SHORT CURRICULUM VITAE

HUGO E. CHARRINHO DA COSTA BISCAIA
Assistant Professor in Structures
Department of Civil Engineering
NOVA University of Lisbon, Portugal
Email: hb@fct.unl.pt

Scopus Author ID: 24168027200; http://www.scopus.com/authid/detail.url?authorId=24168027200
Orcid ID: 0000-0002-4791-5123; http://www.orcid.org/0000-0002-4791-5123
Google Scholar: http://scholar.google.pt/citations?user=sPNCoEQAAAAJ
ResearchGate: https://www.researchgate.net/profile/Hugo_Biscaia?ev=hdr_xprf

Education

2012 Ph.D., Civil Engineering, Structures, FCT, NOVA University of Lisbon, Portugal

2006 M.Sc., Structural Engineering, IST, TECHNICAL University of Lisbon, Portugal

1999 Civil Engineering Degree (5 years), FCT, NOVA University of Lisbon, Portugal

Main Activities and Responsibilities

Teaching experience

Statics; Strength of Materials; Analysis of Structures; Dynamic of Structures; Shells and plates; Strengthening and Rehabilitation of Structures; Construction Materials; Applied Hydraulics.

Areas of interest / Investigation topics

Composite materials; Performance of FRP-to-parent material bonded joints; FRP-to-concrete bonded joints subjected to aggressive environments; Durability of structural materials; Modelling of interface elements; Adhesion between two structural materials.

Selected Publications

Theses

2. Biscaia, HC (2012). *Behaviour and modelling of GFRP-to-concrete interfaces of reinforced concrete elements expose to aggressive environments.* PhD Thesis in Civil Engineering - Structures, NOVA University of Lisbon, November 2012. (In Portuguese)

1. Biscaia, HC (2006). *Debonding between external GFRP reinforcement and concrete structural elements*. MSc Thesis in Structural Engineering, Instituto Superior Técnico, Thecnical University of Lisbon, October 2006. (In Portuguese)

Peer reviewed papers (ISI Journals)
SCOPUS: Citations 101; h-index 6

21. **Biscaia, H.C.**, Silva, M.A.G. and Chastre, C., *Influence of external compressive stresses on the performance of GFRP-to-concrete interfaces subjected to aggressive environments: An experimental analysis.* Journal of Composites for Construction. Accepted

20. **Biscaia, H.C.**, Chastre, C. and Silva, M.A.G., *Bond-slip model for FRP-to-concrete bonded joints under external compression*. Composites part B: Engineering. DOI: 10.1016/j.compositesb.2015.06.004

19. Almeida, G, **Biscaia, HC**, Melicio, F, Chastre, C and Fonseca, JM (2015). *In-Plane Displacement and Strain Image Analysis*. Computer-Aided Civil and Infrastructure Engineering. IF 5.625 (2013), Q1 in "Civil and Structural Engineering" (SCImago). DOI: 10.1111/mice.12127

18. **Biscaia, HC**, Chastre, C and Viegas, A (2015). *A new discrete method to model FRP-to-parent material bonded joints*. Composite Structures, 121:280-295. DOI: http://dx.doi.org/10.1016/j.compstruct.2014.10.036

17. **Biscaia, HC**, Chastre, C, Viegas, A and Franco, N (2015). *Numerical modelling of the effects of elevated service temperatures on the debonding process of FRP-to-concrete bonded joints*. Composites part B: Engineering, 70:64-79. DOI: 10.1016/j.compositesb.2014.10.041

16. **Biscaia, HC**, Micaelo, R, Teixeira, J and Chastre, C (2014). *Numerical Analysis of FRP anchorage zones with variable width*. Composites Part B: Engineering, 67:410-426. DOI: 10.1016/j.compositesb.2014.07.03

15. **Biscaia, HC**, Silva, MAG and Chastre, C (online 2014). *Factors influencing the performance of externally bonded reinforcement systems of GFRP-to-concrete interfaces*. Materials and Structures. IF 1.184 (2012, Q1), Top 5 in "Building and Construction", Q1 in "Civil and Structural Engineering" and "Materials Science (miscellaneous)" (SCImago). DOI: 10.1617/s11527-014-0370-z

14. Silva, MAG, Fonseca, BS and **Biscaia, HC** (2014). *On estimates of durability of FRP based on accelerated tests*. Composite Structures, 116:377-387. DOI: http://dx.doi.org/10.1016/j.compstruct.2014.05.022

13. **Biscaia, HC**, Micaelo, R, Teixeira, J and Chastre, C (2014). *Delamination process analysis of FRP-to-Parent material bonded joints with and without anchorage systems using the Distinct Element Method*. Composite Structures, 116:104-119. DOI: http://dx.doi.org/10.1016/j.compstruct.2014.04.021

12. **Biscaia, HC**, Silva, MAG and Chastre, C (2014). *An experimental study of GFRP-to-concrete interfaces submitted to humidity cycles*. Composite Structures, 110:354-368. DOI: http://dx.doi.org/10.1016/j.compstruct.2013.12.014

11. Larrinaga, P, Chastre, C, **Biscaia, HC** and San-José, JT (2014). *Experimental and numerical modelling of basalt textile reinforced mortar behavior under uniaxial tension*. Materials and Design, 55:66-74. IF 2.913 (2014, Q1), Top 10 in "Industrial and Manufacturing Engineering" (SCImago). DOI: 10.1016/j.matdes.2013.09.050

10. Silva, MAG, Cidade, MT, **Biscaia, HC** and Marreiros, R (2014). *Composites and FRP strengthened beams subjected to dry/wet and salt fog cycles*. Journal of Materials in Civil Engineering (ASCE). Q1 in “Building and Construction”, “Civil and Structural Engineering” and “Materials Science (miscellaneous)” (SCImago). DOI: 10.1061/(ASCE)MT.1943-5533.0001008

9. **Biscaia, HC**, Chastre, C and Silva, MAG (2013). *A smeared crack analysis of reinforced concrete T-beams strengthened with GFRP composites*. Engineering Structures. 56:1346-1361. IF 1.713 (2014, Q1), Top 10 in "Civil and Structural Engineering" (SCImago). DOI: 10.1016/j.engstruct.2013.07.010

8. Silva, MAG, **Biscaia, HC** and Marreiros, R (2013). *Bond-slip on CFRP/GFRP-to-concrete joints subjected to moisture, salt fog and temperature cycles*. Composites Part B: Engineering, 55:374-385. DOI: 10.1016/j.compositesb.2013.06.015

7. **Biscaia, HC**, Chastre, C and Silva, MAG (2013). *Modelling GFRP-to-concrete joints with interface finite elements based on the Mohr-Coulomb failure criterion*. Construction and Building Materials, 47:261-273. IF 2.293 (2014, Q1), Top 10 in "Civil and Structural Engineering" and 3rd in "Building and Construction" (SCImago). DOI: 10.1016/j.conbuildmat.2013.05.020

6. **Biscaia, HC**, Chastre, C and Silva, MAG (2013). *Nonlinear numerical analysis of the debonding failure process of FRP-to-concrete interfaces*. Composites Part B: Engineering, 50:210-223. DOI: 10.1016/j.compositesb.2013.02.013

5. Silva, MAG, **Biscaia, HC** and Chastre, C (2013). *Influence of temperature cycles on bond between GFRP and concrete*. ACI Structural Journal, 110(6):1-11. Top 10 in "Civil and Structural Engineering" and 1st in "Building and Construction" (SCImago). DOI: 10.14359/51686153

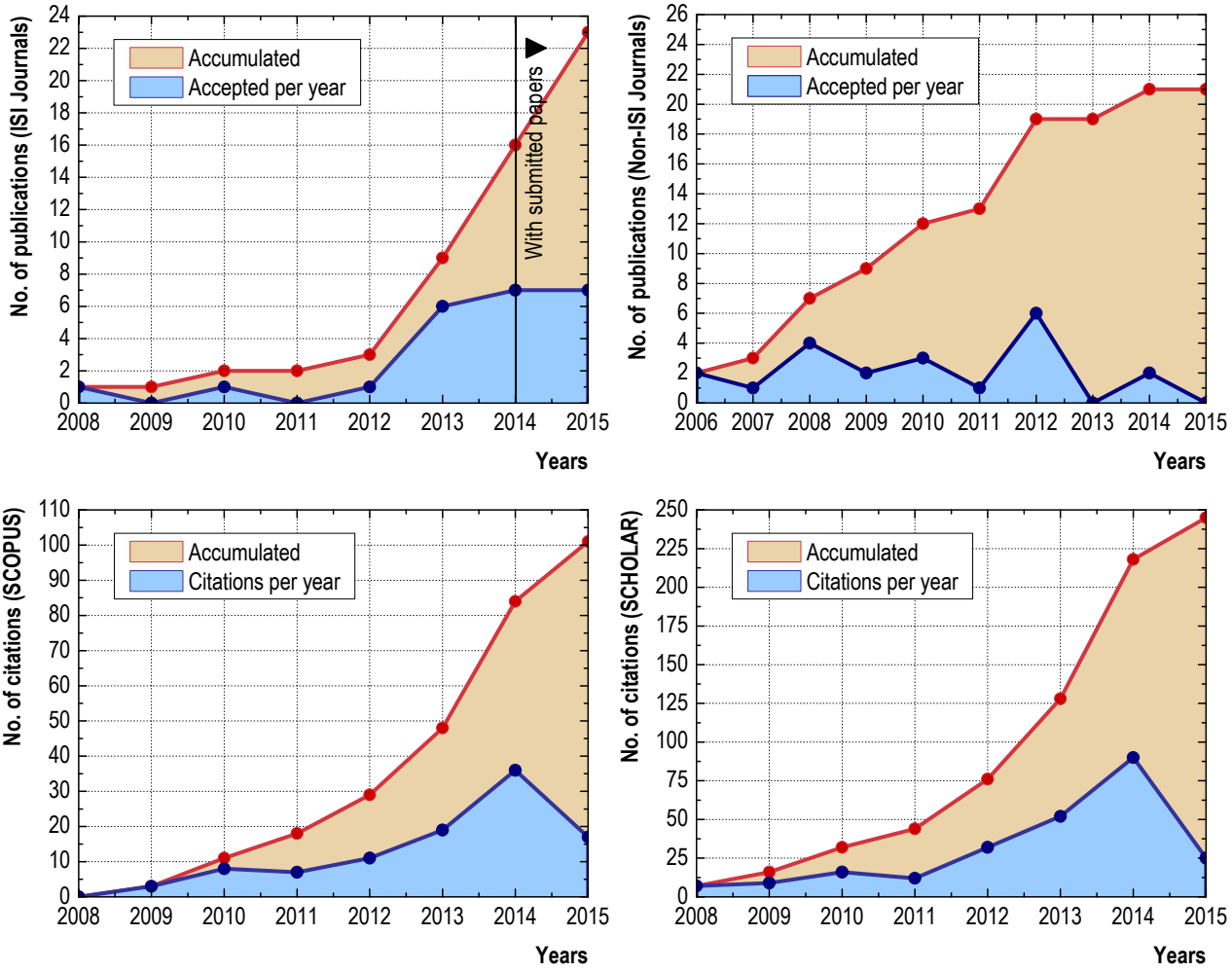
4. **Biscaia, HC**, Chastre, C and Silva, MAG (2013). *Linear and nonlinear analysis of bond-slip models for interfaces between FRP composites and concrete*. Composites Part B: Engineering, 45(1):1554-1568. IF 2.143 (2014, Q1), Top 10 in "Ceramics and Composites" (SCImago). DOI: 10.1016/j.compositesb.2012.08.011

3. **Biscaia, HC**, Chastre, C and Silva, MAG (2012). *Double shear tests to evaluate the bond strength between GFRP/concrete elements*, Composite Structures, 94(2):681-694. DOI: http://dx.doi.org/10.1016/j.compstruct.2011.09.003

2. Silva, MAG and **Biscaia, HC** (2010). *Effects of exposure to saline humidity on bond between GFRP and concrete*, Composite Structures, 93(1):216-224. DOI: http://dx.doi.org/10.1016/j.compstruct.2010.05.018

1. Silva, MAG and **Biscaia, HC** (2008). *Degradation of bond between FRP and RC beams*, Composite Structures, 85(2):164-174. IF 2.231 (2014, Q1), Top 5 in "Civil and Structural Engineering" and Top 5 in "Ceramics and Composites" (SCImago). DOI: http://dx.doi.org/10.1016/j.compstruct.2007.10.014

No of publications and citations:



Patents

1. RRodrigues, CC, Biscaia, H, Franco, N and Monteiro, A (2014*). Sistema de reforço estrutural com armaduras ancoradas internamente por aderência* - PAT 107755. Portuguese Institute of Industrial Property. Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa. Portugal.

   URL: https://www.youtube.com/watch?feature=player_embedded&v=iMd1bDkD5xw

M.Sc. Theses:

As Supervisor:

6. Pedro Nuno Ferreira Ribeiro. *Comportamento da aderência no reforço de estruturas de aço por FRP quando sujeitas a cargas cíclicas e a cargas dinâmicas*. Co-Supervisor: Prof. Doutor Manuel Gonçalves da Silva (DEC/FCT/UNL). In development
5. David Miguel Reis Cruz. *Reforço de elementos estruturais de madeira reforçados com materiais compósitos de matriz polimérica*. Co-Supervisor: Prof. Doutor Carlos Chastre (DEC/FCT/UNL). In development
4. Cinderela Plácido da Silva. *Comportamento de ligações adesivas entre compósitos de FRP e elementos estruturais de aço*. Co-Supervisor: Prof. Doutor Carlos Chastre (DEC/FCT/UNL).

3. Maria Isabel Santos Borba. *Comportamento da ligação CFRP/betão em estruturas de betão armado*. Co-Supervisor: Prof. Doutor Carlos Chastre (DEC/FCT/UNL).
2. André Moreira Viegas. *Modelação de ligações adesivas no reforço de estruturas*. Co-Supervisor: Prof. Doutor Carlos Chastre (DEC/FCT/UNL). URL: http://run.unl.pt/handle/10362/13038
1. João Filipe Nóbrega Teixeira. *Modelação de elementos de betão reforçados com compósitos de FRP recorrendo ao Método de Elementos Discretos*. Co-Supervisor: Prof. Doutor Rui Micaelo (DEC/FCT/UNL). URL: http://run.unl.pt/handle/10362/13009

As Co-supervisor:

6. Miguel Macedo Estêvão. *Utilização de varões de GFRP como armadura em vigas de betão: problemas, modelação e aplicações*. Co-Supervisor: Prof. Doutor Manuel Gonçalves da Silva (DEC/FCT/UNL). In development
5. Gonçalo Simões Viegas. *Comparação do desempenho do reforço por FRP de diferentes elementos estruturais*. Supervisor: Prof. Doutor Manuel Gonçalves da Silva (DEC/FCT/UNL). In development
4. Pedro Nuno Monteiro Martins Frade. *Modelação do efeito da corrosão em pórticos de betão armado*. Co-Orientador: Prof. Doutor Carlos Chastre (DEC/FCT/UNL).
3. Micael Crespo Marcelino. *Modelação do comportamento de pilares de betão armado reforçados com compósitos de FRP*. Co-Orientador: Prof. Doutor Carlos Chastre (DEC/FCT/UNL).
2. António Janes Monteiro. *Reforço à flexão de vigas de betão armado com armaduras pós-instaladas de CFRP*. Supervisor: Prof. Doutor Carlos Chastre (DEC/FCT/UNL).
1. José Maria Parreira Cano Barreira Cortez. *Estudo de modelos de aderência (bond-slip) para vigas de betão armado reforçadas com polímeros reforçados com CFRP*. Supervisor: Prof.a Doutora Ildi Cismasiu (DEC/FCT/UNL). URL: http://run.unl.pt/bitstream/10362/10138/1/Cortez_2013.pdf

Ph.D. Theses:

As Co-supervisor:

1. Noel Isidoro Matos Franco. Reforço à flexão de vigas de betão armado com armaduras pós-instaladas. Supervisor: Prof. Doutor Carlos Chastre (DEC/FCT/UNL). In development