

**VIII Workshop "Social Sciences meet Lean and BIM", 8th and 9th November 2021  
Final Program**

**Day 1 – 8/11/2021**

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| 9:30pm Opening remarks   |  |
| <b>9:45 – 10:30 am – Keynote Presentation 1</b>  |  |
| Algan Tezel,<br>Aston University (UK)  | BLOCKCHAIN IN CONSTRUCTION: CONNECTIONS WITH THE LEAN PHILOSOPHY   |
| Discussion   |  |
| <b>10:30 – 11:00 am - BIM and Lean Implementation</b>  |  |
| I. Iordanova and D. Forgues, ETS<br>(Canada)   | THE VARIOUS FACES OF INNOVATION:<br>THE BIM & LEAN JOURNEY OF A CANADIAN<br>CONSTRUCTION COMPANY   |
| B. Pedó, D. Viana, C. Formoso, UFRGS<br>(Brazil), P. Tzortzopoulos, A. Tezel, L.<br>Koskela, Univ. Huddersfield (UK)   | VISUAL MANAGEMENT SUPPORTING DESIGN<br>MANAGEMENT IN CIVIL ENGINEERING PROJECTS  |
| Discussion   |  |
| <b>11:00<br/>am</b>  | <b>Break</b>   |
| <b>11:15 – 11:45 am - BIM and Lean Implementation</b>  |  |
| L. C. Durante, R. N. Blumenshein, V.<br>F. Lira, A. C. O. Miranda, UFMT<br>(Brazil)  | MENTAL MODEL OF COLLABORATORS INVOLVED<br>IN DESIGN PROJECTS OF CIVIL CONSTRUCTION AND<br>OBSTACLES TO IMPLEMENT BIM IN THE BRAZILIAN<br>REALITY |
| C. Bohórquez Arango, D. Martín Rey,<br>J. L. Ponz-Tienda, J. F. Suarez<br>Gutiérrez, J. P. Romero-Cortés, M. A.<br>Trujillo Peña, Univ. de los Andes<br>(Colombia) | BIM & LEAN IMPLEMENTATION IN A LARGE<br>CONSTRUCTION COMPANY IN COLOMBIA;<br>CHALLENGES AND LESSONS LEARNED                                      |
| Discussion   |  |
| <b>11:45– 12:15 am - BIM and Sustainability</b>  |  |
| Maria Antonietta Esposito, F. Bosi, C.<br>Ferraro, Univ. of Florence (Italy)   | EXPLORING THE SOCIAL CONNECTIONS BETWEEN<br>DIGITAL DESIGN AND INNOVATION IN TRAINING<br>METHODS   |
| G. M. Passos Neto, E. C. Rabbani, R.<br>Valdez-Vasquez, Univ. de<br>Pernambuco (Brazil)  | THE POTENTIAL TO USING BIM TO ENHANCE<br>SOCIAL SUSTAINABILITY INDICATORS  |
| Discussion   |  |
| <b>12:15<br/>Am</b>  | <b>Lunch Break</b>   |

**2:00 – 2:45 pm - Keynote Presentation 2**

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| Olli Seppanen,<br>Aalto University (Finland) | THE ROLE OF DIGITAL SITUATION AWARENESS IN SOLVING THE PRODUCTIVITY PROBLEM OF CONSTRUCTION INDUSTRY |
| Discussion                                   |  |

**2:45 – 3:15 pm - Production management**

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| B. F. Silveira, D. B. Costa, UFBA<br>(Brazil) | DEVELOPMENT OF A DIGITAL ENVIRONMENT ON SITE TO SUPPORT THE PRODUCTION PLANNING AND CONTROL WITH THE USE OF 4D BIM |
| K. B. Barth, C. T. Formoso, UFRGS<br>(Brazil) | DEVELOPMENT OF PERFORMANCE MEASUREMENT SYSTEMS FOR LEAN IMPLEMENTATION PROGRAMS                                    |
| Discussion                                    |  |

**3:15  
pm** Break

**3:30 – 4:15 pm - Production management**

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| F. M. R. Andrade, C. N. Biotto, S. M. B. Serra, UFSCar (Brazil)         | USE OF 5D BIM FOR COST ESTIMATING IN A PUBLIC PROJECT  |
| L. A. Correa, F. F. Marchiori, J.P.M. de Abreu, P. Jehel, UFSC (Brazil) | A CONTRIBUTION TO KNOWLEDGE OF WORKFLOW STABILIZATION THROUGH DAILY WORK PACKAGE DEVELOPMENT WITH 4D BIM |
| J. P. P. Vieira, T. G. Amaral, UFG<br>(Brazil)                          | RELATIONSHIPS BETWEEN LEAN AND BIM IN THE CONTEXT OF PRODUCTION AND DESIGN COORDINATION: A CASE STUDY    |
| Discussion  |  |

**4:15 – 4:45 pm - Facilities management**

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| A. A. Sales, R. N. Paiva, R. C. Ruschel, UNICAMP (Brazil)          | POST-OCCUPANCY EVALUATION INTEGRATED TO BIM FOR PROVIDING SOCIAL MEANING: HOW CAN IT BE DONE? |
| T. Algayer, F. F. Marchiori, P. Jehel, L. A. Correa, UFSC (Brazil) | INTEGRATION OF FM INFORMATION FOR EXISTING PUBLIC BUILDINGS USING BIM                         |
| Discussion   |   |

**Day 2 – 9/11/2021**

**10:00 – 11:00 am - Client requirement management**

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| J. Soliman Jr., P. Tzortzopoulos, Univ. Huddersfield (UK), M. Kagioglou, West Sydney Univ. (Australia) | AN EXPLORATION TOWARDS INTEGRATED HEALTHCARE DESIGN AND ASSESSMENT   |
| A. S. Barbosa, D. B. Costa, UFBA (Brazil)  | AUTOMATIC VERIFICATION OF EMERGENCY EXITS DESIGN STANDARDS USING BUILDING INFORMATION MODELING (BIM) AND VISUAL PROGRAMMING LANGUAGE |

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| Discussion   |   |
| N. Ransolin, T. A. Saurin, C. T. Formoso, UFRGS (Brazil)                                   | MODELLING BUILT ENVIRONMENT REQUIREMENTS FOR RESILIENT PERFORMANCE IN HEALTHCARE FACILITIES: A BIM AND FRAM INTEGRATED APPROACH |
| J. P. Baldauf, C. T. Formoso, UFRGS (Brazil), P. Tzortzopoulos, Univ. of Huddersfield (UK) | A SET OF CONSTRUCTS TO MODELLING CLIENT REQUIREMENTS IN HEALTHCARE PROJECTS   |
| Discussion   |   |
| <b>11:00 am</b>  | <b>Break</b>  |
| <b>11:15 – 12:00 am - Project delivery systems</b>   |   |
| A. Johansen, B. T. Kalsaas, P. Wondimu, T. O. Malvik, Univ. of Agder (Norway)              | COLLABORATION IN DESIGN AND PROJECT DELIVERY MODELS – ROAD CONSTRUCTION   |
| A. Johansen, B. T. Kalsaas, T. O. Malvik, Univ. of Agder (Norway)                          | LEAN AND OPPORTUNITY DRIVEN MANAGEMENT IN DESIGN AND CONSTRUCTION   |
| D. C. Hamerski, C. T. Formoso, E. L. Isatto, UFRGS (Brazil)                                | PLANNING AND CONTROL OF CONSTRUCTION PROJECTS IN A MULTI- PROJECT ENVIRONMENT BASED ON LEAN AND AGILE PRINCIPLES                |
| Discussion   |   |
| <b>12:00 am</b>  | <b>Lunch Break</b>  |
| <b>2:00 – 2:45 pm - Keynote Presentation 3</b>   |   |
| Paz Arroyo, DPR (USA), Glenn Ballard, University of California, Berkeley, Stan Chiu.       | CONFLICTING DESIGN REQUIREMENTS   |
| Discussion   |   |
| <b>2:45 – 3:15 pm - Lean Design</b>  |   |
| H. Chbaly, D. Forgues, ETS (Canada)  | LEAN-LED DESIGN: A CANADIAN CASE STUDY  |
| Q. A. Nguyen, L. Koskela, P. Tzortzopoulos, University of Huddersfield (UK)                | APPLICABILITY OF A NEW LEAN METHOD IN HIGHWAYS DESIGN PROCESS IMPROVEMENT   |
| Discussion   |   |
| <b>3:15 pm</b>   | <b>Break</b>  |
| <b>3:30 – 4:30 pm - Lean Design</b>  |   |
| Z. Giménez, C. Mourgues, L. F. Alarcón, and H. Mesa, PUC (Chile)                           | UNDERSTANDING THE VALUE GENERATION IN TRADITIONAL BUILDING DESIGN PROCESS   |



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| R. F. Herrera, Universidad Católica de Valparaíso; C. Mourgues, L. F. Alarcón, PUC (Chile); E. Pellicer, Univ. Politécnica Valencia (Spain) | EXPLORING CAUSALITY AMONG LEAN DESIGN MANAGEMENT PRACTICES AND BIM USES THROUGH QUALITATIVE COMPARATIVE ANALYSIS (QCA) |
| Discussion  |  |
| M. G. Mandujano, Maro Consulting (Mexico), C. Mourgues, L. F. Alarcon, PUC (Chile), L. Koskela, Univ. of Huddersfield (UK)                  | UNDERSTANDING THE INTERACTION BETWEEN VIRTUAL DESIGN, CONSTRUCTION AND LEAN CONSTRUCTION                               |
| T. F. Falcão, M. T. M. Carvalho, and M. C. G. O. Brandstetter, UFG (Brazil)   | LEAN CONCEPTS AND PRACTICES APPLIED TO THE BIM CYCLE IN THE DESIGNING PHASE  |
| Discussion  |  |