CURRICULUM VITAE (Jan 2011)

Nashwan N DAWOOD
Cecil M Yuill Chair,
Director of the Centre for Construction Research & Innovation (CCIR)
Professor of Construction Management and IT

http://sst.tees.ac.uk/CCIR
http://sst.tees.ac.uk/vr-net

Career Summary

I have spent many years as an academic and a researcher within the field of project and construction management and the application of IT in the construction process. This has ranged across a number of research topics including sustainability, Information Technologies and Systems (4D,VR,Integrated databases), planning and management of off-site production, risk management, intelligent decision support systems, cost forecasting and control and business processes. This has resulted in over 180 published papers in refereed international journal and conferences, and research grants from British Council, Industry, Engineering Academy, EPSRC, DTI UK Department Trade and Industry, construction industry companies and Peter Berg Foundation, totalling about £2,500,000 in cash.
Most of my research projects are multi-disciplinary in nature and complementary knowledge and expertise within my research centre, national and international research institutions and collaboration with the UK and EU construction industry has led to successful research bids and exciting research projects.

Currently, I am the Director of the Centre for Construction Research and Innovation with the responsibility of developing and promoting research projects, development of innovative project management modules, teaching and providing academic and research leadership, promoting and developing research proposals for funding, liaise with industry, providing research supervisory and networking with external and internal bodies to develop opportunities for collaborative research and enterprise projects.
My impact on the national and international research agenda is reflected by keynote presentations, EPSRC, EU and DTI funded research, international meetings and conferences.

I work very closely with the construction industry (UK, EU and worldwide) to promote innovation through the development of innovative research and development programs and the adoption of good practice. I run a wide range of training course to industry in the UK and abroad. I have been appointed the expert reviewer of a major EU integrated project (inpro project, 20 million euro investment)

Presently, I am running a number of funded research projects. Four KTPs, a major EU research projects, EPSRC funded PhD case and industry funded projects.
Two major EPSRC research projects were concluded last year: VIRCON (Virtual Construction Site) and IMCS (Innovative Managerial Control System) and three industrial sponsored projects. The two

EPSRC project have received a very high IGR assessment form EPSRC: *'Tending to Outstanding'*. Furthermore, my work in construction planning simulation and visualisation has received an award from the Constructing Excellence Innovation Award.

I teach Construction Management, Risk Management and Visualisation Application to Construction planning. In addition, I have created a master course in project management and currently I am the director of this course. I have developed a number of management and IT modules for BEng degree and MSc in Project Management at Teesside. In addition, I include current industrial case studies in my teaching by inviting project managers from industry.

I have been a visiting fellow/Professor at VTT -Finland, University of Calgary- Canada, University of Bahrain- Bahrain, Central University of Taiwan, AIT- Thailand, Stanford University-USA, PWRI (Public Works Research Institutes)- Japan, Georgia Tech- USA, Virginia Tech- USA, UNSW-Australia, University of Parana- Brazil, University of Florida-USA, International Islamic University Malaysia, Gyeongsang National University, Korea and Miyagi university , Japan and Osaka University, Japan.

I have been proactive in research and current practises and have attended 60 international and national conferences and presented papers in more than 18 countries. I work closely with partners in Stanford, The University of Texas at Austin, Penn State, Virginia Tech, Miyagi University, Nottingham University, Salford University and a host of industrial collaborators.

I am supervising ten PhDs, two MPhil students and five research fellows. I directed and supervised successfully a number of sponsored research projects (EPSRC, DTI and Industry) and successfully supervised 10 PhD and two MPhil students.

I have been appointed as an external examiner for PhD research degrees at Leeds University, University of Nottingham, University of Herriot-Watt, University of Salford, Chalmers University (Sweden) and Laleå University (Sweden). I was an external examiner for B.Sc. CAD in Construction, Wolverhampton University.

I am a member of EPSRC Peer Review College and a member of referee editorial board for four journals and numerous conferences. Additionally, I am a graduate member of the Institute of Civil Engineers (ICE), Project Management Institution (PMI)-Special Interest Group in Risk Management (SIG), International Council for Building Studies, Working Commission for Industrialised Building (CIB W24), Working Commission for Construction Management (CIB, W78), VR SIG Construct IT, University of Teesside Research Degree Committee, University RAE Strategy panel and University Research Policy committee.

I have originated the CONVR conference series (Construction Applications of Virtual Reality: Current Initiatives and Future Challenges). The mission of this is to bring together national and international researchers and practitioners from all areas of the construction industry and promote efficient exchange of ideas and develop mutual understanding of needs and potential applications of VR modelling. CONVR 2000 was organised at Teesside and attended by participants from 9 countries, CONVR 2001 organised at Chalmers University, Sweden and attended by participants from 12 countries. CONVR 2003 was organised by Virginia Tech, USA, CONVR 2004 was organised by ADETTI (Portugal), CONVR 2005 organised in Durham UK, CONVR 2006 was organised by Florida State University and CONVR 2007 was organised at Penn State University, USA, CONVR 2008 was organised by IIUM Malaysia and CONVR 2009 will be organised by the University of Sydney, Australia.

Main industrial Partners includes: Stent, Services Design Association, Bond Bryan Architecture, Kvaerner Construction, HBG, Aggregate Industries, MotaEngil (Portugal) WS Atkins, Turner & Townsend, Tarmac, AMEC, Vinci (France), GTM (France), EC Harris, Balfour Beatty, Faithful & Gould, WS Atkins, Advanced 3D, Taylor Woodrow, Scanmoor, Mace, BAM Nuttall, CH2MHill, Laing O'Rourke, Ryder, Deepdale Solution, SES, Shepherd Construction,

PERSONAL

Date of Birth	**10/10/1960**
Nationality	British
Marital Status	Married
Spoken language	English and Arabic

Address

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Work: School of Science and Technology,
University of Teesside,
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Qualifications

Doctor of Philosophy (Ph.D.) in Civil Engineering, Construction Management, Loughborough University of Technology, 1991, UK.

Master of Philosophy (MPhil) in Civil Engineering, Construction Management, Nottingham University, 1987, UK

Hon, Bachelor of Science (BSc Hon) in Civil Engineering, 1982.

Membership

EPSRC Peer Review College,

Graduate member of ICE. Currently working for the MICE membership,

Member of PMI, Risk Management SIG group,

Member of CIB W78 and W34,

Member of University of Teesside Research Policy Committee (Chaired by ProVC Prof. Hardcastle),

Member of School Research Policy (RAE Panel),

Member of School Enterprise Board,

Elected Member of the management board of IDEAS at Teesside (Institute for Innovation and Development in Engineering and Applied Science).

EMPLOYMENT RECORD

Current Post

- Director of TFI (Technology Futures Institute), June 2010- to date
- School of Science and Engineering Research Manager
- Cecil M Yuill Chair,
- Professor in Construction Management & IT,
- Director of the Centre of Construction Innovation Research, School of Science and Technology, University of Teesside (UK) (Appointed Senior Lecturer Sept/1991, promoted to Reader in March/1998, promoted to professor in Jan 2000)

Current duties

- **Director** of TFI (Technology Futures Institute), June 2010-to date:
  Developing and managing research policies across the school of science and engineering. Member of School Management Team.

- **Director** of the Centre of Construction Innovation Research (CCIR):
  Responsibilities: Developing and promoting research activities, developing research bids, promoting and providing research leadership and supervisory, networking with national and international bodies, developing international research activities and running research grants, for more information about the centre, please go to **www//:sst.tees.ac.uk/ccir.**

- **Research activities** (details given in page 4-24)

- **Director** of MSc course in Project Management

- **Teaching**
  I have been teaching Construction Management, Information Technology, Engineering Management courses for B.Eng. level 2 and 3, and MSc in business processes.
  I have developed a number of Management and IT modules for engineering courses. I have introduced a number of innovative teaching methods using ICT, for example all lecture notes and examples are on the web and I introduced simulation models so that students can experiment and simulate construction of roads or office buildings and evaluate their decision on resource availability, productivity, etc.
  I regularly invite industrial individuals and experts to lecture about the business process and practices of construction planning. My Research outputs are depicted to students through demonstrations of IT prototypes or findings of research projects. In addition, I supervise final year individual projects.

Previous responsibilities at the School of Science and Technology

Chair of the School Research Policy Committee.
Responsibilities: developing and promoting research polices, chairing the School Research Policy Committee, liaise with R&E office, preparation of reports on school research activities and support staff in developing research proposals. Main achievements: formulation of four research centres and gradually improve the research culture in the school where research and enterprise activities are valued and regarded as one of the main school activities.

Previous Posts

1991 (six months) Consultancy jobs for ECC Building Products. The works involved installation and commissioning of a capacity planning system with the production manager.

1990-1991 Working in Wolverhampton Polytechnic as PT lecturer, School of Construction. The teaching involves system analysis, spreadsheet models, data base systems and cash flow forecasting.

1987-1991 PhD Researcher. Development of a computerized planning system for the building materials industry. Loughborough University of Technology (UK), partly sponsored by ECC (English China Clay), UK.

1984-1985 Project manager. The Iraqi Establishment for Long Panel Recasting Production. My work as a planner involved the preparation of weekly and monthly schedules moulds (Tables and Batteries).The factory was responsible for constructing about 1000 housing units at the ALDORA site.

1982-1984 Project manager. The Iraqi General State Contractors. The work involved the organization and consequent monitoring of on-site schedules, plus the preparation of materials and equipment for the site.

EDUCATION

1978-1982 University of Baghdad (Iraq), B.Sc. (Hon) Civil Eng. (First Class)

1986-1987 University of Nottingham (UK), MPhil. Construction Management, Thesis title "Scheduling in the Precast concrete industry"

1988-1991 University of Loughborough (UK), Ph.D. Construction Technology and Management. The thesis topic is "Computer-based capacity planning system in the Precast industry in the UK"

INTERNATIONAL RESEARCH ACTIVITIES

- Visiting Professor at Miyagi University, Japan.
- Visiting Professor at Osaka Unversity, Japan
- Visiting Professor at Gyeongsang National University, Korea.

- Visiting Professor at IIUM (International Islamic University Malaysia)
- Appointed as a research quality assessor and evaluator of ADETTI (ISCTE, Portugal)
- Visiting Professor at Aalborg University, Denmark.
- Creation of the CONVR (Construction application of Virtual Reality) conference series. The objective was to set the agenda for R&D in the area of VR applied to construction processes and products. CONVR 2000 was organized at Teesside and attended by participants from 9 countries, CONVR 2001 organized at the Chalmers University, Sweden and attended by participants from 12 countries. CONVR 2003 was organized by Virginia Tech, USA and CONVR 2004 was organized by ADETTI (Portugal) and CONVR 2005 was organized in Durham UK. CONVR 2006 was organized in Florida,
- USA, CONVR 2007 was organized in Penne state, USA, CONVR 2008 was organized in Kuala Lumpur, Malaysia.
- Run a wide rang of industrial courses to promote innovation and good practice. Also development of EU research project and indicated later in my CV.
- Member of FIATECH (Capital project Technology Road Map) which has been established by large capital projects clients and contractors in the USA. My role is to work with other academic partners to set research and development agenda for FIATECH capital projects technology roadmap initiative.
- Actively involved in developing international research projects. The results of this effort have resulted in participating in two R&D EU FP5 bids as outlined in the above section. Research projects have also been established with Georgia Tech and Virginia tech (USA). The main project is being the modelling of products and processes in conjunction with Georgia Tech.
- Actively involved in promoting research ideas and setting the research agenda through participation in intentional conference (CIB W78, FIATECH, VR-NET, 3D consortium and other international network)
- Promoting research and international collaboration through visiting Universities and research centres around the world. This include: VTT (Finland), Stanford (USA), Virginia Tech (USA), Georgia Tech (USA), University of Federal do Piranha (Brazil), University of Santa Catalina (Brazil), CSTB (France), University of Endogen (Holland), University of Bahrain (Bahrain), Jordan University (Jordan), CSIR (South-Africa), UNSW- Australia
- Actively involved in ENCORD (European Network of Construction Companies for Research and Development).
- Major collaboration with IIUM (International Islamic University Malaysia) to provide support, advice and supervision for College of Architecture & Environmental Design.

RESEARCH and DEVELOPMENT ACTIVITIES

Current grants

May 2008 –April 2011

IntUBE Project: EU FP7 project, Intelligent Use of Buildings' Energy Information

The energy consumption in the operational phase of buildings is one of the major contributions to energy use in Europe. It comprises space conditioning (heating and cooling), lighting, heating of water, and running home and office appliances. Increasing the efficiency of energy use will make a huge impact on the European energy consumption, and thereby reduce the carbon dioxide production, reduce the dependency of imported energy and improve the environmental conditions.

The renewal rate (the new buildings + renovation) of the European building stock is only 2 % yearly, so the improvement of energy efficiency in the renewed stock is too slow considering the ambitious goal to improve the energy efficiency by 20 % before 2020[1]. By using the existing building stock more efficiently with the help of the new tools and business models developed in IntUBE, the potential to reach the goal is considerably increased.
The main objective is that:

IntUBE will lead to increased life-cycle energy efficiency of the buildings without compromising the comfort or performance of the buildings by integrating the latest developments in ICT-field into Intelligent Building and Neighborhood Management Systems (IBMS and NMS) and by presenting new ICT-enabled business models for energy-information related service provision.
EU SEVENTH FRAMEWORK PROGRAMME, THEME 3
"Information and Communication Technologies"
Grant agreement for: Small or medium-scale focused research project (STREP)
Total Funding **3.5 Million Euro**, in collaboration with 11 EU partners and will be led by VTT.

Feb 2009-Jan 2011
Visual integration of construction supply chain, KTP project with Deepdale solution, £120000

The KTP involves the development of an integrated supply chain model, augmented with visual process simulation tools to be used to couple the company's manufacturing schedule with their main contractors' construction schedules. The KTP will improve the accuracy of the company manufacturing schedules and it will enable the application of 'just in time' purchasing systems to improve efficiency and cash flow.

May 2009-April 2011
Develop environmental, cost and construction design technologies using Building Information Modelling (BIM) systems and integrate into the Ryder project design and management systems, ***£120000***, TSB and Ryder architect.
The aim is to research the technologies and processes currently available and emerging for sustainable design and BIM and identify the integration standard/capability of the software to integrate with the REVIT BIM technology already adopted by Ryder
The aim is also to research and develop methodologies and algorithms necessary to automate the process of populating the multi-dimensional BIM project data, (nD:3D+time+cost+energy+others) with information about construction scheduling , building orientation, materials selection, disposal strategy, resource allocation etc. processes.

April 2009- Sept 2011
Interactive training platform to precipitate construction safety, using a virtual environment. 4D modelling (3D plus time) , EPSRC Industrial Case, £80000,
The aim of this proposal is to develop a multi-user virtual training environment for construction safety training. In this context , broad objectives are:

- To identify training requirements related to construction safety;
- To develop virtual construction sites to represent the different stages of a construction project;
- To incorporate construction safety requirements into these virtual construction sites.

The more specific aims of this project are:

[1] GREEN PAPER on Energy Efficiency or Doing More With Less. European Communities. 2005. ISBN 92-894-9819-6

- To develop a knowledge-management process, where practices of the application of H&S rules and plans can be collected, analysed and documented. Particular attention will be paid to rules related to height and working in congestion areas;
- Encapsulation of the above in a game platform, and the development of role-playing scenarios using MMOG technology.
- Identify education value through running controlled experiments with different students and professionals.

July 2008-Dec 2009
'Visualisation and Optimisation of Construction Schedules'
British Council PMI 2 Connect Grant, ***£35000*** in conjunction with South Korea.
The primary aim of the research is to develop processes and tools which enable construction project managers to integrate and visualise project information (3D, schedules, work flow, cost, etc) in a systematic way. This will enable them to rehearse and experiment with different schedule possibilities, before construction activities commence on site. The objective is to identify and resolve conflicts, congestion and hot spots of construction activities, which can be caused by unplanned allocation of labour and equipment to site 'execution' spaces. The project will also develop and test optimisation technologies, which will assist project managers to resolve conflicts and suggest alternative solutions.

Feb 2007-Sept 2009
Development of 5D methodology and tools for managing the construction of capital projects (chemical, oil &gas, nuclear, heavy civil engineering, etc), ***£100000***, Funding TSB and F+G through KTP programme.
To develop a multi-faceted 5D planning methodology and tools that integrates 3D models with time (4D) and Cost (5D) to create a Virtual Reality (VR) Control System to enable the company to effectively, efficiently and visually manage project implementation processes.

Feb 2005 –Jan 2011
Knowledge transfer of innovation and enterprise activities to the construction industry, value ***£190,000***, HIEF 2 funding. Collaborators: SMEs, Taylor Woodrow, F&G, BAM Nuttall, ATKINS, MACE, Laing O'Rourke.

Oct 2001 – April 2009
NETWORK: EPSRC Network of Experts in VR applied to construction processes and products
(VR-NET), Principal Investigators: N. Dawood (UoT), Co-investigators: G. Winch (UCL), G. Aouad (Salford), Cost of project: EPSRC, ***£70000***, Industry, ***£40000***

March 2006- Nov 2009
Development of visual and intelligent planning system for infrastructure projects, Value ***£70000***, sponsored by MotaEngil, Portuguese contractor.

March 2006- Jan 2008
Research and training related to Women in Construction, Value £***86000***, funding Learning Skill Council, UK.

March 2007-March 2010
Integration of 3D with Environmental Impact Analysis: An application in the Built Environment (3D-EIA), £45000, funding: Navisworks.
A collaborative research project aimed at extending the use of 3D technology to assist the architects and building developers in decision making when designing buildings, taking into account: the relationships between the carbon footprint of material their thermal insulation

properties building life cycle energy use and de-construction adding functionality to the 3D model .

May 2007-April 2009

Development of new environmentally friendly materials and their associated supply chain, £100000, DTI and Structural and Civil Consultants Ltd through KTP (pending decision).

Main objective is to create sustainable structural timber beam alternatives to steel or concrete by developing new structural design guidelines, supply chain management and an on-line web brokering service.

Previous Grants

Feb 2006- Aug 2008

Enterprise Simulation for Precast Concrete Operations, The project proposes a novel holistic simulation integrating technical and operational aspects of precast concrete (PC). It will stimulate innovation and provide criteria to manage operations and for investment decisions. A new enterprise paradigm will be developed for design and manufacture of PC.

Value ***£400000***, Funding DTI Succeeding through Innovation Programme, Collaborators, University of Nottingham, Buchen, Tarmac, Aggregate Industries and British Precast Federation (Teesside share ***£100000***).

Jan 2003 – April 2006

Centre for Construction Based SME support, ERDF and OneNE (RDA), value ***£400000***. The objective is to establish a regional centre for construction-based SME to provide research, advisory and training facilities for SME in the NE. New technologies and processes will be pioneered like, B2B, E-commerce, VR, etc. The bid is in the final stages of being funded.

June 2003 - March 2006

Development of methodologies to integrate LEWIS (Lean Enterprise Web Information System) that is currently developed at Teesside with SEEK (Scalable Extraction of Enterprise Knowledge) currently developed by University of Florida (Dr. William O'Brien). Funding NSF (USA),

Sept 2005- Sept 2008

Identifying the value of 4D planning in the UK construction industry, Value ***£60000,*** sponsored by Architectural 3D and CCIR.

2003(Oct)-2004 (May)

Further development of VIRCON tools to suite Balfour Beatty business processes, funded by Balfour Beatty Civil Engineering, ***£15000.***

2002(Oct)-2003 (Oct)

Development of simulation model for road construction projects, MOTA group (Portugal), ***£16000***.

2002(Feb)-2003 (Feb)

Developing an integrated simulation/VR system, University of Teesside, ***£5000***.

2001 (Oct), 2003 (May)

Development of an innovative dynamic managerial control system: an application to the building product industry, ROPA grant, Principle investigator: N Dawood. Cost of project; EPSRC ***£60000***, industry, ***£50000***.

PUBLICATIONS

Refereed Journal Papers

Loh E, Crosbie T, Dawood N, Dean J (2010) **A framework and decision support system to increase building life cycle energy performance**, ITcon Vol. 15, pg. 337-353, http://www.itcon.org/2010/26

Al-Bazi A F, Dawood N, Dean J T.(2010) **Improving performance and the reliability of off-site pre-cast concrete production operations using simulation optimisation**, ITcon Vol. 15, pg. 335-336, 2010. http://www.itcon.org/2010/25

Crosbie, T and Dawood, N. **Improving the energy performance of the built environment: The potential of virtual collaborative life-cycle tools**, Automation in Construction Journal, accepted for publications, July 2010.

Al-Bazi, A and Dawood, N***., Development of Crew Allocation for Labour Intensive Industries suing GA***, Computer Aided Civil and Infrastructure Engineering (CACAIE), 25 (8), pp. 581-595, Nov 2010.

Dawood, N., Winch, G. M., Mahdjoubi, L., Penn, A., Sriprasert, E., Mallasi, Z., Kelsey, J., North, S., and Heesom, D. (2008) **VIRCON:** ***processes and integrated tools for activity space execution planning***, Paper submitted to Journal of Computing in Civil Engineering,2009 (Contribution 30%)

Moon, H. S., Kang, L. S and Dawood, N, ***Development of Methodology and Virtual System for Optimised Simulation of Road Design Data***, *Automation in Construction*, *Volume 19, Issue 8*, *December 2010*, *Pages 1000-1015*. (Contribution 50%)

Makanae, K and Dawood, N., ***Development and Evaluation of a Terrain Representation System (TTRS) for highway route planning***, Computer Aided Civil and Infrastructure Engineering (CACAIE), Jan 2009 (contribution 40%)

Dawood N, Castro S, **Automating road construction planning with a specific-domain simulation system**, ITcon Vol. 14, pg. 556-573, 2009, http://www.itcon.org/2009/36, 2009. Contribution (60%)

Dawood N (2009) **VR-roadmap: a vision for 2030 in the built environment**, ITcon Vol. 14, Special Issue Next Generation Construction IT:
Technology Foresight, Future Studies, Roadmapping, and Scenario Planning , pg. 489-506, http://www.itcon.org/2009/32, 2009. (contribution 100%)

Dawood, N and Crosbie, T, **Energy profiling in the life-cycle assessment of buildings,** Management of Environmental Quality journal 21.1, 2009

Dawood, N and Sushant Sikka, ***Development of 4D Based Key Performance Indicator in the Construction Industry***, International Journal of Information Technology in Construction (IT Con), Vol. 13, PP 491-506, 2008. (contribution 50%)

Dawood N and Shah, R. K., ***Automatic Generation of Progress Profiles and Improving Communication of Construction Scheduling Information for Earthwork Operations using 4D Visualisation Model***, International Journal of Information Technology in Construction (IT

Con), Vol. 13, pp 620-636, 2008. (Contribution 60%)

Dawood, N., Sriprasrt, E and Mallasi, Z., **VIRCON:** ***Visualisation Technologies Applied to Construction Planning: Application on Real life Case Study***, International Journal of Advanced Manufacturing Systems, Vol. 9, Issue 2, pp. 57-61, 2008 (Contribution 60%)

Dawood N and Mallasi Z. ***Workspace Competition: Assignment, and Quantification Utilizing 4D Visualization*****,** Computer-aided civil and infrastructure Engineering, 21, pp 498-513, 2006 (Contribution 60%)

Dawood N and Sriprasert, E, ***Construction Scheduling using Multi-Constraints and Genetic Algorithms Approach*****.** Construction Management and Economics, 24, pp 19-30, Jan, 2006 (Contribution, 60%)

Marasini, R. and Dawood, N. ***Development of Innovative Managerial Control System: An application to the Precast Building Products Industry***, Journal of Construction Innovation, 6, 1-24, 2006. (Contribution 40%)

Benjaoran, V. and Dawood, N*.,* ***Intelligence approach to production to production planning system for bespoke precast concrete products***. Automation in Construction Journal, Jan, 2006. (contribution 40%)

Benjaoran, V., Dawood, N. and Hobbs, B., ***Flow shop scheduling model for bespoke precast concrete production planning***. Construction Management and Economics, Jan, 23, pp 93-105, 2005. (Contribution, 40%)

Dawood, N., Scott, D, Sriprasert,E and Mallasi, Z, ***The Virtual Construction Site (VIRCON): An Industrial Evaluation***, Paper published in the Electronic Journal of Information Technology in Construction (ITcon), 2005. (Contribution 70%)

Winch, G. M., Dawood, N., Mahdjoubi, L., Penn, A., Heesom, D., Kelsey, J., Mallasi, Z., North, S., and Sriprasert, E. **VIRCON:** ***planning in the virtual construction site***, Accepted for publication in the Building Research And Information. 2005. (Contribution 30%)

Sriprasert, E. and Dawood, N.N., ***Multi-constraint information management and visualisation for collaborative planning and control in construction*****.** Electronic Journal of Information Technology in Construction (ITcon), Vol 8, pp 1-26, 2003. (Contribution 50%)

Dawood N. N. and Bates W., ***A decision support system specification for cost escalation in heavy engineering industry***, Computer-Aided Civil and Infrastructure Engineering, 17, pp. 342-357, 2002. (Contribution 70%)

Dawood, N. N. and Akinsola A.**,** ***Development of an automated communication system for managing construction site information using internet technology***. Automation in Construction Journal, 11, pp 557-572, 2002. (Contribution 80%)

Dawood, N.N. and R. Marasini**,** ***Visualisation of stockyard layout simulator 'simstock': a case study in precast concrete products industry***, Automation in Construction Journal , 12, 2, pp113-122, 2002. (Contribution 70%)

Dawood, N.N., Sriprasert E., and Mallasi Z., ***Development of an integrated information***

resource base for 4D/VR construction processes simulation, Automation in Construction Journal, 12, 2, pp. 123-133, 2002. (Contribution 60%)

Dawood, N. N., ***Development of a forecasting methodology for cost indices: An application to the Greek Construction Industry*****,** Journal of Construction Procurement, May, 2001. (Contribution 100%)

Marasini, R. , Dawood, N. N. and Hobbs, B., ***Stockyard layout planning in precast concrete products industry: A case study and proposed framework***, Journal of Construction Management and Economics, 19(4), pp 365-377, 2001. (Contribution 40%)

Dawood, N. N. and Marasini, R., ***Stockyard layout planning and management for the precast concrete products industry***, Logistics Information Management, 14 (5/6), pp. 328-336, 2001.(Contribution 60%)

Dawood, N. N. and Marasini, R. ***A simulation model for stockyard layout planning.*** Journal of Concrete plant + precast Technology(BFT),Vol 66, pp.42-48, 2000. (Contribution 50%)

Dawood, N. N. and Bates, W., ***A decision support system specification for out-turn cost and cost escalation in the heavy civil engineering industry***, Engineering Construction and Architectural Management, Dec., 2000. (Contribution 70%)

Dawood, N. N., ***An integrated approach to design and production for the precast industry,*** The International Journal of Construction Information Technology, Vol. 7, No. 1, Summer. 1999. (Contribution 100%)

Dawood, N. N. and R. Marasini, ***A simulation model concept for stockyard layout planning in precast concrete products industry*****,** Journal of Concrete plant and precast Technology, Nov, 1999. (Contribution 60%)

Dawood, N**.** N., **Integrating** ***design and production system for the precast industry*****,** Journal of Concrete plant and precast Technology, pp 74-80, No. 5, 1999, (Contribution 100%)

Dawood, N. N., ***An integrated approach to design and production for the precast industry*****,** The International Journal of Construction Information Technology, Vol. 7, No. 1, Summer. 1999. (Contribution 100%)

Dawood, N. N., ***Development of a risk management approach for allowing dependency and uncertainty between activities' duration,*** Construction Management and Economics, Vol. 16, 1998, pp 41-48. (Contribution 100%)

Dawood, N. N., ***A strategy of knowledge elicitation for developing an integrated bidding/production management expert system for the precast industry***, The special issue of Advances in Engineering Software incorporating Computing Systems in Engineering, Vol. 25, No. 2/3 Elsevier Science LTD, March. 1996. (Contribution 100%)

Dawood, N. N*., **A strategy for materials management: an application to the construction industry,*** Journal of the Financial Management of Property & Construction, Nov., 1996. (Contribution 100%)

Dawood, N. N., ***A simulation model for eliciting knowledge: an application to the manufacturing process***, The special issue of Advances in Engineering Software incorporating Computing Systems in Engineering, Vol. 25, No. 2/3 Elsevier Science LTD, March. 1996.

100%)

Dawood, N.N. and Neale R.H. ***Forecasting in the precast concrete industry.*** Paper published in the Construction Management and Economics Journal, Vol. 11, pp 81-98, 1993. (Contribution 80%)

Dawood, N.N. ***Production planning information system for precast industry.*** The Indian &Eastern Engineer, Construction India Annual, 1992. (Contribution 100%)

Dawood, N.N. and Neale, R.H. ***A survey of the current production planning practices in the precast industry in the UK.*** Paper published in the Construction Management and Economics Journal, Vol. 8, pp. 365-383, 1990. (Contribution 80%)

Chapters in books

Planning in the UK Construction Industry, Constructing the Future, nD modeling, Editor Ghassan Aouad, Angela Lee and Song Wu, Taylor & Frances, 2007.

VR Road-map: A Vision for 2030 in the Built Environment, Virtual Future for Design, Construction and Procurement, Edited by, Peter Brandon and Tuba Kocaturk, Blackwell publishing, 2008.

Lean Enterprise Web-based Information System for Supply Chain Integration: Design and Prototyping, Construction supply chain management handbook, edited by William O'Brian, Carlos Formosa and Kerry London, CRC press, Taylor & Frances, 2008.

Editor of conference proceedings

CONVR 2000, Proceeding of the 1st International Conference on Construction application of VR, Middlesbrough, UK, Sept, 2000.
CONVR 2001, Proceeding of 2nd International Conference on Construction Application of VR, Sweden, Sept, 2001.
CONVR 2003, Proceeding of 3nd International Conference Construction Application of VR, Virginia Tech, USA, Sept 2003.
CONVR 2004, Proceeding of 4nd International Conference Construction Application of VR, Lisbon, Portugal, Sept 2004.
CONVR 2005, Proceeding of 5nd International Conference Construction Application of VR, Durham, UK, Sept 2005.
CONVR 2008, Proceeding of the 8th International Conference on Construction Application of VR, Malaysia, Oct, 2008.

Refereed Conference papers

2010

Kassem, m., Dawood, N., Benghi, C., Siddiqui,M. and Mitchell D. (2010) Coordination and Visualization of Distributed Schedules in the Construction Supply Chain: A Potential Solution.

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