



Francesco Livio Rossini

ABOUT ME

Francesco Livio Rossini (1988) architect, PhD in engineering-based architecture, is a post-doc researcher and adjunct professor in Construction Site Organisation at Sapienza – University of Rome, and visiting researcher at the University of Grenoble/Alpes. He takes part to research project granted by European Union (LIFE-Primed) and by the Italian Ministry of Culture (PRIN 2017) about the digitalisation of the building process. He also manages as project manager complex construction sites in the domain of cultural heritage, hospitality and worship buildings

WORK EXPERIENCE

[2014 – 2014] **company technical consultant**

Canducci

City: Pesaro | **Country:** Italy

Related scientific product: Villani, T, Rossini, F (2014) Innovazione di processo nell'applicazione del sistema costruttivo in XLam. La progettazione integrata, In LEGNOARCHITETTURA - ISSN:2039-0858 (16), pp.88-94.

[2014 – 2015] **BIM Manager assistant, H&S Coordinator**

<private>

City: Rome | **Country:** Italy

Related scientific product: Trento, A, Fioravanti, A, Rossini, F (2014) Health and Safety by means of a Systemic Approach. Linking Construction Entities and activities for Hazard Prevention, in Fusion, Data integration at its best, proceedings of the XXXII eCAADe conference, Northumbria University, Newcastle Upon Tyne, UK, 10-12 September 2014.

[2014 – 2015] **BIM Manager assistant, H&S Coordinator**

<private>

City: Rome | **Country:** Italy

Related scientific product: Rossini, F, Fioravanti, A, Trento, A (2015) Project Risk Modeling Information and Management framework, in Real Time, extending the Reach of Computation, proceedings of the XXXIII eCAADe conference, TU Wien, Wien, A.

architectural and steel structures designer, director of works, H&S manager.

[2016 – 2016]

Diocesi di Sora-Cassino-Aquino-Pontecorvo, Parrocchia Santa Maria Assunta in Roccasecca (FR)

City: Roccasecca (FR) | **Country:** Italy

Related scientific product: "Metodologie progettuali digitali per l'ottimizzazione, il controllo e la gestione dei processi di realizzazione dell'architettura" (PhD thesis dissertation)

[2016 – 2018] **Project construction manager, BIM consultant, H&S manager**

Fiumicino Airport (Terminal T3), La Rinascente, Hotel Eden, Link Camp University,

City: Rome | **Country:** Italy

[2015 – Current] **BIM consultant, H&S and Project Manager**

Rome Cavalieri Waldorf Astoria

City: Rome | **Country:** Italy

This experience involved Location Based site management techniques application, innovative HVAC systems, risk evaluation and mitigation between construction sites and HoReCa activities.

[2016 – 2016] **architectural and steel structures designer, director of works, H&S manager.**

Segretariato Regionale del MiBACT per il Lazio

City: Roccasecca (FR) | **Country:** Italy

Related scientific product: "Metodologie progettuali digitali per l'ottimizzazione, il controllo e la gestione dei processi di realizzazione dell'architettura" (PhD thesis dissertation)

[2017 – 2020] **BIM and built environment digitalisation scientific reference**

CEFME - CTP di Roma e Provincia

City: Roma | **Country:** Italy

[2017 – 2019] **architectural and steel structures designer, director of works, H&S manager.**

Diocesi di Sora-Cassino-Aquino-Pontecorvo, Parr. S. Giov. Battista in Sant'Angelo in Theodice (FR)

City: Cassino | **Country:** Italy

Related scientific product: Rossini, F (2019) Integrazione tra BIM e Agent-Based simulation per la progettazione esecutiva 4.0, in *TECHNE* (9)18 pp. 282-287.

[2019 – 2021] **H&S management consultant**

Chandler KBS

City: London | **Country:** United Kingdom

[2020 – 2020] **architectural and steel structures designer, director of works, H&S manager.**

Diocesi di Sora-Cassino-Aquino-Pontecorvo, Parrocchia S. Cost. Vesc. e S. Th, Aq. in Aquino (FR)

City: Aquino (FR) | **Country:** Italy

[2020 – 2021] **Project Construction Manager**

Stato della Città del Vaticano - Dicastero per la Comunicazione

City: Città del Vaticano | **Country:** Vatican City

[2021 – 2022] **architectural and structural designer, director of works, H&S manager.**

Diocesi di Sora-Cassino-Aquino-Pontecorvo

City: Cassino (FR) | **Country:** Italy

Related scientific product: Rossini, F (2022) Towards the reactive building process management. BIM and AI techniques to improve time and cost optimisation in

construction sites. in Bauhaus 101. Intercultural dialogue books (Ed. O. Niglio), TAB Edizioni, Roma

[2020 – 2021] **architectural designer, director of works, H&S manager.**

Sapienza - Università di Roma, DICEA Dept.

City: Roma | **Country:** Italy

Related scientific product: Rossini F L, Novembri, G (2023) Construction productivity graph: a comprehensive methodology based on BIM and AI techniques to enhance productivity and safety on construction sites, in TEMA 9:1 (2023), pg. 108-120.

[2022 – 2023] **Integrated designer, BIM & H&S Manager**

Excelsior Hotel Catania

City: Catania (CT) | **Country:** Italy

Related scientific product: - Rossini F, Novembri G (2023) A simulative framework to evaluate constructability through parameter optimization at early design stage, in eWork and eBusiness in Architecture, Engineering and Construction, proceedings of the 14th European Conference on Product and Process Modelling (ECPPM 2022), Trondheim, NO, pg. 141-146.

- Fioravanti A, Novembri G, Rossini, F (2017) Improving Proactive Collaborative Design Through the Integration of BIM and Agent-Based Simulations. In: Shock! Sharing of Computable Knowledge, v.1 Proceedings of the 35th International Conference on Education and Research in Computer Aided Architectural Design in Europe. vol. 1, Bruxelles and Rome: eCAADe and DICEA, Sapienza - Università di Roma, p. 103-108.

- Rossini F, Novembri G, Fioravanti A (2017) BIM and agent-based model integration for construction management optimization. In: 2017 Lean and Computing in Construction Congress (LC3), Proceedings of the 25th Annual Conference of the International Group for Lean Construction (IGLC). vol. 2, parte 1, Heraklion, Crete - GR, p. 111-118

Design checking responsible

RINA check Srl

City: various cities | **Country:** Italy

- Casa della Comunità di Campo San Martino, 15M€ works amount;

- Infrastrutture di supporto necessarie alla gestione della tipologia di autobus ad alimentazione elettrica a batteria per il servizio di trasporto pubblico locale della città di Napoli, 5M€ works amount;

- Lavori di costruzione del Nuovo Ospedale di Siracusa, 115 M€ works amount;

- Casa della Comunità di Campo San Martino, 8M€ works amount;

- Lavori di ristrutturazione del fabbricato Ex Ospedale "Maddalena", 8M€ works amount;

- Città del Ragazzo-Città , Messina. 10M€ works amount;

- Cittadella della giustizia, 7 M€ works amount;

- Realizzazione della nuova sede dell'Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale", 20M€ works amount.

LANGUAGE SKILLS

Mother tongue(s): Italian

Other language(s):

English

LISTENING C1 **READING** C1 **WRITING** C1

SPOKEN PRODUCTION C1 **SPOKEN INTERACTION** C1

French

LISTENING C1 **READING** C1 **WRITING** A2

SPOKEN PRODUCTION B2 **SPOKEN INTERACTION** B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

EDUCATION AND TRAINING

[2007 – 2013]

Degree in Architecture

Sapienza - Università di Roma <https://www.architettura.uniroma1.it/>

City: Rome | **Country:** Italy | | **Level in EQF:** EQF level 8

[2014 – 2018]

PhD in Engineering-based Architecture And Urban Planning

Sapienza - Università di Roma <https://www.uniroma1.it/en/offerta-formativa/dottorato/2023/engineering-based-architecture-and-urban-planning>

City: Rome | **Country:** Italy | | **Level in EQF:** EQF level 8

DIGITAL SKILLS

My Digital Skills

Microsoft Office | AI user | Social Media | Google Drive | BIM | CAD

COMMUNICATION AND INTERPERSONAL SKILLS

Interested in improving my soft skills

Confidence

Negotiation

Empathy

Public speaking and presenting

Visual communication methods

CONFERENCES AND SEMINARS

[2012 – 2012]

"Lux ab Petra: una proposta per il restauro del Santuario rupestre di Sant'Angelo in Asprano".

Roccasecca (FR)

Chair

[2014 – 2014]

eCAADe 2014 Newcastle Upon Tyne (UK)

Speaker

[2015 – 2015]

eCAADe 2015 Wien (A)

Speaker

[2015 – 2015]

ColloquiAT.e. 2015 Bologna (ITA)

Selected speaker

[2016 – 2016]

ISTeA 2016 Naples (ITA)

Speaker

- [2016 – 2016] **ECPPM 2016** Lymassol (CYP)
Speaker and Session Chairman
- [2016 – 2016] **LRCC 2016** Venice (ITA)
Selected speaker
- [2017 – 2017] **eCAADe 2017** Rome (ITA)
Chair assistant
- [2017 – 2017] **IGLC 25-2017 - LC3** Heraklion (GRE)
Selected Poster presenter
- [2017 – 2017] **ISTeA 2017** Florence (ITA)
Speaker
- [2018 – 2018] **PMI Workshop 2018** Rome (ITA)
Speaker
- 2019CCSS** Senigallia (ITA)
International Summer School teacher
- EC3 2019** Chania (GRE)
Selected Poster presenter
- [2019 – 2019] **WIISE 2019 WORKSHOP INCOSE ITALY ON SYSTEMS ENGINEERING** Genova (ITA)
Invited speaker
- [2020 – 2020] **3D Modeling&BIM** Rome (ITA)
Selected speaker
- [2022 – 2022] **SDB 2022** Marinha Grande (POR)
Speaker and Session Chairman.
- [2022 – 2022] **ECPPM 2022** Trondheim (NOR)
Speaker and conference organisation member
- [2023 – 2023] **IGLC 31** Paris (FRA)
Speaker
- [2023 – 2023] **AiDA 2023** Rome (ITA)
Speaker
- [2023 – 2023] **ISTeA 2023** Catania (ITA)
Speaker
- [2023 – 2023] **BIM & Collaborative Modeling** Rieti (ITA)
Invited Speaker

Invited speaker

HONOURS AND AWARDS

[2013]

Degree award "Prima di dare forma alle città di domani dobbiamo formare i giovani d'oggi"

Awarding institution: CEFME - CTP

Winner among architecture and engineering graduated from Sapienza - Università di Roma; Università "Tor Vergata"; Università "Roma Tre".

[2015]

Mention of honour (V classified) "Vision ArTec Context" Awarding institution: PoliMi-Embassy of Brasil

ISTeA best paper award 2024 Awarding institution: ISTEa - Italian Society of Science, Technology and Engineering of Architecture

I classified

NETWORKS AND MEMBERSHIPS

[2015 – Current]

Italian Society of Science, Technology and Engineering for Architecture (ISTeA),
Ancona (ITA)

[2015 – Current]

Società Scientifica di Architettura Tecnica Ar.Tec. Bari (ITA)

PUBLICATIONS

Construction Productivity Graph: an Agile Methodology for the Optimization of Building Construction Process

Rossini F L, (2025-*pre print version). Construction Productivity Graph: an Agile Methodology for the Optimization of Building Construction Process. TAB Edizioni, Roma, ISBN 979 12 5669 022 0

Construction productivity graph: a comprehensive methodology based on BIM and AI techniques to enhance productivity and safety on construction sites

Rossini F L, Novembri, G (2023) Construction productivity graph: a comprehensive methodology based on BIM and AI techniques to enhance productivity and safety on construction sites, in TEMA 9:1 (2023), pg. 108-120.

A simulative framework to evaluate constructability through parameter optimization at early design stage

Rossini F, Novembri G (2023) A simulative framework to evaluate constructability through parameter optimization at early design stage, in eWork and eBusiness in Architecture, Engineering and Construction, proceedings of the 14th European Conference on Product and Process Modelling (ECPM 2022), Trondheim, NOR, pg. 141-146.

Managing uncertainties in construction tendering: a decision theory framework for supporting bidders

Rossini F, Novembri G, De Santis E (2023) Managing uncertainties in construction tendering: a decision theory framework for supporting bidders, in In Transizione: sfide e opportunità per l'ambiente costruito In Transition: challenges and opportunities for the build heritage (Fatiguso F, Fiorito F, De Fino M, Cantatore E Eds), proceedings of the 2023 ArTec conference - ColloquiA.Te., Bari - I, pg. 1773-1785.

Improving sustainability of building operation and maintenance (O&M) process through ontologies: an introductory framework

Rossini F, Novembri G, De Santis E (2023) Improving sustainability of building operation and maintenance (O&M) process through ontologies: an introductory framework, in Sustainable and Digital Building, proceedings of the International Conference, 2022. Springer, Cham - CH.

Towards the reactive building process management. BIM and AI techniques to improve time and cost optimisation in construction sites

Rossini (2022). Towards the reactive building process management. BIM and AI techniques to improve time and cost optimisation in construction sites. TAB Edizioni, Roma - ISBN 978-88-9295-363-5.

Introduction to Proactive Design. Toward the implementation of BIM methodology for managing complexity in architectural projects

Novembri G, Rossini F L, Fioravanti A, Introduction to Proactive Design. Toward the implementation of BIM methodology for managing complexity in architectural projects, in Sustainability and Automation in Smart Constructions. Advances in science, technology & innovation (Rodrigues H, Gaspar F, Ferandes P, Mateus A Eds). Springer, Cham - CH.

Dal documento al modello. Approcci innovativi per la gestione digitale della manutenzione // From sheets to models. Innovative approaches for the facility and maintenance management

Di Ciaccio D, Rossini F L, Maroder E (2020). Dal documento al modello. Approcci innovativi per la gestione digitale della manutenzione // From sheets to models. Innovative approaches for the facility and maintenance management. DN, vol. 1, p.117-127.

Swarm building information modeling. An hybrid agents-actor framework to improve design support systems capabilities.

Novembri G, Rossini F L (2020). Swarm building information modeling. An hybrid agents-actor framework to improve design support systems capabilities. Electronic Journal of Information Technology in Construction, ITcon Vol 25, pg. 398-415.

A theoretical framework to align lean construction techniques in the 4.0 building industry

Fioravanti A, Novembri G, Rossini F L (2018) A theoretical framework to align lean construction techniques in the 4.0 building industry, in IN_BO 09:13.

Integrazione tra BIM e Agent-Based simulation per la progettazione esecutiva 4.0.

Rossini F L (2019). Integrazione tra BIM e Agent-Based simulation per la progettazione esecutiva 4.0. TECHNE, vol. 9, p. 282-287.

AI applications in the building process, in The human dimension of building energy performance

Di Ciaccio A, Rossini F L, Di Ciaccio D, Ambrosio S, AI applications in the building process, in "The human dimension of building energy performance" AICARR Conference, Venice - I.

RECOMMENDATIONS

Name: Daniela D'Alessandro Full Professor-Past Dept. Director

Attachment Ref 01

Email: daniela.dalessandro@uniroma1.it

Name: Andrea Isidori Full Professor

Attachment Ref 02

Email: andrea.isidori@uniroma1.it

Name: Agostina Chiavola Associate Professor-SBE Degree Course President

Attachment Ref 03

Email: agostina.chiavola@uniroma1.it

HOBBIES AND INTERESTS

Sailing, History and Philosophy.

MANAGEMENT AND LEADERSHIP SKILLS

Responsibility and participations on study and researches

Responsible:

(2014/2018) XXX PhD Cycle research about digital construction management, Sapienza - University of Rome <Responsible>;

(2019/2023) Post-Doc research fellowship, Sapienza - University of Rome;

(2021/2022) Visiting research and lecturer, ENSA - Grénoble (FRA);

(2020/2024) "LIFE PRIMED " Restoration, management and valorisation of PRIority habitats of the MEDiterranean coastal areas";

Component:

(2016/2017) Nuove tecnologie per il progetto/gestione di interventi sul riuso del patrimonio edilizio. Caso di studio su edifici storici o del moderno: definizione dell'organismo edilizio in BIM, riuso dell'edificio, conservazione elementi in pietra, organizzazione del cantiere.

(2016/2023) Digital Augmented Architectural Design Group;

(2017/2018) Integrazione Agenti e BIM per la progettazione edilizia e la programmazione del cantiere;

(2018/2019) Modellazione, simulazione e ottimizzazione della progettazione e cantierizzazione edilizia nell'edilizia ospedaliera o storica attraverso metodologie e tecniche di AI, agenti e AR;

(2019/2023) PRIN - Ministry tender 2017 Prot. 2017EY3ESB. TITOLO: A Distributed Digital Collaboration Framework for Small and Medium-Sized Engineering and Construction Enterprises;

(2020/2021) Simulazione e Gestione basate su agenti del processo progettuale per edifici sanitari o aperti al pubblico, in epoca di pandemia;

(2023/ongoing) DIGITALIS - DIGItal Twin per gli heALTHy buILdingS. Sistemi tecnologici e digitali per progettare e realizzare edifici sani per migliorare la salute e la qualità della vita;

(2023/ongoing) Progettazione mediante impiego di metodologie digitali innovative per l'ottimizzazione della produzione edilizia funzionale manutenzione straordinaria per messa in sicurezza dei locali da destinare al repository biologico centralizzazione e primo accesso dei campioni biologici, progetto SINTESI, Azione 2 – Dip. di Eccellenza;

Teaching (English language)

Master's Degree courses:

(2019/ongoing) Construction Site Organisation, 6 CFU;

PhD seminars and lectures;

Master Courses.

**SOCIAL AND POLITICAL
ACTIVITIES**

[2019 – Current] **Knight of the Equestrian Order of the Holy Sepulchre of Jerusalem**

**FINAL AND PRIVACY
STATEMENTS**

Declaration

In accordance with art. 46 and 47 of DPR n. 445/2000 and aware that false statements are punished under the Criminal Code and the Special Laws on the subject, according to the provisions referred to in art. 76 of DPR No. 445/2000 THE CANDIDATE DECLARES that the above information is true.

Privacy statements

I consent to the processing of my personal data pursuant to Dlgs 196 of 30 June 2003 and art. 13 GDPR.

Formia, 15/11/2024

(digitally signed)