

## CURRICULUM VITAE

### I – PERSONAL DATA

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### II – ACADEMIC QUALIFICATIONS

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PhD in Civil Engineering – 05/2009. Thesis entitled: Assessment of dynamic effects in high speed railway bridges with small and medium spans. (Summa cum laude)

MSc in Civil Engineering – 01/1998. Thesis entitled: Modeling and detection of vibrations on pedestrian's bridges.

Degree in Civil Engineering (5 years) – 05/1992, Faculty of Sciences and Technology, University of Coimbra.

### III – PROFESSIONAL EXPERIENCE

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**Invited Auxiliar Professor at University of Coimbra since 9/2009:**

Lecturing in the Master and PhD course of Steel Construction.

Orientation of Master and PhD students.

Participation in scientific projects.

**Professor Adjunct at Polytechnic Institute of Castelo since 3/2001:**

Lecturing in the Master in Sustainable Construction and in the Degree of Civil Engineering.

Coordinator of the Master in Sustainable Construction

Orientation of Master students.

**Invited Assistant at University of Coimbra from 3/2000 to 2/2001:**

Lecturing in the Degree of Civil Engineering.

**Professor Adjunct at Polytechnic Institute of Guarda from 10/1992 to 2/2000**

Lecturing in the Degree of Civil Engineering.

IV – RESEARCH

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**SCIENTIFIC PRODUCTION****International Journals**

1. Rebelo, C., Simões da Silva, L., **Rigueiro, C.**, Pircher, M. Dynamic behaviour of twin single-span ballasted railway viaducts – Field measurements and modal identification, *Engineering Structures*, 30(9), 2460-2469 (2008), doi: 10.1016/j.engstruct.2008.01.023
2. **Constança Rigueiro**, Carlos Rebelo, Luis Simões da Silva, Influence of ballast models in the dynamic response at railway viaducts, *Journal of Sound and Vibration*, Elsevier, Janeiro de 2010, doi:10.1016/j.jvs.2010.02.002.
3. Pedro Barata, João Ribeiro, **Constança Rigueiro**, Aldina Santiago, João Paulo Rodrigues, Assessment of t-stub joint component at ambient and elevated temperatures, submitted on *Fire Safety Journal*, October 2013.
4. João Ribeiro, Aldina Santiago, **Constança Rigueiro** and Milan Veljkovic, Numerical assessment of T-stub component subject to impact loading, submitted on *International Journal of Impact Engineering*, December 2013.

**National Journal**

1. **Rigueiro C.**, Rebelo C., Actions and rules for the Verification of Safety on Pedestrian Bridges, *Estudos em Engenharia Civil*, Vol. 8, nº2, 105-122, 1996. (in Portuguese)
2. Rebelo C.A.S., Simões da Silva L., **Rigueiro M.C.S.**, Gervásio H. “Measurement of vibrations in railway viaducts with medium span”, *Revista Portuguesa de Engenharia de Estruturas*, nº 2 da Série II, pp-35-46, Novembro 2007, LNEC. (honour mention in Ferry Borges award 2008), (in Portuguese)

**International Conferences**

Author and co-author of 27 oral presentations on International Conferences. Here are only presented the last 10:

1. **Rigueiro C.**, Rebelo C., Simões da Silva L., “Influence of track irregularities on the dynamic behaviour of medium spans viaducts”, CC2009: The Twelfth International Conference on Civil, Structural and Environmental, Engineering Computing, Funchal, Madeira, September, 2009.
2. Santos P., Mateus D., Simões da Silva L., Rebelo C., Gervásio H., Correia A., Ferreira H., Santiago A., Murtinho V., **Rigueiro C.**, Affordable houses (Part II): Functional, Structural and Technological performance, ICSA 2010: 1º Conferência Internacional de Estruturas e Arquitectura, Guimarães, 2010.
3. Murtinho V., Correia A., Ferreira H., Simões da Silva L., Rebelo C., Gervásio H., Santiago A., Santos P., Mateus D., **Rigueiro C.**, Affordable houses Architectural concepts of modular

- steel residential house, ICESA 2010: 1<sup>o</sup> Conferência Internacional de Estruturas e Arquitectura, Guimarães, 2010.
4. Barata P., **Rigueiro M.C.**, Santiago A. e Rodrigues J.P., “Characterization of impact scenarios in steel structures”; pp. 242-249, Proceedings of the IABSE Workshop on Safety, Failures and Robustness of Large Structures, Helsinki, Finland, February 2013.
  5. Ribeiro J., Santiago A. e **Rigueiro M.C.**, “Post-impact fire resistance of t-stub joint component: numerical evaluation”; pp. 186-192, International Conference of Action Integrated Fire Engineering and Response - COST ACTION IFER TU0904 - Application of Structural Fire Design, 19-20 April 2013, Prague, Czech Republic.
  6. Ribeiro J. N., **Rigueiro C.**, Santiago A., “Numerical behaviour of t-stub joint component at ambient and elevated temperatures”, in 2<sup>o</sup> CISLACI 2013: Coimbra, 2013.
  7. Ribeiro J. N., **Rigueiro C.**, Santiago A., “Numerical assessment of T-stub component subject to impact loading”, in Congress on Numerical Methods in Engineering 2013, Bilbao, 2013.
  8. **C. Rigueiro**, C. Rebelo, F. Gonçalves, Modal Characterization of the Odemira bridge, 11<sup>th</sup> International Conference on Vibration Problems, ICOVP2013, Lisbon, Portugal, 9-12 September, 2013.
  9. Sérgio Martinho, **Constança Rigueiro**, Ricardo Mateus, Cost/benefit analysis in the implementation of sustainable construction principles in a residential building, Portugal SB13, Contributions of sustainable building for EU-20-20-20 targets, Guimarães, 30 of October to 1 of November, 2013.
  10. Ribeiro, J., Santiago, A., **Rigueiro, C.**, Material modelling of tensile steel component under impulsive loading, XIV Portuguese Conference on Fracture; February 2014.

## **National Conference**

Author and co-author of 10 oral presentations in National Conferences.

## **SCIENTIFIC TEAMS**

### **Co-Supervision of PhD Students**

Development of sustainable communities for Latin America by Jocelyne Reyes Nieto, supervised by Luis Simões da Silva (UC) and Vitor Mutinho (UC), University of Coimbra, started in 2013.

### **Supervision of Master Students**

#### **Finished Master Thesis**

“Cost/benefit analysis in the implementation of sustainable construction principles in a residential building”, by Sérgio Duarte Calado Martinho, Master in Sustainable Construction, co-supervised by Ricardo Mateus (UM), Polytechnic Institute of Castelo Branco.

#### **Master Thesis in Execution**

1. Non-linear behaviour of steel joint under abnormal loading by João Nuno Ribeiro, supervised by Aldina Santiago (UC), University of Coimbra, started in 2012.
2. System Modiko - Sustainability assessment by Dina Gabriela Robalo Barata Pinto, Master in Sustainable Construction, Polytechnic Institute of Castelo Branco, co-supervised by Laertes Mota, Metalusa, started in 2013.
3. Maximizing the sustainability of a building services by Luisa de Fátima de Sousa Pernas Tomás Pires co-supervised by Ricardo Mateus (UM), Master in Sustainable Construction, Polytechnic Institute of Castelo Branco, started in 2013.
4. Dynamic behaviour of offshore platforms by Miguel Ángel Piminchumo Moya supervised by Luis Simões da Silva (UC) University of Coimbra, started in 2014.

## PARTICIPATION ON PROJECTS

**HSR-RISK: Risk Assessment and Management for High-Speed Rail Systems - MPP-TRSYS - RISK** - Risk management of infrastructure implantation and design in relation to environmental factors, to cost and duration of constructions. Promoting Institution(s): MIT (USA); Partner Institutions: University of Coimbra, Portugal; Instituto Superior Técnico, Portugal, University of Porto, Portugal; Period: 01/01/2007 to 28/02/2010; Coordinator ISISE: Luís Simões da Silva.

**AM – “AFFORDABLE HOUSES – Low cost residential houses”**. *Phase 1: Design concept*

Partner Institutions: ArcelorMittal, Luxembourg (coordenador); FCTUC, Portugal; Period: 01/01/2009 to 31/12/2009; Coordinator ISISE: Luís Simões da Silva;

**IMPACT FIRE - Robust Connections for Impact and Fire Loading (PTDC/ECM/110807/2009)**

Partner Institutions: FCTUC, Portugal; Construções Metálicas Socometal, S. A. (Socometal); Luleå University of Technology, Department of Health Sciences (LTU); Period: 01/04/2011 to 31/03/2014; Coordinator ISISE: Aldina Maria da Cruz Santiago.

## INTERVENTION IN SCIENTIFIC AND PROFESSIONAL COMMUNITIES

### Invited Lectures

1. "Avaliação dos efeitos dinâmicos em pontes ferroviárias de alta velocidade de curto e médio vão", Universidad Politécnica de Madrid - Escuela Técnica Superior de Ingenieros de Caminos, Canales y Puertos, Madrid, May of 2009.
2. "Numerical Assessment of the Vibrations in Railway Viaducts", K.U. Leuven (Catholic University Leuven) Department Civil Engineering, Leuven, June of 2010.
3. Comportamento Dinâmico de Pontes Ferroviárias, Conceitos Para o Dimensionamento e Investigação Desenvolvida", University do Estado do Rio de Janeiro, UERJ, Rio de Janeiro, October of 2012.

4. Assessing the Sustainability of Buildings, Polytechnic Institute of Tomar, December of 2013.

## **Academic Juris - PhD and Master Juris**

Member of 5 PhD Juris, in Portugal (University of Porto, University of Coimbra).

Member of 7 Master Juris, in University of Porto, University of Coimbra and Polytechnic Institute of Tomar.

## V – KNOWLEDGE TRANSFER

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### CONSULTANCY AND TESTING

#### **Reports**

1. Rebelo, C., Cunha A., Rigueiro, C., Dynamical tests on the Porto pedestrian bridge, request by EP, December 1996.
2. Rebelo, C., Simões da Silva, L., Rigueiro, C., Gervásio H., Assessment of the dynamical behavior of the several railway bridges in Austria, request by OBB, December 2003.
3. Rebelo, C., Rigueiro, C., Dynamical tests on the Aveiro pedestrian bridge, request by Câmara Municipal de Aveiro, July 2006.
4. Rebelo, C., Pimenta, H., and Rigueiro, C., Dynamical tests on the Guarda pedestrian bridge, request by Câmara Municipal da Guarda, May 2007.
5. ReIT\_30. Rebelo, C., Rigueiro, C., Simões da Silva, L., Evaluation of seismic susceptibility of substations and development of modular acoustic insulation and vibration, Tarefa 1 – objectivo 2: Projecto tipo das ligações de um transformador à sua fundação e projecto da própria fundação, Report request by, EDP – Energias de Portugal S.A., Coimbra, Outubro, 2009.
6. Rebelo, C. and Rigueiro, C., Assessment of the dynamical behavior of the Odemira bridge, request by Teixeira Duarte, May 2010.

## VI – POLYTECHNIC MANAGEMENT

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### PARTICIPATION IN SCIENTIFIC, PEDAGOGIC AND INSTITUTIONAL MANAGEMENT

#### **In the last years has held the following positions within the polytechnic management:**

Vice-Coordinator of the Department of Civil Engineering from March 2011 to March 2014.

Coordinator of the Master in Sustainable Construction since March 2013.

Member of the Pedagogical Council of the ESTCB since 2010.

Member of the Scientific Council of the ESTCB from 2007 to 2010.