

Dr. Cristóbal GONZÁLEZ DÍAZ

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Cristóbal is a Scientific Researcher covering multidisciplinary aspects of Sound and Vibration science, R&D Project Manager, European Proposal's writer and European Commission Expert Evaluator.

Cristóbal graduated in Physics from the [Universidad Autónoma de Madrid](#) in 2002 and received his D.E.A. in Electronic (Master's degree) from the [Université Pierre et Marie Curie](#) and the [Ecole Supérieure de Physique et de Chimie Industrielle de la ville de Paris \(ESPCI\)](#).

In 2007, after 34 months, he received the Ph.D. degree in Sound and Vibration from the [Institute of Sound and Vibration Research \(ISVR\)](#) at the University of Southampton (UK) on Active Structural Acoustic. From 2008 to June 2009 he was a postdoc researcher at the ISVR. Both, PhD and postdoc were sponsored by the **EU FP6 Marie Curie Host Fellowship for Early Stage Research Training (EST)** under the European Doctorate in Sound and Vibration Studies project ([EDSVS](#)).

From June 2009 to October 2010 he was an Associate Academic Staff at [Production Engineering, Machine Design and Automation \(PMA\) Section](#) – Katholieke Universiteit Leuven (KUL) – Belgium sponsored by the **EU FP6 Marie Curie Research Training Network (RTN)** working on the [Smart Structures](#) project (<http://www.smart-structures.eu>).

In November 2010, he joined the Tire Vehicle Mechanics Group - [Goodyear Innovation Center* Luxembourg \(GIC*L\)](#) as Staff Engineer sponsored by the **EU FP7 Marie Curie Industry-Academia Partnerships and Pathways (IAPP) transfer of knowledge programme** working on the TIRE-DYN project (www.tiredyn.org)

Since November 2013, Cristobal is an Experienced Researcher at [The Spanish National Research Council \(CSIC\)](#). To join CSIC, Cristobal wrote an approved **EU FP7 Marie Curie – Intra European Fellowship (IEF) for career development** project: ACOCTIA (<http://www.acoctia.eu>) with a contribution of 168869€.

PERSONAL INFORMATION

Researcher unique identifiers: **ORCID: 0000-0002-8789-9148, Research ID: J-8183-2014**

Date of birth: **25/12/1977**, Nationality: **Spanish**, Sex: **Male**

Family: **Married with one child**

URL for web site: <http://www.acoctia.eu>

LANGUAGE SKILLS

- *English:* Fluent.
- *French:* Fluent.
- *Spanish:* Native.

ACADEMIC ACHIEVEMENTS; MOST IMPORTANT PRIZES WON

- Awarded **two** years [FP7-PEOPLE-2011-IEF-301287](#): Marie Curie: "Intra-European fellowships for career development", [ACOCTIA website](#)
- [SUPERIOR PAPER AWARD](#) For Excellence Of Presentation And Significance OF Content. "The Tire Society", 18/09/2012
- Awarded **two** year [FP7-PEOPLE-2009-IAPP- 251211](#): Marie Curie: Industry-Academia Partnerships and Pathways, [TIRE-DYN website](#)
- Awarded one-year postgraduate scholarship; "Experienced Researcher" "Smart Structures – A Computer Aided Engineering Approach to Smart Structures" ([FP6-2005-MOBILITY-1-35559](#)). [SMART STRUCTURES Website](#)
- Awarded four – years postgraduate scholarship; "Early Stage Training site Marie Curie" programme for the "European Doctorate in Sound and Vibration Studies" ([EDSVS](#)), which was funded by the European Commission ([FP6-2002-MOBILITY-2-503675](#)).
- **European Doctorate in Sound and Vibration Studies (EDSVS)**, 18/12/007

- **Student Commendation**; for an outstanding paper and presentation given at the Institute of Acoustics conference – Spring Conference 2006
- Awarded 9 months to participate in **ERASMUS** student mobility schema 2001/2002.

TEACHING ACTIVITIES

- Seminar in “Effects, Assessment and Control of Environmental Noise.” CSIC, Madrid, Spain.
- During his PhD and Postdoc at the ISVR he taught the “*Active Control of Sound and Vibration short course Lab*”, ISVR, Southampton, UK.
- First Tire-Dyn Workshop: “Experimental characterisation and numerical prediction of the dynamic behaviour of rolling tyre”, KULeuven, Leuven, Belgium.
- Design, development and installation of an “*Active Vibration Control (AVC) demo*” to show to the clients; Airbus, Boeing, Bombardier, Jaguar, Renault, Rolls Royce...2006, Southampton, UK.

ORGANISATION OF SCIENTIFIC MEETINGS

- Organization and coordination the “[First Tire-Dyn public workshop](#)”. Leuven, Belgium, 22/09/2011. (45 participants).
- “*Students Meeting European Universities*”. Representing University of Southampton Prague – Czech Republic, September 2005.

R&D&I MANAGEMENT EXPERIENCE

Writing, supervision and delivery of the reports and deliverables related to EU projects to the European Commission Research Participant Portal (FP7) and SESAM (FP6). Updating their web pages.

- Administration and Task manager of the EU FP7 IEF ACOCTIA
- Participant Contact of the EU FP7 IAPP TIRE-DYN.
- Administration of the European project EU FP6 EDSVS (126 PhD students).

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

“Euro Science-European Association for the Advancement of Science and Technology”

PROFESSIONAL SERVICES

- Cristobal assists the European Commission with its research activities as **Proposal evaluator**: Expert in **Clean Sky2** Call for Partner evaluation. H2020-CS2-CPW03.
- Reviewer in journal publications for *International Journal of Sound and Vibration (JVS)*, *International Journal of Applied Mechanics*, *Noise Control Engineering Journal (NCEJ)*, *American Society of Mechanical Engineers (ASME) Noise Control and Acoustics Division Conference* and *International Journal of Scientia Iranica*.

RESEARCH VISITS – COLLABORATIONS

- **2015** [MED-EL](#): The industry's technology leader in implantable hearing solutions. Research visit.
- **2014** The University of Sydney, Australia. Research visit to do Church Acoustic measurements with [Dr. Densil Cabrera](#).
- **2012** The Goodyear Tire&Rubber Company, Akron, US. Research visit to install a new rig.

RELEVANT ACHIVEMENTS

- During the ERASMUS year (2001-2002), thanks to the outstanding results the PI obtained during the stage and the mature approach to his research, he was **recommended to pursue the following year a Master’s in Electronics** in the same university even though he did not fulfil all the requirements needed at that time. He got excellent marks and an outstanding Stage; he was told he had managed to complete in 6 months more work than the work done by the previous PhD student in 18 months.
- Cristobal successfully **finished his PhD in 34 months** (average 48 months) and he also managed to help his supervisor with the administration duties of a EU project he was coordinating.
- During 3 years of post-doctoral experience in two different European universities, the PI successfully undertook two different projects. The first one in **collaboration with Bombardier** where he implemented the Active Vibration Control (AVC) system he developed during his PhD into a real part of an aircraft; a fuselage section of a *BOMBARDIER Dash-8 Q400*. In the second European University, the PI **designed an acoustic cavity** for vibro-acoustic characterization of lightweight panels ([Gonzalez Diaz et al. 2010](#)).

- Cristobal at Goodyear as **Staff Engineer** got excellent Individual Performance reviews by his manager Jan Leysens: “For the last 2 years he has been hosted as a "experienced researcher" by Goodyear and worked exclusively on the EU project. The **success of the half term review with the EU Commission representative illustrated the thorough work of Cristobal at a technical level.** But Cristobal contributed more than only technical. He integrated well as a full time member of the VM Group in Lux. **His presence and character helped shaping the VM group over the last 2 years.** His positive attitude and dedication motivated also the people around him. Cristobal chose to continue his career in Spain”
- Cristobal **wrote an approved FP7-PEOPLE-2011-IEF - Marie-Curie Action:** "Intra-European fellowships (IEF) for career development" ACOCTIA (<http://www.acoctia.eu>).

ADVANCED TRAINING

- **Structural Dynamic of Rocket Engines Tutorial**, Manchester Grant Hyatt, San Diego, USA, 3 January 2016.
- AIAA SciTech 2016, [AIAA SciTech 2016/54th AIAA Aerospace Sciences Meeting](#), San Diego, California, USA, from 4 to 8 January 2016.
- **“Advanced course in Aeroacoustics”** – ISVR – University of Southampton – UK – 8-12 Septiembre 2014. (40 hours)
- **“DREAMWEAVER CS5 ON LINE”** – Agencia Estatal Consejo Superior de Investigaciones Cientificas (CSIC), 11 June – 16 July 2014, Madrid. (40 hours).
- **“COMSOL Multiphysics”** - Addlink Software Científico , CSIC, Madrid, Spain, 20 January 2014
- **“ISAAC²³; International course on Advance and Numerical Acoustics”**, PMA, Department of Mechanical Engineering, KU.Leuven, Belgium, 20-21 September 2012.
- **Pulse data acquisition & Processing system** - Goodyear Innovation Center Luxembourg (GIC*L), Colmar-Berg, Luxembourg, 20 and 25 June 2012
- **Structural Analysis of Tires II**; 1 September 2011 – 13 December 2011; Mechanical Properties of Rubber, Fibers and Cord: Structure, Properties, Adhesion, Cord-Rubber Composites, FEA Applications to Composites and Tires, Tire and Vehicle Handling, Tire Vibration and Ride, Tire Noise, Tread and Cavity Development; (27 lectures x 1.5 hours). **Final Course grade: A.**
- **3-Days Statistics JMP / DOE Training; “Principles of Experimentation”** Parc Ecologique Hosingen, Luxembourg, 7-9 November 2011
- **LMS Test.Lab Structures** – Modal Testing and Analysis, LMS International, Leuven, Belgium. 26-28 September 2011.
- **“ISMA³⁶ Modal Analysis, Theory and Practice”**, PMA, Department of Mechanical Engineering, KU.Leuven, Belgium, 20-21 September 2011.
- **Structural Analysis of Tires I**; 11 Jan 2011 – 28 March 2011; Basic Mechanics (6 hours) Material Properties (12 hours), Tire Footprint Mechanics (12 hours), Tire Wear (6 hours), Tire Structure, Functions, Durability (10 hours), Compounding and Compound Testing (4 hours), Finite Element Analysis (8 hours) Tire Traction (6 hours), **Final Course grade: A.**
- **VECOM Suppliers Workshop:** Vehicle Concept Modelling in the Automotive Sector. VLEVA Office, Kortenberglaan 71, Brussels June 6-7, 2011
- 10th Anniversary **Conference on Laser Doppler Vibrometer**, Best Western Hotel Ter Elst, Antwerp, Belgium, Thursday, 31 March 2011
- 8th Marie Curie Research Training Network (MCRTN) **Smart Structures Workshop**, Institute of Sound and Vibration Research (ISVR), University of Southampton, Southampton, UK, 25-26 Nov. 2010.
- **“ISAAC²¹; International course on Advance and Numerical Acoustics”**, PMA, Department of Mechanical Engineering, KU.Leuven, Belgium, 23-24 September 2010.
- **Simulation of Pas-By noise of automotive vehicles in the mid-frequency range using Fast MultiPole Boundary Element Method (FMBEM)**, 15th September 2010, LMS, Leuven, Belgium.
- **European Research Council (ERA) Starting Independent Research Grant (StG) Infomeeting**, 8th September 2010, KU. Leuven, Belgium.
- **EADS HQ – 20 – Careers at EADS – ILA Berlin Air Show 2010**, 12th June 2010, Berlin.
- **7th Marie Curie Research Training Network (MCRTN) Smart Structures Workshop**, KTH, Stockholm, Sweden, 10 – 11 June 2010.
- **"Europe 2020 strategy - Innovation insights from European research in socio-economic sciences"** 1st June 2010, Brussels, Belgium European Commission, Berlaymont Building. http://ec.europa.eu/research/social-sciences/events-107_en.html

- Leuven-Materials Research Centre (MRC) Annual Research Meeting, “**Sustainable Materials Innovations**”, 7th May 2010 – Thermotechnisch Instituut, Kateelpark Arenberg 41 – 3001 Heverlee – Belgium.
- **Course on Modelling and Controlling Smart Structures**, Fraunhofer ITWM, Kaiserslautern, Germany, 3 – 5 February 2010
- 6th Marie Curie Research Training Network (MCRTN) **Smart Structures Workshop, Conservatoire National des Arts et Metiers (CNAM)**, Paris, France, 15 – 16 December 2009.
- **Active control of Sound and Vibration** – ISVR – UK – 60 hours – 2006.
- **Fundamental of vibration** – ISVR – UK – 60 hours – 2006.
- **Fundamental of vibration** – ISVR – UK – 60 hours – 2005.

REFERENCES

Prof. Wim Desmet	wim.desmet@mech.kuleuven.be	+32 16 32 25 27
Prof. Steve Elliott	sje@isvr.soton.ac.uk	+44 2380592289
Prof. Paolo Gardonio	paolo.gardonio@uniud.it	+39 0432 558035
Prof. Stéphane Holé	stephane.hole@espci.fr	+33 140794571
Mr. Jan Leyssens	jan.leyssens@goodyear.com	+352 81993663

PUBLICATIONS

Note that Cristobal has excellent research experience, both in **academia and industry** and a strong publication record. He developed his research career by working and collaborating with several research groups worldwide in different research institutions; ESPCI, ISVR, KULeuven, Goodyear and now CSIC, and that he maintains a close collaboration with a large number of researchers in different institutions and countries. Although Cristobal’s work at Goodyear involved an industrial applied project, implying that any publication was focussed on magazines and conferences, Cristobal still managed to submit several articles in peer-review journals.

SCIENTIFIC PUBLICATIONS IN PEER-REVIEWED INTERNATIONAL JOURNALS

- **C. Gonzalez Diaz**, Peter Kindt, Jason Middelberg, Stijn Vercammen, Christophe Thiry, Roland Close and Jan Leyssens, “Dynamic behaviour of rolling tyre: Experimental and Numerical Analyses”. *Journal of Sound and Vibration*, vol. 364 (2016), pp. 147-164.
- Santiago Ortiz, Leo Gonzalez, **Cristobal Gonzalez Diaz**, Peter Svensson and Pedro Cobo, “Acoustic resonances in a 3D open cavity with non-parallel walls”. *Journal of Sound and Vibration* vol. 363 (2016), pp. 181-198.
- Santiago Ortiz, **Cristobal González Díaz**, Pedro Cobo and Francisco Montero de Espinosa. “Attenuating open cavity tones by lining its walls with microperforated panels”. *Noise Control Engr. J.* 62 (3), May-June 2014.
- Peter Kindt, **Cristobal Gonzalez Diaz**, Stijn Vercammen, Christophe Thiry, Jason Middelberg, Bart Kimble and Jan Leyssens, “Effects of Rotation on the Tire Dynamic Behavior: Experimental and Numerical Analyses”, *Tire Science and Technology*, October-December 2013, Vol. 41, No. 4, pp. 248-260.
- Stijn Vercammen, **Cristóbal González Díaz**, Peter Kindt, Jason Middelberg, Christophe Thiry and Jan Leyssens, “Dynamic behaviour of rolling tires under different operating conditions”, *American Society of Mechanical Engineers (ASME 2012)*, Noise Control and Acoustics Division Conference at InterNoise 2012. New York City, USA, 19-22 August, 2012.
- G. Rocca, **C. Gonzalez Diaz**, P. Kindt, J. M. Middelberg, B. Peeters, H. Van Der Auweraer, “Indoor vibration testing for high-frequency modal characterization of tyres” *American Society of Mechanical Engineers (ASME 2011)* International Design Engineering Technical Conferences. Vol 8: 849-859. Washington, DC, USA, August 28–31, 2011.
- P. Gardonio and **C González Díaz** “Downscaling of proof mass electrodynamic actuators for decentralized velocity feedback control on a panel,” *Smart Materials and Structures*, vol. 19, no. 2 2010. **Highlights of 2010; Article selected as a highlight article published in 2010** in *Smart Materials and Structures* to showcase the exciting research across all areas of smart materials, structures and systems.
- P. Gardonio, **C. González Díaz**, N. Alujevic and Y. Aoki, “Experimental tests on smart panels for the reduction of sound radiation”, *The Journal of the Acoustical Society of America* **123**: 3870 (2008).
- **C. González Díaz**, C. Paulitsch, and P. Gardonio, “Active damping control unit using a small scale proof mass electrodynamic actuator,” *Journal of the Acoustical Society of America* **124** (2): 886-897 (2008).

- **C. González Díaz**, C. Paulitsch, and P. Gardonio, "Smart panel with active damping units. Implementation of decentralized control," *Journal of the Acoustical Society of America* **124** (2): 898-910 (2008).
- **C. González Díaz** and P. Gardonio, "Feedback control laws for proof-mass electrodynamic actuators," *Smart Materials and Structures* **16** (5): 1766-1783 (2007).

BOOK CONTRIBUTIONS

- **C. González Díaz** "Introduction to Active Control of Sound Radiation and Transmission" chapter 9 in collaboration with F. J. Fahy and P. Gardonio, in *Sound and structural vibration: radiation, transmission and response*, 2nd ed. London: Academic Press, 2007.

CONFERENCE PROCEEDINGS

- **Cristobal González Díaz**, Santiago Ortiz, Pedro Cobo and Francisco Montero de Espinosa "Atenuación de los tonos acústicos de una cavidad abierta recubriendo sus paredes con paneles microperforados", presented at IX Congreso Iberoamericano de Acústica – FIA2014. Valdivia, Chile. 1-3 December 2014.
- **Cristobal González Díaz**, Santiago Ortiz and Pedro Cobo. "Attenuation of acoustic resonances in an inclined open cavity using Micro Perforated Panels", presented at 43rd International Congress on Noise Control Engineering Internoise 2014. Melbourne, Australia. 16-19 November 2014.
- **Cristobal González Díaz**, Santiago Ortiz, Pedro Cobo and Francisco Montero de Espinosa. "Attenuation of acoustic resonances in an open cavity using Micro Perforated Panels (MPP)". Marie Skłodowska-Curie Conference: ESOF 2014, Copenhagen, Denmark on 19-20 June 2014.
- Vercammen, Stijn; Kindt, Stijn; **Gonzalez Diaz, Cristobal**; and Desmet, Wim "Synopsis of experimental and Numerical Tire dynamic characterization", FISITA 2014; World Automotive Congress, Maastricht, The Netherlands, 2-6 June 2014.
- Stijn Vercammen, Peter Kindt, **Cristobal Gonzalez Diaz** and Wim Desmet, "Analyses on the effects of rolling on the tire dynamics", INTER-NOISE 2013, Innsbruck, Austria, 15-18 September 2013.
- Peter Kindt, **Cristóbal González Díaz**, Stijn Vercammen, Christophe Thiry, Jason Middelberg, Jan Leyssens and Roland Close, "Experimental and Numerical Analyses of the Rotating Tire Dynamic Behavior", AIA-DAGA 2013, Merano, Italy, Conference on Acoustics, 18-21 March 2013.
- Stijn Vercammen and **Cristóbal González Díaz**, "Experimental and Numerical characterization of the dynamic behaviour of a rolling tyre", PEOPLE 2012, Marie Skłodowska-Curie Actions in Horizon 2020, Lefcosia, Cyprus, 5-6 November 2012.
- **Cristóbal González Díaz**, Peter Kindt, Stijn Vercammen, Jason Middelberg, Christophe Thiry and Jan Leyssens, "Numerical prediction of the dynamic behaviour of rolling tires", ISMA2012 International Conference on Noise and Vibration Engineering, Leuven, Belgium, 17-19 September, 2012.
- Stijn Vercammen, **Cristóbal González Díaz**, Peter Kindt, Jason Middelberg, Christophe Thiry and Jan Leyssens, "Experimental characterization of the dynamic behaviour of rolling tires", ISMA2012 International Conference on Noise and Vibration Engineering, Leuven, Belgium, 17-19 September, 2012.
- P. Kindt, **C. Gonzalez Diaz**, S. Vercammen, C. Thiry, J. Middelberg, B. Kimble, J. Leyssens, *Effects of rotation on the tire dynamic behavior: experimental and numerical analyses*, 31st Conference on Tire Science and Technology, Akron, OH, USA, 18-19 Sept. 2012. [SUPERIOR PAPER AWARD](#) For Excellence Of Presentation And Significance OF Content.
- **Cristóbal González Díaz**, Peter Kindt, Stijn Vercammen, Jason Middelberg, Christophe Thiry and Jan Leyssens "Effects of rotation on the tyre dynamic behaviour under different operating conditions", 9th European Conference on Noise Control Euronoise2012, Prague, 10-13 June 2012.
- **C. Gonzalez Diaz**, P. Kindt, J. M. Middelberg, "First Tire-Dyn testing results; Wavenumber plots on a static and rotating tire" First Tire-Dyn public workshop, KU Leuven, Leuven, Belgium, 22 September 2011
- P. Kindt, **C. Gonzalez Diaz**, J. M. Middelberg, B. Pluymers, P. Sas, W. Desmet, G. Rocca, B. Peeters, "Experimental characterisation of the dynamic behaviour of rolling tires for noise and comfort applications" 7th Intelligent Tire Technology Conference. Darmstadt, Germany, 26-28 Sept. 2011.
- G. Rocca, **C. Gonzalez Diaz**, P. Kindt, J. Middelberg, B. Peeters, "Experimental study for high-frequency modal characterization of tires", 18th International Congress on Sound and Vibration (ICSV 18), Rio de Janeiro, Brazil, 10-14 July 2011.
- Rocca G., **Gonzalez Diaz C.**, Middelberg J., Kindt P., Peeters B., "Experimental characterization of the dynamic behaviour of the tires in static and rolling conditions", International Conference on Structural Engineering Dynamics, ICEDyn 2011, Tavira, Portugal 20-22 June 2011.
- **C. Gonzalez Diaz**, M. Vivolo, B. Pluymers, D. Vandepitte, W. Desmet, "Transmission suite design for vibro-acoustic characterization of lightweight panels" ISMA2010 International Conference on Noise and Vibration Engineering, Leuven, Belgium, 20-22 September, 2010.

- **Cristobal Gonzalez Diaz**, “Design and implementation of a transmission suite in order to characterise the vibro-acoustic properties of lightweight materials and structures”, 7th Marie Curie Research Training Network (MCRNTN) Smart Structures Workshop, KTH, Stockholm, Sweden, 10 – 11 June 2010.
- P. Gardonio and **C. Gonzalez Diaz**, “Downscaling of decentralised feedback control units for active vibration control”, ACTIVE 2009, Ottawa, Canada, 20-22 August 2009.
- P. Gardonio, **C. González Díaz**, N. Alujevic and Y. Aoki, “[Experimental tests on smart panels for the reduction of sound radiation](#)”, *Journal of the Acoustical Society of America* **123**: 3870 (2008).
- **C. González Díaz**, C. Paulitsch and P Gardonio, “*Smart panel decentralised actuator active damping units*”, ACTIVE 2006, Sixth International Symposium on Active Noise and Vibration Control, Adelaide, Australia, 18-20 September 2006.
- **C. González Díaz** and P Gardonio, “*Feedback Control Laws for inertial Actuators*” Institute of Acoustics Spring Conference 2006, ISVR, University of Southampton, UK, 3-4 April 2006. **Award for an outstanding paper and presentation given at the Institute of Acoustics conference – Spring Conference 2006 – Futures in Acoustics.**

OTHER REPORTS

- Santiago Ortiz, **Cristobal González Díaz** and Pedro Cobo, "*Acoustic field in a cubic open cavity lined with MPPs*" Environmental Acoustics Group, ITEFI, CSIC, Spain. Technical Report. January 2014.
- **C. González Díaz** and P. Gardonio, "*BOMBARDIER Dash-8 Q400 Fuselage Section with Five Decentralised Velocity Feedback Control Units*" ISVR Technical Memorandum, 2009.
- **C. González Díaz** and P. Gardonio, "Proportional, Integral, Derivative, PID-, PI-, and PD- Velocity Feedback Control with Inertial Actuators." ISVR Technical Memorandum No.956, 2005.
- **C. González Díaz** and A. Barr, “Conception d’une nouvelle électronique de localisation d’une chambre à fils dédiée à la médecine nucléaire”, D.E.A. d’Electronique report, June 2003.
- **C. González Díaz** and S. Holé, “Obturation d’une galette micro-canaux à 20 MHz”, Maîtrise de Physique et Applications report, septembre 2002.

THESIS

- **C. González Díaz**, "Active Structural Acoustic Control Smart Panel with small scale proof mass actuators." PhD Thesis - ISVR, University of Southampton, 2007. <http://eprints.soton.ac.uk/64536/>

OTHER RELEVANTS MERITS

- Computing skills: Windows, Unix (Solaris), Linux (Ubuntu, Red Hat), Mac OS X, Abaqus, Adobe, AutoCAD, Comsol Multyphysics, CorelDraw, Dreamweaver, FrontPage, HTML, Illustrator, Microsoft Office, Nastran, Origin, Patran, PSpice, LMS Virtual Lab, LMS Test.Lab, Fortran90, Matlab, B&K Pulse.

SPECIFIC SKILLS

- General measurement instrumentation and signal processing
- Noise and vibration measurements and analysis (LMS, LMS Test.Lab, B&K Pulse)
- Vehicle NVH testing (laboratory and test track measurements).
- Reviewer in journal publications for International Journal of Applied Mechanics.
- Writing of an approved EU Marie Curie – Intra European Fellowships (IEF) project. Grant Agreement Number 301287 – FP7-PEOPLE-2011-IEF.

CAREER BREAKS: 1/12/2012–01/11/2013→TOTAL DURATION: 11 MONTHS.

The main reason is **personal**; Cristobal after having lived abroad for more than 12 years decided to take a sabbatical year or career break of 11 months. 6 months for travelling, mainly in New Zealand (honey moon) and during the other 5 months he enjoyed and helped his family with the typical agricultural duties of a grain growing farm; harvesting, seeding etc..., While in New Zealand, however, Cristobal had time for networking and visited the Department of Mechanical Engineering in the University of the Auckland ([Prof. Brian Mace](#)) and also the Department of Mechanical Engineering in the University the Canterbury ([Dr. John Pearse](#)) and on his way back to Europe, he visited the Center for Turbulance Research, Department of Mechanical Engineering in Stanford University ([Prof. Sanjiva Lele](#)).