

Mohsin Khalid Siddiqui

KFUPM Box 1032, Dhahran 31261, Saudi Arabia.

<http://faculty.kfupm.edu.sa/cem/mohsin>

EDUCATION

University Of Texas at Austin PhD – Civil Engineering Civil Engineering - Construction Engineering and Project Management	August 2008
University of Wisconsin – Madison MS – Civil Engineering Construction Engineering and Management	August 2003
University of Wisconsin – Madison MS – Computer Sciences	May 2003
University of Engineering and Technology, Lahore, Pakistan BS – Civil Engineering (<i>with Honors</i>)	July 1999

EXPERIENCE

Assistant Professor, 09/2008 to date

Construction Engineering and Management Department – King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia

Designed new graduate courses and fulfilling the teaching responsibilities for these courses. Research focuses on Scheduling and IT applications in CEM. Set up the new CEM computer lab equipped with the latest and industry leading software applications. Actively participated in ABET EAC accreditation of the MS and ME programs, current chair of the Department ABET Committee.

Project Management Training Consultant, 09/2008 to date

Saudi ARAMCO, Dhahran, Saudi Arabia

Working as a training consultant for Saudi ARAMCO and coordinating / conducting parts (SAPMT) short courses (30+ to date) focused on Planning & Scheduling, Construction Management, Cost Engineering, Management of Detailed Engineering, Best Practices for Construction Projects, and Managing Small & Multiple Projects. Familiar with Saudi Aramco projects budgeting/execution life cycle.

Project Management Training Consultant, 01/2011 to 06 / 2011

Saudi Basic Industries Corporation - SABIC, Jubail, Saudi Arabia

Working as a Project Management training consultant for SABIC (through KFUPM). Course coordinator for a short course titled Construction Project Management. Developed course content and delivered the course in line with SABIC procedures and guidelines for management of capital affiliate projects.

Software Engineer, 04/2004 – 01/2005

Techlogix Pakistan, Lahore.

Worked as a team member and team leader on business process improvement (BPI) for a textile group using IBM Websphere Business Modeler (Purchasing and Inventory processes).

Assistant Professor (Computer Sciences), 08/2003 – 06/2004, 01/2005 – 05/2005

University of Management and Technology (UMT), Lahore, Pakistan

Taught multiple courses at the Graduate and Undergraduate level with emphasis on Design of Database Management Systems, Operating Systems, and Object Oriented Programming.

Office Engineer, 08/1999 – 08/2000

Associated Consulting Engineers – ACE (Pvt.) Ltd., Lahore, Pakistan

Worked on a portion of a nation wide housing project. Assisted the Team Leader in all technical and contractual matters on the 13 projects.

FUNDED RESEARCH PROJECTS:

Project ID: 11-ELE1652-04 “Towards an Intelligent Jobsite – Use of Advanced Sensing Technologies on Construction Jobsites and Industrial Facilities”

Funded by King Abdulaziz City of Science and Technology, National Science Technology and Innovation Plan (SAR: 1,135,700 ~ AU\$ 295,000)

Status: Active (2012-2014)

Role: Principal Investigator

Project ID: IN10102 “Developing Quantitative Quality Measures for Network Schedules”

Funded by KFUPM – Internally Funded Project (SAR 58,000 ~ AU\$ 15,000)

Status: Completed – Pending final report (2011-2012)

Role: Principal Investigator

Project ID: CMS-0542206 “Process Connectors: Enabling Rapid and Flexible Interconnection of Distributed Processes”

Funded by National Science Foundation (NSF)

Status: Completed

Role: Leading Researcher (2005-2008)

Project ID: CMS-0531797 “Process Connectors: Supporting Information Transactions Between Residential Construction Processes”

Funded by National Science Foundation (NSF)

Status: Completed

Role: Leading Researcher (2005-2008)

Project Title: “Field tools for Bridge Inspection”

Funded by: Wisconsin Department of Transportation

Role: Researcher (2002-2003)

PUBLICATIONS

Peer Reviewed Journal Articles (accepted or published):

1. **Siddiqui, M. K.**, and O'Brien, W. J. (2009). "A Formal Mapping Based Approach for Distributed Schedule Coordination on Projects." *Advanced Engineering Informatics*, 23, 104-115
2. O'Brien, W.J., Hammer, J., **Siddiqui, M.K.**, and Topsakal, O. (2008). "Challenges, Approaches and Architecture for Distributed Process Integration in Heterogeneous Environments". *Advanced Engineering Informatics* 22, 28-44
3. Adams, T.M., Juni, E., **Siddiqui, M.K.**, Dzienkowski, J.E. (2005). "Integrated field and office tools for bridge management". *TRR Journal of the Transportation Research Board* 1933, 35-43
4. Becerik-Gerber, B., **Siddiqui, M. K.**, Brilakis, I., El-Anwar, O., El-Gohary, N., Mahfouz, T., Li, S., Jog, G.M. and Kandil, A.A. (2013) “Civil Engineering Grand Challenges: Opportunities for Data Sensing, Information Analysis, and Knowledge Discovery” *ASCE Journal of Computing in Civil Engineering* (Accepted for Publication)

Peer Reviewed Journal Articles (submitted-under review):

1. Bubshait, A. A., **Siddiqui, M. K.**, and Al-Buali, A. A. " Delay Management during the Construction Phase through Improvements to the Coordination Process: Case study from an Oil and Gas Industrial Project" ASCE Journal of Management in Engineering (Under Review)

Peer Reviewed Conference Papers (accepted or published):

1. Jarrah, R. T. and **Siddiqui, M. K.**, (2012) "Sustainability: Opportunities and Challenges from a Construction Contractor's Perspective" to appear at the ICSDEC 2012, Fort Worth, TX
2. **Siddiqui, M. K.**, and Rafiuddin, M. (2012) "Identifying Scheduling Inefficiencies for Industrial Projects using the Flowline View: A Case Study." Proc., International Conference on Computing in Civil Engineering, ASCE, Clearwater Beach, FL
3. **Siddiqui, M. K.**, Alrasheed, S. D., Mohammed, A. R., Amaan, A., Aljaroudi, W. H., Al-Jughaiman, A. A., Alsaikhan, F. M., and Alhashem, B. M. (2012) "Integrating Sustainability in the Curriculum through Capstone Projects: A Case Study." Proc., 2012 ASEE Annual Conference and Exposition American Society for Engineering Education, AC 2012-3110.
4. Rafibakhsh, N., Gong, J., **Siddiqui, M. K.**, Gordon, C., and Lee, H. F. (2012) "Analysis of XBOX Kinect Sensor Data for Use on Construction Sites: Depth Accuracy and Sensor Interference Assessment." Proc., Construction Research Congress, ASCE, 848-857.
5. Kassem, M., Dawood, N., Benghi, C., **Siddiqui, M. K.** and Mitchell, D. (2010). "Coordination and Visualization of Distributed Schedules in the Construction Supply Chain: A Potential Solution." Proceedings of the CONVR 2010, Sendai, Japan, p. 77
6. Khan, M.A. and **Siddiqui, M. K.** (2010) "Quantitative Assessment of Network Based Schedules" Proceedings of ICCCBE 2010, Nottingham, UK, p. 273
7. Wang, T.-K., Wakefield, R., O'Brien, W. J., and **Siddiqui, M. K.** (2008). "Contractor's Perspective of Schedule Mapping Approach--Problems and Challenges." *Proceedings of ICCCBE-XII & INCITE 2008*, Beijing, China.
8. O'Brien, W. J., **Siddiqui, M. K.**, and Wang, T.-K. (2007). "Process Connectors: Distributed Schedule Coordination via Alternative Exploration and Evaluation." *Proceedings of ASCE Computing in Civil Engineering*, Pittsburgh, PA, 355-363.
9. O'Brien, W.J., Hammer, J., **Siddiqui, M.K.** (2006). "From SEEKing Knowledge to Making Connections: Challenges, Approaches and Architectures for Distributed Process Integration". *Lecture Notes in Artificial Intelligence* 4200, 500-518
10. **Siddiqui, M.K.**, O'Brien, W.J., Wang, T.-K. (2006) "A Mapping Based Approach to Schedule Integration in Heterogeneous Environments". *ICCCBEXI*, Montreal, Canada, 2615-2624

Reports:

- Becerik-Gerber, B., El-Anwar, O., El-Gohary, N., Mahfouz, T., **Siddiqui, M. K.**, Brilakis, I., Kandil, A., Jog, G., and Li, S. (2011). "Grand Challenges for Data Sensing and Analysis." Report for the Technical Council on Computing and Information Technology, Data Sensing and Analysis Committee, American Society of Civil Engineers (ASCE).

Editorials:

- Gong, J., **Siddiqui, M.**, Caldas, C. H., and O'Brien, W. J. (2011). "The special issue of 26th International Symposium on Automation and Robotics in Construction." *Automation in Construction*, 20(6), 661.

INVITED PRESENTATIONS

- Invited presentation title "Use of BIM for fire risk assessment" at the 3rd Annual Conference on Fire Protection and Risk Management, SFPE-SAC, October 19-20, 2010

- Invited presentation titled “Location Based Scheduling” at a Technical Dinner meeting of the Project Management Institute (PMI) Arabian Gulf Chapter (PMI-AGC) – July 19, 2010
- Invited presentation titled “Introduction to 5D BIM in Academic Settings” at a seminar for the Jordan Engineers Association – Amman, Jordan – March 09, 2010
- Invited presentation titled “Using Monte Carlo Simulations for Uncertainty Analysis” at the Technical Dinner meeting of AACE International – Arabian Gulf Section – January 26, 2010

EDITORSHIP/SERVICE

- **Editorial Board Member** of ISI ranked “**Advanced Engineering Informatics**”, 2011-onwards. (Impact Factor: **1.73**, 5-Year Impact Factor: **2.311**)
- **Guest Editor** for the special issue (ISARC 2009) of ISI ranked “**Automation in Construction**” Journal. (Impact Factor: **1.372**, 5-Year Impact Factor: **1.510**)
- **Conference Technical Co-Chair**, International Conference on Sustainability in Design, Engineering, and Construction 2012 (Sponsored by ASCE – Construction Institute)
- **Technical Committee Member (DSA)**, ASCE International Workshop on Computing in Civil Engineering – 2013
- **Technical Committee Member (VIMS)**, ASCE International Workshop on Computing in Civil Engineering – 2013
- **Reviewer for:** Advanced Engineering Informatics, Automation in Construction, Construction Management and Economics, Journal of Professional Issues in Engineering Education and Practice, Journal of Management in Engineering ASCE, Journal of Computing in Civil Engineering ASCE, Engineering, Construction, and Architectural Management.

AWARDS AND HONORS

Excellence in Academic Advising (CED) KFUPM	2011-12
Richard and Shirley Tucker Scholarship in CEPM (UT-Austin)	2006, 2007
Certificate of Merit (BS – UET, Pakistan)	1999
Degree with Honors (BS – UET, Pakistan)	1999

COMPUTER SKILLS

Planning and Scheduling Software

P3, Primavera 5.0 & 6.0, MS Project 2003, 2007, Vico Control 2008, 2009

Risk Analysis Software

Palisade @Risk for Project, Palisade Decision Tools Suite

Programming Languages

C++, Java, nesC, Lua, Visual Basic.Net, PASCAL, FORTRAN

AFFILIATIONS

ACM – Association for Computing Machinery	Professional Member
ASCE – American Society of Civil Engineers	Associate Member
ASEE – American Society for Engineering Education	Global Member
PEC – Pakistan Engineering Council	Life Member
PMI – Project Management Institute	Member / Certified PMP

COURSES DEVELOPED/ TAUGHT AT KFUPM

- CEM 510 – Project Planning and Scheduling
- CEM 515 – Quality Management (to be offered Spring 2013)
- CEM 525 – Project Delivery Systems
- CEM531 – Heavy Industrial Construction

- CEM 540 – Construction Project Management
- CEM 549 – Computer Applications in Construction Management
- CEM 599 – Research Seminar
- EM 599 – Research Seminar
- EM 550 - Project Management