CURRICULUM VITAE

Alessandro Carbonari

I. Biographical data

Alessandro Carbonari, Ph.D.
Associate Professor, Department of Civil and Building Engineering and Architecture, Università Politecnica delle Marche (Polytechnic University of Marche)
Address: omissis
Place / Date of birth : omissis .
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II. Professional Record

A. Academic Record

Degrees, dates completed	**National Scientific Qualifications (ASN) as an associate professor**, 2012
Specialty	Sector: 08/C1 – Design and technological planning of architecture, SSD ICAR/11 "Building Construction"
Committee	Committee appointed by the Italian Government act DD no. 222/2012, whose members were: prof. Chiapponi Medardo, prof. De Tommasi Giambattista, prof. Forlani Maria Cristina, prof. Kang Jian, prof. Simonelli Giuliano
Degrees, dates completed	**PhD**, 2006
Specialty	Engineering, Architecture and economics of built and rural environment *Thesis title*: "Using causal networks for decision making in building design"
Institution/City/Country	Polytechnic University of Marche ("Università Politecnica delle Marche"), Ancona, Italy
Degrees, dates completed	**Master's** degree, 1997-2003
Specialty	Building Engineering ("Ingegneria Edile-Architettura")
Institution/City/Country	Polytechnic University of Marche ("Università Politecnica delle Marche"), Ancona, Italy

B. Academic Appointments

Associate Professor	2014 (November) – present Department of Civil and Building Engineering and Architecture (DICEA) Polytechnic University of Marche ("Università Politecnica delle Marche"), Ancona, Italy
PhD Board Member	2008 – present **Civil, Environmental and Building Engineering and Architecture** ("Collegio Docenti del Corso di Dottorato in Ingegneria Civile, Ambientale, Edile e di Architettura"), school of Engineering Sciences ("Scienza dell'Ingegneria), Polytechnic University of Marche ("Università Politecnica delle Marche"), Ancona, Italy
Assistant Professor	2007-2014 (October) Department of Civil and Building Engineering and Architecture (DICEA)

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	Polytechnic University of Marche ("Università Politecnica delle Marche"), Ancona, Italy
Visiting Researcher	2013; August "Research and Teaching in Project and Construction Management" at: University of Calgary (Canada), School of Engineering, Department of Civil Engineering, "Centre for Project Management Excellence". Hosting Professor: Prof. Farnaz Sadeghpour.
Research Grant	2006-2007 Research project: "Development and testing of non-invasive diagnostic techniques for buildings" Department of Civil and Building Engineering and Architecture (DICEA) University Polytechnic of Marche ("Università Politecnica delle Marche"), Ancona, Italy
Visiting Researcher	2005; September - December Research project: "Probabilistic models for preliminary design of Roofpond equipped buildings" at the NEAT (Natural Energies Advanced Technologies Laboratory) of the University of Nevada – Las Vegas (USA)
EU funded Grant	2003 Research project: "Changeable Thermal Inertia Dry Enclosures (C-TIDE)" – CRAF-1999-70706 - FP5 Research and Innovation Department Construction Company: Carlo Poggi, s.a.s, Rome, Italy

C. Professional, Faculty Governance Experience and Spin-off

Dates-Role	*2019 – present,*
Experience	**Chief** of the **laboratory** "Digital Construction Capability Centre" (DC3) https://www.dicea.univpm.it/laboratori
Dates- Role	2015 (November) – 2018 (November),
Experience	**Head of the Building Engineering Program** ("Presidente del Corso di Studi") at: Engineering Faculty, Building Engineering bachelor and Building Engineering master programme ("Corso di Laurea in Ingegneria Edile e Corso di Laurea Magistrale in Ingegneria Edile"), at the Università Politecnica delle Marche, Ancona, Italy
Dates	2013- present, **Reviewer**
Experience	University Grants Committee Secretariat Hong Kong SAR, China.
Dates	2008
Experience	co-founder of the **spin-off company** "Smart Space Solutions SRL", focused on intelligent systems for construction (www.smartspace.it)
Dates	2005; April - May
Experience	**Consulter** for the Academic Centre "PCQ – Progetto Costruzione Qualità", Ancona (Italy), about "Analysis of the Legislation in the Marche region pertaining to building acoustics", to the purpose of updating the legislative act DGR Marche n. 896 as of 24/04/2003 "Norme per la tutela dell'ambiente esterno e dell'ambiente abitativo dall'inquinamento acustico della Regione Marche – Criteri e linee guida di cui all'art. 5

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	comma 1 e all'art. 12 comma 1 della L. R. n. 28/2001", enacted by DGR Marche no. 809/2006.
Dates	2004 - present
Certification	Member of the **Roll of engineers** (no. A 2460) – Ancona, Italy
Dates	2003-2004
Experience	**Freelance** engineering in the fields of: health and safety in construction; fire safety; building acoustics; assistance to structural design of buildings.
Dates	2003
Experience	Head of **Quality Management** for: Construction Firm Carlo Poggi, s.a.s, Rome, Italy
Dates	2002
Certification	Health and Safety Inspector in Construction sites

D. Awards, Distinctions and Fellowships

Dates, Role	2019 (July 14th to 20th), **Chair** of 2019 CCSS
Distinction	**2019 Computing in Construction Summer School**, Senigallia, Italy Main Sponsors: Trimble Inc, DICEA – Polytechnic University of Marche Directors: I. Brilakis (Cambridge university, UK), R. Sacks (Technion, Israel) B. Naticchia (UNIVPM, Italy). Endorsments: EC3, IAARC, ANCI, OICE. https://ec-3.org/2019-summer-school-on-computing-in-construction
Dates, Role	2019 (July)
Award	**BEST PAPER award**, at 2019 European Conference on Computing in Construction (EC3), Chania, Greece, 10-12 July. Paper: "*BIM-based Holonic System for Real-Time Pathfinding in Building Emergency Scenario*".
Dates,	2019, EC3 – Conference
Fellowship	**Track leader** of the **Area** "Data Acquisition, Analysis, Simulation & Resilience", at the 2019 European Conference on Computing in Construction (EC^3), Chania, Greece, 10-12 July.
Dates, Role	2018 – present
Fellowship	**EC^3** – **Head** of the **DSA** (Data Sensing and Analysis) **Technical Committee** of the **European Council on Computing in Construction** (https://ec-3.org/).
Dates,	2014, July 9-11,
Fellowship	31st International Symposium on Automation and Robotics in Construction (**ISARC-2014**), **Chair** for the **Track** "Energy and the Environment"
Dates,	2014, July 9-11,
Fellowship	**Track leader** and responsible for the technical programme
Dates, Role	2014, **Construction Technology and Management** International scientific conference, Bratislava, Slovakia, September 9-11, and
Award	awarded with commemorative **medal** on the occasion of the 60th Anniversary of the Department of Building Technology at the Slovak University of Technology in Bratislava
Dates, Role	2012 – present, **Board of Directors**
Society	International Association for Automation and Robotics in Construction (**IAARC**), www.iaarc.org
Dates, Role	**2011** (September) – **2014** (July)
Experience	ISTeA – Deputy President ("vice-Presidente ISTeA"), ISTeA is the Italian Society of Science, Technology, Engineering of Architecture
Dates, Role	2010, 27th ISARC in Bratislava (Slovakia), presenter

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Award **BEST Paper Award**, voted by the **IAARC** Board of Directors, relative to the paper *"A management system against major risk accidents in large construction sites"*

E. Continuing education

Dates 2019, February 12th
Course title "Corso di formazione per operatore **DRONE VBRAIN** – Parte 2", by Laser Navigation SRL, Calcio (BG), Italy, Instructors: Ing. Roberto Navoni, Ing. Ferruccio Vicari, Ing. Luca Micheletti

Dates 2018, September 26th – 27th
Course title "Corso di formazione per operatore **DRONE VBRAIN** – Parte 1", by Laser Navigation SRL, Calcio (BG), Italy, Instructors: Ing. Roberto Navoni, Ing. Ferruccio Vicari, Ing. Luca Micheletti, Ing. Matteo Murtas

Dates 2013, February 19 and 28, March 5-6,
Course title "**Public Private Partnership** for energy efficiency in healthcare activities", by ASUR Marche, ARS Marche, Regione Marche, sponsored by the European Commission, Ancona, Italy.
Landsut, Germany

Dates 2008, March
Course title "**Low Power RF and Zigbee** Networking workshop", by Texas Instruments, Landsut, Germany

Dates 2007, July
Course title "**Sapphire DART** Training", by Multispectral Solutions Inc., Germantown (Baltimore), USA; course regarding UWB localization systems.

Dates 2005, February - June
Course title "Applied **acoustics** for buildings", at the Polytechnic University of Marche ("Università Politecnica delle Marche"), Ancona, Italy

Dates 2004, December
Course title "**Thermal design** for buildings", by ANIT, via Matteo Civitali, 77, Milan, Italy

Dates 2004, June
Course title "**Acoustics design** for buildings", by ANIT, via Matteo Civitali, 77, Milan, Italy

Dates 2003
Course title "**Econometrics** for time series analysis", Economics Department, Polytechnic University of Marche ("Università Politecnica delle Marche"), Ancona, Italy

Dates 2013
Course title Certificate in Advanced **English** (CAE) – University of Cambridge

Dates 2003
Course title First Certificate Examination (FCE) – University of Cambridge

Dates 2002
Course title Preliminary English Test (PET) – University of Cambridge

III. EDUCATIONAL ACTVITIES

A. Instruction

i. Graduate level

Dates, Role 2015 – present, Professor
Course "Building site management" course of the Building Engineering bachelor program, Engineering Faculty, Polytechnic University of Marche ("Università Politecnica delle Marche"), Ancona, Italy

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Dates, Role 2010 – present, Professor
Course "Project Management for Construction" course of the Building Engineering program, Engineering Faculty, Polytechnic University of Marche ("Università Politecnica delle Marche"), Ancona, Italy
Dates, Role 2007 – 2009, Professor
Course "Project Management" course of the Building Engineering program, Engineering Faculty, Polytechnic University of Marche ("Università Politecnica delle Marche"), Ancona, Italy

ii. Continuing education

Dates, Role 2019 - present, Member of the Management **Board** and Instructor
Event **Second Level Master** *BIM and health and safety in construction works* ("BIM e sicurezza nei lavori per le Costruzioni"), held at Polytechnic University of Marche ("Università Politecnica delle Marche"), Ancona, Italy.
Dates, Role 2019 - 2020, Member of the Management **Board** and Instructor
Event **Professional course** *BIM and digital management of construction works (*"BIM per la gestione digitale del processo costruttivo"), held at Polytechnic University of Marche ("Università Politecnica delle Marche"), Ancona, Italy.
Dates, Role *2019, July 20th,* **Instructor**
Event *Design and Management of H&S in work places* (Progettazione e Sicurezza dei Luoghi di Lavoro), at Florence University (Università degli Studi di Firenze), Firenze, Italy. Lecture's title: "Automation in Construction and real-time Safety Management in construction sites" ("1. Automazione in Cantiere, e 2. Gestione in tempo reale della sicurezza) .
Dates, Role 2018, July 13th, **Instructor**
Event *Design and Management of H&S in work places* (Progettazione e Sicurezza dei Luoghi di Lavoro), at Florence University (Università degli Studi di Firenze), Firenze, Italy. Lecture's title: "Automation in Construction and real-time Safety Management in construction sites" ("1. Automazione in Cantiere, e 2. Gestione in tempo reale della sicurezza) .
Dates, Role *May* 2017 and January 2018, **Adjunct Professor**
Event **IFTS Project** "Tecniche di organizzazione e gestione del cantiere edile" (English: "Techniques for layout management and scheduling of construction site"), funded by P.O.R. Marche – F.S.E. 2014-2020, Asse 1 P.d.I. 8.1.- R.A. 8.5; Asse 3 P.d.I. 10.4- R.A. 10.6., Marche Region, Italy.
Dates, Role *8th June* 2017, **Instructor**
Event "Design and Management of H&S in work places" (Progettazione e Sicurezza dei Luoghi di Lavoro), held by Florence University (Università degli Studi di Firenze), Firenze, Italy. Lecture's title: "Automation in construction sites" .
Dates, Role *5 May* 2016, **Instructor**
Event "Design and Management of H&S in work places" (Progettazione e Sicurezza dei Luoghi di Lavoro), held by Florence University (Università degli Studi di Firenze), Firenze, Italy. Lecture's title: "Automation in construction sites and case studies" .
Dates, Role *10th November* 2015, **Instructor**
Event "Health and Safety coordinators in construction" (Coordinatori della sicurezza nei cantieri temporanei o mobili"), held by the roll of Engineers

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of the Ascoli Piceno province, AP, Italy. Lecture's title: "The workplan and the timeline to support a safe management of construction sites" (La progettazione e l'organizzazione in sicurezza del cantiere. La pianificazione ed il cronoprogramma dei lavori).

Dates, Role *29th May* 2015, **Instructor**

Event "Design and Management of H&S in work places" (Progettazione e Sicurezza dei Luoghi di Lavoro), held by Florence University (Università degli Studi di Firenze), Firenze, Italy. Lecture's title: "Automation in construction sites and case studies" .

Dates, Role *30th May* 2014, **Instructor**

Event "Design and Management of H&S in work places" (Progettazione e Sicurezza dei Luoghi di Lavoro), held by Florence University (Università degli Studi di Firenze), Firenze, Italy. Lecture's title: "Automation in construction sites" .

Dates, Role *14th December* 2006, Instructor

Event "Acoustic design of residential buildings", managed by the Association of Builders in Ancona (Italy)

iii. Invited seminars/lectures

Dates, role 2019, July, **Keynote Speech**

Event **2019 European Conference on Computing in Construction** (EC3), Chania, Greece, 10-12 July. Title: "*BIM-based Holonic System for Real-Time Pathfinding in Building Emergency Scenario*".

Dates, Role *8th - 10th September* 2014, **Keynote Speaker**

Event "Construction Technology and Management" (CTM) Conference, Slovak University of Technology, Bratislava, Slovakia, (SK). Contribution: "Automation solutions supporting real-time safety and work progress management in construction".

Dates, Role *17th - 18th October* 2013, **Speaker**

Event "Construction Management Workshop", "Fondazione Flaminia" – Ravenna and "Alma Mater Studiorum" - University of Bologna, Italy. Contribution: "Advanced technologies for supporting health and safety in construction management".

Dates, Role *23rd November* 2012, **Speaker**

Event "Risk Management in Healthcare systems", 7th International Symposium, Arezzo, Italy (sponsored by: Minister of Healthcare, Minister of Environment, Tuscany Region, Italian Healthcare Institute)

Dates, Role *6th May* 2009, **Speaker**

Event "La responsabilità legale delle strutture sanitarie tra prevenzione e sinistro", Milano, Hotel del al Ville, Italy (sponsored by: Best in class community), Title of presentation: "Proactive risk management in healthcare services".

Dates, Role *19th – 20th May* 2005, **Speaker**

Event "Belief Bayesian Networks for probabilistic simulation models", ISTeA, Ancona, Italy

B. Committees

Dates, Role 2019, 22nd November , **Member of the Jury**

Committee Jury for the selection of the best candidate to be awarded a research grant At the DICEA Department. Title of the Grant: "Digitalizzazione del

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patrimonio immobiliare tramite tecniche di arricchimento semantico e collaborativo" (in English: "Digitisation of building facilities through collaborative semantic enrichment tools"); duration of the collaboration: 12 months. Place: Università Politecnica delle Marche, Ancona, Italy.

Dates, Role 2018, October 16th , **Member of the Jury**

Committee Jury for the selection of the best candidate to be awarded a research grant At the DICEA Department. Title of the Grant: "Sviluppo di una piattaforma per la collaborazione digitale distribuita a supporto della gestione dei processi di costruzione" (in English: "Development of a digital distributed collaboration platform to support the management of construction processes"); duration of the collaboration: 12 months. Place: Università Politecnica delle Marche, Ancona, Italy.

Dates, Role 2017, November 9th, **Member of the Jury**

Committee Jury of the **PhD exam** in "International Phd Program in Civil and Environmental Engineering", Università di Firenze, Perugia, Pisa, TU Braunschgweig, appointed by Università di Firenze.

Dates, Role 2017, December 11th, **Reviewer**

Committee Jury of **PhD Exam**, Graduate Research School UNSW Kensington NSW 2052 Australia. PhD Thesis: "A computational approach for estimating and minimizing construction-related and end-of-life carbon footprint of concrete structures". PhD student: Zahra Sadat Moussavi Nadoushani.

Dates, Role 2017, November 13th , **Member of the Jury**

Committee Jury for the selection of the best candidate to be awarded a research grant at the DICEA Department (co-funded by Politecnic of Milan). Title of the Grant: "Modelli intelligenti integrati in sistemi informativi di tipo BIM" (in English: "Learning BIM with Intelligent Models"); duration of the collaboration: 12 months. Place: Università Politecnica delle Marche, Ancona, Italy.

Dates, Role 2017, March 30th, **Member of the Jury**

Committee Jury of the **PhD exam** in "Built Environment and Construction Engineering", Code: ABC PHD 2017 9. N. 9, at Polytechnic of Milan, Italy. Rector Decree n. 886/2017, Prot. 14868, as on 23/02/2017.

Dates, Role 2016, October 26th , **Member of the Jury**

Committee Jury for the selection of the best candidate to be awarded a research grant At the DICEA Department. Title of the Grant: "Sistemi per il monitoraggio e la gestione proattiva di edifici industriali" (in English: "Monitoring systems and proactive management of non-residential buildings"); duration of the collaboration: 12 months. Place: Università Politecnica delle Marche, Ancona, Italy.

Dates, Role 2016, March 7th, **Member of the Jury**

Committee Jury of the **PhD exam** in "Architecture" – XXVII and XXVIII cycle, at the University of Cagliari, Italy. Rector Decree n. 501/2016, as on 01/03/2016.

Dates, Role 2015, **Reviewer**

Committee Master thesis "Performance analysis of a new single effect hot water absorption chiller system", by Saket Sinha, University of Technology, Sydney, Australia.

Dates, Role 2014, September 3rd , **Member of the Jury**

Committee Jury for the selection of the best candidate to be awarded a research grant

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	at the DICEA Department. Title of the Grant: "Modelli prestazionali di edifici pubblici per la gestione ottima" (In English: "Performance modelling of public buildings for their optimum management"); duration of the collaboration: 12 months. Place: Università Politecnica delle Marche, Ancona, Italy.
Dates, Role	2009, June 8th, **Member of the Jury**
Committee	Jury of the **PhD exam**: "Recupero, progetto e tutela dei contesti insediativi e territoriali di elevato valore ambientale e paesistico – XXI ciclo" (in English: "Renovation, design and protection of residential and territorial domains featuring high environmental and landscape value"), at the Università degli Studi dell'Aquila, Italy.

C.

IV. MAIN RESEARCH ACTVITIES

A. Field of interest no. 1: Digitalization for Construction Management, such as:
   a. Automation and IoT for Project Management;
   b. Intelligent systems for Facility Management of the exiting stock;
   c. Integration of BIM, sensors, digital techniques for the optimization of the construction process.

B. Field of interest no. 2: Passive technologies for energy savings in buildings, such as:
   a. Phase Change materials (PCM) integrated in building components;
   b. Ventilated evaporative walls;
   c. Roofpond equipped buildings.

C. Field of interest no. 3: Intelligent systems for construction sites, such as:
   a. Real-time health and safety control at the execution phase;
   b. Semi-automated work progress tacking for advanced management;
   c. Real-time control of environmental risks in construction sites.

D. Field of interest no. 4: Probabilistic and statistical models for construction, such as:
   a. Intelligent models in support of preliminary design of buildings;
   b. Statistical models for post-processing of big data;
   c. Real-time decision making support systems.

E. Field of interest no. 5: Active systems for energy renovation of existing buildings, such as:
   a. predictive control of building systems for optimal management of energy use;
   b. dynamic modelling for the assessment of energy requalification actions;
   c. integration of control systems (e.g. PID, fuzzy) in existing building systems;
   d. dynamic liquid shielding systems for glazed facades with variable solar transmittance.

F. Field of interest no. 6: Reduced-order modelling of buildings, such as:
   a. reduced-order models in support of advanced (real-time) control;
   b. learning of reduced-order models from on-field measurements.

G. Field of interest no. 7: Advanced construction technology, such as:
   a. Active systems to improve sound transmission loss of building facades;
   b. Automated diagnostics of buildings.

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H. **International and National Research Projects**:

Project	**ENCORE** ("ENergy aware BIM Cloud Platform in a COst-effective Building Renovation Context"), H2020 Framework Programme, funded by the European Commission (**Grant Agreement no. 820434**), that involves 12 partners from 7 European countries (coordinator: ATB, Germany).
St./end dates	2019 – present
Role	deputy Coordinator for the DICEA Department
Project	**PRIN** ("A Distributed Digital Collaboration Framework for Small and Medium-Sized Engineering and Construction Enterprises"), funded by the **Italian Government**, (Decree no. 0000453 as of 13 March 2019) involved partners: "La Sapienza" University of Rome, Polytechnic of Turin, Polytechnic of Milan, University of Brescia, University of Florence, Polythecnic University of Marche (Ancona, Italy).
St./end dates	2019 - present
Role	Researcher
Project	"**Re-thinking digital buildings according to the cyber-physical paradigm: modelling and Development**", funded by Polytechnic University of Marche ("Università Politecnica Delle Marche"), Decree no. 321 as of 23rd December 2016. Partners: Department of Civil and Building Engineering and Architecture (DICEA), Department of Information Engineering (DII)
St./end dates	from 2016 to 2018
Role	Coordinator
Project	**C-TIDE** ("Changeable Thermal Inertia Dry Enclosures"), 5th Framework Programme, funded by the European Commission (**Contract CRAFT 1999-70706**), aiming at developing applications based on the use of Phase Change Materials for buildings, that involved 5 partners from 3 european countries (coordinator: Vanoncini srl, Bergamo, Italy).
St./end dates	from 2003 to 2004
Role	Researcher
Project	**PRIN** ("Technologies and framework for real-time safety management in construction sites"), funded by the **Italian Government - MIUR**, involved partners: University of Cagliari, University of Brescia, University of Trento, Polythecnic University of Marche (Ancona, Italy).
St./end dates	from 2010 to 2012
Role	Researcher / deputy coordinator
Project	**SEAM4US** ("Sustainable energy management for underground stations"), 7th Framework Programme, funded by the European Commission (**Grant Agreement no. 285408**), that involved 9 partners from 6 European countries (coordinator: Cofely Italia SpA).
St./end dates	from 2011 to 2014
Role	Researcher
Project	**MARTE** ("Marche Region Technical assistance for healthcare buildings Energy retrofit "), FP7 – IEE (Intelligent Energy-Europe), funded by the European Commission (**Grant**

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Agreement no. IEE/13/465/SI2.675072). That involved 5 Italian partners (coordinator: Regione Marche, IT).

St./end dates 2014 – 2016

Role Researcher

V. SERVICE ACTVITIES

A. University service

Dates 2007 – 2013

Role Member of the teaching Committee at the Engineering Faculty of the Università Politecnica delle Marche ("Polytechnic University of Marche"), Ancona, Italy

B. Scientific Journals

Dates, Role 2007 – present, Reviewer
Journal Energy and Buildings, Elsevier
Dates, Role 2008 – present, Member of the Editorial Board
Journal The Open Environmental Engineering Journal, Bentham Science Publishers LTD
Dates, Role 2011 – present, Reviewer
Journal Automation in Construction, Elsevier
Dates, Role 2015 – present, Reviewer
Journal Applied Energy, Elsevier
Dates, Role 2014 – present, Reviewer
Journal Energy Efficiency, Springer

C. Conference Organizations

Dates, Role 2017, Member of the Scientific Committee
Event 34th International Symposium on Automation and Robotics in Construction and Mining (ISARC 2017) – Taipei, Taiwan, June 28th - July 1st, 2017
Dates, Role 2015, Member of the Scientific Committee
Event 32nd International Symposium on Automation and Robotics in Construction and Mining (ISARC 2015) – "Connected to the Future", Oulu, Finland, June 15-18, 2015
Dates, Role 2013-2014, Member of the Scientific Committee, Reviewer and Leader of the "Energy and the Environment" track
Event 31st International Symposium on Automation and Robotics in Construction (ISARC 2014) Sidney, NSW, Australia, July 9-11, 2014
Dates, Role 2013, Member of the Scientific Committee
Event ISTeA 2013 Symposium, "ICT per la produzione edilizia", 3rd October 2013, Milano, Italy
Dates, Role 2012, Member of the Scientific Committee
Event ISTeA 2012 Symposium, "La ricerca industriale nella produzione edilizia: risultati ed orizzonti", 18th – 19th October 2012, Milano, Italy
Dates, Role 2011, Member of the Scientific Committee
Event Workshop ISTeA 2011, "La ricerca per l'innovazione nella produzione edilizia e la competitività nell'industria delle costruzioni", 12th – 14th September 2011, Ancona – Portonovo , Italy
Dates, Role 2005, Official Peer Reviewer
Event "Solar World Congress 2005", prof. Yogi Goswami

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VI. MAIN PUBBLICATIONS

1. Naticchia, B.; Carbonari, A.; Vaccarini, M.; Giorgi, R., Holonic execution system for real-time construction management, AUTOMATION IN CONSTRUCTION, vol. 104, p. 179-196, 2019.

2. Corneli, A.; Naticchia, B.; Carbonari, A.; Bosche, F., Augmented Reality and Deep Learning towards the Management of Secondary Building Assets, 36th International Symposium on Automation and Robotics in Construction - ISARC 2019, May 21-24, Banff, Ab, Canada, 2019, ISBN: 9781510890039.

3. NATICCHIA, Berardo; MESSI, LEONARDO; CARBONARI, Alessandro, BIM-based holonic system for real-time pathfinding in building emergency scenario, Proceedings of the 2019 European Conference on Computing in Construction, 10-12 July, Chania, Crete, Greece 2019, ISBN: 978-1-910963-37-1.

4. Naticchia, B.; Messi, L.; Pirani, M.; Bonci, A.; Carbonari, A.; Tolve, L. C., Holonic System for Real-Time Emergency Management in Buildings, Proceedings of 36th International Symposium on Automation and Robotics in Construction, May 21-24, Banff, Ab, Canada, 2019, ISBN: 9781510890039.

5. BONCI, Andrea; CARBONARI, Alessandro; CUCCHIARELLI, Alessandro; MESSI, LEONARDO; PIRANI, MASSIMILIANO; VACCARINI, Massimo, A cyber-physical system approach for building efficiency monitoring, AUTOMATION IN CONSTRUCTION, vol. 102, p. 68-85, 2019.

6. CARBONARI, Alessandro; CORNELI, ALESSANDRA; Martino DI GIUDA, Giuseppe; RIDOLFI, LUIGI; VILLA, Valentina, A DECISION SUPPORT SYSTEM FOR MULTI-CRITERIA ASSESSMENT OF LARGE BUILDING STOCKS, JOURNAL OF CIVIL ENGINEERING AND MANAGEMENT, vol. 25, p. 477-494, 2019.

7. CARBONARI, Alessandro; VACCARINI, Massimo; Quaquero, Emanuela, Numerical Approach for the Design of Cost-Effective Renovation of Heating System Control in Buildings, in: “HVAC System”, Mohsen Sheikholeslami Kandelousi (eds.), p. 67-87, ISBN: 978-1-78984-432-0, Intech, London, UK.

8. Naticchia, Berardo; Corneli, Alessandra; Carbonari, Alessandro, Development of a framework to support the information flow for the management of building, 2018 Creative Construction Conference, Ljubljana, Slovenia, 30 June – 3 July 2018, ISBN: 978-615-5270-45-1.

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Alessandro Carbonari

02 novembre 2020AREA SCIENCE PARK Prot: 2020/0005738/GEN/SZ-APS

AUTORIZZAZIONE AL TRATTAMENTO DEI DATI PERSONALI

Autorizzo al trattamento dei dati personali contenuti nel mio Curriculum Vitae, secondo quanto previsto dall'art. 13 del D. Lgs. 196/2003.

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