

# Curriculum Vitae

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## PERSONAL INFORMATION

Name **ANDREA REVOLTI**

## ACADEMIC EDUCATION AND TRAINING

Graduated the 01th February 2013, Faculty of Engineering of Trento (103/110), in **Architecture and Building Engineering (MA) (DICAM - Dipartimento Ingegneria Civile, Ambientale e Meccanica)** with thesis titled "Interaction between modern and ancient: Project of recovery and reuse of the Castel Belfort's ruins", supervisors Arch. Giorgio Cacciaguerra and Eng. Maurizio Costantini.

**Selected to participate in WNHM (World Natural Heritage Management Master, 2013)** organized by S.T.E.P. (TSM - Trentino School Management). Presentation of the research thesis on management and recovery of the alpine architectural heritage (94/100).

**Qualified as professional Engineer (State Examination – Civil Section A) in the first examination session, 2013.**

**Qualified as professional Architect (State Examination – Section A) in the first examination session, 2020.**

**Member of the Engineers Body of Trento num. 3926 in January 2014.**

**Certified Professional User of BIM software REVIT (Autodesk), Archicad (Graphisoft) and 3D CAD/CAM Dietrich (Dietrich's)**

High school diploma specialising in scientific subjects – Scientific High School Galileo Galilei di Trento - Italy - (2006) (93/100).

## WORK EXPERIENCE PRESENT APPOINTMENT

- Dates
- Name of employer
- Type of business or sector
- Occupation or position held
  
- Clients

FROM 01/10/2014 TO TODAY

### **Freelance Engineer, Architect and Project Manager**

Architectural Design, Research, Submission & management of European Projects (H2020).

Designer – **Construction Site Project Manager** and **Consultant for European Projects Quality Manager, Product Manager (WEEZARD), Certified BIM expert.**

**Trilogis s.r.l.**, DICAM (Department of Civil, Environmental and Mechanics), Architectural, UNIBZ, Heritage of Trentino (Arch. Franco Marzatico), Trento Structure Studio (Ing. Fabio

Revolti), Municipality of Spormaggiore, Municipality of Palù del Fersina, Private clients, Costa Studio (Cavalese)

Main research projects in which he has worked:

Project Name: I-locate	Duration 2014-2016	Horizon 2020
<p>Recent studies have highlighted that, on average, we spend approximately 90% of our time indoors, often in unfamiliar environments. Being able to seamlessly locate people or objects within indoor AND outdoor spaces could enable a number of new Location-Based Services (LBS) of significant economic relevance. In some cases, such as in modern hospitals and health care centres, efficient and accurate <b>“asset” tracking and management</b> (be this medical staff, patients, visitors, equipment etc.) is extremely important in economic as well as in social terms. Such location services require having access to Geographic Information (GI) of outdoor and –most notably– indoor spaces (<b>BIM based</b>). While outdoor data can be easily accessed as Open Data (OD), a notable example being OpenStreetMap (OSM), the availability of Geographical Information of indoor spaces is not available on a large scale as Open Data. In case of publicly accessible buildings, such as hospitals, stations, airports, shopping malls and public offices, having access to geographical data of indoor spaces, and particularly as Open Data, could allow new business activities and bring a number of social benefits. <a href="http://www.i-locate.eu/">http://www.i-locate.eu/</a></p> <p>ROLE: coordinator of digitization and optimization of indoor space plans</p>		
Project: SeNECA	Duration 2015-2017	Caritro Foundation
<p>Nowadays there is a growing demand for high quality spatial data, for efficient methods of sharing and updating geo-information and for a sustainable management of natural resources and energy. Focused policies at international level are promoting the adoption of advanced information technologies for delivering effective 3D data, new solutions and services to the citizens and public administrations. The market is ready for new spatial data but there are not many reliable services offered so far. SENECA (Smart and sustainNABLE City from Above) aims at developing a reliable methodology for the processing of aerial imagery for the derivation of high quality 3D data and energy audit. The partners will thus deliver innovative procedures and advanced solutions for the distribution of useful services to citizens and public administrations based on spatial information. Between the possible results and services we can list: estimation of the photo-voltaic potential of building roofs, calculation of houses heat losses, <b>production of Building Information Models</b>, environmental and natural resources estimation and management, etc. <a href="http://seneca.fbk.eu/home">http://seneca.fbk.eu/home</a></p> <p>ROLE: Tutor of Trilogis and FBK researchers, coordinator of BIM models at territorial scale.</p>		
Project: MDO	Duration 2013-2014	Law 6 of Trentino for the Innovation and Research Projects
<p>The goal of the MDO project is the design and test of a service which realizes the Building's Handbook, both with the use and development of qualified professional resources in the Trentino area, and through the creation of an information system for the treatment and integration of processes and data. Currently, building's information are fragmented, hard to find and not shared. The MDO's service enables heterogeneous users to consult, update and share informations about the work – even on-site – cooperatively across many areas of interest. A fundamental aspect of the MDO's service is the dynamism, the information availability (also “on-site”) and the complete interaction with users; therefore it will be based on <b>service-oriented architecture (SOA)</b>. <b>Users with different roles, use and update MDO's services each with their own levels of access. The same way they can be informed directly by the MDO's services (SMS, e-mail, fax or otherwise) for occurred updates, whether normative or related to a periodic review (as, for example, that required for fire-fighting).</b> The information will be certified by a metadating system that will ensure the correct and complete description of the data itself. The monitoring is done using a computer system integrated with innovative technologies (RFID) to manage the immediate availability of information/documents relating to a building or parts of it using also mobile devices (PDAs, mobile NFC, mobile, etc.). Users can access data at any time (because stored in a central system and served with technologies like the Internet of things). MDO project involving the cooperation between 2 Trento's companies (Trilogis Srl – GPI SpA) and D-Recta Srl consulting company Conegliano Veneto (Trilogis's partner since 2008),</p>		

<p>the DISI department of University of Trento, the RFID Competence Center of the Polytechnic of Milan, the consortium Habitech – Technology Cluster, and collaboration with some test site for the testing of the prototype development.</p> <p>ROLE: Expert consultant for the <b>management of buildings using BIM</b> models and coordinator of the tool for the calculation of the actualized benchmark of the value of the real estate.</p>		
<b>Traccia 4.0 e 5.0</b>	<b>Duration 2018-2022</b>	<b>Law 6 of Trentino for the Innovation and Research Projects</b>

- Dates FROM 10/03/2014 TO 17/01/2017
- Name of employer **UNITN – DICAM (Mesiano)**  
Prof. Eng. Maurizio Costantini  
University of Trento – Engineering and Building Construction  
Researcher and Designer (co.co.pro)  
Research for reuse of building materials (PRIN-Recycle) - Research Programs of National Interest - <http://recycleitaly.iuav.it/>  
In line with the objectives of Horizon 2020 and the strategic policies of Europe 2020, and in accordance with the indications of the European Landscape Convention, the research intends to explore the operational impact of the recycling process on the urban system and on the traces of urbanization that invest the territory so that these "materials" become part, together with the environmental system, of a single metabolism. The hypothesis of preserving the "urban resource", just as forests and rivers are preserved, naturalizes the phenomenon, but represents a fundamental step in policies and projects for the city. It recognizes the existence of a progression, from birth to ageing, but at the same time reacts to decline by supporting the possibility and usefulness of projects, policies and practices capable of activating new life cycles.
- Type of business or sector
- Occupation or position held
- Main activities and responsibilities
  
- Dates FROM 01/04/2014 TO 30/09/2014
- Name of employer **Trilogis srl (Rovereto – TN) –**  
President Arch. Gianni Rangoni  
**Software Development - Spatiotemporal Information System, GIS Indoor/BIM**  
Project Manager and Consultant for European Projects - Quality Manager  
Projects: I-Locate, OSM, MEPI, AQASystem, Land Energy Cadastre, MDO, Mhymesis, Centric and other European Projects Horizon 2020, Espresso.
- Type of business or sector
- Occupation or position held
- Main activities and responsibilities
  
- Dates FROM 13/01/2014 TO 31/07/2014
- Name of employer **COGI srl - Milan**  
Mr. Mario Guidotti  
Prefabricated Steel Structure  
**Innovation Manager Consultant**  
Technical report's Supervisor of the patent "Light Steel Frame"  
Designer of prefabricated lightweight steel structure prototype, 3D Models and Renders  
<http://www.steelmax.it/>
- Type of business or sector
- Occupation or position held
- Main activities and responsibilities
  
- Dates FROM 15/10/2013 TO 14/11/2013
- Name of employer **Governing Body of Suomenlinna**  
Arch. Petri Mikonsaari  
Building Restoration Management  
**Project Manager and Designer (Stage)**
- Type of business or sector
- Occupation or position held

- Main activities and responsibilities Design aimed at the recovery/restoration of the historic buildings on Suomenlinna Island (Helsinki).
  - Dates FROM 18/03/2013 TO 19/09/2013
    - Name of employer **UNITN – DICAM (Mesiano)**
    - Type of business or sector Professor Eng. Maurizio Costantini
    - Occupation or position held University of Trento – Engineering and Building Construction
    - Main activities and responsibilities **Researcher (Co. Co. Pro.)**
  - Dates FROM 09/10/2012 TO 21/12/2012
    - Name of employer Arch. Chiara M. A. Bertoli - Trento
    - Type of business or sector Architecture and Engineering Studio
    - Occupation or position held **Planner & Designer**
    - Main activities and responsibilities Architectural planning and competitions participation
- [Competition Requalification Walls of Piacenza - Winner]*  
*[Contest Requalification lakefront Caldonazzo - Special Mention]*  
*[Design for information panels of Castel Belfort]*

## PERSONAL SKILLS AND COMPETENCES

### PERSONAL SKILLS AND COMPETENCES WORK EXPERTISE CAPABILITIES

**Civil Engineer and Architect with qualified experience in design and management in the construction sector** (he opened his own studio in 2014) with realizations in the whole Trentino region for private and public clients. In all his projects, he has also been **responsible for the supervision of the works and activities on site as Construction Manager**. In addition to classic construction techniques, he **specializes in prefabrication design strategies (x-lam wood and cold-rolled steel)**, which he uses mainly in alpine mountain heritage restoration projects. He has **supported technical education with a master's degree in Project Management** in order to acquire **skills in working group management, stakeholder relations and clarity of management strategies**. As **Project Manager** pays particular attention (supported by BIM models) to:

- Managing the integration and coordination of all phases of the Project life cycle and Logistic;**
- Management of project scope and deliverables;**
- Time management, scheduling and monitoring;**
- Management of costs and financial plan;**
- Project quality management in terms of both quality assurance and quality control;**
- Human resources planning and management;**
- Risk management;**
- Management of supplying;**
- Project stakeholder management;**
- LCA evaluation for the architectural component**

During his university studies he started to use the **BIM (Building Information Modeling)** approach for the management of building projects, and over the years he **certified this competence with specialized courses with the issue of certificates (Archicad and Revit)**. He is able to manage every aspect of his projects through BIM software, using the so-called seven dimensions (from the 3D to the Life Cycle Assessments). He knows how to use all the main BIM viewers connected in the cloud with the original BIM model, useful to retrieve and update information directly in the field (Acca BIMviewer, BIMcollab, BIM vision, Solibri ecc).

He has developed a strategy for **managing the progress of construction site activities, using the tool of graphic overwriting (normally used for other purposes within the mentioned software)**. Over the past 4 years has developed expertise in augmented reality and virtual reality in the construction sector.

### EXPERIENCE IN RESEARCH,

In addition to his work as a construction engineer and designer, he has developed stable collaborations with

- University of Trento (Co.co.Pro and Researcher)**
- Research Center FBK (Research & Innovation Consultant and Tutor)**
- Research Center FEM (Research & Innovation Consultant)**
- VRT Foundation (Research & Innovation Consultant)**

and with **Trentino IT companies** (Trilogis srl, U-Hopper, etc.) participating in the writing and conducting of numerous R&D projects (**H2020, Widespread, Fesr, AlpineSpace, Interreg, Caritro**) that have led to the **creation of software and tools dedicated to the control of the useful life of buildings, calculation of energy dispersion and tracking of objects and assets in the indoor environment and maintenance management, also approaching concepts such as Artificial Intelligence, Machine Learning and Digital Twin and IoT, applied in the building context.**

During the **I-locate European Project** he worked also with Professor **Ki-Joune Li (University**

of Pusan - <http://lik.pusan.ac.kr/>) in the definition of the **OGC Standard for Indoor Spatial Information INDOOR GML** (<http://www.indoorgml.net/>)

EXPERIENCE IN  
ACADEMIC TEACHING

**UNITN:**

**Collaborator of Prof. Eng. Maurizio Costantini: Full Professor at the University of Trento, Civil, Environmental and Mechanics Dept (DICAM), chairs of Building Management & Construction and of Quality Management in Construction. In these years, his efforts were focused on educating and training students, within this context, in the usage of design and management tools (Building Information Modeling, Building Information Management, Integrated Management Systems, Shared Document Management) (2014-2017)**

**UNIBZ:**

Teaching assistant (laboratory) of Professor. Dr. Patrick Dallasega within the following courses:

1. Project Economics and Management - Module I
2. Industrienanlagen und Arbeitssicherheit

Contract Professor with Dr. Luca Gualtieri within the following courses:

3. Manufacturing Technology

**PUBLICATIONS**

- Abitare la città: dalla casa al paesaggio urbano", (2007), supervisor Arch. Claudia Battaino (Designer in the Team – "Semplice Project")
- "Alps N.2 Alpine Landscapes – Project Sustainable" (2010), supervisor Arch. Giuseppe Scaglione (Designer in the Team "Research Lab Pavilion")
- "Cities in Nature – Ecurbanism Landscape Architecture", (2012), supervisor Arch. Giuseppe Scaglione  
(Designer in the Team "Metrolandscape" and "Woodlandscape")
- Publication in the magazine PNAB (Natural Park Adamello Brenta) (2013)  
(Writer "Castel Belfort – History and Images")
- Publication of the "Caldonazzo's Project" in the magazine "a" (n°3 – 2013) (Designer with Arch. Bertoli and Arch. Marinaccio)
- Publication of the Abstract "Interaction between modern and ancient: Project of recovery and reuse of Castel Belfort's ruins" in the periodic "Alps N° 5 - Recycle, Redesign, Reshape, Rethink Ecologicaldesign" (2014) (Designer)
- Publication with Prof. Costantini [DICAM UNITN] PRIN - REcycle – Italy (2017) – LCA Life Cycle Assessment.
- LIFE FRANCA: A PROJECT ON FLOOD RISK ANTICIPATION AND COMMUNICATION IN THE ALPS- XXXVII Convegno Nazionale di Idraulica e Costruzioni Idrauliche Reggio Calabria (2021)
- GEOSPATIAL DATA PROCESSING FOR 3D CITY MODEL GENERATION, MANAGEMENT AND VISUALIZATION- ISPRS Hannover Workshop: HRIGI 17 – CMRT 17 – ISA 17 – EuroCOW 17, 6–9 June 2017, Hannover, Germany - I.Toschi , E. Nocerino , F. Remondino, A. Revolti , G. Soria , S. Piffer
- **Scientific Publications:**

Authors	Title	Venue	Date
Patrick Dallasega, Andrea Revolti, Felix Schulze, Martin Martinelli	Augmented Reality to Increase Efficiency of MEP Construction: A Case Study	38 <sup>th</sup> International Symposium on Automation and Robotics in Construction	2021

		(ISARC 2021)	
Patrick Dallasega, Elisa Marengo, Andrea Revolti	Strengths and shortcomings of methodologies for production planning and control of construction projects: a systematic literature review and future perspectives	Production Planning & Control Journal Pages 257-282	2020
Patrick Dallasega, Andrea Revolti, Philipp C. Sauer, Felix Schulze, and Erwin Rauch.	BIM, Augmented and Virtual Reality empowering Lean Construction	In Procedia Manufacturing 45, pp 49-54. 2020.	2020
Patrick Dallasega, Andrea Revolti, Camilla Follini, Christoph Paul Schimanski, Dominik T. Matt	BIM-Based Construction Progress Measurement of Non-Repetitive HVAC Installation Works.	IGLC 2019 – 27th Annual Conference on the International Group for Lean Construction	2019
Christoph Paul Schimanski, Carmen Marcher, Patrick Dallasega, Elisa Marengo, Camilla Follini, Arif U. Rahman, Andrea Revolti, Werner Nutt, Dominik T. Matt	Promoting Collaborative Construction Process Management by Means of a Normalized Workload Approach	IGLC 2018 – 26th Annual Conference on the International Group for Lean Construction	2018
Patrick Dallasega, Christoph Paul Schimanski, Andrea Revolti, Carmen Marcher, Dominik T. Matt	Untersuchung des Potentials für KMU zur Unterstützung der Baulieferkette mit Building Information Modeling: eine Fallstudie eines ETO-Fassadenlieferanten	KMU 4.0 – Digitale Transformation in kleinen und mittelständischen Unternehmen	2018

SOFTWARE USED  
IN THE SPECIFIC FIELD

**Autodesk – Autocad [Professional User – 17 years of experience]**

**Autodesk Revit (BIM) [Professional Certified User – 13 years of experience]**

**Graphisoft – Archicad (BIM) [Professional Certified User – 13 years of experience]**

**Bim Holoview (AR – Hololens 1&2) [Professional User – 5 years of experience]**

**Iris Prospect (VR – Oculus) [Professional User – 5 years of experience]**

**Bexel – Management tool for OpenBIM [5 years of experience]**

**Tally (Plug-in BIM for LCA in Construction) [3 years of experience]**

**Trimble Connect**

**BIM viewer software (AccaBIMviewer, BIMcollab, Solibri, BIMvision)**

**Dietrich's Software**

Adobe Suite (Photoshop, Indesign, Flash ecc.) [Professional User – 15 years of experience]

Pinnacle Studio

Comsol Multiphysics

Cinema 4D

VisualLive for Augmented Reality

Wordpress

**ArcGis – Qgis [Professional User – 9 years of experience]**

VisTable

Microsoft Office (Word, Excel, Project ecc.) [Professional User]

PARTICIPATION IN EXHIBITIONS  
SPEAKER, TUTOR

- Exposition in Merano with the project "Trentino-Alto Adige Multilayers 2030" (2009) (**Designer**)
- "Workshop: Biennale Alps - Alpine Landscapes" (2010) (**Participant**)
- "Competition for the retraining of the ancient walls of Piacenza", collaboration with Arch. Bertoli and Arch. Marinaccio (2012) (**I° PRIZE**)
- "Competition for the retraining and development of the lakefrond of Caldonazzo Lake"- Comune di Pergine, collaboration with Arch. Bertoli and Arch. Marinaccio (2012) (**SPECIAL MENTION**)
- "Degree Thesis Prize" awarded from Sopr. dei Beni Architettonici di Trento (2013)
- "XVI Prize for Architectural Thesis on Old Fortification / Castle" - by IIC - Istituto Italiano dei Castelli (2013) (**SPECIAL MENTION**)
- "Contest – Ruins from the Future" – promoted by abacO (**Participant**)
- "Competition ArCa Baby Little Home 2.0" (2013) (**IV PLACE**)
- "Post-Quake Vision" - Design competition sponsored by the YAC (Young Architects Competitions) for the re-development of the medieval village of Crevalcore, heavily damaged by the earthquake that hit Emilia-Romagna in 2012. (2013) (**Participant**)
- Public presentation of the Thesis "Interaction between modern and ancient: Project of recovery and reuse of the Castel Belfort's ruins" in the theater of Spormaggiore. Participation of citizens and authorities. (2013) (Speaker)
- "Ambiente Euregio Prize" – Trentino Section – (2013) (**PROJECT'S MENTION**)
- Participation in the OP-CALL POSITION (PRIN-Recycle Italy) with the interpretation of the theme "Re-cycle: Known / Innovative" (2014) (publication scheduled for June 21, 2014 – Ed. Arachne) Supervisor Eng. Costantini (**Writer**)
- Participation in the competition for "Thesis on the territory of the BIM Adige", organized by the Consortium of the Province of Trento. (2014) (**Writer**)
- Participation in the "Thesis Prize Aldegheri 2014", organized by CITRAC (Trentino Contemporary Architecture's Club). (2014) (**Publication + Exhibition**)
- Participation in the exhibition organized by DICAM (Department of Civil, Environmental and Mechanical Engineering) in the PRIN research "The Sarca and Hydroelectric Power" in the city of Pavia, Rome, Bolzano and Trento, with the project "Recovery and Reuse Hydroelectric Plant Prabi, Arc. "(2014) (**Publication + Designer**)
- Participation in the "Competition of ideas for the reconstruction of Fanton bivouac on Marmarole (BL)". (2015) (**Designer**)
- Participation in the contest "The shelter on the Tree" promoted by Piemmeti SpA, in partnership with Arca (2015) (**Designer**)
- **Participation in the contest "The Plan Award" sponsored by the magazine THE PLAN (2015) - (Project finalist in the "OLD & NEW" section). Presentation of the project in 2015 hosted the event Perspective MiCo (Milan). (Designer – FINALIST – Online Publication)**  
**<https://www.theplan.it/eng/architettura/progetto-di-recupero-e-riutilizzo-dei-lacerti-murari-di-castel-belfort>**
- Tutor of the research project "SeNECA", promoted by CARITRO Foundation (2015-2017)
- Member of C.U.T.A. (Commissione Urbanistica Territorio Ambiente) for the Municipality of Palù del Fersina (2016)
- Participation in the competition for the redevelopment of the home for the elderly "Giovanni Endrizzi" of Lavis (TRENTO) - (2018) - (as **BIM expert**)
- Conference "Istituto Italiano dei Castelli" (2018) (**Speaker**)  
[http://www.istitutoitalianocastelli.it/images/IIC\\_TNAA\\_8\\_rev02.pdf](http://www.istitutoitalianocastelli.it/images/IIC_TNAA_8_rev02.pdf)
- Speaker within the context of the European Social Fund research project (hereinafter "ESF research project") entitled "Digital and Technology Summer Camp", (2021)
- Speaker with Prof. Dallasega, at the training day, organised by the company MADER at their premises in Bressanone, dedicated to innovation in the construction sector. The event was attended by about 100 technicians (including those present and those connected online). The event has been summarized in an article of the local press. (2021)



## LANGUAGE COMPETENCE

MOTHER TONGUE

**Italian**

OTHER LANGUAGES

**ENGLISH (FIRST CERTIFICATE B2 – CAMBRIDGE ASSESSMENT) (2005)**

**GERMAN (ZERTIFIKAT DEUTSCH B1 – GOETHE INSTITUT) (2004) - I AM CURRENTLY STARTING TO ATTEND AN ONLINE COURSE AT UNIBZ THIS FALL.**

- Reading skills ENGLISH (EXCELLENT) – GERMAN (INTERMEDIATE)
- Writing skills ENGLISH (EXCELLENT) – GERMAN (INTERMEDIATE)
- Verbal skills ENGLISH (EXCELLENT) – GERMAN (INTERMEDIATE)

DRIVING LICENCE(S)

A – B (private car owner)

## ANNEXES

ATTACHED IN THE SUBMISSION'S PORTAL

Data protection code in compliance with art. 13 of Legislative Decree no. 196/2003 "In compliance with the Italian legislative Decree no. 196 dated 30/06/2003, I hereby authorize you to use and process my personal details contained in this document."

I declare, pursuant to art. 76 of Presidential Decree 445/2000, that the information is true. I authorize the processing of my personal data in accordance with Legislative Decree 30 June 2003, n. 196 "Code for the protection of personal data" and the GDPR 679/16 - "European Regulation on the protection of personal data".

DATE

23-07-2024