

Curriculum Vitae

Last Name: Mari

First Name: Antonio

Date of Birth: 07 February 1954

Nationality: Spanish

Education/ Professional Studies:

Institution: Technical University of Valencia (UPV), Valencia, Spain

Date From/To: 1971-1976

Degree/ Diploma: Civil Engineer

Institution: Technical University of Catalonia (UPC), Barcelona, Spain

Date From/To: 1977-1981

Degree/ Diploma: Doctor in Civil Engineering

Language skills : (From 1 (notions) to 5 (excellent) for competence)

<u>Language</u>	<u>Speaking</u>	<u>Reading</u>	<u>Writing</u>
English	5	5	5
Spanish	5	5	5
French	3	5	4

Membership of Professional bodies:

Spanish Institution of Civil Engineers (Colegio de Ingenieros de Caminos, Canales y Puertos)

Other Professional bodies:

- Vice-President of the Spanish Association of Structural Concrete (ACHE), 1998-2002
- Member of the European Concrete Committee (fib, Task group TG 4/1 "Serviceability Models")
- Member of the American Society of Civil Engineers, ASCE.
- Member of the American Concrete Institute (ACI)

Other skills:

Antoni Mari Bernat was born in València, Spain in 1954. He earned a Degree in Civil Engineering in 1976 from the Technical University of València (UPV) and a Doctor's Degree in Civil Engineering in 1981 from the Technical University of Catalonia (UPC). In 1976 he began working at UPV as a lecturer teaching a course on Advanced Physics for Engineers. In 1977 he joined the School of Civil Engineering of Barcelona (UPC), teaching reinforced and prestressed concrete structures, first in a temporary post, and as of 1987 with tenure. Since 1989 he has held the post of University Professor of the Department of Construction Engineering.

In the area of research, he has worked on topics relating to concrete structures, including bridges and buildings, and in particular the development of analytical models for simulating the behaviour of these structures and assessing their safety and functionality, and also for designing new types of structures, construction processes and repair systems. In this field he has written three books and numerous scientific and technical articles, many of them in refereed international journals and congresses and has directed and taken part in several research projects funded by public institutions and private firms of national and international scope.

He is a member of the Standing Committee on Concrete of the Ministry of Public Works. Since 1994 has participated actively in the drafting of several Specifications for the design and construction of reinforced and prestressed concrete structures, including the new Specification for Structural Concrete (EHE), legally enforced throughout Spain, from which he is currently the General Reporter. He has made research stays at the University of California at Berkeley (Fullbright Scholar 1982-83 and 1985) and the University of California at San Diego (visiting lecturer, 1993-94). He is an adviser and member of scientific and executive committees of a number of national and international technical associations on structures, Vice-President of the Spanish Association of Structural Concrete, member of the European Concrete Committee (fib, Task group TG 4/1 "Serviceability Models") and member of the American Society of Civil Engineers, ASCE.

In the professional world, he has collaborated in an advisory capacity with government bodies and private companies in the construction industry in the design and construction of unique structures, and in the assessment, strengthening and repair of concrete structures. Currently he is assessing the Catalonia Government in structural design and construction of the tunnel of Line 9 of the Metro of Barcelona. He is currently a member of the Board of Directors of the Technical University of Catalonia, as Officer for the Sustainable Development.

He is member of the international editorial board of the scientific journal Engineering Structures (Elsevier).

Present Position within the organisation:

Professor of Civil Engineering

Officer for the Sustainable Development at UPC

Professional experience Record (relevant to the proposal):

Consultant in over 30 studies on diagnosis, repair and strengthening of buildings and engineering structures.

Consultant in over 20 studies on structural analysis of engineering structures.

Location : Technical University of Catalonia (UPC)

Date: 2005-

Position: Head of CEINTEC (Center for Innovation in Structural and Construction Technology)

Responsibilities: Manager of scientific and organization issues of research center

Date : 1998-2001

Position : Vice-rector of research of Technical University of Catalonia

Responsibilities : Promoter and manager of research at the University

Date : 1997-1998

Position : Head of Department of Construction Engineering

Responsibilities : Director of the Department of Construction Engineering of UPC

Date : 1992-1998

Position : Head of the School of Civil Engineering of Barcelona

Responsibilities : Head of the School of Civil Engineering of UPC

Publications (most relevant in the last five years):

Etxebarria, M., Marí, A.R., Vazquez, E. Recycled aggregate concrete as structural material. *Materials and Structures*, ref. MAAS2153, Accepted for publication, (2006)

Marí, A.R, Di Capua, D. Non-Linear analysis of reinforced concrete cross sections exposed to fire. *Fire Safety Journal*, ref. 1245, Accepted for Publication, (2006)

Molins, C., Marí, A.R. In situ test of the SFRC segmental tunnel lining of the subway L9 in Barcelona. 2nd international fib congress, Naples. (2006)

Bairán, J.M., Marí, A.R. On cyclic 3D shear-Bending coupled loading of RC frame elements using an advanced cross-section model. 2nd international fib congress, Naples. (2006)

Cladera, A., Marí, A.R. Shear design of prestressed and reinforced concrete beams. *Magazine of Concrete Research*. Accepted for Publication, (2006)

Cladera, A., Marí, A.R. Shear design of reinforced and prestressed concrete beams: a proposal for code procedure. *Hormigón y Acero* 240, pp 1-13 (2006)

Molins, C., Aguado, A., Marí, A.R. Quality control test for SFRC to be used in precast segments. *Tunnelling and Underground Space Technology* 21 (4), pp 423-424 (2006)

Roca, P. Molins, C. Marí, A. R. Strength capacity of masonry wall structures by the equivalent frame method. *Journal of Structural Engineering ASCE* 131(10), pp 1601- 1609 (2005)

Cladera, A. Marí, A.R. Experimental study on high-strength concrete beams failing in shear. *Engineering Structures*. 10 (27), pp 1519-1527 (2005)

Astiz, M.A, Marí, A.R, Perepérez, R. Conceptos específicos del proyecto de estructuras en zonas sísmicas. *Hormigón y Acero*. 237, pp 41-60 (2005)

Marí, A.R., Hellesland, J. Lower slenderness limits for rectangular reinforced concrete columns. *Journal of Structural Engineering*, ASCE 131 pp 85-95 (2005).

Cladera, A., Marí, A.R. Shear design procedure for reinforced normal and high-strength concrete beams using artificial neural networks. Part II: Beams with stirrups. *Engineering structures* 26 (7), pp 927-936 (2004).

Cladera, A., Marí, A.R. Shear design for reinforced normal and high-strength concrete beams using artificial neural networks. Part I: beams without stirrups. *Engineering structures* 26 (7), pp 917-926 (2004)

Oller, E., Cobo, D., Marí, A.R. Refuerzo a flexión de vigas de hormigón armado con materiales compuestos: Estudio de la zona de anclaje. *Hormigón y Acero* 232, pp 97-112 (2004)

Cladera, A., Marí, A.R. Cálculo a cortante de vigas de hormigón de alta resistencia. *Hormigón y Acero* 232, pp 29-50 (2004)

Marí, A.R, Cladera, A. Bases de cálculo para el hormigón de alta resistencia. *Hormigón y Acero*, pp 15-38 (2003).

Marí, A.R. Elementos para puente y acueductos. Recomendaciones para el proyecto, Ejecución y Montaje de Elementos Prefabricados, pp 227-268 (2004)

Marí, A.R., Proyecto de estructuras de hormigón basado en sus prestaciones. *Construlink*, 2 pp1-16 (2003)

Marí, A.R., Mirambell, E., Estrada, I. Effects of constructions process and slab prestressing on the serviceability behaviour of composite bridges. *Journal of Constructional Steel Research* 52, pp 52-135 (2002)

Cobo, D., Aparicio, A., Marí, A.R. Preliminary design of prestressed concrete stress ribbon bridge. *Journal of Bridge Engineering*, 6, pp 234-242 (2001)

Marí, A.R., Montaner, J. Continuous precast concrete girder and slab bridges decks. *Journal of Structures and Buildings* 140 (3), pp 140-195 (2000)

Marí, A.R. Numerical simulation of the segmental construction of three dimensional concrete frames. *Engineering Structures* 22, pp 585-596 (2000)

Marí, A.R.. Valdés, M. Long-term behavior of continuos precast concrete girder bridges model. *Journal of Bridge Engineering* 5 (1), pp 22-30 (2000)