who will provide us with a international perspective of the Industry. The Tuesday will end in ARCOM style with a reception, the dinner and the speeches and awards set in the 14th floor conference room as we watch Belfast go to sleep. If you have not experienced one of these ARCOM dinners you will not understand the importance of them in establishing our community. The final day will commence with the ARCOM debate where we will pitch intellectual adversaries into a gladiatorial battle; you have to take part.

Shame you have to go through the effort of writing a paper but the agony is worthwhile; why not come to the conference anyway. I look forward to seeing you in Belfast.

He did it again!

Professor Chimay Anumba receives top honour from Netherlands

In the past few issues, we shared with our readers many success stories for Professor Anumba, the Director of the Centre for Innovative and Collaborative Engineering (CICE) at Loughborough University. In this issue, we are delighted to share one of the latest and greatest achievements of Professor Anumba.

Professor Chimay Anumba, was awarded an honorary doctorate by Delft University of Technology in the Netherlands in recognition of his outstanding contributions to building and construction engineering.

Delft University, which typically awards a maximum of two honorary degrees per year, presented Professor Anumba with his doctorate in January during celebrations to mark Delft's 165th anniversary.

Speaking at the ceremony the Dean of the Faculty of Architecture, Professor Wytze Patijn, who presented Professor Anumba for the award, said: "He has done extremely important work in the field of



Professor Chimay Anumba accepting the honorary doctorate award

He did it again! (cont...)

competitive and collaborative engineering applications for the construction sector. He is well known for his excellent international research and many publications and he has developed software in which knowledge technology is applied to construction work." Professor Anumba is the first black person to receive an honorary doctorate from Delft. Speaking about the award, Professor Anumba said: "I am delighted to be honoured in this way and by such a prestigious institution. It is also recognition of the work of my numerous doctoral students over the years."

Chimay, on behalf our readers and the ARCOM community we would like to express heart felt congratulations to you for your great achievement, which represents a flag of knowledge and expertise of a star in the field.

By: The Editor

Prof. Les Ruddock – Profile



Les Ruddock

Many academics/researchers in the construction management field seem to have arrived there through a pre-ordained love affair with the construction industry. Les arrived there by default.

As someone who was born within a goal-kick of Old Trafford football stadium, it isn't surprising that Les's boyhood career aspiration was to make a living as a professional footballer. However, by the time he left school, he realised that his very limited talent at the game meant that he had to think about a proper job instead.

This meant taking up articles with a firm of chartered accountants, which led him to take a first degree in Economics and Finance. From there, preferring a student's life to that of a trainee accountant, he applied for and won a scholarship award to undertake a Masters degree in Economics and Statistics at Aberystwyth University. He liked the town so much that he stayed there for two more years to work for the Wales Tourist Board as a researcher on a Cost-Benefit study of the Cambrian Coast railway line. This also meant that he was able to play semi-professional football in the mid-Wales league – not quite the dizzy heights of Manchester United but occasionally the crowds reached double figures. Missing urban life, he returned to Manchester initially to the accountancy profession and then to a lecturing post at Manchester College of Arts and Technology (Mancat), where he taught economics and statistics amongst other subjects. During his time at Mancat, he wrote several textbooks on economics and quantitative methods for construction and surveying students and also began to publish in journals. His first paper was in the journal *Economics* with the title *The Market for Professional Footballers* showing that he still hadn't got his interest in football out of his system. This was the period of the first one million pound transfer fee in English football but, unfortunately, in the 1970s, academic interest in sport was not attracting any funding and research in that direction was not encouraged by his employers.

He took leave from the College to take up the post of statistician working for the Association of Direct Labour Organisations, a lobbying body concerned with putting the case for the retention of local authority building departments in the face of competitive tendering. This work provided him with the impetus and the data for his PhD research into productivity comparisons of the private and public sectors of the UK construc-

tion industry.

From there, in 1992, he joined the Department of Surveying at Salford University in the middle of Peter Brandon's 'revolution'. This was an exciting time at Salford, where, under the guidance of Peter, the research ethos that has led to Salford's prominence in built environment research over the last decade and a half, was being developed.

Since arriving at Salford, he has progressed academically from Lecturer to his current post of Professor of Construction and Property Economics and has performed various roles along the way. Most notably, he was Director of the 6* rated Research Institute for the Built and Human Environment for two years before taking up his current position of Associate Dean for Research in the Faculty of Business, Law and the Built Environment.

Over recent years, he has noticed a sea change in construction management research in the sense that researchers and research students coming into the construction management area arrive from a variety of backgrounds in the social science, management and technology fields - a situation which has greatly enriched the discipline. He holds a strong belief that the construction industry (with its considerable lack of conformity with regard to basic economic concepts) is a particularly interesting industry to research from an economics angle. Throughout his academic career he has attempted to bring an appreciation of economic analysis to his students and researchers. This is reflected in his research papers and in the work of the CIB Task Groups, which he has led in the field of macroeconomics. He is currently working with members of the CIB and the European Real Estate Society in an attempt to link construction and property market economics research. This is reflected by the fact that he is currently editing a book on macroeconomic models and policies for the broad construction and property sector, dealing with the 'full life cycle of the building'.

Les has worked on UK research council and European projects in such areas as innovation process (particularly in construction SMEs), revaluing construction and competitiveness. He has acted as editor of the RICS Research Paper series and is on the Editorial Boards of various journals. He has been a member of the ARCOM Committee for twelve years and is a former editor of the ARCOM Newsletter.

In his career at Salford, Les has supervised over twenty PhD



Prof. Les Ruddock – Profile

students from ten different countries and is very pleased with the fact that most of these students have gone on to successful careers using their research skills in industry or academia. Whilst he believes that most postgraduate researchers acquire high quality skills, he, nevertheless, has one particular ‘pet’ gripe concerning research training. As a Chartered Statistician, he is often asked to provide guidance for research students with their quantitative data analysis and finds that too many postgraduate students use statistics packages as a means of processing data but then undertake analysis and

interpretation with a limited (or non-existent) attempt to understand the underlying statistical theory. Maybe this is a plea to the community not too unnecessarily overcomplicate by the overuse of often inappropriate statistical tests.

To finish on a positive note, he believes that the availability of fora for students and new researchers to hone their research skills (particularly ARCOM events) is something of which all those individuals, who have worked to make ARCOM, what it is today, should be immensely proud.

By: The Editor

LJMU and launch of the BEST centre

In November last year, the School of the Built Environment at Liverpool John Moores University launched a new research centre, BEST (Built Environment & Sustainable Technologies Research Centre).

The centre is divided into three themes of (i) sustainable technologies; (ii) planning and development; and (iii) construction and facilities management. Each theme has a team of academics with strong multi-disciplinary networks and collaborations and is currently undertaking research with a range of local and national organisations such as Tarmac, United Utilities and Taylor Woodrow. It has also developed collaborative European research programmes with France and Lithuania and more further a field with the Middle East and the Far East.

The centre was launched by the University’s Vice Chancellor Professor Michael Brown, Professor Roger Flanagan and Dr Howard Robinson of Tarmac. It has a steering group chaired by Sir Joe Dwyer of Liverpool vision and also hosts the Liverpool Constructing excellence group.



Picture: Professor Roger Flanagan, Professor Michael Brown and Professor Marjan Sarshar

By: Andrew Ross

The first Professor of Construction Sociology?



Andy Dainty ARCOM Vice Chair, Andy Dainty, has been awarded a personal chair in Construction Sociology. Andy studied for his PhD at Loughborough between 1993 and 1997 in which he invested the career development dynamics of men and women working within large construction organisations. On completion of his PhD, he joined Coventry University as a Lecturer and then Senior Lecturer in Construction Management. He rejoined Loughborough in 2001 where he has led this research theme within the Department. Andrew’s personal title reflects his core research interests which focus on human social action within construction and other project-based sectors, and particularly the social rules and processes that affect people working in construction teams, organizations and supply chains. He now leads a team of around 15 research associates and PhD students, many of whom are from sociology, psychology and business school backgrounds. Andy has also recently become co-editor of Construction Management and Economics.

Congratulations to Professor Mohan Kumaraswamy!



Mohan Kumaraswamy In a previous issue of the ARCOM newsletter we shared with our readers the profile of Dr. Mohan Kumaraswamy, who is at the Dept. of Civil Engineering of The University of Hong Kong, highlighting his success story as a key international figure within the construction discipline. Now we extend our heartfelt congratulations, to Mohan and his family, on his well deserved Professorship at this prestigious University. While this is a fitting acknowledgement of his major inputs into the construction community, we have no doubt that we can look forward to further contributions from Professor Mohan Kumaraswamy.

The Salford Virtual Doctoral Program has its first PhD Graduate



The MERIT programme (PhD by Distances Learning), was first launched in January 2004, by Professor Mustafa Al-Shawi at the School of the Built Environment, University of Salford. The programme currently has an intake of 14 students from different parts of the world, and is celebrating the success of its first graduate, Nabil El-Sawalhi from Palestine.

Dr Vian Ahmed
Director of the MERT programme (PhD by
Distance Learning),
with Nabil and his supervisor Dr David Eaton

For more information please visit:

<http://www.sobe.salford.ac.uk/studyatsobe/courses/1258/>

PhD Abstract



Nabil El Sawalhi, Univ. of Salford

Developing a Model for Construction Contractors Pre-qualification in the Gaza Strip and West Bank

Contractor pre-qualification is an integrated continuous process to evaluate contractor capabilities to achieve client's objectives. Contractor prequalification is a multi-criteria problem with uncertain inputs. The criteria used for pre-qualification includes qualitative and quantitative information. Due to the nature of pre-qualification, which depends on subjective judgements of construction professionals, it becomes an art rather than a science. Two approaches are found in the literature to model the contractor's pre-qualification criteria; Linear and non-linear models.

The main aim of this research is to offer a rational method for contractor pre-qualification that enables to pre-qualify the contractors who are able to achieve the client's objectives.

The main question guiding the research is how to be sure that the selected contractor is able to achieve the client's objectives. It is believed that there is an indirect relationship between the contractor's attributes and the contractor's ability to achieve the client's objectives. The time, cost and quality overruns of a project have been used as indicators to measure the contractor's ability to achieve client's objectives.

To achieve this aim, the methodologies used included literature review, questionnaires, surveys, and hypothetical and real-life case studies.

This work suggested improvements to the previous contractor pre-qualification models by using a hybrid model, combining the merits of Analytical Hierarchy Process (AHP), Neural Networks (NN) and Genetic Algorithms (GA) in one consolidated

model called the Genetic Neural Network (GNN) model. AHP was used to establish relative weights of the contractor's pre-qualification criteria; NN was used as the main processing tool to find a relationship between the contractor's attributes and his performance. The GA was used to select the appropriate topology of the network.

The data collected from questionnaires 1 and 2 were utilized to establish relative weights of contractors attributes. Hypothetical and real-life case studies from executed projects in the Gaza Strip and West Bank were collected through structured questionnaires. The actual evaluation of the contractor's attributes and the actual performance of the contractor in these projects in terms of overrun of time, cost and quality were collected. The weighted attributes were used as inputs to the GNN model. The corresponding time, cost, and quality overruns for the same case were fed as outputs to the GNN model in a supervised learning back propagation neural network. The adopted training and testing processes to develop a trained model are presented.

The accuracy of the model was investigated using Average Absolute Error (AAE), Mean Square Error (MSE) and correlation co-efficient (R^2). The factors: AAE; MSE; and R^2 showed a very good accuracy when comparing model prediction with actual real-life cases.

The results revealed that there is a satisfactory relationship between the contractor attributes and the corresponding performance in terms of contractor's deviation from the client objectives. The GNN model is able to predict future contractor performance in terms of time, cost, and quality overruns. Therefore, the evolved model is able to predict the contractor performance.

Key words: Pre-qualification, Contractors, Neural Networks, Genetic Algorithm, Model, Contractor Performance.

Andrew Agapiou has asked ARCOM to apologise to him in the newsletter as we published a paper of his in 2003 after he had withdrawn it. Sorry Andrew, this was a genuine mistake due to the voluntary nature of ARCOM.

Don't miss!

The PMOZ 2007, 4th Annual Project Management Australia Conference. It will take place in Conrad Jupiters, Gold Coast, QLD on 28 – 31 August 2007.

For more information please visit: www.pmoz.com.au



PhD Abstract



Xiandong Feng, Univ. of Wolverhampton

A novel Virtual Reality Approach to develop Spatial Visualisation Skills

Hitherto, competence in spatial visualisation has been recognised as a vital element in the design process. With the current pace of technological advancement, there is a tendency to rely on computer-generated graphics, rather than to develop personal skills in spatial visualisation. The research reported herein has found that difficulties encountered in learning visualisation skills, such as 3D CAD modelling, are directly related to a lack of spatial awareness, and indicate the

need to develop a systematic, structured approach to developing the necessary conceptual visualisation expertise.

By conducting a series of investigations on the variability of spatial visualisation ability (SVA) among students; the actual effects of CAD training in developing SVA; and the factors that influence the natural development of SVA, this study argues the necessity for continual development of spatial visualisation skill. New strategies for developing and enhancing spatial visualisation skill in the contemporary CAD environment are introduced. Also, a dedicated VR-based virtual learning program is developed as a vehicle for investigating the potential of VR as an interactive environment to promote an increased awareness in visual spatial thinking.

Plagiarism – intellectual theft



Noel Painting

Plagiarism: the unauthorized use or close imitation of the language and thoughts of another author and the representation of them as one's own original work {http://en.wikipedia.org/wiki/Plagiarism#Examples_of_purported_or_actual_plagiarism -accessed 16th April 2007}.

The use of Wikipedia here may send many academics searching for their biggest red pen but it somehow seems like an appropriate source of definition for a brief article on plagiarism given that the website itself admits that 10% of reporting “contains factual errors of unspecified degree” and contains material that is often substantially under-referenced.

For under-prepared students Wikipedia nevertheless represents an easy source of information which all too often creeps into a list of references until (and often after) the student is made aware of their errors. In a similar way using the work of others can seem like an easy option for a “time poor” researcher at a time when the pressure to publish is great. In an era of ebay and the web it has never been easier to upload a large volume of text and present it as one's own.

As a counter to this we are fortunate that the ability to search for and find sources of potential plagiarism has never been easier for reviewers and supervisors.

“Welcome to *Plagiarism.org*, the online resource for people concerned with the growing problem of internet plagiarism” {<http://www.plagiarism.org> accessed 16th April 2007}. So starts the introduction to a website dedicated to the discovery and exposure of plagiarism and the use of software such as [Turnitin](#) and [iThenticate](#).

For every new software that is developed to search for plagiarism there is however another that opens to offer “a high quality and affordable writing service” {<http://www.essaywriter.co.uk/> - accessed 16th April 2007}. Websites such as this are only too happy to produce essays for others which are almost inevitably reproduced verbatim as the purchaser's own work. They even quote “as featured on radio 4” or “as featured in the Guardian” as proof of their academic credibility when in fact the articles in which they feature are almost exclusively critical of the service.

Most Universities have extensive advice for students and for staff on how to avoid (and how to catch) plagiarism; Northumbria University being reportedly the first in the UK to draft an “honour code” for its students to crack down on plagiarism. Honour codes, dubbed cheaters' charters by critics, are however being used in more than 100 US universities and colleges – a country where plagiarism is rife.

Of course this isn't a serious problem within the construction management community – or is it? Compared to some subject areas the potential to plagiarise the work of others is perhaps limited. In spite of this the number of disciplinary hearings for undergraduate and postgraduate students who plagiarise seem to be on the increase. It is however the vigilance of supervisors in reading, marking and criticising students' work that should provide the most effective guard against plagiarism in all its forms.

Please direct any comments on the incorrect use of referencing to n.j.painting@brighton.ac.uk.

The following resources might be useful to those wishing to read more:

- ISO 690-2-Information and documentation -- Bibliographic references - Content, form and structure;
- The Plagiarism Advisory Service {<http://www.jiscpas.ac.uk/index.php>}
- And of course <http://www.arcom.ac.uk/resources/resources.html>

New Academics... We need you!



By: Paul Chan

The ARCOM Committee is at present considering the formulation of an ARCOM support group for New Academics. So, if you are a new academic that can see the potential merits of such a group and would like to be an active participant, please get in touch. If you are a senior academic, please pass this on. For more information, please contact Dr. Paul W Chan at the School of the Built Environment, Northumbria University (Tel: +44 0 191 227 4219; email: paul.chan@unn.ac.uk).

ARCOM Doctoral Workshop—June 2006



On Public Private Partnerships / Private Finance Initiatives (PPP / PFI)

By: Dr Paul Stephenson

The first in the 2006 series of doctoral workshops was hosted by Glasgow Caledonian University on 2 June and focused on Public Private Partnerships/Private Finance Initiatives (PPP/PFI). These initiatives have formed an important part of the government's strategy in order to realise the delivery of high quality public service projects. Moreover, the concept of the Government's commitment to efficiency, equity and accountability for appropriate PFI projects has been seen as a means of delivering several important benefits in addition to achieving clear value for money.

The extent of PFI projects has been widespread and has covered several sectors. These have included healthcare and education, in addition to other specific PFI projects including prisons, fire stations, health and safety laboratories, and residential day care centres.



It is against this backcloth of projects and developments which have provided the opportunity for PPP/PFI research and these were outlined in the opening address by Professor Akintola Akintoye from Glasgow Caledonian University.

This was followed by several presentations from doctoral researchers currently active in related subject areas; the first of which was provided by Paraskevi Gkiourka from the University of Portsmouth. Paraskevi focused her presentation on the issues of innovation within construction companies engaged in PPP/PFI projects. This included the relationship between a firm's profitability and future success and its ability to innovate within the con-



struction sector. Her research, in particular, featured an empirical investigation of key internal, external and strategic resources of innovation capability with a view to highlighting possible mechanisms of propagation for innovations. Details of the design of an experimental measure of innovation capability were discussed, which provided the opportunity for capturing the occurrence of innovations, in addition to embracing issues of scientific complexity and originality.

Issues of innovation were further explained by Michael Dickinson from the University of Salford in relation to public sector construction procurement, and focused on the implementation of community benefits in PPPs. Michael's research work included an on-going case study involving two public sector clients attempting a move to new long-term construction partnerships to forge greater policy roles by incorporating community benefit issues in procurement.



The research was based on observations of procurement processes and the implementation of community benefits. This also highlighted current findings and the motivation of developers by local authority clients. It is envisaged that findings from the research will have relevance to both researchers in the field and practitioners involved in policy innovations for public procurement.

Following lunch and a networking session with attendees, Yawei Chen from Delft University of Technology provided an international dimension to the workshop with her presentation on the Shanghai Pudong Development. This focused on PPP as an integrative method to manage the complexity of economic and social changes in



ARCOM Doctoral Workshop—June 2006 (cont...)

urban transformation, embracing issues of financial, institutional, and human and physical resources.

The formation of partnerships was seen as a means of allowing both public and private sectors to share risks and rewards. The research covered the adaptation of PPP in a Chinese context for the Shanghai Pudong Development. This included an assessment of roles and interactions between the two sectors and identified complex global-local linkages. A performance evaluation of PPP was also covered including a discussion on the implications for future policies.

The final presentation at the workshop was provided by Niraj Thurairajah from the University of Salford. Niraj covered aspects of leadership in construction partnering projects through

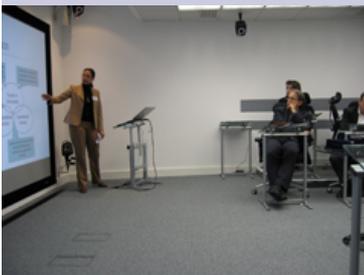


The workshop proceedings are available on the ARCOM website, www.arcom.ac.uk.

a research methodological perspective. This included complex relationships involving behaviour and cultural issues in large partnering projects, and covered the mapping of complex human behaviour, including issues of understanding, interpretation and explanation.

Niraj also explained the importance of a suitable research methodology and highlighted a case study and nested approach to address the complex relationships which exist in partnering projects.

ARCOM Doctoral Workshop on Emerging Technologies in Construction—November 2006



ARCOM recently hosted a Doctoral Workshop on “Emerging Technologies in Construction” at the University of Salford on the 10th of November 2006. The workshop was chaired by Dr Vian Ahmed.

The workshop, as part of the tradition of ARCOM, is held at least twice annually to give the opportunity for doctoral students to present their work and receive a valuable critique on their work on methodological and ontological issues. This, second workshop in 2006 was focused on the recent developments of information and communication technologies in construction with keynotes from leading Construction IT experts. The workshop was held in the Salford’s Think Lab which is a futuristic virtual environment centre, with more than 30 participants attended from Glasgow Caledonian University, Northumbria University, Loughborough University, Sheffield Hallam University, University of Teesside, University of Wolverhampton, University of Salford and the University of West England. Five keynote speakers and Six PhD students presented their research to audience which was enjoyed and appreciated by all the participants. The presentations generated friendly and constructive interaction between the presenters and the audience.

The workshop started with the opening speech by the Prof Ghassan Aouad followed by Dr Vian Ahmed’s warm welcome. It was followed by five keynote presentations from Prof Terrence Fernando, Prof Mustafa Al-Shawi, Prof Farzad Khosrowshahi, Prof Lamine Mahdjoubi and Prof Nash Dawood. Prof Fernando gave keynote on “Think Lab and Associated Research” with demonstrations of the Think Lab facilities and also presented a number of projects associated with his research in the Collaborative Working Environments including European project “Co-Spaces”. Prof Al-Shawi presented “BuHu’s leading role in advancing IT agenda” including the BuHu institute’s research on nD modelling and ManuBuild. This was followed by Prof Khosrowshahi’s keynote on “Construct IT - Uniting IT organisations in the UK” which provided the structure and organisation of the Construct IT centre including its research activities. Prof Mahdjoubi’s keynote focused on “Whither visualisation in design & construction research” and demonstrated interesting visualisation research in design and construction. The final keynote was given by Prof Dawood on “VR-Roadmap: a Vision for 2030 in the Built Environment” in which he illustrated VR technology roadmap that supports and enables future built environment and also detailed the related R&D initiatives.

An interesting and stimulating Panel Discussion followed the keynotes. The participants were given an opportunity to ask questions to the panel which comprised of keynote speakers. In the afternoon session, six PhD students presented their work. The first presentation was given by Raju Pathmeswaran from the University of Salford on “Enabling

ARCOM Doctoral Workshop on Emerging Technologies in Construction—November 2006



By: Raju Pathmeswaran

technologies for e-learning in Construction". Pathmeswaran covered his work on EPSRC funded e-learning project and demonstrated how the technologies such as ontologies and Semantic Web enabled the development of learning objects repository. It was followed by a presentation from Sushant Sikka of University of Teesside on "Establishing the Value of 4th Dimension Represented in 4D planning" in which he provided the research methodology and results of his research on 4D planning. Hao Yu of University of Wolverhampton presented his work on "A Conceptual CBR Model for Health and Safety Competence Assessment". Yu also demonstrated a conceptual architecture of CBR Model for Health and Safety. It was followed by Dayana Bastos Costa's presentation on "Collaborative Benchmarking Process between Construction Companies for Facilitating Knowledge Transfer and Learning in Organisations". Costa, a visiting PhD Candidate at the University of Salford from the Federal University of Rio Grande do Sul presented her research problem, design and methodology together with a framework for an inter-organisational collaborative benchmarking process. Shuwei Wu of Northumbria University presentation covered his work on "Partnering - Strategic Tool of Integrating Supply Chain in Construction Industry" and illustrated his research problem, aim, objectives and methodology. The final presentation was given by Xiandong Feng of University of Wolverhampton on "Developing Spatial Visualisation Skills in a New Era". Feng demonstrated interesting VR models of Spatial Visualisations. Finally, Dr Vian Ahmed provided a summary of the issues emerging from the workshop and provided the delegates with plenty of food for thought.

This one day ARCOM workshop has provided a platform for doctoral students at various stages of their research to interact with fellow students and academics. The lively discussion that followed each presentation provided valuable feedback on students' work and gave them new avenues to explore.

The workshop proceedings are available on the ARCOM website, www.arcom.ac.uk.

Workshop on Women in Construction Research

A successful one-day seminar exploring the influence of gender in construction research was held at Loughborough University on 18th April 2007. The event was hosted by the UK 'WOMEN-CORE' project team, based in the department of Civil and Building Engineering at Loughborough, in conjunction with ARCOM (Association of Researchers in Construction Management). The event, aimed at construction researchers from both industry and academia, was attended by approximately 25 delegates and was chaired by Professor Pat Carrillo of Loughborough University.



By: Abigail Powell

Pat Morton, from the WiSET (Women in science, engineering and technology) team at Sheffield Hallam University, began a morning of presentations, with her discussion of 'Risks and strategies for insider research'. The focus of Pat's presentation was on the limited, but growing trend for construction researchers to study gender, and the difficulties that such researchers can face, particularly given that gender is often over-looked and not accepted as a valid area of research.

This discussion was followed by Dr Stephanie Glendinning's, Reader in Geotechnical Engineering, at the University of Newcastle presentation – 'Why choose a career in construction related research'. Stephanie addressed her personal experiences of working in construction research, most of which were positive, but also highlighted the fact that institutions have usually been established by and for men, which can make them un-user friendly. Stephanie also stressed the importance of networking to career development.

Dr Denise Bower, Senior Lecturer and Deputy Head of the School of Civil Engineering at the University of Leeds, presented, 'Getting the balance right', a discussion of the balancing act between research, teaching and administration in academia. Denise highlighted the importance of research in academic careers, but showed that it is also possible to succeed without a focus on attracting research funding.

The final speaker of the morning session was Dr Vian Ahmed, lecturer in Construction Management and IT, from the University of Salford, who presented, 'What women want'. Vian's presentation tracked her career development through choosing a career in construction research, undergraduate experiences, industry experiences, and finally experiences in academia. Vian also highlighted the importance of both networking

Workshop on Women in Construction Research

and publishing to careers in construction research, and concluded by suggesting that the key to women's success is self-belief.

After a short lunch break, which provided a valuable networking opportunity, Abigail Powell, Research Associate in the Department of Civil and Building Engineering at Loughborough University, and part of the WOMEN-CORE team, introduced the WOMEN-CORE project. This project, co-funded by the European Commission, has been established to address the under-representation of women in construction research, against a background of limited existing research in the area, and the construction sector's poor investment in research and development. Abigail then discussed the main aims of the project to enhance our knowledge of women in construction research, through the compilation of existing statistics and primary data collection with construction researchers and employers, and to strengthen women's participation in construction research, through the development of mentoring programmes, a network and by promoting gender mainstreaming and good practice.

Finally, the participants split into three workshop groups to discuss ideas and experiences of the barriers women face in construction research, mentoring and networking, the results of which were then disseminated among the whole group. Ruth Hartley, Research Associate in the Business School at Loughborough University, shared the first group's ideas about mentoring, identifying that there are mixed views on what mentoring means to individuals. It was, however, felt that mentoring could be a great source of guidance and support for women, regardless of their career stage, and that women would often be happy to be mentored by a man as well as by another woman. Kate Sang, Research Associate in Human Sciences at Loughborough University, shared the second

group's ideas about networking. Key points from this discussion were that networking is particularly important at the outset of research careers, despite the fact this is when it is likely to be most difficult; that it is important to encourage your supervisor or line manager to introduce you to their existing networks, particularly at conferences; and that a top-tip for networking is to pick a small conference that you can attend regularly, meeting the same people to build networks with. Discussion around networking also questioned the idea of a 'woman-only' network of construction researchers, but equally suggested that a network of construction researchers generally may be too wide in scope to be of benefit. Lastly, Carol Jewell, Research Fellow in the School of Construction Management and Engineering at the University of Reading, discussed ideas about the barriers women face in construction research, mainly focusing around issues of culture, family and women's visibility in a male dominated sphere, which can have both negative and positive consequences. Suggested solutions were to promote mentoring, particularly at the beginning of careers, to develop clearer career paths in research and to look for personal solutions that suit the individual.

From here the WOMEN-CORE team hope to develop some of the ideas that emerged from the event, particularly issues around mentoring and networking. If you would like to know more about the WOMEN-CORE project or would like to let the WOMEN-CORE team know your ideas about any of the issues raised at the event, please visit our website at <http://www.women-core.org> or contact Abigail Powell - A.Powell@lboro.ac.uk or 01509 228741.



The ARCOM committee expands

The continuous growth and success of ARCOM within the research community, both nationally and internationally, has called upon its committee members to receive nominations for additional members. The nominations for new members were voted for and announced at the ARCOM Annual General Meeting in September 2006. On behalf of ARCOM and its members, we would like to welcome the new members its new committee members; **Dr Chris Gorse, Mr Noel Painting, Professor David Proverbs, Dr Andy Ross, Dr Simon Smith and Dr. Paul Chan**. This makes a total of 20 committee members, who are all willing to serve ARCOM and its community, through their commitment and support to the research community.



Dr Chris Gorse



Mr Noel Painting



Prof. David Proverbs



Dr Andy Ross



Dr Simon Smith



Dr Paul Chan

Peter Barrett elected first UK President of CIB for 30 years



By: James Hanley

Pro-Vice-Chancellor, Professor Peter Barrett is first UK president of international council for 30 years.

The academic and Buxton resident working at the University of Salford has become the first British President in 30 years of the UN-established International Council for Research and Innovation in Building and Construction (CIB).

Pro-Vice-Chancellor, Professor Peter Barrett, who is also the first surveyor to hold the post, was elected by CIB members at a conference in Cape Town and immediately set out his objectives for the three years of his tenure.

He said: "Construction has a huge role to play in eradicating poverty, recovering from natural and man-made disasters and creating a better quality of life for the world's population. The 2,000 experts of the CIB have a key role to play in advancing these causes."

The CIB was founded by the UN in 1954 as an association aiming to increase international co-operation between researchers in the building and construction sector. It now has 375 member organisations from 60 countries and is regarded as the world's foremost organisation in the field.

Peter said: "It can be fashionable to criticise the construction industry, but, with 20% of the UK's economy directly engaged in creating, maintaining and operating the built environment it really cannot be under-estimated. This was underlined for me when two South African Government ministers attended our last conference. In a country desperate for better infrastructure and housing the work of the CIB is at the top of the political agenda".

Peter is heavily involved in the UK's top research centre for the built environment at the University of Salford which scored the maximum 6* in the last Government Research Assessment Exercise. His three year tenure as President will culminate in 2010 as he brings the CIB World Congress to Salford.

In the meantime, he intends to continue to increase the profile and work of the CIB to further improve the contribution of built environment sectors to societies throughout the world.

Don't miss!

AEC 2008

What: The 5th International Conference on Innovation in Architecture, Engineering and Construction.

Where: ANTALYA – TURKEY

When: June 16 – 18, 2008

Additional information: at <http://www.lboro.ac.uk/cice/AEC2008>

Latest books from Blackwell



The Law & Management of Building Subcontracts

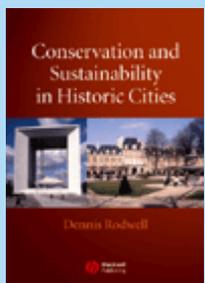
By: **John McGuinness**

There are probably 20-25 subcontracts entered into for every major building contract. However, despite this, there are relatively few books that discuss the problems particular to the subcontract relationship between main contracts and their subcontractors.

This book examines the main issues that lead to disputes between contractors and subcontractors, identifies relevant law, including decisions of the courts, and also provides a view as to how other issues might be decided.

The second edition has been extensively revised to cover all the 2005 JCT subcontracts and works contracts, and recent case law. Four new chapters have been added on subcontractors selected by third parties; organisation of the subcontract; sub-subcontracts; and works contracts under management contracting arrangements.

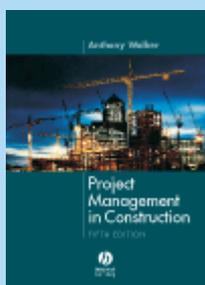
It draws on the author's extensive experience of managing building subcontracts, as well as his involvement in handling over 130 adjudications.



Conservation and Sustainability in Historic Cities

By: **Dennis Rodwell**

Conservation and Sustainability in Historic Cities examines how the two key issues of urban conservation and sustainability relate to each other in the context of historic cities, and how they can be brought together in a common philosophy and practice that is mutually supportive. It sets out the theoretical and practical background to architectural conservation and how its perceived relevance and level of attainment can be extended when harnessed to wider agendas of sustainability and cultural identity. It tests the achievement of urban conservation through examples from across Europe and further afield and relates them to the sustainability agenda.



Project Management in Construction

Fifth Edition

By: **Anthony Walker**

Project Management in Construction adopts a systems approach to organisation analysis and design from the initial concept of the project. It is concerned particularly with the integration of the contributors to the process and the way in which decisions are made. Appropriately structured organisations are essential for the delivery of effective projects, the design of which requires an in-depth knowledge of organisation theory applied to the definition, design and construction of projects.

The Fifth Edition addresses the increasing complexity facing major construction by examining advances in the major theoretical concepts underlying project management, together with practical developments such as supply chain management.

New ideas such as chaos and complexity theory are examined in the context of construction project management, and aspects of organisation theory, such as trust and hierarchy, have been further developed. The topic of sustainability is discussed as a powerful new environmental force impacting on both the project management process and the industry and its clients.

go on...smile

A contractor in Heaven

A contractor dies on a fishing accident on his 40th birthday and finds himself greeted at the Pearly Gates by a brass band. Saint Peter runs over, shakes his hand and says "Congratulations!"

"Congratulations for what?" asks the contractor

"Congratulations for what?" says Saint Peter. "We are celebrating the fact that you lived to be 160 years old."

"But that's not true," says the consultant. "I only lived to be forty."

"That's impossible," says Saint Peter, "we added up your time sheets!"



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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Committee Members

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