

Improving the management of Construction Projects through IT adoption

CONFERENCE FINAL REPORT

Prepared by: Leonardo Rischmoller and Robert Amor

The 25th International Workshop of CIB W78 Computer Integrated Construction: Improving the management of construction projects through IT adoption ran from July 15th to July 17th, at the Marriott hotel in Santiago, Chile. The workshop was organized by the Department of Construction Engineering and Management at Universidad de Talca – Chile and co-organized by the Construction Engineering and Management Program of the Department of Civil and Environmental Engineering and the Center for Integrated Facility Engineering (CIFE) at Stanford University. The organizing committee comprised:

Conference Chair

Leonardo Rischmoller Universidad de Talca, Chile

Conference Co-Chair

Martin Fischer Stanford University, U.S.A.

Honorary Chair

Hojjat Adeli The Ohio State University, U.S.A

The workshop theme was "Improving the construction management of projects through IT adoption". This theme acknowledges the many technological advancements in Construction IT that have been accomplished in the last two decades and that have been presented at many prior W78 workshops. It recognizes sustained adoption and implementation of IT-based work processes as a major current challenge and opportunity.

42 researchers, academics and practitioners in the Built Environment from 16 countries attended and presented papers on how to encourage, foster, and promote research and development in the application of integrated IT throughout the life-cycle of the design, construction and occupancy of buildings and related facilities.

Of the 86 original abstracts, 42 papers were accepted to be presented at the conference and included in the conference proceedings. All the abstracts and papers were reviewed by the international scientific W78 committee. Table 1 shows the conference themes and the number of papers presented for every theme.



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Table No 1

Conference Theme	Number of papers presented	
Building Information Modeling	6	
Product and Process Modeling	5	
Collaborative Engineering and Design	5	
IT Adoption / Implementation	5	
e-Business, e-Government and e-Construction	5	
Construction Management	4	
Visualization and Virtual Reality	7	
Other themes	5	

Table 2 shows the keynote speakers and their keynote presentation titles. Representatives from the local Chilean construction industry were invited to participate at the keynote presentations on the first day of the conference

Table No 2

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Keynote speaker	Keynote presentation		
Dr Martin Fischer Professor of Civil and Environmental Engineering Director, Center for Integrated Facility Engineering (CIFE) Stanford University (USA)	Return On Investment for Virtual Design and Construction		
Dr Mike Williams Senior Vice President and Chief Information Officer PB Americas, Inc (USA)	Application of Virtual Design and Construction Technologies on Infrastructure Projects		
Dr Hojjat Adeli Abba G. Lichtenstein Professor of Civil Engineering Civil & Environmental Engineering & Geodetic Science The Ohio State University (USA)	Innovative Information and Computing Technologies for Advancing the Construction Industry: From Construction Scheduling and Cost Optimization to Smart Structures of the Future		



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On July 17th the annual CIB W78 committee meeting was held straight after the last session of the conference with an open invite to all attendees to participate. The first order of business was a vote of thanks to Leonardo Rischmoller for his major efforts in organising the three days of this conference with great success. The first day started with very strong input from industry linking with the three top keynotes. The 42 papers that were selected for the conference continues the very strong reputation of CIB W78 in covering the full spectrum of Construction IT topics.

As always the discussion on future conference dates and venues drew significant interest. For 2009 the meeting agreed that ITU in Istanbul should remain as the group's choice though with much discussion as to which part of Turkey might host the conference. Holding the conference concurrently with MC4T was felt to be a useful synergy with our members interests. For 2010 there was discussion around what could be contributed by W78 to the triennial in Salford. Of concern to the group was that holding a W78 conference in Europe in 2010 would break our agreement with the EC-PPM conference series not remain outside of Europe in even years when they run their conference. To this extent the meeting agreed to support a Construction IT track at the triennial, but to hold the full W78 conference outside of Europe. The proposal by Walid Thabet to host the conference in Egypt in 2010 was accepted by the meeting. Options for 2011 to be further explored are offers to host in Madrid, Dublin (though the meeting noted that EC-PPM would be in Dublin in 2010), or Switzerland.

The offer by Taylor and Francis for W78 to produce a book drawing on the expertise of W78 as a showcase for its 25th anniversary was met with great interest. It was agreed that a call for book chapters should be put out to attendees and W78 members.

The W78 work programme was reviewed with the meeting noting significant progress in the areas of electronic publishing, virtual reality, education, and recently the CIB focus on integrated design solutions. The meeting suggested a presentation should be sought on the newly proposed work item on spatial-structural interaction.

The meeting concluded by addressing a number of minor topics included presenting awards for the top student paper and top student presentation. The meeting also recommended offering a discount for students (but still ensuring their fees were fully inclusive). The meeting also affirmed the current approach of ensuring that all papers gain full reviews.



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Appendix A contains the list of conference attendees.

Appendix B contains the table of contents of the conference proceedings

Appendix C contains the conference program



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APPENDIX A



 $CIB-W78 \\ 25^6 \ International \ Conference e on Information \ Technology \ in \\ Construction \\ Improving \ the \ management \ of \ Construction \ Projects \ through \ \Pi' \ adoption$

LIST OF PARTICIPANTS

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APPENDIX B

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APPENDIX C

	25 th International Conference 15 – 17 Aby 2008 Improving the management of Con	Construction		CON	IFEREN	CE PROGRAM
DAY 01 TUESDAY 15 th			DAY 02		DAY 03	
		WEDNESDAY 16 th		THURSDAY 17 th		
	Room G-ABC		Room D	Room E		Room D
8:00 - 09:00 9:00 - 09:30	Registration Welcome & Opening: Leonardo Rischmoller, Universidad de Talca Manuel Navarro, CDT Juan Anbnio Rock, Universidad de Talca	09:00 - 10:45				
:30 - 10:15	Dr.Martin Fischer THE RETURN-ON-INVESTMENT OF VIRTUAL DESIGN AND CONSTRUCTION: EXAMPLES SHOWING TACTICALAND STRATEGIC CONSIDERATIONS		Session IL PRODUCT AND PROCESS MODELING BILL EAST	Session III: COLLABORATIVE ENGINEERING AND DESIGN WALID THABET	09:00 -10:20	Session Va: VISUALIZATION AND VRTUAL REALITY (VR) NASHWAN DAWOOD
0:15-11:00	Dr.MkeWilliams APPLICATION OF VIRTUAL DESIGN AND CONSTRUCTION TECHNOLOGIES ON NFRASTRUCTURE PROJECTS					
1:00 - 11:30	Coffee Break	10.15 11.10	Coffee	II.	1020 - 10:40	Coffee Break
130-1216	DIA Digit Adel NINOVATINE COMPUTING AND INFORMATION TECHNOLOGIES FOR ADVANCING THE CONSTRUCTION NOUSTRY-FROM CONSTRUCTION SCHEDULING AND COST OPTIMIZATION TO SMART STRUCTURES OF THEFUTURE Questors & Answers to Keynote Speakers	11:10 - 12:50	Session IV: IT AD OPTION / IMPLEMENTATION	Session VI: e-BU SINESS, e- GOVERN MENT AND e- CONSTRUCTION	10:40 - 11:40	Session Vb: VISU ALEZATION AND VRTUAL REALITY (VR) PER CHRISTIAN SSON
2:15 - 13:00			GUILLERMO ARANDA	HEESUNG CHA	11:40 - 12:40	C IB W78 Meeting
					12:45 - 14:15	Lunch
330 - 1500	Lunch	1300 - 1430	Lunch		15:30	Departure to Concha & Toro Vineyard
5:15- 17:15	Session t BIM (BUILDING INFORMATION MODELING) ROBERT AMOR	14:45 - 16:30	Session VI: CONSTRUCTION MANAGEMENT RAYMOND ISSA	Session VIII: OTHER IT IN CONSTRUCTION RELATED THEMES RAIMAR SCHERER	16:40 - 18:00	VISIT TO CONHA & TORO VINEYARD (wine tasting & buffet)
			•	41-		http://www.conchaytoro.com/
18:50	CONFERENCEDINNER	18:50	CONFEREN			

Monday 14th, 19:00: Welcome Cocktail, Santiago Marriott Hotel