

Focus on higher learning • Online event

# BIM&Digital Innovation and digital transformation of the built environment

Event organized by After the Damages International Academy,  
University of Ferrara, Department of Architecture,  
University of Modena and Reggio Emilia, Department of Engineering,  
University of Parma, Department of Engineering and Architecture;  
Clust-ER BUILD;  
Emilia-Romagna High Technology Network;  
Agency for Reconstruction - Earthquake 2012, Emilia-Romagna Region.

In collaboration with BIM&Digital Awards 21

## AtD Winter Focus

**1st December 2021 - from 2:00 PM to 6:00 PM**

The new frontiers of Digital and BIM for cultural heritage

**2nd December 2021 - from 2:00 PM to 6:00 PM**

National and international experiences for social innovation through BIM and digitisation

## BIM&Digital Awards 21

**3rd December 2021 - from 2:00 PM to 6:00 PM**

Awards Ceremony

(Italian time)

Event accredited at the Order of Architects P.P.C. of Ferrara. To **the members of the Orders of Architects (Italian orders)** will be recognized **n. 4 professional training credits for each session**, subject to mandatory registration on the site:  
<https://imateria.awn.it>

For all registrations (**not for architects requiring professional training credits**) can subscribe to the following link and will receive in the following days access credentials to follow the webinar:

**Subscription link**

### Partnership



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The International Academy "After the Damages" project has received funding from the Emilia Romagna Region in the scope of the three-year higher education projects in the cultural, economic and technological fields pursuant to art. 2 of the regional law n. 25/2018 approved by resolution of the Regional Council n. 1251/2019.



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# BIM&Digital Innovation and digital transformation of the built environment

For the second year, BIM and Digital will be the central themes of the Winter Focus 2021 scheduled for days 1st-2nd-3rd December, whose organizers: the International Academy After the Damages, The Clust-ER Build and the DIGITAL&BIM Italia will collaborate together for two days of in-depth analysis and for the award ceremony of the Bim&digital Award '21, international competition for design and digitization of the BIM process.

This edition is dedicated to technological and digital applications for cultural and built heritage, whose theme is more than ever current and constantly evolving.

BIM and digitalisation are part of the “**digital transformation**”, the process that is changing all areas of socio-economic activity.

The program will see the NATIONAL SCIENTIFIC COMMITTEE ICOMOS - CIPA-HD DOCUMENTATION OF CULTURAL HERITAGE in a comparison of experiences and methodologies, the spin-off of the University of Ferrara INCEPTION s.r.l. and the European network for the cultural heritage of the 4CH project, international contacts, the Brazilian area, which will activate a comparison on the Smart Cities and the vast potential of BIM, in terms of development and application for

territories and companies in the sector. For the first time you can attend the presentation of the Protocol: Predictive Maintenance, developed by the Clust-ER Build and told by Alessandro Capra of the University of Modena and Reggio Emilia.

The common feature of all the interventions is the very concepts that underlie BIM and DIGITISATION, that are the collaboration and interaction, in which the exchange of information by all the main actors of the supply chain, becomes a determining factor for the success of the process. For this reason, this technology cannot be considered as a mere

individual act, but must instead be seen as an interdisciplinary and proactive process in which the objective can be achieved only if the activity is carried out interoperably.

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**1st December 2021 from 2:00 PM to 6:00 PM (Italian time)**

# The new frontiers of Digital and BIM for cultural heritage

## Introduces and moderates

**Marcello Balzani**, University of Ferrara, Department of Architecture, After the Damages International Academy

## Institutional greetings

**Enrico Cocchi**, Agency for Reconstruction - Sisma 2012, Emilia-Romagna Region

**Gabriele Marzano**, Economy knowledge, work and enterprise, Emilia-Romagna Region

First intervention from 2:30 PM to 4:00 PM

## HERITAGE, KNOWLEDGE, TECHNOLOGIES



### ICOMOS CIPA-HD NATIONAL SCIENTIFIC COMMITTEE DOCUMENTATION OF CULTURAL HERITAGE

The task of the CSN ICOMOS Italia CIPA-HD Documentation of Cultural Heritage is to provide a contribution so that a deep and interdisciplinary reflection and a close comparison between those who intervene operationally in the current employment, too often unaware of 3D technologies, in order to refund the relationship "heritage/knowledge/technologies". The theme is central to the debate between hard science, cultural heritage science and humanities (or soft science) and asks to be addressed with urgency, awareness and in a totally interdisciplinary way. For example, we can think of

the use of digital models reconstructed in Virtual Reality, in Mixed Reality and in Extended Reality (XR), for diagnostic purposes or the use of IoT technologies to equip models with new information content. In this way the technologies for the digitalization of the patrimony, supported from solid methodologies that guarantee the quality of the results, can offer a valid contribution to the conservation, the protection and the valorization also through various forms of fruition.

It is a question of understanding the extent to which the massive introduction of digital technologies, as well as ensuring accuracy and reliability at measurable quantities because they are quantitative, can add significant added value to the cognitive process and conservation practice, by asking new questions or, even better, by providing new answers to the usual questions. The CSN ICOMOS CIPA-HD Documentation of Cultural Heritage aims to contribute to the comparison between the processes in place at European and international level to identify consistent purposes of methods and techniques of digitization.

## Invited:

**Grazia Tucci**, Laboratorio Geco, DICEA, UNIFI - Co-coordinator CSN ICOMOS Italia CIPA HDP

**Paolo Salonia**, CNR ISPC Rome - Member of the Board of Directors and of the Executive Committee of ICOMOS Italy

**Francesco Fassi**, Department of Architecture, Construction Engineering and Built Environment, POLIMI

**Erminio Canevese**, Virtualgeo srl

**Lidia Fiorini**, Laboratorio Geco, DICEA, UNIFI

**Fulvio Rinaudo**, Department of Architecture and Design POLITO - Secretary General of ICOMOS Italy

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**1st December 2021 from 2:00 PM to 6:00 PM (Italian time)**

## The new frontiers of Digital and BIM for cultural heritage

Second intervention from 4:00 PM to 6:00 PM



The 4CH project, funded by the European Commission with Grant Agreement n.101004468 and started on 1st January 2021 for a duration of three years. The project aims to create the methodological framework, the procedural and organisational structure of a Competence Centre able to work seamlessly with a network of national, regional and local cultural institutions, providing them with advice, support and services focused on the preservation and conservation of monuments and historical sites. The

consortium responsible for the project includes leading academic, industrial, SME and research centres with complementary expertise. Among the partners, with the role of scientific coordination, is present INCEPTION s.r.l., Spin-off of the University of Ferrara.  
<https://www.4ch-project.eu/>

### A EUROPEAN COMPETENCE CENTRE FOR CULTURAL HERITAGE: THE 4CH PROJECT

**Roberto Di Giulio**, Scientific Coordinator of 4CH, INCEPTION s.r.l. - spin-off of the University of Ferrara



### BIM, H-BIM and digital platforms for architectural and archaeological heritage

**Marco Medici**, WP leader for the implementation of the 4CH platform, INCEPTION s.r.l. - spin-off of the University of Ferrara

### From BIM to Mixed Reality for digital enjoyment of cultural heritage

**Federico Ferrari**, VR/AR/XR expert, INCEPTION s.r.l. - spin-off of the University of Ferrara



#### Partnership



COMITATO SCIENTIFICO NAZIONALE ICOMOS  
CIPA-HD DOCUMENTAZIONE  
DEL PATRIMONIO CULTURALE



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**2nd December 2021 from 2:00 PM to 6:00 PM (Italian time)**

# National and international experiences for social innovation through BIM and digitisation

**Introduces and moderates in the context of the value chain conservation and enhancement of the built, historical and artistic heritage (INNOVA-CHM)**

**Marcello Balzani**, Clust-ER BUILD

## Institutional greetings

**Cristina Ambrosini**, Cultural Heritage Service, Emilia-Romagna Region

## PRESENTATION OF THE PREDICTIVE PROTOCOL MAINTENANCE- CLUST-ER BUILD

**Alessandro Capra**, University of Modena and Reggio Emilia

## SMART CITIES IN THE CONTEXT OF DIGITAL TRANSFORMATION IN THE AEC SECTOR IN BRAZIL

**Marcelo Schneck de Paula Pessôa**, Polytechnic School of the University of San Paulo - Brazil, Coordinator of the City Laboratory, Technologie and Urbanism (LCTU/ Conectividade)



## THE PANORAMA OF BIM IN BRAZIL

**Eduardo Toledo Santos**, Polytechnic School of the University of San Paulo – Brazil, Coordinator of the BIM Forum Brasil (BFB)

## BIM AND INNOVATION IN PROJECT MANAGEMENT

**SSilvio Burattino Melhado**, ETS-University of Quebec (Montreal, Canada) and Polytechnic School of the University of San Paulo - Brazil, Co-coordinator of the W96 Committee W96 Architecture Design and Management CIB The International Council for Research and Innovation in Building and Construction (Conseil International du Bâtiment)

## APPLICATIONS IN SMART AND SUSTAINABLE CITIES

**Cesar Massaro**, Polytechnic School of the University of San Paulo - Brazil, City Laboratory, Technologies and Urbanism (LCTU/ Conectividade)

## CLUST-ER BUILD

Interventions of companies in the sector

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**3rd December 2021 from 2:00 PM to 6:00 PM (Italian time)**

# BIM&Digital Awards 21 Awards Ceremony

Award of the finalists and the proclamation of the winners of the Fourth Edition of the **BIM&DIGITAL Awards 21**, dedicated to the promotion of innovation and digital transformation of the built environment.

The **BIM&DIGITAL Awards 21**, now in its fifth edition launched by CLUSTER BUILD, aims to:

- Make known the projects and works that exploit digital innovations (BIM but not only BIM) in order to improve performance and make the process of design, implementation, management and maintenance more effective.

- Reward companies, start-ups, companies that have promoted new digital tools that make the process of relief, return and vision, design, implementation and maintenance more effective, especially for recovery and restoration works and that can operate in BIM environment.
- Reward industrial research and university research in this field through the selection of Master's Degree Theses, Specialization School, Master and Doctorate developed and applied on methodologies, tools, protocols, systems, etc. related to BIM.

The COVID 19 pandemic, moreover, forced the sector to seek - with digital - new forms of communication, new working tools and technologies that allowed the management of processes and spaces in safety. Therefore further objectives of the competition are:

- Reward Italian Public Administrations that have developed and applied processes of dematerialization of technical-administrative procedures in the construction sector through the use of digital technologies also developed *ad hoc*.

- Reward companies, start-ups, designers, institutions that have developed and promoted digital systems and technologies able to offer a positive and tangible response to the problems arising with the Covid 19 pandemic in the built environment, to allow continuity of activities in safety.

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**3rd December 2021 from 2:00 PM to 6:00 PM (Italian time)**

# BIM&Digital Awards 21 Awards Ceremony

## Introduction

**Emilio Bianchi**, General Manager SENAF

**Marcello Balzani**, President of Clust-ER BUILD

**Angelo Ciribini**, BIM&DIGITAL 21, Jury President

## Presentation of the finalist projects and announcement of the winners

**Marcello Balzani**, Clust-ER BUILD President

**Silvia Rossi**, Clust-ER BUILD Manager

**Emilio Bianchi**, General Manager SENAF

## Award Categories

- Commercial, tertiary and large buildings
- Public Buildings
- Infrastructure
- Small projects
- Restoration and enhancement of heritage
- BIM initiative of the year
- Digital technologies for the construction process
- Research (thesis, doctorate or master's degree, ...)
- Industrial research
- PA and Digitisation
- Smart Occupancy

## BIM&DIGITAL Award supporter are:

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DAMAGES**  
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Italia

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SAIE

FASSA  
BORTOLO  
QUALITY FOR BUILDING

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