

## XAVIER FONT Curriculum Vitae

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Civil engineer experienced in regional planning, site development and structural and bridge design. For the last twenty-five years I've been involved in the design and construction process of more than thirty bridges, half of which have been built under my supervision.

Some of my works have been given prizes by international engineering, architectural and restoration awards, and have been published in several books, magazines and web sites worldwide. I regularly give lectures on engineering at international conferences.

From 2007 on, I have encouraged the teaching of design in engineering education. I was founder and co-director of the postgraduate course and the undergraduate courses on Creative Engineering Design taught at the School of Civil Engineering of Barcelona (UPC) between 2008 and 2012; and from 2012 to 2015 I've been involved in the teaching of capstone design courses.

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### Qualifications

MEng Civil Engineering (1987) Spain  
CEng MICE (2006) UK

### Work history

- **Alfa Polaris S.L.** (January 2007–present). At the beginning of 2007 I started again to work for my own company.
- **MLM Consulting Engineers** (April 2005–December 2006). I worked as a Bridge Designer and Project Manager for this British firm. I designed structures according to the British Codes and applying CDM regulations. I attended in-house Health and Safety and welfare courses as well as Quality Assurance ones. I encouraged use of 3D CAD techniques among my colleagues and employers, and promoted them giving in-house speeches. I was member of the team that carried out detailing documents for a new highway; I was in charge of the design of a major bridge over a mainline railway. I worked as Project Manager of two footbridge design projects for Spanish clients. I negotiated the contract and was the responsible to the clients for these jobs. I led a team of engineers and CAD technicians which provided tender documents, and delivered construction stage documents to a fixed deadline.

- **Alfa Polaris S.L.** (March 1992–March 2005). Alfa Polaris is my own firm, dedicated to bridge and infrastructure design, and urban and regional planning. There I have the responsibility for the obtaining of contracts, the negotiation with customers and the direction of the teams who carry out the work. In the field of civil engineering I have designed bridges, roads, river canalizations, municipal equipment and so on. Most of the projects needed and have received the approval of the Catalan Environmental Agency, and have been designed following sustainable and environmental principles, as well as Health & Safety policy, according to the Spanish Laws. I have worked for the Diputació de Barcelona, the Generalitat de Catalunya, the Barcelona infrastructure agency —BIMSA—, as well as county councils, city councils and private companies of Catalonia. Most of the works that I have designed were constructed afterwards under my supervision. I also worked for the Pla Territorial Metropolità de Barcelona of the Generalitat de Catalunya, which was the regional planning agency of Catalonia. For them, in collaboration with Mcrit, S.L. consulting, I was involved in several studies on the impact of large infrastructures in the metropolitan area of Barcelona, and the planning and preliminary design of two railway stations for new high speed train lines.
- **Vallès Oriental County Council** (September 1989–February 1992). In September 1989 I obtained the position as a Head of the Planning Area in the Vallès Oriental County Council, which I occupied until February 1992.
- **CITRAME** (May 1988–August 1989). I was part of a four engineer team that worked, jointly with the International Commission of the Transport in the Mediterranean (CITRAME) and the Catalan Institute for the Development of the Transport, conducting the study of The Regional Accessibility in the European Mediterranean Countries. This work was ordered by the Regional Development European Centre (CEDRE). For the development of this study I had to work with the regional governments of the studied regions in Spain, France, Italy and the former Yugoslavia.
- **EXCOVER, S.A.** (January 1986–April 1988). I was site engineer responsible for budget control and technical content for various works carried out by the contractor EXCOVER, S.A. During that time we carried out public works for different city councils and the Regional Government of Catalonia.
- **SEIT, S.A.** (April 1985–June 1985). I was in charge of controlling the execution deadlines for manufacture and delivery of Kaplan turbines for two electric power stations, which were carried out by SEIT, S.A. The manufacture of the turbines was done in the workshops of Mecánica de la Peña, in Bilbao, Spain.

<b>Professional Association</b>	<ul style="list-style-type: none"> <li>Member of the <b>Colegio de Ingenieros de Caminos, Canales y Puertos</b> (the Spanish Institution of Civil Engineers) since 1988 with membership no. 9.460.</li> <li>Member of the <b>Institution of Civil Engineers</b> since 2006 with membership no. 63301715.</li> </ul>
<b>Teaching</b>	<ul style="list-style-type: none"> <li>Associated lecturer (2007-2015) at the Universitat Politècnica de Catalunya (UPC) for the undergraduate course on <b>Creative Design for Engineers</b>.</li> <li>Co-director and teacher of the postgraduate course on <b>Creative Design for Engineers</b> (2008) held by the Col·legi d'Enginyers de Camins, Canals i Ports the Catalunya.</li> <li>Visiting Lecturer at the <b>Master on Advanced Architecture</b> (2007-2008), held by the Institut d'Arquitectura Avançada de Catalunya, IAAC.</li> </ul>
<b>Awards</b>	<p>I led the design of the <b>Can Gili Footbridge</b> project, which was given a diploma at the <b>Construmat 2011 Awards</b>.</p> <p>I was awarded for excellence in bridge design by the <b>Water Awards 2008</b> held by the Catalan Association Friends of Water.</p> <p>I was the lead designer of <b>The Restoration of the Pont Trencat</b> project, that received the following awards:</p> <ul style="list-style-type: none"> <li><b>Footbridge 2005 Awards</b> hosted by British magazine <b>Bridge Design&amp;Engineering</b>. Joint Winner category aesthetic, span up to 30 metres.</li> <li><b>Europa Nostra Awards 2006</b>. Medal.</li> <li><b>AR Awards for Emerging Architecture 2006</b>. Highly commended.</li> <li><b>Construmat 2005 Awards</b>. Highly commended.</li> <li><b>Puente de Alcantara Awards 2002-2004</b>. Highly commended.</li> <li><b>Bonaplata Awards 2004</b>. Shortlisted.</li> <li><b>Ciencia en Acción 2006 Awards</b>. Shortlisted.</li> </ul>
<b>Continuing education</b>	<ul style="list-style-type: none"> <li><b>Workshop: Materials for Footbridges – Recent achievements</b> (5 Jul 2011) Wroclaw University of Technology. Wroclaw, Poland (8 hours).</li> <li><b>Workshop: Footbridge Vibration Design: Worldwide Experience</b>. (1 Jul 2008). Fundaçao da Serralves. Porto, Portugal (8 hours).</li> <li><b>Workshop: Dynamic design of footbridges under pedestrian loading</b> (5 December 2005). IUAV Tolentini. Venice. Italy. (8 hours)</li> <li><b>Introduction to LUSAS Finite Element Software</b> (10-12 May 2005). Kingston Upon</li> </ul>

Thames, UK. (20 hours)

- . **Postdegree course on Earthquake Engineering and Structural Dynamics Course.** (October 1999 – July 2000) Fundació Politècnica de Catalunya. (150 hours)
- . **Course on Improving Verbal Communication** (October 1998 – December 1998). Barcelona City Council. Barcelona. Spain. (15 hours)
- . **Course on Strategies for Effective Negotiation** (13 & 20 March 1998). Colegio de Ingenieros de Caminos, Canales y Puertos. Barcelona. Spain. (16 hours)
- . **Postdegree course on Architecture for the Complex Scales.** Universitat Pompeu Fabra de Barcelona (21 January 1994 – 28 Mai 1994). Course directed by Josep Acebillo with Rafael Moneo, Santiago Calatrava, Ricard Borfill, Enric Miralles, Julio Martínez Calzón, Ignacio Paricio, Lluís Clotet, Albert Viaplana and Helio Piñón as invited professors (150 hours)
- . **Constructive Details in Reinforced Concrete Structures.** INEMAC. Barcelona. April 1993.
- . **The Urban Gardening: a Challenge for the Future.** Fundació Narcís Monturiol. Sitges, Spain. 20-21 September 1993. (12 hours)
- . **The Fight for the Territorial Equilibrium.** Fundació Narcís Monturiol. Girona, Spain. 4-6 October, 1989. (15 hours)
- . **The Flooding in the Towns of Catalunya.** Centro de Estudios e Investigación del Agua. Cerdanyola, Spain. 15 September 1989 (7 hours)
- . **Project and Territory.** Fundació Narcís Monturiol. Sitges, Spain. 29 September - 1 October, 1988. (14 hours)

## Lectures and papers at conferences

Lecture **Will hard skills keep on being so important for the future engineers on the upcoming digitized world?** at the **IV International Conference on Structural Engineering Education.** ACHE. Madrid. 20-22 June 2018.

Lecture **Management of constraints to create meaningful places: new footbridge over the river Mogent in Montornès del Vallès, Spain** at the **Footbridge 2017** conference. Technische Universität Berlin. 6-8 September 2017.

Lecture **The design and construction of the Sant Pere de Sacarrera Footbridge** at the following conferences:

- . **37th IABSE Symposium.** Madrid. 3-5 September 2014.
- . **Footbridge 2014.** University College London. 16-18 July 2014.

Lecture on the **Design and construction of the Can Gili Footbridge** was presented by me at the **Footbridge 2011** conference. Wroclaw University of

Technology. Wrocław, Poland. 6-8 July 2011.

I presented the lecture on the **Callús Footbridge over the River Cardener** at the following conferences:

- . **Footbridge 2008.** OTUA – FEUP. Porto. 2-4 July 2008.
- . **Mobilitat Local y Territorio. Las carreteras locales. Innovación en la gestión.** Diputació de Barcelona – Asociación Española de la Carretera. Barcelona 11-13 June 2008.

Poster presentation and paper on the **Joan Camps Footbridge over the River Congost in Granollers** at the **Footbridge 2008** conference. OTUA – FEUP. Porto. 2-4 Jul 2008.

I gave the lecture **The Restoration of the Pont Trencat (Broken Bridge)** at the following conferences:

- . **Foro del Patrimonio Cultural de la Obra Pública.** Colegio de Ingenieros de Caminos Canales y Puertos. Madrid. 21-22 October 2019.
- . **Footbridge 2005.** OTUA – IUAV. Venice. 6-8 December 2005.
- . **2<sup>nd</sup> Conference on Engineering in Catalan Language.** Enginyeria i Cultura Catalana. Andorra. 19-21 November 2004.
- . **Arch'04. 4<sup>th</sup> International Conference on Arch Bridges.** Universitat Politècnica de Catalunya. Barcelona, Spain. 17-19 November 2004.
- . **CEA 2004.** Steel Structures Conference. Universidade da Coruña. A Coruña, Spain. 22-24 September 2004.
- . **Steelbridge 2004. International Symposium on Steel bridges.** OTUA. Millau, France. 23-25 June 2004 (poster presentation).

## Attended Conferences

Apart from the conferences where I've presented papers about some of my designs, I've also attended the following events:

- . Seminar **Form and Aesthetics on Public Works.** Col.legi d'Enginyers de Camins, Canals i Ports. Barcelona. 9<sup>th</sup> November 2007.
- . Seminar **Steel in Architecture. Japan – Spain.** Col.legi d'Arquitectes de Catalunya. 31<sup>st</sup> May – 1 June 2007.
- . **Building Better Bridges 2006.** New Civil Engineer (NCE). London, UK. 13 July 2006.
- . **3rd European Biennial on Landscape.** Col.legi d'Arquitectes de Catalunya. Barcelona, Spain. 27-29 November 2003.
- . **Footbridge 2002. Design and Dynamic Behaviour of Footbridges.** Office Technique pour l'Utilisation de l'Acier (OTUA). Paris, France. 20-22 November 2002.

- . **Fifth International Bridge Engineering Conference.** Transportation Research Board. Tampa, Florida, USA. 3-5 Abril 2000.
- . **II International Seminar on Structural Analysis of Historical Constructions.** E.T.S. Enginyers de Camins, Canals i Ports. Barcelona, Spain. 4-6 November 1998.
- . **Conference on Prestressed Structures and Bridges of the Spanish Association of the Prestressing.** Logroño, Spain. 12-15 November 1996.
- . **International Conference on Composite Bridges. State of the Art of the Technology and the Analysis.** E.T.S. Enginyers de Camins, Canals i Ports. 23-27 November 1992
- . **Cable-Stayed Bridges. Design, Structural Analysis and Constructive Processes.** Civil Engineering European Courses. Madrid. Spain. 30 May - 1 June 1990.
- . **Aesthetics in Civil Engineering.** E.T.S. Enginyers de Camins, Canals i Ports. Barcelona. 4-5 December 1989.

**Complementary  
 Activities**

- . **Roman Bridge Association (1996-2004):** I was one of the founders of this association, whose purpose was to restore a bridge built in the Middle Ages, which suffered the destruction of one of its two arcs in 1811, during the Napoleonic Wars. Its restoration started in 2000 and it was opened to the public in September 2003.
- . **Strategic Planning of Granollers (1998):** I have been Chairman of the Territorial Planning Commission of the Strategic Planning of this city, which has a population of 50.000 and is situated 30 km north of Barcelona.

Sant Vicenç de Montalt, October 2019

## Information about some interesting projects developed by Alfa Polaris

(More information at <http://alfapolaris.net>)

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### Deck replacement of the bridge over the River Cardener in Callús

**Description:** Replacement of the existing 92 metre long concrete deck of the bridge over the River Cardener in Callús by a new *Corten* steel structure

**Cost:** 1.177.000 €

**Client:** Barcelona Province Council

**Dates:** 2011 - 2017

**Scope:** Concept design  
Construction stage document  
Site Supervision



### Montornès footbridge over the River Mogent

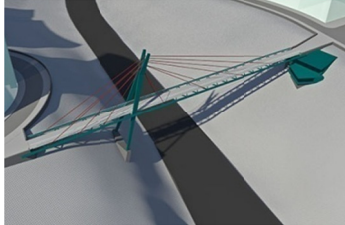
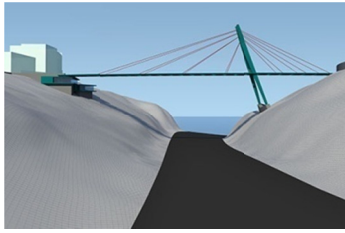
**Description:** New footbridge and approaches comprising a single span 48 metre long *Corten* steel truss girder structure over the River Mogent in Montornès del Vallès

**Cost:** 597.500 €

**Client:** Montornès del Vallès City Council

**Dates:** 2013 - 2015

**Scope:** Concept design  
Construction stage document  
Site Supervision



## Footbridge over the Quebrada de Armendáriz in Lima

**Description:** Cable-stayed steel footbridge over the Quebrada de Armendáriz avenue in Lima (Perú) with a main span of 93 metres

**Client:** Comsa-Emte

**Dates:** 2013

**Scope:** Concept design



## Sant Pere Sacarrera footbridge

**Description:** Corten steel footbridge over the Sant Pere Sacarrera bypass

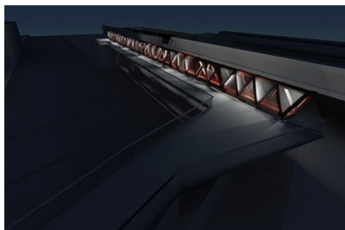
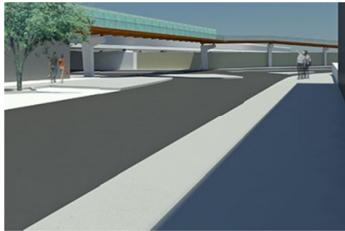
**Cost:** 345.000 €

**Client:** Barcelona Province Council

**Dates:** 2007 - 2011

**Scope:** Concept design  
Construction stage document  
Site Supervision





## Footbridge over the Ronda de Llevant in el Prat de Llobregat

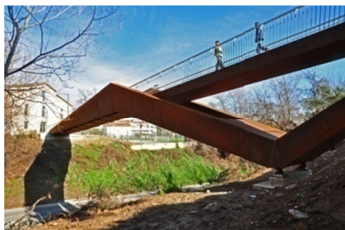
**Description:** New footbridge and approaches comprising a multiple span *Corten* steel truss girder structure over the Ronda de Llevant in el Prat de Llobregat with a main span of 41 metres

**Budget:** 2.276.000 €

**Client:** El Prat de Llobregat City Council

**Dates:** 2008 - 2010

**Scope:** Along with RGA Arquitectes:  
Architectural Design  
Construction stage document



## Can Gili Footbridge in Granollers

### Awards:

**Construmat 2011 Awards:** Diploma in the category Civil Works

**Description:** Corten steel footbridge over the BV-1432 road in Granollers

**Cost:** 574.400 €

**Client:** Granollers City Council

**Dates:** 2001 - 2010

**Scope:** Concept design  
Construction stage document  
Site Supervision



## Footbridge over the River Congost linking Joan Camps street and Arenys street in Granollers

**Description:** New footbridge and approaches comprising a three span 71.5 metre long Corten steel truss deck with a main span of 30 metres

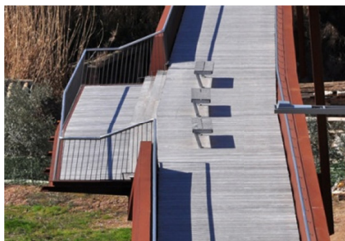
**Employer:** MLM Consulting Engineers and Alfa Polaris S.L.

**Cost:** 642.700 €

**Client:** Granollers City Council

**Dates:** 2005 - 2007

**Scope:** Concept design (Alfa Polaris, S.L.)  
Tender document (MLM Consulting Engineers)  
Construction stage document (MLM Consulting Engineers)  
Site Supervision (Alfa Polaris, S.L.)



## Callús footbridge over the River Cardener

**Description:** New footbridge and approaches comprising a four span 92 metre long Corten steel structure over the River Cardener in Callús

**Employer:** MLM Consulting Engineers and Alfa Polaris S.L.

**Cost:** 1.061.800 €

**Client:** Barcelona Province Council

**Dates:** 2005 - 2008

**Scope:** Concept design (MLM Consulting Engineers)  
Tender document (MLM Consulting Engineers)  
Construction stage document (MLM Consulting Engineers)  
Site Supervision (Alfa Polaris, S.L.)



## Restoration of the Pont Trencat

- **Footbridge 2005 Awards.** Joint winner in the category esthetical, span up to 30 meters.
- **AR Awards for Emerging Architecture 2006.** Highly commended.
- **Europa Nostra 2006 Awards.** Medal.
- **Construmat 2005 Awards.** Highly commended.
- **San Pedro de Alcántara 2002-2004 Awards.** Special Commendation.
- **Ciencia en Acción 2006.** Shortlisted.

**Description:** Restoration of a Middle Ages bridge destroyed during the Napoleonic Wars with a modern Corten steel structure

**Cost:** 920.000 €

**Client:** Sant Celoni City Council

**Dates:** 1998 - 2003

**Scope:** Concept design  
Tender document  
Construction stage document  
Construction supervision



## Parc Firal Footbridge

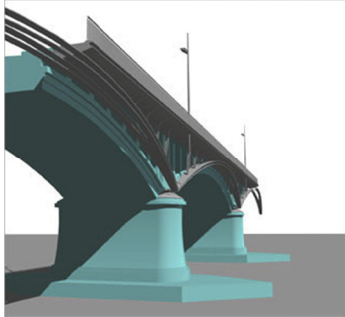
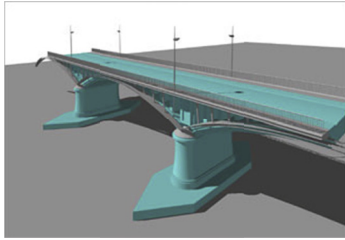
**Description:** Three span 74 metre long Corten and galvanized steel footbridge over the River Congost in Granollers

**Cost:** 300.000 €

**Client:** Granollers City Council

**Dates:** 2001 - 2003

**Scope:** Concept design  
Tender document  
Construction stage document  
Construction supervision



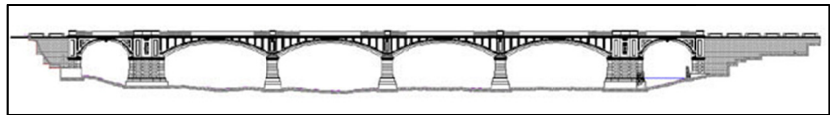
## Roda de Ter Bridge Widening

**Description:** A modern steel structure to widen the deck of a reinforced concrete bridge built in 1931 in Roda de Ter

**Client:** Barcelona Province Council

**Dates:** 1999

**Scope:** Concept Design



## Reguissol Bridge

**Description:** Prestressed concrete bridge over the River Reguissol in Santa Maria de Palautordera

**Cost:** 465.000 €

**Client:** Santa Maria de Palautordera City Council

**Dates:** 1990 - 1996

**Scope:** Concept design  
Tender document  
Construction stage document  
Construction supervision



## Awards and recognitions received by Alfa Polaris and Xavier Font

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**Award:** Footbridge 2005 Awards  
**Organizer:** Bridge Design & Engineering  
**Project:** Pont Trençat Restoration  
**Prize:** Joint winner category aesthetic, span up to 30 metres



**Award:** Europa Nostra Awards 2006  
**Organizer:** Pan-European Federation for Heritage  
**Project:** Pont Trençat Restoration  
**Prize:** Medal



**Award:** AR Awards for Emerging Architecture 2006  
**Organizer:** The Architectural Review  
**Project:** Pont Trençat Restoration  
**Prize:** Highly commended



**Award:** Construmat Awards 2005  
**Organizer:** Fira de Barcelona. Beyond Building Barcelona  
**Project:** Pont Trençat Restoration  
**Prize:** Highly commended



**Award:** Puente de Alcántara Awards 2002-2004  
**Organizer:** Fundación Sant Benito de Alcántara  
**Project:** Pont Trençat Restoration  
**Prize:** Highly commended



**Award:** Construmat Awards 2011  
**Organizer:** Fira de Barcelona. Beyond Building Barcelona  
**Project:** Can Gili Footbridge  
**Prize:** Diploma



**Award:** Water Awards 2008  
**Organizer:** Catalan Association Friends of Water  
**Engineer:** Xavier Font  
**Prize:** Award for excellence in bridge design



**Award:** Premis Ciencia en Acción 2006  
**Organizer:** Fundación Española para la Ciencia y la Tecnología  
**Project:** Pont Trençat Restoration  
**Prize:** Shortlisted



**Award:** Premis Bonaplata 2004  
**Organizer:** Associació del Museu de la Ciència i de la Tècnica i d'Arqueologia Industrial de Catalunya  
**Project:** Pont Trençat Restoration  
**Prize:** Shortlisted