

Curriculum Vitae

Eloísa del Carmen García Canseco

Ph.D. on Automatic Control

Member of the Mexican National System of Researchers (SNI–Level 1)



Office address

Computer Sciences School, Faculty of Sciences,
University of Baja California, Campus Ensenada
Km. 103 Carretera Tijuana-Ensenada
22890 Ensenada, Mexico

☎ +52 (646) 1 74 45 60 ext. 125

✉ eloisagc@ieee.org

🌐 <http://eloisagc.wordpress.com>

Nationality: Mexican

Date of birth: September 9, 1976

Civil status: Married, two daughters

Spoken languages: Spanish (native) , French(fluent), English (fluent), Dutch (intermediate level)

Education

June 2006 **Ph.D. degree, Specialty: Automatic Control** . University of Paris Sud, Orsay, France.

◊ Supported by the Mexican Council of Science and Technology

◊ Mention: «Très Honorable »

June 2001 **Master of Science degree on Electronics and Telecommunications, specialty on Control and Instrumentation (with honors)**. Center for Scientific Research and Education of Ensenada (CICESE), Ensenada, Mexico.

◊ Supported by the Mexican Council of Science and Technology

◊ *Cum laude*. Ranking: Best Graduate Student (average score 94.7%).

September 1999 **Bachelor degree on Electronic Engineering with honors**. Oaxaca Institute of Technology, Mexico.

◊ *Cum laude*. Ranking: Best Undergraduate Student of Electrical Engineering (average score 99%)

Academic/Research Appointments

August 2011- **Assistant Professor**. Computer Sciences School, Faculty of Sciences, University of Baja California, Campus Ensenada (Mexico).

Jan 2009-Dec 2010 **Researcher**. Faculty of Mechanical Engineering, Eindhoven University of Technology (The Netherlands).

Jan 2008-Dec 2008 **Researcher**. Faculty of Mathematics and Natural Sciences, University of Groningen (The Netherlands)

Jul 2006–Dec 2007 **Researcher**. Laboratoire des Signaux et Systèmes (Gif–sur–Yvette, France).

March–August 2002 **Lecturer**. UNITEC University of Technology, Campus Iztapalapa, Mexico.

Research visits

- November 2006 **15 days internship**, Control and Motor Drive Laboratory of Pohang University of Science and Technology (POSTECH), South Korea.
◊ Subject: *Control of fuel cell systems*.
◊ Supported by the French-Korean Project "STAR".
- October 2006 **15 days internship**, Delft University of Technology (The Netherlands) collaboration with Jacquelin M.A. Scherpen and Dimitri Jeltsema.
◊ Subject: *Power-shaping control of physical systems*.
◊ Supported by the French-Dutch Project "Van Gogh".
- March–May, 2004 **3 months internship**, Department of Applied Mathematics of the University of Twente (The Netherlands)
◊ Subject: *Control by Interconnection of port-controlled Hamiltonian Systems*.
◊ Supported by the European Project Geoplex: *Geometric Network Modeling and Control of Complex Physical Systems*.
- Aug–Nov 2001 **4 months internship**, Robotics Laboratory of the Center for Scientific Research and Education of Ensenada (CICESE), Ensenada, Mexico.
◊ Subject: *Pose regulation of robot manipulators by using unit quaternions*.
◊ Supported by CICESE.
- Jul–Aug 1998 **2 months internship**, Telecommunications Department of the Center for Scientific Research and Education of Ensenada (CICESE), Ensenada, Mexico.
◊ Research project: *Study and implementation of a phase estimator for an optical carrier*.
◊ Supported by the Mexican Academy of Science in the context of the "8th Undergraduate Scientific Research Summer Program".

Teaching Experience

Graduate Courses

- Aug 2011 - Jan 2012 "Topics on Assisted Cognition" (*taught in Spanish*), Graduate Program on Sciences and Engineering, University of Baja California, Campus Ensenada.

Undergraduate Courses

- Aug 2011 - Jan 2012 "Discrete Mathematics" (*taught in Spanish*), School of Computer Sciences, University of Baja California, Campus Ensenada, Mexico.
- Aug 2011 - Jan 2012 "Seminar on Research Methodologies" (*taught in Spanish*), School of Computer Sciences, University of Baja California, Campus Ensenada, Mexico.
- Feb - Apr 2004 *Assistant lecturer* of the course "Control of multidomain physical systems via energy-shaping" (*taught in French*), School of Engineering, SUPELEC, Paris, France.
- Feb - Apr 2003 *Assistant lecturer* of the course "Energy-shaping stabilization of dynamical systems" (*taught in French*), School of Engineering, SUPELEC, Paris, France.
- May - Aug 2002 "Analog and Digital Filter Design" (*taught in Spanish*), School of Electronics Engineering, UNITEC University of Technology, Campus Iztapalapa, Mexico.
- May - Aug 2002 "Digital Signal Processing" (*taught in Spanish*), School of Computer Sciences, UNITEC University of Technology, Campus Iztapalapa, Mexico.
- 1994–1999 Summer mathematics courses for undergraduate and high school students in Oaxaca, Mexico.

Student's Supervision

Master thesis supervision (1 year projects)

Marnix Kuindersma, "Dynamic Modeling for Control of a Kinematic Stirling Engine", University of Groningen, Faculty of Mathematics and Natural Sciences, Department of Industrial Engineering and Management. The Netherlands, 13 May 2009.

Alain Ayemlong-Fokem, "Model-based control of a 2-dof haptic gearshift", Eindhoven University of Technology, Faculty of Mechanical Engineering, Control Systems Technology Group. The Netherlands. DCT 2010.025, 24 June 2010.

Participation in Master thesis committees (1 year projects)

Wiebo Kamphuis, "Realization and control of a haptic gear shift device", Eindhoven University of Technology, Faculty of Mechanical Engineering, Control Systems Technology Group. The Netherlands. DCT 2010.033, *Confidential*. 13 July 2010.

Jeroen Wildenbeest, "A task-centered assessment of teleoperation: Improving the quality of haptic feedback yields only a marginal improvement in task performance", Delft University of Technology, The Netherlands, 8 October 2010.

Master Traineeship projects (3 months projects)

Niels Jansen, "Sensor configuration for the teleoperated service robot", Eindhoven University of Technology, Faculty of Mechanical Engineering, Control Systems Technology Group. The Netherlands. December 2010.

Scientific Activities

Participation in research projects

micro-CHP (2008-)	Modeling and control of a wobble yoke Stirling engine for micro combined heat and power generation applications. International collaboration with the University of Groningen. Project funded by the Dutch gas company "Gasunie".
PITON (2009-2013)	Percutaneous instruments tele-operated needles. Joint project with TU Delft, and several dutch companies: TNO, HemoLab, etc.
SenterNovem (2009-2011)	Teleservice robot for the health care sector. Joint project with several dutch companies, for instance, Zuid Zorg, Sioux Embedded Systems, NBG, Van Berlo, Exact Dynamics, etc.
NWO Project (2009-2013)	Persuasive technology, allocation of control and social values. Joint Project with the Human-Technology Interaction group of the Faculty of Innovation Sciences at TU/e.
C-LEVER (2009)	Haptics for Automotive Applications. Project with the dutch automotive company DTI (Drivetrain Innovations) www.dtinnovations.nl .
DIGITEO (2007-2008)	French RTRA Digiteo Project on Software and Complex Systems. ◊ Subject: «Au coeur de la pile à combustible: modélisation non linéaire, commande hybride et stockage d'énergie » ◊ Project partners: Laboratoire de Génie Électrique de Paris (LGEP), Laboratoire des Signaux et Systèmes (L2S) et Laboratoire d'Intégration des Systèmes et des Technologies (CEA-LIST) ◊ <i>Self-written project</i> .
HYCON (2004-2008)	European Project on <i>Hybrid Control: Taming Heterogeneity and Complexity of Networked Embedded Systems</i> (IST-2004-511368). http://www.ist-hycon.org

STAR (2006)	<p>Joint French–Korean Project on Fuel Cells.</p> <p>◊ Project partner: Collaboration with M.Kwang Hee Nam, Pohang University of Science and Technology (POSTECH), South Korea.</p>
VAN GOGH (2005-2006)	<p>Joint Dutch–French Project on Port–based Modeling, Analysis and Control of Physical Systems.</p> <p>◊ Project partner: Collaboration with Jacquelin M.A. Scherpen, University of Groningen, The Netherlands.</p> <p>◊ <i>Self-written project.</i></p>
LAFMAA (2004-2005)	<p>Joint French–Mexican Laboratory of Automatic</p> <p>◊ Research project on Power Factor Compensation and Harmonic Distortion.</p> <p>◊ Project partner: Collaboration with Gerardo Escobar, Institute of Research and Technology of San Luis Potosi (IPICT), Mexico.</p> <p>◊ <i>Self-written project.</i></p>
GEOPLEX (2002-2006)	<p>European Project on <i>Geometric Network Modeling and Control of Complex Physical Systems</i> (IST-2001-34166).</p> <p>◊ Project partner: Collaboration with Arjan van der Schaft, University of Groningen (The Netherlands).</p>

Workshops and Conference Organization

Organization of the Half Day HYCON-NEWCOM Workshop on “Networked Control and Wireless Communications”, September 8, 2006. EECI, Gif-sur-Yvette, France.

Organizer of some seminars for the Control Group in the «Laboratoire des Signaux et Systèmes », Gif-sur-Yvette, France.

Member of the Program Committee of the “First Youth Workshop on Projects of Scientific Divulgarion”, March 28, 1999. Oaxaca, Mexico.

Miscellaneous

–Reviewer for IFAC Automatica, IEEE Transactions on Control Systems Technology, International Journal of System Science, International Journal of Mechatronics, IFAC Mechatronics, IET Control Theory and Applications, American Control Conference, IEEE Conference on Decision and Control, IEEE Multiconference on Systems and Control, IFAC Triennial World Congress, etc.

–Webmaster of HYCON site <http://www.ist-hycon.org>

–HYCON Research project management (author of several proposals and grant requests).

Grants, awards, recognitions and scholarships

Grants

Main author and co–applicant of the French RTRA Digiteo Proposal on Software and Complex Systems.

Subject: *Nonlinear and hybrid modeling and control of fuel cells* «Au coeur de la pile à combustible: modélisation non linéaire, commande hybride et stockage d’énergie ».

Project leaders: dr. Eloísa García–Canseco and dr. Françoise Lamnabhi–Lagarrigue (LSS, Laboratoire des Signaux et Systèmes, France).

Project partners: Laboratoire des Signaux et Systèmes (France), Laboratoire de Génie Électrique de Paris (France) and Laboratoire d’Intégration des Systèmes et des Technologies (France).

Grant sponsored by Digiteo Labs (<http://www.digiteo.fr>). Funding obtained: 45 k€ for the construction of the experimental setup and 3 year PhD scholarship. June 2007.

Co-author and co-applicant of the proposal *Port-based modeling, analysis and control of physical systems*. Sponsored by the Joint Dutch-French VAN GOGH Program. Funded by CNRS (France). Funding obtained: travel grant of 4K€ for research visits. June 2005.

Co-author and co-applicant of the proposal: *Power factor compensation and Harmonic Distortion*. Grant partially sponsored by the LAFMAA «Laboratoire Franco-Mexicain d'Automatique Appliquée» (Joint French-Mexican Laboratory on Automatic Control). Grant partially sponsored by CNRS (French Council of Scientific Research). Funding obtained: 4K€ for research visits. December 2004.

Awards and recognitions

2011-2013	Member of the Mexican National System of Researchers (SNI-Level 1)
2009	Finalist in the Best Poster Award of the Dynamics and Control Technology Group Congress, Faculty of Mechanical Engineering, Eindhoven University of Technology.
2006	Best session presentation, American Control Conference 2006, Minneapolis, USA.
1999	Recipient of the Youth Award "Luis Donaldo Colosio Murrieta" in the area of Outstanding Academic Achievements. Award bestowed by the Oaxaca State Government (Mexico).
1999	Finalist of the Mexican National Youth Award in the area of Outstanding Academic Achievements.
1999	Recipient of the Academic Excellence Award granted by the General Bureau of Technological Institutes. Mexico.
1996	Recognition of the Oaxaca State Government to the best students of Engineering
1994-1999	Member of the Outstanding Engineering Students Team of the Oaxaca Institute of Technology.
1994-1999	Various first prizes in mathematics, physics and chemistry in Regional Competitions (Mexico)
1994	Member of the Mexican National Team of Mathematics that participated in the 1994 Asian-Pacific Mathematical Olympiad.
1993	Ranked 2nd. in the 7th National Mathematical Olympiad. Mexico.
1992	Ranked 3rd. in the 6th National Mathematical Olympiad. Mexico.
1990-1994	Various first prizes in regional mathematics, physics and chemistry contest. Oaxaca (Mexico)
1989	Recipient of the Youth Award "José Vasconcelos" in the area of Outstanding Academic Achievements. Award bestowed by the Oaxaca State Government (Mexico).
1989	Ranked 1st. in the National Contest of Mathematics. Tlaxcala, Mexico.

Scholarships

2005-2006	Mexican Ministry of Education, Graduate Studies Scholarship (Ph.D)
2002-2006	CONACYT Graduate Studies Scholarship (Ph.D). University of Paris Sud, France.
2001	CICESE Research Fellowship
1999-2001	CONACYT Graduate Studies Scholarship (M.Sc.), CICESE, Ensenada, Mexico
1998	Research Fellowship of the Mexican Academy of Science to participate in the "8th Undergraduate Scientific Research Summer Program".
1997-2001	TELMEX Foundation, Mexico.
1996-1997	Scholarship of the Oaxaca State Government to the best students of engineering.
1995-1999	Mexican Ministry of Education (Bachelor school), Oaxaca, Mexico. Merit-based scholarship.
1991-1994	Scholarship of the Oaxaca State Government for outstanding academic achievements. (Senior High School).
1989-1991	Mexican Ministry of Education. (Junior High School). Merit-based scholarship.

Professional Associations

2010–	Affiliate member of the <i>International Federation of Automatic Control (IFAC)</i>
2010–	Member of the <i>IEEE Technical Committee on Haptics</i>
2010–	Member of the <i>Eurohaptics PhD Award Committee</i>
2010–	Member of the <i>Eurohaptics Society</i>
2007–	Member of the <i>Institute of Electrical and Electronic Engineers (IEEE)</i>
2007–2008	Member of the <i>European Embedded Control Institute (EECI)</i>
2001–2006	Student member of the <i>Institute of Electrical and Electronic Engineers (IEEE)</i>
2002–2006	Student Member of the <i>Society for Industrial and Applied Mathematics (SIAM)</i>
1998–1999	Member of the Youth's Association for Science (<i>Asociación Juvenil de Divulgadores de la Ciencia, AJDIC</i>), Mexico.
1983–1987	Mexican Scout Association.

Publications

Peer-reviewed Journal Papers and Book Chapters

- J9– **E. García-Canseco**, A. Alvarez-Aguirre and J.M.A. Scherpen, “[Modeling for control of a kinematic wobble-yoke Stirling engine](#)”, *Submitted*.
- J8– **E. García-Canseco**, A. Ayemlong-Fokem, A. Serrarens and M. Steinbuch, [A haptic gear-shift interface for cars](#), In *Proc. Eurohaptics 2010, Lecture Notes in Computer Science, Part II*, Editors: Asrid Kappers, Jan van Erp, Wouter Bergmann Tiest and Frans van der Helm, vol. LNCS 6192, pp. 315-320. Springer-Verlag 2010.
- J7– **E. García-Canseco**, D. Jeltsema, R. Ortega and J.M.A. Scherpen, “[Power shaping control of physical systems](#)”. *Automatica*. vol. 46, no. 1. pp. 127-132, January 2010.
- J6– **E. García-Canseco**, R. Ortega, R. Pasumathy, A.J. van der Schaft, “[Analysis and Control of Finite-Dimensional Systems](#)”, In *Modeling and Control of Complex Physical Systems: the Port-Hamiltonian Approach*; Editors: The Geoplex Consortium, Springer, 2009.
- J5– F. Castañós, B. Jayawardhana, R. Ortega, and **E. García-Canseco**, “[A class of nonlinear RLC circuits globally stabilizable by proportional plus integral controllers](#)”. *Journal of Circuits, Systems and Signal Processing*, vol. 28, pp. 609-623, April 2009.
- J4– **E. García-Canseco**, R. Ortega, J.M.A. Scherpen and D. Jeltsema, “[Power shaping control of nonlinear systems: A benchmark example](#)”. In *Lagrangian and Hamiltonian Methods for Nonlinear Control 2006*. Lecture Notes in Control and Information Sciences. Editors: F. Bullo and K. Fujimoto, Springer: Berlin/Heidelberg, vol. 366, pp. 135-146. 2007.
- J3– B. Jayawardhana, R. Ortega, **E. García-Canseco** and F. Castañós, “[Passivity of nonlinear incremental systems: Application to PI stabilization of nonlinear RLC circuits](#)”. *Systems and Control Letters*. vol. 56, pp. 618–622, September–October 2007.
- J2– **E. García-Canseco**, R. Griñó, R. Ortega, M. Salich and A. Stankovic, “[Power factor compensation of electrical circuits: A framework for analysis and design in the nonlinear nonsinusoidal case](#)”. *IEEE Control Systems Magazine*, vol. 27, no. 2, pp. 46-59, April 2007.
- J1– R. Ortega and **E. García-Canseco**, “[Interconnection and damping assignment passivity-based control: A survey](#)”. *European Journal of Control*, vol.10, no. 5, pp. 432-450, December 2004.

Non-refereed Journal Papers.

- nrJ1– **E. García-Canseco** and R. Ortega, “[Compensateurs du facteur de puissance pour des charges non linéaires](#)”. *Revue de la Recherche Supélec 2006–2007*.

Peer-reviewed conference proceedings

- C21– A. Alvarez–Aguirre, **E. García–Canseco** and J.M.A. Scherpen, “[Linear dynamics and control of a kinematic wobble–yoke Stirling engine](#)”, *49th IEEE Conference on Decision and Control*. Atlanta, USA. December 15–17, 2010.
- C20– **E. García–Canseco**, A. Ayemlong–Fokem, A. Serrarens and M. Steinbuch, [Haptic simulation of a gear–selector lever using artificial potential fields](#), *11th IFAC/IFIP/IFORS/IEA Symposium on Analysis, Design, and Evaluation of Human-Machine Systems*, Valenciennes, France. August 31–September 3, 2010.
- C19– **E. García–Canseco**, A. Ayemlong–Fokem, A. Serrarens and M. Steinbuch, [A haptic gear–shift interface for cars](#), *Eurohaptics 2010*. Amsterdam, The Netherlands, July 8–10, 2010.
- C18– **E. García–Canseco**, J.M.A. Scherpen and M. Kuindersma, “[Modeling for Control of a Wobble-Yoke Stirling Engine](#)”, *International Symposium on Nonlinear Theory and its Applications*, Sapporo, Japan, October 19–21, 2009.
- C17– **E. García–Canseco**, R. Ortega, J.M.A. Scherpen and D. Jeltsema, “[Power-based control of physical systems: two case studies](#)”. *17th IFAC World Congress*, Seoul, South Korea, July 6–11, 2008.
- C16– F. Castañós, B. Jayawardhana, R. Ortega, and **E. García–Canseco**, “[A Class of Nonlinear RLC Circuits Globally Stabilizable by Proportional plus Integral Controllers](#)”. *17th IFAC World Congress*, Seoul, South Korea, July 6–11, 2008.
- C15– **E. García–Canseco**, R. Ortega, Robert Griñó and Alexander Stankovic, “[Power factor compensation is equivalent to cyclo–dissipation](#)”, *American Control Conference*. New York, USA. July, 2007.
- C14– B. Jayawardhana, R. Ortega, **E. García–Canseco** and F. Castañós, “[Passivity of nonlinear incremental systems: Application to PI stabilization of nonlinear RLC circuits](#)”. *IEEE Conference on Decision and Control*, San Diego, CA, USA, December 12–15, 2006.
- C13– **E. García–Canseco**, R. Ortega, J.M.A. Scherpen and D. Jeltsema, “[Power shaping control of nonlinear systems: A benchmark example](#)”. *3th IFAC Workshop on Lagrangian and Hamiltonian Methods for Nonlinear Control*. Nagoya, Japan. July 19–21, 2006.
- C12– R. Ortega, **E. García–Canseco**, Robert Griñó and Alexander Stankovic, “[A cyclo–dissipativity condition for power factor improvement in electrical circuits](#)”, *American Control Conference*. Minneapolis, Minnesota, USA. June 14–16, 2006.
- C11– **E. García–Canseco**, Robert Griñó, Romeo Ortega, Miguel Salichs and Alexander Stankovic, “[A Cyclo–dissipativity framework for power factor compensation of electrical circuits](#)”. *International Symposium on Nonlinear Theory and its Applications (NOLTA)*, Bruges, Belgium. October 18–21, 2005.
- C10– **E. García–Canseco**, R. Griñó, R. Ortega, M. Salich and A. Stankovic, “[Power factor compensation of electrical circuits: A control theory viewpoint](#)”. *Mexican Control Conference*, Cuernavaca, Morelos, México, October 19–21, 2005.
- C9– **E. García–Canseco**, R. Pasumarthy, A.J. van der Schaft and R. Ortega, “[On control by interconnection of port-controlled Hamiltonian systems](#)”, *Proc. 16th IFAC World Congress*, Prague, Czech Republic, July 4–8, 2005.
- C8– D. Jeltsema, **E. García–Canseco**, R. Ortega and J.M.A. Scherpen, “[Towards a regulation procedure for instantaneous reactive power](#)”, *Proc. 16th IFAC World Congress*, Prague, Czech Republic, July 4–8, 2005.
- C7– R. Ortega and **E. García–Canseco**, “[Interconnection and damping assignment passivity–based control: Towards a constructive procedure-Part I](#)”, *Proc. IEEE Conference on Decision and Control*, Atlantis, Paradise Island, Bahamas, December 14–17, 2004.
- C6– **E. García–Canseco**, A. Astolfi and R. Ortega, “[Interconnection and damping assignment passivity-based control: Towards a constructive procedure-Part II](#)”, *Proc. IEEE Conference on Decision and Control*, Atlantis, Paradise Island, Bahamas, December 14–17, 2004.
- C5– **E. García–Canseco**, D. Jeltsema, R. Ortega and J.M.A. Scherpen, “[Characterizing inductive and capacitive nonlinear RLC circuits: A passivity test](#)”, *Proc. IFAC Symposium on Systems, Structure and Control*, Oaxaca, México, December 8–10, 2004.
- C4– **E. García–Canseco** and R. Ortega, “[A new passivity property of linear RLC circuits with application to power shaping stabilization](#)”, *Proc. American Control Conference*, Boston, USA, June 30–July 2, 2004.
- C3– R. Kelly and **E. García–Canseco**, “[On transpose Jacobian-based regulators using unit quaternions: an energy shaping approach](#)”, *Proc. 15th IFAC World Congress*, Barcelona, Spain. July 16–21, 2002.
- C2– **E. García–Canseco** and R. Kelly, “[Experimental evaluation of task-space regulators using unit quaternions on a direct-drive spherical wrist](#)”, *Proc. IEEE Int. Conference on Robotics and Automation*, Washington, D.C. USA, May 2002, pp. 4281–4286.
- C1– R. Campa, R. Kelly and **E. García–Canseco**, “[On stability of the resolved acceleration control](#)”, *IEEE Int. Conference on Robotics and Automation*, Seoul, Korea, May 21–26, 2001.

Non-refereed conference proceedings

- nrC4– C. López, J. Nieuwenhuijsen, **E. García–Canseco**, R. van de Molengraft, and M. Steinbuch, [Teleoperation of a Robotic Steerable Needle for Percutaneous Interventions](#), in *30th Benelux Meeting on Systems and Control*, Lommel, Belgium, March 15-17, 2011.
- nrC3– **E. García–Canseco**, A. Ayemlong–Fokem, M. Steinbuch and A. Serrarens, [The C–Lever Project: Haptics for Automotive Applications](#), in *29th Benelux Meeting on Systems and Control*, Heeze, The Netherlands, March 30–April 1, 2010.
- nrC2– M. Kuindersma, **E. García–Canseco** and J.M.A. Scherpen, [“Modeling and Control of a Wobble Yoke Stirling Engine: Application to a Micro-Cogeneration System”](#), in *28th Benelux Meeting on Systems and Control*, Spa, Belgium, 2009.
- nrC1– **E. García–Canseco**, J.M.A. Scherpen, R. Ortega and D. Jeltsema, [“Power-based control of physical systems”](#), in *27th Benelux Meeting on Systems and Control*, Heeze, The Netherlands, 2008.

Thesis:

- T2– **E. García–Canseco**. [“Dissipativity–based control of nonlinear systems: application to stabilization and power factor compensation of electrical systems”](#) (in english, summary in french). PhD Thesis. Université de Paris XI, Orsay, France. June 2006.
- T1– **E. García–Canseco**. [“Pose regulation of robotic manipulators using unit quaternions”](#) (in spanish). M.Sc. Thesis. CICESE, Ensenada, Mexico. June 2001.

Miscellaneous:

- M2– R. Ortega and **E. García–Canseco**. [“Control of multidomain physical systems via energy–shaping”](#). SUPELEC, Lecture notes 01225/..#2004.
- M1– R. Ortega and **E. García–Canseco**. [“Energy–shaping stabilization of dynamical systems”](#). SUPELEC, Lecture notes 01225/..#2003.

Invited Talks

- * **E. García–Canseco**, [“Modelado y control de una máquina Stirling de cuatro cilindros”](#), Centro de Investigación en Computación, Instituto Politécnico Nacional, Marzo 25, 2011.
- * **E. García–Canseco**, [“Modeling for control of a wobble–yoke stirling engine”](#). *International Symposium on Nonlinear Theory and its Applications*. Sapporo, Japan, October 19-21, 2009.
- * **E. García–Canseco**, [“Power Factor Compensation of Electrical Circuits: A framework for analysis and design in the nonlinear nonsinusoidal case”](#), Seoul National University and Pohang University of Science and Technology, South Korea, November 2006.
- * **E. García–Canseco**, [“Power Factor Compensation of Electrical Circuits A Control Theory Viewpoint”](#), Laboratoire des Signaux et Systèmes, Gif-sur-Yvette, France. September 2005.
- * **E. García–Canseco**, [“New passivity properties of RLC circuits with application to Power Shaping Stabilization”](#), University of Twente, The Netherlands, May 2004.