



Curriculum Vitae

Vítor Córias e Silva

Born in 1943. Graduated in Civil Engineering at the Technical University of Lisbon in 1968. Specialist in structures by the Portuguese Engineers Society. Worked at the L.N.E.C., Lisbon, then became involved in the design of concrete structures and foundations. Established Stap, in 1980, a contracting firm specialising in structural rehabilitation and strengthening. Established another company, Oz, in 1985, dealing with survey and non-destructive testing for quality control, diagnosis and monitoring of buildings and structures. Both companies have been involved with ancient structures and architectural heritage projects. Within the scope of these two companies, has designed and directed a large number of structural and foundation assessment and repair/strengthening interventions in ancient masonry structures, many of them listed as architectural heritage. Has also directed research programs in the area of structural rehabilitation.

Member of A.C.I., American Concrete Institute, A.P.E.E., Portuguese Society for Structural Engineering, A.S.C.E., American Society of Civil Engineers, A.S.T.M. - American Society for Testing and Materials, of CIB – International Council for Research and Innovation in Building and Construction (member of Committee W086, “Building Pathology”), I.A.B.S.E, International Association for Bridge and Structural Engineering, I.C.R.I., International Concrete Repair Institute. Member of ICOMOS/C.N.P., Portuguese National Committee of the International Council on Monuments and Sites (member of ISCARSAH – International Scientific Committee for the Analysis and Restoration of Structures of Architectural Heritage), and represents Oz, Lda., with CEB-FIB, Federation for Structural Concrete and RILEM, International Union of Testing and Research Laboratories for Materials and Structures.

Participates in meetings both national and international on structural and foundation engineering and on conservation and restoration of the architectural heritage.

Invited lecturer in seminars and post-graduation courses in the area of rehabilitation of concrete and masonry structures, structural inspection and evaluation and non-destructive testing.

Designer and co-designer of various important structures and foundations and rehabilitation interventions.

Author and co-author of several specialised papers on silo design, repair and strengthening of concrete structures, quality control of structural repairs, non-destructive structural testing and rehabilitation of ancient structures. Holds invention patents in the area of structural strengthening.

Relevant published papers
(since 1990)

A) In Portuguese (only the titles have been translated):

Structural rehabilitation of walls of ancient buildings - 2^{as}. Jornadas Portuguesas de Engenharia de Estruturas, Lisboa, 1990

Support to structural modelling by non-destructive methods of bracing walls in "Gaiola" buildings of Lisbon's "Pombaline" downtown - 2^o. ENCORE - Encontro sobre Conservação e Reabilitação de Edifícios - Lisboa, 1994 (co-author)

Use of reinforced concrete in the seismic rehabilitation of masonry buildings. Case of the "Placa" style buildings of Lisbon, 6^o Encontro Nacional sobre Estruturas Pré-Esforçadas, Lisboa, LNEC, Nov. 1996

Seismic vulnerability of "gaioleiro" style buildings in Lisbon and possible retrofitting measures. 3^o. Encontro sobre Sismologia e Engenharia Sísmica. SPES - Sociedade Portuguesa de Engenharia Sísmica. Lisboa, Dezembro de 1997 (co-author).

B) In English:

Strengthening of reinforced concrete structures by external reinforcement - IABSE Symposium - S. Francisco, U.S.A., 1995 (co-author)

Survey and assessment of Portuguese heritage using non-destructive methods, in view of its seismic rehabilitation. Workshop on Seismic Performance of Monuments, LNEC, Lisbon, November 1998 (co-author)

Accounting for the "block effect" in structural interventions in Lisbon's old "Pombaline" downtown buildings. Historical Constructions 2001, University of Minho Guimarães, November, 2001

Preserving "Baixa Pombalina" through low intrusive seismic rehabilitation methods. The COMREHAB project. International Millennium Congress. ICOMOS. UNESCO, Paris, September 2001

Using advanced composites to retrofit Lisbon's old "seismic resistant" timber framed buildings. Technological and technical cultures of European timber construction. Porto, October, 2002

Patents

Author of two invention patents, registered with the Portuguese Institute of Industrial Property:

Patent no.	Designation	Description	Date of award
101914	Anchored connective system	Devices for anchoring bars in the masonry, under controlled pressure and volume, without injection grout loss or contamination of masonry	99-03-17
102256	Strengthening system for masonry walls	Reversible strengthening system for masonry walls consisting of composite material bands and masonry confinement devices, intended mostly for the improvement of the seismic resistance of ancient buildings	99-02-11 a)

Notes: a) Date of registration in Portugal. Request for European patent registration no. 00670005.