CONFERENCE PROCEEDINGS

Hosted by:
Griffith School of Engineering, Griffith University
Association of Engineering, Project, and Production Management

2-4 September 2015
Surfers Paradise Marriott Resort and Spa, Gold Coast, Australia
FOREWORD

On behalf of the Organising Committee, we are delighted to welcome you to the 6th International Conference on Engineering, Project, and Production Management (EPPM2015). This conference is proudly hosted by Griffith School of Engineering, Griffith University in conjunction with the Association of Engineering, Project, and Production Management (EPPM Association).

The EPPM2015 conference continues the strong tradition that reflects the founding principle of the EPPM Association, which is to foster the exchange of knowledge and promote research within the multidisciplinary areas of engineering, project, and production management. The EPPM2015 conference also aims to share unique knowledge from the nexus between social sciences and engineering, highlighting the need to embrace interdisciplinarity by crossing the boundaries between disciplines, recognising problems and ways of solving them, in a manner that is often unconventional and non-monophonic. The conference hosts theoretical discussions, data analysis, case studies, and industrial practices in the form of research papers, which provide a great opportunity for researchers, engineers, managers, students, and practitioners to present and discuss current and emerging research issues, problems, questions, findings, and new developments.

The conference would not be possible without the strong support of the Organising Committee, Scientific Chairs, International Scientific Committee, Keynote Speakers, and international authors and delegates. We would also like to thank Bo Xiong from Queensland University of Technology and Warit Wipulanusat from Griffith University for their assistance in compiling this conference proceedings.

We hope you enjoy your time at our conference, and that you have the opportunities to exchange ideas and share knowledge, as well as participate in productive discussions with the like-minded researchers and practitioners from diverse fields.

Professor Sherif Mohamed
Dr. Kriengsak Panuwatwanich

EPPM2015 Conference Chairs
EDITORIAL

“Science and everyday life cannot and should not be separated”
Rosalind Franklin (1920–1958)

A challenge for science as a whole is the interdisciplinarity, which is part of the paradigm of research in all fields. Interdisciplinarity means crossing the boundaries between disciplines, recognizing problems and ways of solving them, in a manner that is often unconventional, different from the monophonic approach. Thus, in multidisciplinary research, the subject under study is approached from different angles, using different disciplinary perspectives and integration which is not accomplished. Interdisciplinary research leads to the creation of a theoretical, conceptual, and methodological identity, so more coherent and integrated results are obtained. An excellent example of interdisciplinarity is scientific research and its practical applications in areas such as engineering management, project management and production management.

The main objective of this year's The 6th International Conference on Engineering, Project, and Production Management (EPPM2015) was to share unique knowledge from the border between social sciences and engineering. The knowledge the value of which is manifested in interdisciplinarity. The conference gives both the researchers and the practitioners with the opportunity to exchange theoretical knowledge, experience and good practices in the areas of broadly understood project management and production management. The process approach used in these management concepts allowed for a broad focus of the conference issues at different stages of the project life cycle or production process - from the planning process, through implementation, monitoring and process improvement. The conference was addressed to both the representatives of the world of science, representing various scientific disciplines, as well as the practitioners of management and production engineering, and young researchers and students.

The results of the conference this year include 58 papers that have been carefully selected through a double-blind review process. The articles in the field of engineering management, project management and production management present both the theoretical and practical examples of solving the problems that often are of an interdisciplinary nature. The subject matter of the articles is varied due to the interest in management processes (construction industry, production process, public transport), the sector of activity (public and private), and the subject of research. Important problems from the perspective of the concept of sustainable development were not overlooked by the authors of this year's conference. The concern for the environment, quality processes, public involvement are just some of the issues that are crucial to the management of each project.

The Editors wish to express sincere thanks to all the authors, members of the international scientific committees, members of the international advisory board and the local organizing committee for their effort and support. Their involvement in the project, which was the organization of conferences, is an excellent example of working in an interdisciplinary team, which ensured the success of this year's conference.

Joanna Ejdys, David Chua, and John Smallwood
Scientific Chairs

Kassim Gidado
President of EPPM-Association
ORGANISING COMMITTEE

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Sherif Mohamed and Kriengsak Panuwatwanich
Griffith University, Australia

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David Chua, National University of Singapore, Singapore
John Smallwood, Nelson Mandela Metropolitan University, South Africa

President of EPPM-Association
Kassim Gidado, University of Brighton, UK

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Yong Wu, Griffith University, Australia
Anisur Rahman, Griffith University, Australia
Erezi Utiome, Queensland University of Technology, Australia

ORGANISING COMMITTEE’S DECLARATION

All the papers in these conference proceedings were double-blind reviewed by members of the International Scientific Committee. This process entailed detailed reading of the papers, reporting of comments to authors, modification of papers by authors, and re-evaluation of revised papers to ensure quality of the content.
PEER REVIEW PROCESS

A rigorous two-stage peer review process was applied to this conference to maintain and assure the quality of the conference proceedings. In the first stage, submitted abstracts were evaluated by Scientific Chairs in terms of:

- Relevance to conference theme and objectives;
- Originality of material;
- Academic rigour;
- Contribution to knowledge, and
- Research methodology.

Authors, whose abstracts were tentatively accepted in the first stage, were requested to submit full papers for further review. Each paper was reviewed by no less than two acknowledged experts in the field with unidentified reviewers’ comments. Authors were requested to submit their revised papers noting and addressing reviewers’ comments. Evidence was required relative to the action taken by authors regarding the comments received. These resubmitted and revised papers were re-reviewed again in terms of:

- Relevance to conference theme and objectives;
- Originality of material;
- Academic rigour;
- Contribution to knowledge;
- Research methodology and robustness of analysis of findings;
- Empirical research findings, and
- Critical current literature review.

In the second review stage, authors were provided with additional comments and requested to submit their revisions. The final accepted decision was rendered when Scientific Chairs confirmed that all reviewers’ comments were appropriately responded to, having been double peer-reviewed for publication. At no stage was any member of the Scientific Chairs and International Scientific Committee involved in the review process related to their own authored or co-authored papers.

The role of the Scientific Chairs was to ensure that the final accepted papers incorporated the reviewers’ comments and arrange the papers into the final sequence as captured in the electronic proceedings. Of the 88 abstracts originally received, 59 papers were finally accepted for presentation at the conference and inclusion in these proceedings, representing a rejection rate of 33%.
INTERNATIONAL SCIENTIFIC COMMITTEE

Agata Czarnigowska, Lublin University of Technology, Lublin, Poland
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Yiannis Nikolaidis, University of Macedonia, Greece
KEYNOTE SPEAKERS

Professor Ali Jaafari
Director and Principal, JCS Consultants; Founder of Asia Pacific International College

Professor Jaafari is the founder and Past President (2004-2015) of Asia Pacific International College. APIC is a recognised degree-granting Australian Higher Education Institution with undergraduate and postgraduate programs in project management, business and information systems. From 1982 to 2004 Professor Jaafari held numerous academic positions at the University of Sydney, including Chair Professor of Project Management. Professor Jaafari has been an active contributor to the literature, including journals and international conferences. He has authored over 190 publications, and presented numerous keynote or plenary lectures in the past 20 years. He is on the editorial board and a reviewer for a number of journals, including the International Journal of Project Management, the International Journal of Information Technology Project Management, etc. Professor Jaafari has also presented seminars and executive training programs in project and strategic management to over 6,000 executives and managers in Europe, Middle East and Asia. He has acted as an expert consultant to a number of Australian organisations, the European Commission and numerous government agencies in Asia and the Middle East.

Chris Lawson
Former Head of Integrated Project Delivery Systems, Aurecon

Chris Lawson has over 15 years as a consulting engineer, 23 years in local government and 2 years in applied research. In June 2015, he retired from his role as global Head of Integrated Project Delivery Systems with Aurecon Group Pty Ltd, one of the largest Australian based consulting firms where he previously managed the South Queensland business for 6 years. During his time at Aurecon he has been involved in projects such as the $1.8B Trackstar Alliance which completed 4 mainline passenger rail upgrades in the Brisbane region from 2006 to 2014, Moreton Bay Rail, Eastern Busway, the replacement of the Brisbane Ferry terminals, CLEM7, Airport Link and Legacy Way tunnels, and Trackpower Alliance which completed mainline electrification upgrades on the Blackwater and Goonyella coal rail lines for Aurizon. He has also been involved in the establishment of systems integration and document control for the design phases of Northconnex tunnels in Sydney, Melbourne Metro and Torrens to Torrens Alliance in Adelaide. Chris was also a principal author of the Queensland Urban Drainage Manual which since 1992 has been the principal design reference for urban drainage design in Queensland and in many other jurisdictions. He currently serves on the Transport Advisory Board for Mackay Regional Council and provides advice to various contractors on their transition to BIM.
HOSTS

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Association of Engineering, Project, and Production Management

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Call for Papers

Aims and Scope:
Solving current industrial problems requires cross-disciplinary knowledge and approaches. The Journal of Engineering, Project, and Production Management (EPPM-Journal) is an international research journal publishing original research papers. EPPM-Journal is multidisciplinary in nature, considering all topics related to engineering management, project management, and production management. The journal aims to advance the cross-disciplinary sciences in these three fields. This unique platform is intended to inspire new thinking by merging and/or combining different approaches from diverse fields.

Submission:
Submissions should be made at the online submission system at https://cmt.research.microsoft.com/EPPM/
All submitted papers are subject to double bind review.

It is free to publish papers in the EPPM-Journal. EPPM-Journal is an Open Access journal, which uses a funding model that does not charge readers or their institutions for access. The Journal is operated by a group of volunteers with the same goal advancing the cross-disciplinary sciences in engineering management, project management, and production management.

http://www.ppml.url.tw/EPPM_Journal/
# TABLE OF CONTENTS

**FOREWORD** .........................................................................................................................II

**EDITORIAL** .......................................................................................................................... III

**ORGANISING COMMITTEE** .................................................................................................. IV

**ORGANISING COMMITTEE’S DECLARATION** .................................................................. IV

**PEER REVIEW PROCESS** .................................................................................................... V

**INTERNATIONAL SCIENTIFIC COMMITTEE** ................................................................. VI

**KEYNOTE SPEAKERS** .......................................................................................................... VII

**HOSTS** ................................................................................................................................ VIII

**TABLE OF CONTENTS** ........................................................................................................ XI

**PAPERS** ................................................................................................................................ 1

Design-for-Manufacture Techniques in the Vietnamese Construction Industry: Opportunities and Barriers
*Viet Tai Nguyen and Kriengsak Panuwatwanich* ................................................................ 2

Stakeholders’ Perceptions of Construction Dispute Resolution Mechanism in Nigerian Construction
*Rasheed Isa and Fidelis Emuze* .......................................................................................... 12

Formwork and False Work Hazards in Construction: Status and Effects in Bloemfontein, South Africa
*Liteboho Mothokho, Fidelis Emuze and Adefemi Aka* ......................................................... 21

How Nigerian PPP Affordable Housing projects can be better implemented Using Institutional Analysis Development Framework
*Julius Ojebode, Kassim Gidado and Noel Painting* .............................................................. 29

Overruns Again in Public Projects: Perspective from Northern Cape, South Africa
*Refentse Gaetsewe, Thabiso Monyane and Fidelis Emuze* .................................................. 37

The Impact of Substance Abuse in Construction: Examples from Bloemfontein, South Africa
*Makalo Ntli, Fidelis Emuze and Thabiso Monyane* ............................................................... 47

Construction Project Control Methodologies And Productivity Improvement: EVM, BIM, LBM
*Russell Kenley and Toby Harfield* ........................................................................................ 57
An Exploratory Study of the Problems Faced by Women Graduates Mentees in the Construction Sector: A Literature Review
Morena William Nkomo and Didibhuku Wellington Thwala

Yard Crane Scheduling in the Presence of Uncertain Handling Times
Hamid Ghaani Farashahi, Yong Wu and Peter Tatham

Evaluation of Environmental Impact Assessment Utilization: The Case of United Kingdom Construction Projects
Benjamin Edokpolo and Tarila Zuofa

Managing a Large Volume of Data for Public Engineering Enterprise
Kevin Tantisevi and Jirapon Sunkpho

RFID Positioning Algorithm
Chien-Ho Ko

Managing Critical Factors Causing Delays in Public Construction Projects in Kingdom of Saudi Arabia
Nassar Alotaibi, Monty Sutrisna and Heap-Yih Chong

Benchmarking the Maturity of Quality Management Systems in Western Australia
Jayden Smith, Brad Carey, Paul Fuller and Nigel Dudley

Date Palm (Phoenix Dactylifera L.) Seed Characterization for Biochar Preparation
Zainab Mahdi, Ali El Hanandeh and Qimimg J. Yu

Design, Analysis and Application of Moving Scaffold to the Maintenance for Spherical Structures
Takashi Hara

Constraints in the Implementation of Public Private Partnerships in Afghanistan
Sebghatullah Karimi and Poorang A. E. Piroozfar

Factors Affecting E-Tendering Process Based on The Perceptions of The Contractors Being Involved in The Tadulako University’s Construction Projects
Donny M. Mangitung and Diah E. Novitasari

Leveraging Lean Production Philosophy for Rationalising a Non-Linear Representation of Construction Specifications
Erezi Utiome and Robin Drogemuller

Facilities Management for African Urban Marketplace: Attitudinal Change to Waste as a Core Strategy
Adeni Abigo, Kassim Gidado and Paul Gilchrist
Aviation Regulations and Project Management: Developing a New System for an Aircraft Piston Engine  
Jacek Czarnigowski and Agata Czarnigowska ................................................................. 185

Assessing Construction Supply Chains: Search for the Best Configuration  
Piotr Jaskowski, Anna Sobotka and Agata Czarnigowska .............................................. 195

Customer Preferences of Hotel Information on Online Travel Websites in Thailand  
Napaporn Riantong, Pattarporn Ak-udom, Pim Chatnarongchai and Aussadavut Dumrongsiiri ......................................................................................................................205

Impact Analysis of Headway Distribution on Single Lane Roundabout Entry Capacity  
Liang Ren and Xiaobo Qu ............................................................................................... 213

An Assessment of Performance of Construction Projects on South Africa  
Mandisa Sibiya, Clinton Aigbavboa and Wellington Thwala ............................................ 222

The Critical Determinants of Variation Orders on SA Public Sector Construction Projects  
Lusca Ngwepe, Clinton Aigbavboa and Wellington Thwala ........................................... 231

Applicability Analysis of Aggregated Crash Index (ACI) in Freeways  
Yan Kuang and Xiaobo Qu .............................................................................................. 242

Development of Indicators for Measuring Organisational Capacity for Climate Change Adaptation  
Kriengsak Panuwatwanich, Oz Sahin and Vaughan Copping ........................................... 251

Delivering Superior Mega Project Outcomes through Timely Intervention in the Civil Engineering Curriculum  
Danielle Lester, Jose Torero Cullen and Chris Greig .................................................... 262

Document Management Systems in Small and Medium Size Construction Companies in Jordan  
Hesham Ahmad, Maha Ayoush and Subhi Bazlamit ....................................................... 273

Developing Green Procurement Framework for Construction Projects in Malaysia  
Asmah Alia Mohamad Bohari and Bo Xia ...................................................................... 282

Critical Barriers to the Practice of Effective Cost Planning in the Ghanaian Construction Industry  
Ernest Kissi, Theophilus Adjei Kumi, and Edward Badu .................................................. 291

Integrated Design Platform incorporating Multi-Disciplinary Early Information to Reduce Potential Delays in the Design Phase of Public Housing Projects  
Ahmad Tashrif and David Chua ...................................................................................... 303

The Abolishment of the Professional Fee Scales in South Africa  
Dirk Johannes Coetzee and Jean Lubbe ............................................................................ 313
Supply Chain Resilience – Influence of Supply Chain Capabilities and Strategies on Agility and Robustness
Christoph Alexander Pickert and Nattharika Rittippant .......................................................... 323

Effective Recruitment and Selection Strategies for Skilled Laborers in Heavy Highway Construction
Syed Ahmed and Katelyn Briggs .................................................................................................. 333

Is there still a need for the Tariff of Professional fees for the Quantity Surveying Profession in South Africa?
Hendrik Prinsloo and Björn Andersen ...................................................................................... 344

Barriers to Eliminating Waste in Production System
Magdalena K. Wyrwicka and Beata Mrugalska ......................................................................... 354

Exploring Accuracy Factors in Cost Estimating Practice towards Implementing Building Information Modelling (BIM)
Noor Akmal Adillah Ismail, Erezi Utiome, Robert Owen and Robin Drogemuller ............... 364

Looking Beyond Contemporary Project Management
Sam Fernando, David Thorpe, Kriengsak Panuwatwanich and Steven Goh ...................... 374

Barriers to Adoption of Building Information Modeling (BIM) in Iran: Preliminary Results
M. Reza Hosseini, Ehsan Azari, Linda Tivendale and Nicholas Chileshe ............................... 384

Factors Governing Outsourcing Engineering Consultancy in Saudi Arabian Construction Industry
Badr Alsulami, Usama Issa, and Sherif Mohamed ................................................................... 395

Formalizing a Language for Specifying Building Components from IFC
Ernest L. S. Abbott, Kerwei Yeoh and David K.H. Chua ....................................................... 407

Conceptualised Integrated Health and Safety Compliance Model for the Ghanaian Construction Industry
Zakari Mustapha, Clinton Aigbadarova and Wellington Didi Thwala .................................... 416

Exploring the Role of Human Relations In Enhancing Productivity on Construction Projects
Arthur Aido B. M., Aigbadarova, C. O. and Thwala W. D .................................................... 426

Coordination and Communication among Multiple Agencies in Response to Natural Disasters: An Illustrative Study
Xiaobo Qu, Oz Sahin and Sherif Mohamed .......................................................................... 434

The Impact of Noise on Construction Workers in South Africa
Winn-Yam Ayessaki and John Smallwood ............................................................................. 442
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Performance of Construction Health and Safety Agents (CHSAs)</td>
<td>John Smallwood</td>
<td>449</td>
</tr>
<tr>
<td>Design Modification of Draft Tube for Hydro Power Plant using CFD Analysis</td>
<td>Gunjan B. Bhatt, Dhaval B. Shah and Kaushik M. Patel</td>
<td>467</td>
</tr>
<tr>
<td>The Role of Person-Environment Fit in Promoting Job Performance: Towards a Conceptual Model and a Research Agenda</td>
<td>Bo Xiong</td>
<td>476</td>
</tr>
<tr>
<td>Construction and Energy Cost Saving using Building Simulation Procurement Guidelines for Sustainable Design and Construction of commercial building Projects in Australia</td>
<td>M. Mahmudul Hasan</td>
<td>485</td>
</tr>
<tr>
<td>Integrating Highway Engineering and Transformation Project Management</td>
<td>Maria Christina Liassides, Hamid Isfahany and Kassim Gidado</td>
<td>495</td>
</tr>
<tr>
<td>Client Learning and the Performance of Collaborative Infrastructure Projects</td>
<td>Karen Manley and Le Chen</td>
<td>508</td>
</tr>
<tr>
<td>The Development of a Dynamic Model of Household Waste Recycling in Bangkok, Thailand</td>
<td>Thanwadee Chinda</td>
<td>518</td>
</tr>
<tr>
<td>Major Factors Affecting Waste Generation on Construction Sites in Iran</td>
<td>Bahareh Nikmehr, M Reza Hosseini, Mehran Oraee and Nicholas Chileshe</td>
<td>528</td>
</tr>
<tr>
<td>Risk Associated with the Use of Software’s For Quantity Surveying (QS) Practees in South West Nigeria</td>
<td>Aiyetan, A. Olatunji</td>
<td>537</td>
</tr>
<tr>
<td>Comparative Performance Evaluation of Design-Build and Traditional Procurement Systems for Highway Projects in Afghanistan</td>
<td>Ghulam Abbas Niazi and Noel Painting</td>
<td>547</td>
</tr>
<tr>
<td>An Impact of Supply Chain Management Components on Firm Performance</td>
<td>Veera Boonjing, Pisit Chanvarasuth and Chalermsak Lertwongsatien</td>
<td>555</td>
</tr>
</tbody>
</table>
PAPERS