

# Curriculum Vitae

## Filipe José Palhares Chaves

**Birthday**

28 April 1978

**C.C. Citizen Card**

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**Marital Status**

Single

**Nationality**

Portuguese

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[www.filipechaves.com](http://www.filipechaves.com)

## Education

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- 2013 PhD degree in Mechanical Engineering with the thesis «Fracture Mechanics Applied to the Design of Adhesively Bonded Joints» at FEUP in collaboration with Virginia Tech.
- 2006 Concluded the Entrepreneurship second edition course at Escola de Gestão do Porto (EGP), with Good evaluation.
- 2006 MsC degree in Industrial Design, with the thesis “Application of Adhesive Bonding in PVC Windows”.
- 03-04 Concluded the lecturing part of the MSc course in Industrial Design at F.E.U.P. (Faculdade de Engenharia da Universidade do Porto) and ESAD (Escola Superior de Arte e Design) with an overall GPA of 16 (out of 20).
- 96-02 F.E.U.P. - Faculdade de Engenharia da Universidade do Porto Mechanical Engineering Degree, Machine Design Option, with an overall GPA of 13 (out of 20).
- 93-96 Augusto Gomes-Matosinhos High School Graduate 1996, with an overall GPA of 18 (out of 20).  
Editor of D’ARTES magazine at the High School.  
High School Artworks Exhibition Manager.

## Additional Instruction

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- 2005 Initial Pedagogic Training For Formation attended at Edincra - Formação e Serviços, Lda.
- 93-94 Master Course in Graphic Computer Design (AutoCad V.12 and 3D-Studio) attended at Unicenter (GPA: 97%).

## Work Experience

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Lecturer at Instituto Politécnico do Cávado e do Ave teaching Materials and Manufacturing Processes I and II, Computer Assisted Technical Drawing in Industrial Design pregraduate level from 2009 to 2013. Teaching Material Mechanics and Structural Analysis and Manufacturing Processes Simulation in Product Design and Development post-graduate level from 2010 to 2013.

From May 2008 , Manager (CTO) at FORCAN industries, Lda with the design of a general line metallic package production system. Responsible for IT systems. Corporate ID, Brochures and webpage design of [www.forcan-industries.net](http://www.forcan-industries.net)

From December 2008, corporate ID consultant for the company Greenfitnesscenter, Lda. Webpage designer for [www.greenfitnesscenter.net](http://www.greenfitnesscenter.net).

Researcher at IDMEC FEUP since 2006.

Product Design Engineer at Boavida Portugal, Lda until December 2006.

Design of the Concreta 2005 stand for Coprisnor Serviço de Isolamentos Renovação de Edifícios, Lda. Corporate ID and IT consultant for Coprisnor.

Information systems manager at *decafil PVC Caixilharia, Lda.*

Webdesign of the comercial site [www.decafil.pt](http://www.decafil.pt). Developed technical and comercial brochures for PVC windowframe.

## Software knowledge

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Microsoft Windows, Office, Frontpage, CorelDraw, AutoCAD, 3D-Studio, SolidWorks, CosmoWorks, ANSYS, Abaqus V6.11, CATIA V5R12, Rhinoceros, Macromedia Flash, Freehand, Primavera, IDEP Cn8, Socrates, Gestock, PrefGest e PrefCad, Sage FactPlus.

## Special Skills and Aptitudes

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Good knowledge of the english language spoken and written.  
Average knowledge of the french language spoken and written  
Understand Spanish (Galego and Castelhana) and Italian.  
German Language Course (G1) attended at Goethe Institut.

## Meetings and conferences

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- Nov. 13 Oral presentation entitled "Patent illustrations: from arts to engineering " at CONFIA 2013, in Casa da Musica, Porto, Portugal.
- Sep. 13 Oral presentation entitled "Mixed-Mode I+II fracture characterization of bonded joints using a multi-mode apparatus " at the XIV Congreso de Adhesion y Adhesivos, in AIMEN, Vigo, Spain.
- Sep. 13 Oral presentation entitled "Design and development of an adhesive joint testing apparatus for mixed-mode evaluation " at IDEMI 2013 conference , in FEUP, PORTO, Portugal.
- Jul. 13 Oral presentation entitled "Numerical validation of a crack equivalent method for mixed-mode I+II fracture characterization of bonded joints " at AB2013 conference , in FEUP, PORTO, Portugal.
- Jul. 13 Poster entitled "Strength and fracture energy of adhesives for the automotive industry " at AB2013 conference, in FEUP ,PORTO, PORTUGAL.
- Nov.12 Oral presentation entitled "Adhesive joints mixed mode testing analysis" at the first conference Luso-Brasileira de Adesão e Adesivos - CLBA 2012 - in Rio de Janeiro, Brasil.
- Jul.12 Oral presentation entitled "Mixed mode fracture toughness determination using non-conventional techniques" at the first IJSI conference in FEUP, PORTO, Portugal.
- Feb.12 Oral presentation entitled "Fracture toughness as a function of the mode mixity using non-conventional techniques" at 35<sup>th</sup> Annual Meeting of the Adhesion Society, New Orleans, LA, U.S.A..
- Jul.11 Poster presentation entitled "Numerical analysis of the dual actuator load test applied to fracture characterization of bonded joints" at AB2011 conference, in FEUP ,PORTO, PORTUGAL.
- Apr.11 Co-author of the presentation entitled "Influence of the cohesive law parameters on the strength prediction of adhesively-bonded joints" at VI International Materials Symposium Materiais 2011, Guimarães, PORTUGAL.
- Apr.11 Co-author of the presentation entitled 'Feasibility of the extended finite element method for the simulation of composite bonded joints" at VI International Materials Symposium Materiais 2011, Guimarães, PORTUGAL.
- Jul.10 Poster presentation entitled "Determination of the envelopes for mode-mixity evaluation of adhesive systems" at ACE-X 2010 conference, in Paris , FRANÇA.

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- Mar.10 Oral presentation entitled "Determination of the envelopes for mode-mixity evaluation' for adhesively bonded steel" at CIFIE 2010 conference, in FEUP , PORTO, PORTUGAL.
- Fev.10 Poster presentation entitled "Determination of the envelopes for mode-mixity evaluation of adhesively bonded steel" at the 33rd Annual Meeting of the Adhesion Society, in Daytona,Florida, U.S.A..
- Sep.09 Oral presentation entitled "Adhesive Joint Design" at IDEMI 09 conference, at FEUP , PORTO, PORTUGAL.
- Jul.09 Oral presentation entitled "Determination of the envelopes for mode-mixity evaluation' for adhesive systems" at IRF2009 conference, at FEUP , PORTO, PORTUGAL.
- Jun.09 Poster presentation entitled "Determination of the envelopes for mode-mixity evaluation for adhesive systems " at ACE-X2009 conference, in Rome, ITALY.
- Fev.09 Poster presentation entitled "Determination of adhesive fracture parameters for the design of a mixed mode test apparatus " at the 32nd Annual Meeting of the Adhesion Society, in Savannah, GEORGIA. E.U.A..
- Jul.08 Poster presentation entitled "Definition of cohesive parameters in pure modes I and II of adhesive joints" at ACE-X-2008 conference in Barcelona, SPAIN.
- Feb.08 Poster presentation entitled "Fracture mechanics characterization of adhesive joints in mixed-mode loading " at the 31st Annual Meeting of the Adhesion Society, Austin, TEXAS. U.S.A..
- Jul.07 Poster presentation entitled "adhesively bonded T Joints in PVC windows" at ACE-X2007 conference, Alvor, PORTUGAL.
- Feb.07 Oral presentation entitled "Adhesive bonding in PVC windows" at the 30th Annual Meeting of the Adhesion Society, Tampa Bay, FLÓRIDA. U.S.A..
- May 06 Poster presentation entitled "adhesive bonding in PVC windows" at Swissbonding in Rapperswill, SWITZERLAND.

## Papers and publications

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- Dec.13 Mechanical characterization of a high elongation and high toughness epoxy adhesive, International Journal of Adhesion and Adhesives, 2013, Vol. 47, pp. 91–98
- Jul.13 Numerical validation of a crack equivalent method for mixed-mode I + II fracture characterization of bonded joints, Engineering Fracture Mechanics. 2013, Vol. 107, pp. 38–47
- Nov.12 Influence of the Cohesive Law Parameters on the Strength Prediction of Adhesively-Bonded Joints, Materials Science Forum.2013, Vol.730-732, pp. 1000-1005
- Nov.12 Feasibility of the Extended Finite Element Method for the Simulation of Composite Bonded Joints, Materials Science Forum.2013, Vol.730-732 , pp. 513-518
- May 11 Fracture toughness of a structural adhesive under mixed mode loadings, Mat.-wiss. u.Werkstofftech. 2011, 42, No. 5, 460-470
- May 11 Analysis of crack growth behavior in a double cantilever beam adhesive fracture test by different digital image processing techniques, Mat.-wiss. u.Werkstofftech. 2011, 42, No. 5, 452-459

- Mar.11 Numerical analysis of the dual actuator load test applied to fracture characterization of bonded joints, *International Journal of Solids and Structures* 48 (2011) 1572–1578
- Dec.10 eXtended Finite Element Method for fracture characterization of adhesive joints in pure mode I, *Computational Materials Science* 50 (2011) 1543–1549
- May 10 Mode II Fracture Toughness of a Brittle and a Ductile Adhesive as a Function of the Adhesive Thickness, *The Journal of Adhesion*, 86:889–903, 2010
- Jun.08 Adhesively bonded T-joints in polyvinyl chloride windows, *Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications* -V. 222, N. 3 / 2008
- Apr.08 Juntas adesivas em Janelas de PVC, in *Jornal Construir*, n. 122 page 39.
- Nov.07 Juntas adesivas em Janelas de PVC, in *Tecnometal* November / December 2007, pp.15-19.

## Patents

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- Sep.13 Portuguese Patent number 20131000070010 of an «Apparatus and method for characterization of bonded joints mixed-mode I+II fracture»

## Master thesis co-supervising

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- Jul.11 Desenvolvimento de um dispositivo para determinação da tenacidade de adesivos em modo misto, Master Thesis in Mechanical Engineering at FEUP, done by Ruben Fernando Guedes Cardoso.
- Jul.10 Determinação da tenacidade de um adesivo em solicitações de modo misto (I + II), Master Thesis in Mechanical Engineering at FEUP done by Vitor Hugo Carones Esteves.

## Associations

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Founding member elected Fiscal Board secretary of APAA (Portuguese Association of Adhesion and Adhesives) since 2012.

Adhesion Society (U.S.A.) membership since 2007.

## Scientific board

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Member of the scientific board of CLBA 2014 (Conferência Luso-Brasileira de Adesão e Adesivos).

Member of the scientific board of CLBA 2012 (Conferência Luso-Brasileira de Adesão e Adesivos).