

Activity report

Romeo Ortega

IEEE Fellow (1999), Life (2020) IFAC Fellow (2016)

Departamento de Ingenieria Eléctrica y Electronica

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<http://scholar.google.nl/citations?user=1jf5n5wAAAAJ>

<https://research.com/u/romeo-ortega>

February 25, 2025

Work Experience

- May 1974 - October 1976, Assistant Professor, UNAM, Mexico.
- November 1976 - January 1979, Masters Student at Leningrad Polytechnical Institute, USSR, with scholarship from USSR.
- February 1979 - September 1980, Assistant Professor, CIEA, Instituto Politécnico Nacional, Mexico.
- October 1980 - October 1981, Associate Researcher UNAM, Mexico.
- November 1981 - December 1984, PhD student at Laboratoire dAutomatique de Grenoble, France, with scholarship from UNAM.
- January 1985 - August 1987 and July 1988 - August 1990, Researcher, UNAM, Mexico.
- September 1987 - June 1988, Visiting Professor, University of Illinois, Champaign-Urbana, USA.
- September 1990 - June 1991, Research Fellow of Japan Society for Promotion of Science, Tokyo, Japan.
- July 1991 - April 1992, Visiting Professor, McGill University, Montreal, Canada
- May 1992 - November 1996, Chargé de Recherche CNRS 1ere class, HEUDIASYC, Compiègne, France.
- December 1996 - September 2010, Directeur de Recherche CNRS 2eme class, Laboratoire des Signaux and Systèmes, Gif-sur-Yvette, France.
- October 2010 - July 2020, Directeur de Recherche CNRS 1eme class, Laboratoire des Signaux and Systèmes, Gif-sur-Yvette, France.

- August 2020 - to date, Full Time Professor, Departamento de Ingeniería Eléctrica y Electrónica, ITAM, México.

Education

- Docteur d'Etat es Sciences, (Mention tres honorable and félicitations du jury), Institut National Polytechnique de Grenoble, France, November 1984
Title : Sur la robustesse de la adaptive control
Director : Professor Y.D. Landau.
- Master of Engineering in Control, Polytechnical Institute of Leningrad, URSS, November 1978
Title : Controller synthesis for telemanipulators via the characteristic locus method
Director : Professor Y.N. Kovchin.
- Electrical and Mechanical Engineer, Universidad Nacional Autonoma de Mexico (UNAM), Mexico, March 1976
Title : Load-frequency control of thermoelectric plants
Director : Dr. J.L. Vazques.

Awards and Appointments

- IEEE Fellow (1999).
- Life IEEE Fellow (2019).
- IFAC Fellow (2016).
- Corresponding Member of Mexican Academy of Science (2019).
- Emeritus Member of Sistema Nacional de Investigadores de Mexico (2019).
- Fellow of Asia-Pacific Artificial Intelligence Association (2024).
- Automatica Best Paper Award, 2014 - 2016 period, article : J. Schiffer, R. Ortega, A. Astolfi, J. Raisch and T. Sezi, Conditions for asymptotic stability of droop-controlled inverter-based microgrids, Automatica, Vol. 50, No. 10, pp. 2457-2469, 2015.
- IEEE CCTA 2019 Best Student Paper Award, article : B. Yi, S. N. Vukosavic, R. Ortega, A. M. Stankovic and W. Zhang, A frequency domain interpretation of signal injection methods for salient PMSMs, 2019 IEEE Conference on Control Technology and Applications (CCTA), Hong Kong, China, August 19-21, 2019.
- Post at Zhejiang University, Hangzhou, China :
- Recruitment Program of Global Experts (Thousands Experts Program), 2014-2016.
- Recruitment Program of High-end Foreign Experts of the State Administration of Foreign Experts Affairs, 2015-2017.
- Co-director of Adaptive and Nonlinear Control Systems Laboratory, ITMO University, Saint Petersburg, Russia, 2015-2018, <http://control.ifmo.ru/en/87789/>.
- Distinguished Professor at Hangzhou Dianzi University, Hangzhou, China, 2017-2021, <http://hdu.ciss.org.cn>, September 2021 - September 2024.

- Distinguished Professor at ITMO University, Russia, September 2021 - to date.
- International Reviewer of the Russian Science Foundation, Octobre 2021 - to date.

Patents

- US Patent : Method and system of compensating wave reflections in transmission lines, Patent No. 7,245,102 B1. Date of patent : 17 July 2007, (with M. Spong).
- US Patent : Repetitive controller to compensate for $6n + 1$ Harmonics, (with G. Escobar, P. Hernandez and P. Martinez), Patent No. 2008/0167735 11/650,638 A1. Date of patent : 10 July 2008.
- Korean Patent : Sensorless Control Method and System for SPMSM Using Nonlinear Observer, (with K. Nam, L. Praly, A. Astolfi, J. Hong and J. Lee), Patent No. 10-1091970, 2009.

Plenary and Semi-plenary Invited Conferences

1. VI Congresso Brasileiro de Automatica, Belo Horizonte, Brazil, November 1986.
2. 10th World IFAC Congress, Munich, Germany, July 26-31, 1987.
3. 25th Annual SICE Meeting, Tokyo, Japan, 2 June, 1991.
4. European Control Conference ECC-91, Grenoble, France, July 2-5, 1991.
5. 5th IFAC Symp. Low Cost Automation, Vienna, Austria, September 1992.
6. XI Congresso Brasileiro de Automatica, Sao Paulo, Brazil, September 2-6 1996.
7. Oberwolfach Workshop in Control Theory, Oberwolfach, Germany, February 22-29, 1999.
8. IX Congreso Latinoamericano de Automatica, Cali, Colombia, November 1-3 2000.
9. 2nd IFAC Workshop on Lagrangian and Hamiltonian methods in nonlinear systems, Seville, Spain, April 3-5, 2003.
10. 22th Chinese Control Conference, Yichang, Hubei, China, July 21-25, 2003.
11. IFAC Workshop on Adaptation and Learning in Control and Signal Processing (ALCOSP2004), Yokohama, Japan, August 30 to september 1, 2004, (with A. Astolfi).
12. 7th IFAC Symposium on Nonlinear Control Systems, NOLCOS07, Pretoria, South Africa, 22-24 aout, 2007, (with A. van der Schaft).
13. 3rd IEEE Conference on Industrial Electronics and Applications (ICIEA 2008), Singapore, June 3-5, 2008.
14. 50 Ans de l'Automatique a Grenoble, Saint Martin d'Heres, France, September 15, 2008.
15. XIII Congreso Latinoamericano de Control Automatico, M'erida, Venezuela, November 25-28, 2008.
16. Congreso Nacional de la Asociacion de Mexico de Control Automatico (AMCA 2009), Zatecas, Mexico, 30 September-2 October, 2009.

17. Congreso IEEE-CINVESTAV de Energia Eléctrica, Chiapas, Mexico, 8-10 September, 2010.
18. IFAC Workshop 50 Years of Nonlinear Control and Optimization, The Royal Society, London, UK, 30 september-01 October, 2010.
19. Segundo Congreso Internacional de Mecatronica, Los Lagos, Jalisco, Mexico, June 29-July 1, 2011.
20. Colombian Conference on Automatic Control (CCAC 2011), Bogota, Colombia, October 1-4, 2011.
21. IFAC Workshop on Lagrangian and Hamiltonian Methods for Non-Linear Control, Bertinoro, Italie, aout 29-31, 2012.
22. Intl. Workshop on Recent Developments in Robotics and Control, Dallas, EU, November 5-6, 2012.
23. Workshop on 25 Years of Passivity-based Control, Mumbai, India, mai 19-23, 2014.
24. 2nd Int. Conf. on Robotics and Computing, Los Cabos, Mexico, April 28-30, 2015.
25. Workshop on Advanced Nonlinear Control, Groningen, Holland, July 11-12 2015.
26. 225 Años de la Facultad de Ingenieria, UNAM, Mexico City, Mexico, 21-26 aout, 2017.
27. Scientific Workshop on Micro and Smart Grid, Paris, France, 6 October, 2017.
28. IEEE 16th Intl. Workshop on Advanced Motion Control, Kristiansand, Norway, (via Zoom), September 14-16, 2020.
29. 2nd Int. Conf. on Control Theory and Applications, Chengdu, China, (via Zoom), November 4-6, 2021.
30. XXIV Congreso Mexicano de Robotica (COMRob 2022), Pachuca, Mexico, November 9-11, 2022.
31. Tutorial Conference of IFAC, TC on Adaptive Systems, (via Zoom), October 26, 2023.
32. IEEE Autumn Meeting on Power, Electronics and Computing (ROPEC 2023), Ixtapa, Mexico, October 18-20, 2023.
33. Congreso Internacional de Ciencia y Tecnologia Aplicada, CENIDET, Cuernavaca, Mexico, May 22-24, 2024.
34. On the Road to New Horizons: A Lighthearted Conference on Control Theory, INSA Rouen, Normandie, France, June 19-21, 2024,
35. 2ndo Congreso Nacional Multidisciplinario de Innovación, Ciencia y Tecnología (CoNMICyT), UPIIH-IPN, Hidalgo, Mexico, September 25-27, 2024.
36. 30th Aniversary of San Luis Potosi University, SLP, Mexico, November 1st, 2024.

Chairman of International Conference

1. IFAC Workshop on Lagrangian and Hamiltonian Methods for Nonlinear Control, Princeton University, Princeton, NJ, USA, mars 16-18, 2000, (Co-chairman with Naomi Leonhard).

2. IFAC Workshop on Adaptive Control and Signal Processing (ACASP98), Glasgow, Ecosse, GreatBritain, 26-28 August, 1998, (Co-chairman with Mike Grimble).
3. IFAC Workshop on Adaptive Control and Signal Processing (ACASP2025), Mexico City, Mexico, 2-4 July, 2025, (Co-chairman with Alexei Bobtsov).

Member of Conference International Programme Commitee

1. 6th IFAC Conference on System Identification and Parameter Estimation, Washington DC, USA, June 1982.
2. 1st IFAC Workshop on Adaptive Systems, San Francisco, CA, USA, June 1983.
3. 10th World IFAC Congress, Munich, Germany, July 1987.
4. 2nd IFAC Symp. on Low cost Automation, Milano, Italy, 8-10 November 1989.
5. 4th Latinoamerican IFAC Conference on Automatic Control, Puebla, Mexico, 26-30 November 1990, (Chairman).
6. European Control Conference (ECC 1991), Grenoble, France, July 2-5, 1991.
7. 30th IEEE Conference on Decision and Control, Brighton, Great Britain, 11-13 December 1991.
8. 12th World IFAC Congress, Sydney, Australie, 19-23 July 1993.
9. IFAC Symp Nonlinear Control Systems Design (NOLCOS98), Enschede, Holland, July 1-3, 1998.
10. IFAC Workshop on Adaptive Control and Signal Processing (ACASP98), Glasgow, Ecosse, GreatBritain, 26-28 August, 1998.
11. 6th St.Petersburg Symposium on Adaptive Systems Theory : dedicated to the memory of Ya.Z.Tsyppkin, Saint-Pétersbourg, Russia, September 7-9, 1999.
12. 14th World IFAC Congress, Beijing, P.R. China, July 5-9, 1999.
13. IFAC Workshop on Lagrangian and Hamiltonian Methods for Nonlinear Control, Princeton University, Princeton, NJ, USA, mars 16-18, 2000.
14. IFAC Conference on Mechatronic Systems, Darmstadt, Germany, September 20-22, 2000.
15. UKACC International Conference CONTROL 2000, Cambridge, Great Britain, 4-7 September 2000.
16. IFAC Symp Nonlinear Control Systems Design (NOLCOS01), Saint-Pétersbourg, Russia, July 4-6,2001.
17. IFAC Workshop on Adaptive Control and Signal Processing, Como, Italy, 29th-31 August, 2001.
18. European Control Conf (ECC 2001), Porto, Portugal, september, 4-7, 2001.
19. International Conference on Control and Automation, Xiamen, China, June 16-19, 2002.
20. 15th World IFAC Congress, Barcelona, Spain, July 21-26, 2002.

21. Portuguese Control Conference (CONTROLO 2002), Aveiro, Portugal, september 2002.
22. IFAC Workshop on Lagrangian and Hamiltonian Methods for Nonlinear Control, Seville, Spain, 3-5 April, 2003.
23. IFAC Int Conf on Intelligent Control and Signal Processing (ICONS 2003), Faro, Portugal, 8-11 April, 2003.
24. IEEE Conference on Control Applications, Istanbul, Turquie, June 23-25, 2003.
25. 1st International Conference, Physics And Control (PhysCon 2003), Saint-Pétersbourg, Russia, 27-29 August, 2003.
26. 13th IFAC Symp on System Identification, (SySID 2003), Rotterdam, Holland, 27-29 August, 2003.
27. European Control Conf (ECC 2003), Cambridge, Great Britain, September, 1-4, 2003.
28. 3rd Triennial International and AI Conference on Applied Automatic Systems (AAS03) Ohrid, République de Macédoine, September 18-20, 2003.
29. Portuguese Control Conference (CONTROLO 2004), Faro, Portugal, september 2004.
30. Control 2004, University of Bath, Great Britain, 6-9 September, 2004.
31. 1st International Symposium on Control, Communications, and Signal Processing (ISCCSP2004), Hamammet, Tunisie, mars 21-24, 2004
32. IFAC Workshop on Adaptation and Learning in Control and Signal Processing (ALCOSP2004), du 30 August au 1 September, 2004, Yokohama, Japan.
33. IFAC Symp Nonlinear Control Systems Design (NOLCOS04), Stuttgart, Germany, September 1-3, 2004.
34. 13th IEEE Mediterranean Conference on Control and Automation (MED-05), Chypre, June 27-29, 2005.
35. 2nd International Conference, Physics And Control (PhysCon 2005), Saint-Pétersbourg, Russia, 24-26 August, 2005.
36. 7th International Power Engineering Conferences (IPEC), Singapore, 30 November - 2 December, 2005.
37. Robotics, Control and Information Technology, Hangzhou, China, April 16 - 18, 2006.
38. 3rd IFAC Workshop on Lagrangian and Hamiltonian Methods for Nonlinear Control, Nagoya, Japan, 19-21 July, 2006.
39. 15th IEEE International Conference on Control Applications (CCA06), Munich, Germany, October 4 - 6, 2006.
40. CICINDI-2006, 7th International Conference on Control, Virtual Instrumentation, and Digital Systems, Mexico, Mexico, November 21 - 24, 2006.
41. 2007 Information Decision and Control Conference (IDC 2007), Adelaide, Australie, 12 - 14 February 2007.

42. IFAC Workshop on Adaptation and Learning in Control and Signal Processing (ALCOSP2007), du29 au 31 August, 2007, Saint-Petersburg, Russia.
43. 2nd IEEE Conference on Industrial Electronics and Applications (ICIEA 2007), Harbin, China, 23 - 25 mai 2007.
44. 3rd International Conference, Physics And Control (PhysCon 2007), Postdam, Germany, 3 - 7 September, 2007.
45. 16th IEEE Conference on Control Applications (CCA07), Singapore, October 1 - 3, 2007.
46. 1st International Conference on Industrial Informatics (CICIND207), National Polytechnic Institute, Mexico City, November 5-9, 2007.
47. 8th International Power Engineering Conferences (IPEC07), Singapore, December 3 - 6, 2007.
48. 3rd IEEE Conference on Industrial Electronics and Applications (ICIEA08), Singapore, 2 - 3 june 2008.
49. ICNPAA 2008- 7th Int Conf on Mathematical Problems in Engineering, Aerospace and Sciences, Genoa, Italy, June 25-27, 2008.
50. 17th World IFAC Congress, Seoul, Korea, July 6-11 2008.
51. 2008 Control and Decision Conference in China, Yantai, China, July 2008.
52. 10th International Conference on Control, Automation, Robotics and Vision, ICARCV 2008, Hanoi, Vietnam, december 2008.
53. 6th International Conference on Informatics in Control, Automation and Robotics, ICINCO 2009, Milano, Italy, July 2 - 5 2009.
54. 4th IEEE Conference on Industrial Electronics and Applications (ICIEA09), Xian, China, mai 25-27, 2009.
55. 52 Midwest Symposium on Circuits and Systems, Cancun, Mexico, aout 2 - 5, 2009.
56. 9th International Conference on Diagnostics of Processes and Systems (DPS 2009), Gink, Poland, September 7-9, 2009.
57. 2nd IFAC International Conference on Intelligent Control Systems and Signal Processing (ICONS09), Istanbul, Turquie, September 21-23, 2009.
58. IFAC International Workshop on Knowledge and Technology Transfer in Developing Countries : Automation and Infrastructure (DECOM-TT09), Macedonia, 2009.
59. 5th IEEE Conference on Industrial Electronics and Applications (ICIEA 10), Taichung, Taiwan, June 15 - 17, 2010.
60. 11th International Conference on Control, Automation, Robotics and Vision, ICARCV 2010, Singapore, december, 2010.
61. 8th International Conference on Control and Automation (ICCA2010), Xiamen, China, June 9 - 11, 2010.
62. 15th IEEE Conference on Emerging Technologies and Factory Automation (EFTA 10)0, Bilbao, Spain, September 13 - 16, 2010.

63. 6th IEEE Conference on Industrial Electronics and Applications (ICIEA 11), Beijing, China, June 21 - 23, 2011.
64. 21st International Conference on Electronics, Communications and Computers (CONIELECOMP 2011), Cholula, Mexico, February 28 - mars 2, 2011.
65. 9th IEEE International Conference on Control and Automation (ICCA11), Santiago, Chile, December 19-21, 2011.
66. 2nd International Conference on Information Science and Technology (ICIST 2012), Wuhan, China, mars 23-25, 2012.
67. Int. Conf. on Systems and Control (ICSC 2012), Marrakech, Maroc, June 20-22, 2012.
68. IFAC Workshop on Lagrangian and Hamiltonian Methods in Nonlinear Control, Bertinoro, Italy, August 29-31, 2012.
69. 17th IEEE Emerging Technologies and Factory Automation Conference (ETFA12), Krakow, Poland, september 17-21, 2012.
70. XV Congreso Latinoamericano de Control Automatico (CLCA 2012), Lima, Peru, October 23-26, 2012.
71. 10th IEEE International Conference on Control and Automation (ICCA2010), Hangzhou, China, June 12 - 14, 2013.
72. 11th IFAC Workshop on Adaptation and Learning in Control and Signal Processing (ALCOSP2013), Caen, France, July 3-5, 2013.
73. 3rd IFAC International Conference on Intelligent Control and Automation Science (ICONS), 2-4 September, Chengdu, China, 2013.
74. 1st IEEE International Conference on Control, Measurement and Instrumentation, Kolkatta, India, January 2016.
75. 12th IFAC International Workshop on Adaptation and Learning in Control and Signal Processing (ALCOSP 2016), Eindhoven, Holland, June 29-July 1st, 2016.
76. Indian Control Conference 2017, Guwahati, India, January 4-6, 2017.
77. 8th International Conference on Inteligent Control and Information Processing Automation (ICICIP2017), Hangzhou, China, November 3-5, 2017.
78. 6th IFAC Workshop on Lagrangian and Hamiltonian Methods in Nonlinear Control (WLHMNLC2018), Valparaiso, Chile, May 2-4, 2018.
79. XIX Congreso Latinoamericano de Control Automatico (CLCA 2020), Habana, Cuba, Noviembre 30-Diciembre 4, 2020.
80. 16th International Conference on Control, Automation, Robotics and Vision (ICARCV 2020), Shenzhen, China, December 13 -15, 2020.
81. 3rd IFAC Conference on Modelling, Identification and Control of Nonlinear Systems (MICNON 2021), Tokyo, Japan, August 25-27, 2021.
82. 7th IFAC Workshop on Lagrangian and Hamiltonian Methods in Nonlinear Control (WLHMNLC2021), Berlin, Germany, October 11-13, 2021.

83. 25th International Symposium on Mathematical Theory of Networks and Systems (MTNS 2022), Bayreuth, Germany, September 12-16, 2022.
84. 26th International Symposium on Mathematical Theory of Networks and Systems (MTNS 2023), Cambridge, UK, August 19-23, 2023.
85. 8th IFAC Workshop on Lagrangian and Hamiltonian Methods in Nonlinear Control (WLHMNLC2024), Besancon, France, June 10-12, 2024.
86. 12th IFAC Symposium on Conference on Control of Power Systems (CPES 2024), Rabat, Morocco, July 10-12, 2024.
87. 15th IFAC Workshop on Adaptive Control and Signal Processing (ACASP2025), Mexico City, Mexico, 2-4 July, 2025.

Education and training

Ph D

1. R. Kelly, adaptive control des systèmes partiellement connu, Lab. d'Autom. de Grenoble, France, November 1985, (Co-Director : I.D. Landau).
2. T. Yu, On new estimation laws for robust adaptive control, UNAM, Mexico, Mexico, November 1988. (Prix Weissman de la meilleure thèse Latino-américaine 1988).
3. R. Carelli, On adaptive robot control, UNAM, Mexico, Mexico, mai 1989, (Co-Director : R. Kelly).
4. G. Espinosa, Nonlinear control of induction motors : An energy dissipation approach, UNAM, Mexico, Mexico , November 1993.
5. P. J. Nicklasson, Passivity-based control of electrical machines, Trondheim University, Norvège, 3 mai 1996, (Co-Director : O. Egeland).
6. K. Kim, Commande non-linéaire des machines asynchrones : Mise en oeuvre pratique, UTC-HEUDIASYC, Compiègne, France, 14 June 1996.
7. A. Loria, Commande non-linéaire par retour de sortie, UTC-HEUDIASYC, Compiègne, France, 7 November 1996.
8. D. Taoutaou, Elaboration de contrôleurs non-linéaires pour les systèmes d'Euler-Lagrange, UTCHEUDIASYC, Compiègne, France, 18 December 1996.
9. G. Escobar, Sur la commande non-linéaire des systèmes de électronique de puissance à commutation, SUPELEC-LSS, Gif-sur-Yvette, France, 7 mai 1999.
10. G. Chang, Sur la commande non-linéaire des machines électriques : synchrones et asynchrones, SUPELEC-LSS, Gif-sur-Yvette, France, 20 September, 1999, (Co-Director : E. Mendes).
11. M. Schiavo-Netto, adaptive control des systèmes non-linéairement paramétrisés, SUPELEC-LSS, Gif-sur-Yvette, France, 12 November, 2001.
12. H. Rodriguez, Sur la commande non-linéaire via assignation de l'interconnexion et du amortissement, SUPELEC-LSS, Gif-sur-Yvette, France, 8 mars, 2002.
13. M. Galaz, Commande non-linéaire des systèmes électriques, SUPELEC-LSS, Gif-sur-Yvette, France, 30 June, 2003.

14. P. Moya, adaptive control des systèmes non-linéaires et non-linéairement paramétrisés : Application aux systèmes de réaction, SUPELEC-LSS, Gif-sur-Yvette, France, 30 September, 2004.
15. M. Becherif, Contribution aux techniques de façonnement d'énergie : Application à la commande des systèmes électromécaniques, SUPELEC-LSS, Gif-sur-Yvette, France, October 2004, (Co-Director : E. Mendes).
16. A. de Rinaldis, Sur la compensation des ondes de réflexion, SUPELEC-LSS, Gif-sur-Yvette, France, April 2006.
17. E. Garcia, Commande par façonnement de puissance, SUPELEC-LSS, Gif-sur-Yvette, France, June 2006.
18. G. Viola, Control of underactuated mechanical systems via passivity and geometric techniques, Università Tor Vergata, Rome, Italy, February 2008, (Co-Directors : J. Grizzle and A. Tornambe).
19. F. Castaños, Commande par cyclo-dissipativité, SUPELEC-LSS, Gif-sur-Yvette, France, September 2009.
20. W. Dib, Stabilisation transitoire des systèmes électriques de puissance, SUPELEC-LSS, Gif-sur-Yvette, France, (Co-Director : F. Lamnabhi), September 2009.
21. R. Talj, Sur la commande non-linéaire des systèmes de piles à combustible, SUPELEC-LSS, Gif-sur-Yvette, France, October 2009.
22. I. Sarra, Observation and commande des systèmes mécaniques, SUPELEC-LSS, Gif-sur-Yvette, France, April 2010.
23. M. Hernandez, Commande PI adaptative des convertisseurs de puissance, SUPELEC-LSS, Gif-sur-Yvette, France, (Co-Director : F. Lamnabhi), October 2010.
24. A. Sanchez, Commande hybride d'un système de génération d'énergie, SUPELEC-LSS, Gif-sur-Yvette, France, January 2011.
25. D. Shah, adaptive control sans capteurs de machines électriques, SUPELEC-LSS, Gif-sur-Yvette, France, February 2011.
26. A. Allawieh, Commande hybride with application aux convertisseurs de puissance en mode discontinu, SUPELEC-LSS, Gif-sur-Yvette, France, (Co-Director : F. Lamnabhi), September 2012.
27. J. Romero, Commande robuste par façonnement de l'énergie, SUPELEC-LSS, Gif-sur-Yvette, France, February 2013.
28. V. Rivera, Sur la gestion d'énergie, SUPELEC-LSS, Gif-sur-Yvette, France, (Co-Director : O. Bethoux) mai 2014.
29. D. Langarica, Réduction du modèle des systèmes de puissance, SUPELEC-LSS, Gif-sur-Yvette, France, mai 2014.
30. M. Pirro, Commande non linéaire des systèmes électroniques de puissance, Università Politecnica delle Marche, Italy, (co-direction : G. Ippoliti), June 2015.

31. D. Zonetti, Control de microgrids isolee, SUPELEC-LSS, Gif-sur-Yvette, France, February 2016.
32. R. Cisneros, Control par interconnection des systemes Hamiltonienes, SUPELEC-LSS, Gif-sur-Yvette, France, July 2016.
33. L. Borja, Commande par interconnection, SUPELEC-LSS, Gif-sur-Yvette, France, June 2017.
34. J. Machado, Analyse globale de stabilite des systèmes électriques de puissance, SUPELEC-LSS, Gif-sur-Yvette, France, November 2019.

Master and DEA

1. R. Lelorier, Design and construction of a self-tuning controller for a pilot scale plant, CIEA, Mexico, Mexico, August 1980, (Co-Director : M. Espana).
2. J. Rodriguez, On self-tuning control of multivariable systems, CIEA, Mexico City, Mexico, August 1980, (Co-Director : M. Espana).
3. J.J. Espino, On variable structure controllers : a microprocessor implementation, CIEA, Mexico City, Mexico, October 1981.
4. A. Hernandez, Real-time control of Mexico Citys water distribution network, CIEA, Mexico, November 1981.
5. J. Carrillo, Sur la robustesse de la adaptive control multivariable, Lab. dAutom. de Grenoble, France, June 1984, (Co-Director : J.M. Dion).
6. C. Canudas, Practical aspects of adaptive control, Lab. dAutom. de Grenoble, France, June 1984, (Co-Director : I.D. Landau).
7. A. Alcaraz, Adaptive computed torque strategy for manipulator control, UNAM, Mexico City, Mexico, June 1986.
8. O. Begovich, Adaptive control of systems with delays, CIEA, Mexico City, Mexico, June 1987, (CoDirector : R. Lozano).
9. M. Amestegui, On parametrizations for adaptive control of robot manipulators, CIEA, Mexico City, Mexico, June 1987. (Co-Director : J.M. Ibarra).
10. J. Liceaga, Adaptive control techniques based on generalized predictive control, CIEA, Mexico City, Mexico, October 1988.
11. A. Rodriguez, Adaptive control of nonlinear systems. UNAM, Mexico City, Mexico, July 1989.
12. G. Espinosa, Local stability properties of adaptive systems, CIEA, Mexico City, Mexico, October 1989.
13. V. Yopez, Complex dynamics in adaptive systems, CIEA, Mexico City, Mexico, aout 1990.
14. A. Loria, Commande par retour de sortie de robots manipulateurs, UTC, Compi'egne, France, September 1993.
15. E. Putranto, Sur la commande non-linéaire des machines asynchrones, UTC, Compi'egne, France, September 1994, (Co-Director : A. Charara).

16. I. Zein, Commande non-linéaire des convertisseurs de puissance, UTC, Compiègne, France, September 1996.
17. T. Raithel, On direct torque and flux control : An approach based on output regulation subspaces, Diploma Thesis, ETH, Zurich, Switzerland, October 1999, (Co-Director : F. Allgower).
18. B. Becherif, Commande nonlineaire dun convertisseur statique de puissance, SUPELEC-LSS, Gif-sur-Yvette, France, September 2001. (Co-Director : E. Mendes).
19. R. Ameuri, Aspects pratiques de la commande non-linéaire des machines électriques, SUPELEC-LSS, Gif-sur-Yvette, France, September 2001. (Co-Director : E. Mendes).
20. I. Boubchir, Implémentation dune commande sans capteur de vitesse sur un moteur synchrone à aimants permanents, SUPELEC-LSS, Gif-sur-Yvette, France, June 2002. (Co-Director : E. Mendes).
21. A. Diaz, Commande par assignation de linterconnexion and de lamortissement sur différents types des systèmes hamiltoniens, SUPELEC-LSS, Gif-sur-Yvette, France, July 2002.
22. R. Talj, Commande sans capteur de vitesse sur un moteur asynchrone, SUPELEC-LSS, Gif-sur-Yvette, France, June 2006. (Co-Director : M. Hilaret).
23. F. Castaños, Commande par façonnement de la puissance des FACTS, SUPELEC-LSS, Gif-sur-Yvette, France, June 2006.
24. A. Leredde, Commande non-linéaire des moteurs asynchrones, Ecole Normale Supérieure de Cachan, France, June 2006.
25. C. van der Burg, Stability of underactuated mechanical systems controlled with IDA-PBC in the presence of physical damping, Technical University of Delft, Holland, October 2006. (Co-Director : J. Scherpen).
26. M. A. Torres, Passivity-based control of DC transmission systems, Universidad de Concepcion, Chile, October 2006. (Co-Director : J. Espinoza).
27. A. Sanchez, Commande hybride dun systeme de generation denergie, SUPELEC-LGEP, Gif-sur-Yvette, France, June 2007. (Co-Director : F. Bethoux).
28. S. Diao, Commande dun four, SUPELEC-EDF, Gif-sur-Yvette, France, July 2010. (Co-Director : M. Bitham).
29. D. Zonetti, Modelisation hamiltonienne des systemes electriques, SUPELEC, Gif-sur-Yvette, France, June 2011.
30. F. Morales, Desarrollo e implementacion de un powertrain, Universidad Técnica Federico Santa Maria, Chile, 2022. (Co-director : A. Sanchez)

Regular Courses (more than 20 hours)

- 1974 - 1976 UNAM, Mexico Algèbre linéaire (Bachelor), controle des systèmes linéaires (Bachelor), modélisation des systèmes (Bachelor).
- 1979 - 1980 CIEA, Mexico Controle des systèmes multivariables (master).
- 1980 - 1981 UNAM, Mexico Commande numérique (master).

- 1984 Université Scientifique and Médicale de Grenoble, France Controle des systèmes linéaires (matrise de sureté de fonctionnement).
- 1985 - 1987, 1988 - 1990 UNAM and CIEA, Mexico Robotique (master), adaptive control (master), commande optimale (master), systèmes nonlinéaires (master).
- 1987 - 1988 University of Illinois, USA adaptive control (master), analyse des signaux and systèmes (Bachelor).
- 1990 - 1991 Sophia University, Tokyo, Japan adaptive control (master), Kinematics of mechanical systems, (Bachelor).
- 1991 - 1992 McGill University, Canada adaptive control (master), analyse des signaux and systèmes (Bachelor).
- 1992 - 1996 HEUDIASYC, Compi'egne, France adaptive control (DEA controle des systèmes), systèmes non-linéaires (DEA Controle des systèmes).
- 1999 - 2003 Université de Paris Sud, France Automatique pour lélectrotechnique, (DEA Génie Electrique), (with E. Mendes and E. Delaleau).
- 2003 - 2007 Supelec, France Commande par faconnement de lénergie, (selected cours 2nd year).
- 1999 - 2008 LSS, Supelec, France Commande des systèmes non-linéaires (DEA Automatique), (with J. Levine and L. Praly).
- 2009 - 2013 LSS, Supelec, France Analyse des systèmes non-linéaires (Master Automatique), (with E. Panteley).
- 2011, 2012 LSS, Supelec, France Commande des systèmes physiques (Master Automatique).
- 2020 - to date Departamento de Sistemas Digitales, ITAM, Mexico Teoria de Control, Señales y Sistemas, Robotica (Bachelor).

Participation in schools and workshops

- Ecole d'Été d'Automatique, Grenoble, France, 8 - 12 sept, 1997 Commande de la machine asynchrone.
- Ecole Méditerranée sur la commande nonlinéaire, Marrakech, Maroc, 3 - 7 jan, 1999 Input-output stability.
- NCN Minicourse, Murcia, Spain, 2000 Nonlinear control of mechanical and electromechanical systems.
- NCN Minicourse, Athens, Gr'eece, 2001 Passivity-based control.
- Ecole Internationale d'Automatique de Lille, Lille, France, 8 - 12 sept, 2003 Formes normales, bifurcations, chaos and automatique.
- Ecole Internationale d'Été, Bertinoro, Italy, 6 - 12 July, 2003 Modelling and Control of Complex Dynamical Systems from Ports to Robotics.
- Formation en Automatique de Paris, Paris, France, February 3 - 7, 2004 Nonlinear control of electromechanical systems, (with A. Astolfi).

- Formation en Automatique de Paris, Paris, France, March 7 - 11, 2005 Adaptive control of nonlinear systems, (with A. Astolfi).
- Graduate Course Indian Institute of Technology, Mumbai, Inde, July 20 - August 3, 2005 Passivity-Based Control.
- Spring School of Indian Institute of Technology, Mumbai, Inde, January 30 - February 3, 2006 Applications of Nonlinear Control of Port Hamiltonian Systems, (with A. van der Schaft, H. Pillai and R. Banavar).
- Formation en Automatique de Paris, Gif, France, mai 22 - 25, 2006 Adaptive control of nonlinear systems, (with A. Astolfi).
- Graduate Course CINVESTAV-IPN, Centro de Investigacion y Estudios Avanzados, IPN, Mexico City, Mexico June 26 - 29, 2006 Energy-Shaping Control of Physical Systems.
- HYCON-EECI Graduate School on Control, Gif, France, February 19 - 23, 2006 Nonlinear adaptive control with applications, (with A. Astolfi).
- DISC Summer School, Eindhoven, Holland, June 19 - 23, 2007 Nonlinear control, (with M. Krstic, G. Bastin, K. Fujimoto and A. Astolfi).
- Summer Course of the Mexican Association of Automatic Control (AMCA), Posgrado de Ingenieria, UNAM, Mexico City, Mexico, August 6 - 10, 2007 Control by State-Modulated Interconnection of Port-Hamiltonian Systems.
- Graduate Course Coordinated Science Laboratory, Champaign, Illinois, Etats Unis, October 15 - 19, 2007 Control by Interconnection.
- Graduate Course Mathematics Department, University of Kuopio, Finlande, December 10 - 21, 2007 Control by Interconnection and Standard Passivity-Based Control.
- Graduate Course Key State Process Control Laboratory, Zhejiang University, Hangzhou, China, August 4 - 24, 2008 Nonlinear Control of Port-Hamiltonian Systems.
- Graduate Course Universidad de Valladolid, Valladolid, Spain, September 24 - 26, 2008 Nonlinear and Adaptive Control of Physical System.
- Summer Course of the ITESM, Puebla, Mexico, June 8 - 12, 2009 New vistas on nonlinear control.
- III International Summer School on Geometry, Mechanics, and Control, LAmetlla de Mar, Catalonia, Spain, June 22-27, 2009 Control of underactuated mechanical systems.
- Smart Grid Workshop, Royal Institute of Technology, Stockholm, Sweden, mai 24, 2011 Some control problems in modern energy systems.
- Summer School : ICT and the Future Electrical Grid, Universidad Politecnica de Madrid, Madrid, Spain, July 11 - 12, 2011 On the role of control in future energy systems.
- Summer Workshop on Control Theory, Yildiz University, Istanbul, Turkey, July 27 - 29, 2011 On the role of control in future energy systems.
- HYCON2-EECI Graduate School on Control, Gif, France, January 30 - February 2, 2012 Advanced control of physical systems.

- Summer Workshop on Control Theory, Bangalore, Inde, fev. 15, 2012 Nonlinear control of energy systems.
- Summer Course of the Mexican Association of Automatic Control, Posgrado de Ingenieria, UNAM, Mexico City, Mexico, July 24-27, 2012 A new control theory to face the challenges of modern technology.
- Minicourse on Advanced Control, Instituto Politecnico Nacional, Mexico City, Mexico, August 1-3, 2012 Immersion and invariance control.
- EECI Graduate School on Control, Gif, France, mai 13-17, 2013 Nonlinear and adaptive control.
- EECI Graduate School on Control, Hangzhou, China, March 23-27, 2014 Nonlinear and adaptive control.
- EECI Graduate School on Control, Istanbul, Turquie, mai 23-26, 2016 A new control theory for emerging technologies.
- Winter Course of the Mexican Association of Automatic Control, Palacio de Minería, UNAM, Mexico City, Mexico, December 16, 2017 PID passivity-based control.
- Workshop on Modeling and Control of Port-Hamiltonian Systems, Zhejiang University, Hangzhou, China, April 6-7, 2017 Control of Port-Hamiltonian Systems.
- Summer School : Institute of Control Problems, Academy of Science, Moscow, Russia, june 14-17, 2017. New control problems in electrical engineering.
- Workshop on Passivity-based Control, Sharif University, Tehran, Iran, April 15-16, 2018 Passivity-based Control of Mechanical Systems.
- Minicourse on Nonlinear Control, Universidad de Chile, Santiago, Chile, mai 21-22, 2018 PID passivity-based control.
- Minicourse on PID-PBC Control, Instituto Politecnico Nacional, Mexico City, Mexico, October 3-5, 2018 PID passivity-based control.
- EECI Graduate School on Control, Berlin, Germany, March 25-29, 2019 Energy-based control design for future power systems.
- Saint Petersburg School on Nonlinear and Adaptive Control, Saint-Petersburg, Russia, June 3-5, 2019 Adaptive control.
- Escuela del Centro Franco-Argentino de Altos Estudios, Rosario, Argentina, August 12-16, 2019 New control theory for modern engineering applications.
- Workshop on Control of Electromechanical Systems, Birla Institute of Technology, Pilani, India, January 13-17, 2020 Control of electromechanical systems.
- Workshop on Recent Developments in Control Theory, Birla Institute of Technology, Pilani, India, March 25-26, 2021 State estimation of power systems.
- Workshop on Emerging Control and Adaptation with Nonlinearities, Hangzhou, China, June 6-7, 2022 History and new results on parameter estimation and adaptive control.
- Minicourse on Passivity-based Control, Universidad Politecnica de Cataluña, Barcelona, Spain, June 9-13, 2022 Passivity-based control.

- Minicourse on Practical Applications of Passivity-based Control, Escuela Tecnica Superior de Ingenieria, Universidad de Sevilla, Spain, June 17-18, 2022 Passivity-based control.
- Minicourse on Power Systems Applications of Modern Control, ENSEM Casablanca, Hassan II University of Casablanca, Morocco, June 28, 2022 Power systems applications.
- EECI Graduate School on Control, Monterrey, Mexico, August 1-5, 2022 Energy-based control design to face the challenges of future power systems.
- Minicourse on Passivity-based Control of Mechanical Systems, School of Engineering, Tokyo Institute of Technology, Japan, June 1-6, 2022 Summer Course on Nonlinear Control.
- Workshop on Port-Hamiltonian Systems and Applications, 2023 IFAC World Congress, Yokohama, Japan, July 9-14, 2023 “A Potpourri of Recent Results on Port-Hamiltonian Systems”.
- Workshop On the Road to New Horizons: A Lighthearted Conference on Control Theory, INSA, Rouen, France, June 19-21, 2024: “Observability is Sufficient for State Observation of State-affine Nonlinear Systems”.

Thesis jurys participation

1. G. Fernandez, Universidad de Mexico City, Mexico, June 1989.
2. A. Sorensen, Trondheim University, Norvège, May 1993.
3. S. Seleme, Laboratoire dAutomatique, Grenoble, France, May 1992.
4. H. Berghuis, Twente University, Holland, September 1992.
5. P. de Wit, Twente University, Holland, September 1996.
6. D. Yahia Meddah, Université Pierre and Marie Curie, France, 1999.
7. F. Ikhouane, Université de Caen, France, 1999.
8. A. B. Morton, University of Melbourne, Australie, 1999.
9. A. Benallegue, Laboratoire de Robotique de Versailles, France, September 2000.
10. E. Mendes, Laboratoire de Genie Electrique de Paris, December 2000.
11. M. Garcia, Universitat de Catalogne, Spain, March 2000.
12. P. Kiss, Ecole de Mines, France, March 2002.
13. F. Gomez, Universidad de Sevilla, Spain, May 2002.
14. R. Antonelli, Imperial College, England, September 2003.
15. J. Acosta, Universidad de Sevilla, Spain, May 2004.
16. A. Benalia, Université Paris Sud, September 2004.
17. D. Jeltsema, Delft University of Technology, Holland, May 2005.
18. C. Morel, Universite Angers, France, December 2005.
19. J. P. Bliman, Université Paris Sud, November 2006, (HDR).

20. M. Perez, Universidad de Concepcion, Chili, March 2006.
21. I. Peñarrocha, Universidad Politecnica de Valencia, Spain, June 2006.
22. A. Doria, Universitat de Catalogne, Spain, October 2006.
23. R. Pasumorthy, Twente University, Holland, September 2006.
24. B. Jayawardhana, Imperial College, England, November 2006.
25. J. C. Olivier, Ecole Polytechnique Nantes, November 2006.
26. W. Qi, Nanyang Technological University, Singapore, December 2006.
27. W. Chen, Imperial College, England, February 2007.
28. J. Albarranz, Universidad de Valladolid, Spain, April 2008.
29. S. Malo, Universitat de Catalogne, Spain, November 2009.
30. B. Hamroun, Institute Polytechnique de Grenoble, Valence, December 2009.
31. A. Venkatraman, Groningen University, Holland, April 2010.
32. M. Larsen, Technical University of Lyngby, Denmark, September 2010.
33. K. Hoffner, Queens University, Kingston, Canada, January 2011.
34. D. Dirks, Groningen University, Holland, February 2011.
35. A. Dib, Supelec, France, October 2011.
36. A. Jaafar, Supelec, France, November 2011.
37. D. del Puerto, Groningen University, Holland, December 2011.
38. M. Becherif, Universite de Belfort, France, December 2011.
39. A. Djebai, Ecole de Mines, France, March 2013.
40. A. Arancibia, Technical University of Berlin, Germany, May 2013.
41. A. Kapua, Ben Gurion University, Israel, May, 2014.
42. M. Mattei, Supelec, France, February 2015.
43. J. Schiffer, Technical University of Berlin, Germany, May 2016.
44. M. Mattioni, Supelec, France, May 2018.
45. P. Monshizadeh, Groningen University, Holland, September 2018.
46. S. Radit, Nanyang University, Singapore, April 2019.
47. A. Catalin, ETH, Zurich, Switzerland, October 2019.
48. M. Jeeninga, Groningen University, Holland, April 2021.
49. H. Wu, Groningen University, Holland, June 2022.
50. C. A. Ramirez, Universidad Tecnologica de Pereira, Colombia, December 2024.

Symposium and Workshops Organization

1. Workshop on Robust and Adaptive Control, Oaxaca, Mexico, December 1987, (with P. Kokotovic, I. Landau and R. Lozano).
2. Workshop on Nonlinear and Adaptive Robot Control, Merida, Mexico, April 1989, (with R. Kelly).
3. Colloque Passivité and Applications, Compi'egne, France, 25 - 26 November 1993, (with R. Lozano).
4. Introductory Course on Nonlinear Control Systems, Valencia, Spain, 6 - 7 October 1994, (with P. Albertos).
5. Journées études sur l'automatique non-linéaire appliquées à l'électrotechnique, Gif-sur-Yvette, France, 24 - 25 November 1994, (with J. P. Barbot).
6. Workshop on gain and passivity methods for nonlinear systems design, 33rd IEEE Conf. Decision and Control, Orlando, FL, USA, 13 December 1994, (with A. van der Schaft and D. Hill).
7. Session invitée sur Passivity-based methods on industrial electronics, in IEEE-IECON97, New Orleans, LA, USA, November 11-14, 1997, (with G. Espinosa).
8. Atelier sur Recent developments on flatness and hybrid systems theory, Lund, 23 - 25 April 1998, (Project TRIDENT with Sweden and Conférence des Grandes Ecoles).
9. Session invitée sur Nonlinear control of mechanical systems in IFAC Symp Nonlinear Control Systems Design, Enschede, Holland, July 1 - 3, 1998, (with A. van der Schaft).
10. Workshop on passivity-based control of Hamiltonian and Lagrangian systems, 14th World IFAC Congress, Beijing, P.R. China, July 5 - 9, 1999, (with A. van der Schaft and B. Maschke).
11. Tutorial Workshop on nonlinear passivity-based control of mechanical systems, European Control Conference ECC99, Karlsruhe, Germany, 31 août - 3 septembre, 1999, (with H. Nijmeijer, T. Fossen and A. van der Schaft).
12. IFAC Workshop on Lagrangian and Hamiltonian Methods for Nonlinear Control, Princeton University, Princeton, NJ, USA, March 16 - 18, 2000, (Co-chairman with N. Leonhard).
13. Journées Analyse and Commande des Systèmes Non-linéaire, GdR Automatique, Paris, June 6 - 9, 2000, (with A. Loria).
14. Session invitée sur New Lyapunov tools for stability and stabilization of nonlinear systems in MTNS, 2000, Perpignan, France, (with A. Loria).
15. Minicourse on nonlinear control of electrical motors, MTNS, 2000, Perpignan, France, (with E. Delaleau and J. P. Louis).
16. Minicourse on modeling and control of physical systems : An approach based on energy and interconnection, MTNS, 2000, Perpignan, France, (with A. van der Schaft and B. Maschke).
17. Short Course on Power Systems, Power Electronics and Bioreactors, First Meeting of the European Network NACO-2, Valencia, Spain, September 30th - October 2nd, 2000, (with J. Pico).

18. Workshop on Future Directions in Nonlinear Control of Mechanical Systems, Coordinated Science Laboratory, University of Illinois, Urbana-Champaign, USA, October 5, 2002, (Co-chairman with M. Spong).
19. Third Meeting of the European Network NACO-2, Paris, France, October 25 - 26, 2002, (with C.Canudas).
20. Tutorial Workshop on Immersion and Invariance Nonlinear Control, IEEE 2002 Conference on Decision and Control, December 10 - 13, 2002, Las Vegas, Nevada, USA, (with A. Astolfi).
21. Tutorial Workshop on Open Issues in Analysis and Control of Power and Energy Processing Systems, IEEE 2003 Conference on Decision and Control, December 10 - 13, 2003, Hawaii, USA, (with I. Hiskens).
22. Workshop on Modelling and Control Of Dynamical Systems. The Port Hamiltonian Approach, IEEE 2004 Conference on Decision and Control, December 14 - 17, 2004, Bahamas, (with A. van der Schaft, S. Stramigioli and A. Macchelli).
23. Workshop on Teleoperators and Walking Robots, French - Korean Project STAR, April 4, 2006, Gif, France (with D. Kang et K. Nam).
24. Workshop on Adaptive Control of Nonlinear Systems, XII Latin-American Congress on Automatic Control october 3-6, 2006, Salvador, Bahia, Brazil, (with L. Hsu and D. Karagiannis).
25. Mini-Workshop on Control Applications of Immersion and Invariance, European Control Conference 2007, Kos, Greece, July 2-5, 2007, (with A. Astolfi, D. Karagiannis and L. Carnevale).
26. Seminaire Franco-Russe : Efficacite Energetique - Source DEnergies Nouvelles and Renouvelables, 24 September 2007, Ekaterinbourg, Russia.
27. Workshop New Vistas and Challenges in Telerobotics, IEEE International Conference on Robotics and Automation, May 19, 2008, Pasadena, California, Etats Unis, (with E. Nuño, L. Basañez and M. Spong.)
28. Tutorial Workshop on Passivity-based Control, November 25 - 28, 2008, XIII Congreso Latinoamericano de Control Automatico, Merida, Venezuela, (with G. Espinosa.)
29. Applications of nonlinear control, June 22 - 27, 2009, III International Summer School on Geometry, Mechanics and Control, LAtmella del Mar, Spain.
30. Tutorial Workshop on 20 Years of Passivity-based Control, 15 December, 2009, IEEE 2009 Conference on Decision and Control, Shanghai, P.R. China, (with M. Spong and D. Hill).
31. Course on Passivity-Based Control of Physical Systems, 1 October, 2011, XI Colombian Conference on Automatic Control (CCAC 2011), Bogota, Colombia, October 1 - 4, 2011.
32. Workshop on Control Systems in the Open World, 51st IEEE Conference on Decision and Control, December 10 - 13, 2012, Hawaii, EU, (with S. Sastry).
33. Workshop on 25 Years of Passivity-based Control, VJ Technology Institute, May 19 - 23, 2014, Mumbai, India, (with F. Kazi).
34. Course on Modelling and Control of Port-Hamiltonian Systems, Zhejiang University, April 6-7, 2017, Hangzhou, R. P. China, (with A. van der Schaft and D. Jeltsema).

35. Course on Immersion and Invariance Control, Instituto Tecnológico y de estudios Superiores de Monterrey, Monterrey, Mexico, 2019, (with G. Escobar).
36. Saint Petersburg School on Nonlinear and Adaptive Control, ITMO University, June 3-5, 2019, Saint-Petersburg, Russia, (with A. Bobtsov).
37. Workshop on Modern Adaptive Control and Estimation : From Theory to Applications, 62nd IEEE Conference on Decision and Control, December 13-15, 2023, Singapore, (with Y. Pan).
38. Workshop on Advanced Mathematics In Contemporary Control Problems, MexSIAM 2024, CIMAT, December 4-6, Mérida, México, (with J. G. Romero).
39. IFAC Workshop on Adaptive and Learning Systems, ITAM, Mexico City, Mexico, July 2-4, 2025, (Co-chairman with A. Bobtsov).

Research Funding

Networks

1. Network Coordinator Européen CHM Nonlinear and adaptive control : Towards a design methodology for physical systems, in le cadre du Programme Capital HuMayn, 1993 - 1997, budget : 360,000 Euros.
2. Network Coordinator INTAS, Nonlinear and adaptive control of mechanical and electromechanical systems, 1995 - 1997, budget : 40,765 Euros.
3. European Network TMR, Nonlinear and adaptive control (NACO - II), Responsible for LSS, 2000 - 2004, budget : 360,000 Euros.
4. European Network IST GEOPLEX, Responsible for LSS, 2002-2005, budget : 3,498,051 Euros.
5. European Network of Training CTS, Responsible for CNRS-University de Paris Sud, 2002-2005.
6. Coordinateur du Projet de Collaboration ECOS France-Chili, Contrôle and modélisation de convertisseurs tri phases avec une approche hamiltonian, C01E07, (with J. Espinoza, Université de Concepcion), budget : 100,000 FF par année, 2002 - 2004.
7. FP7 -ICT-2009.3.5 Engineering of Networked Monitoring and Control systems, EU- India collaboration in the field of networked monitoring and control systems technologies, 2010-2012, budget 499,537 Euros.
8. Coordinateur du Projet de Collaboration ECOS France-Mexico, Approche energetique pour la modélisation, l'analyse and la commande des systemes electriques de puissance, M14M02, (with G. Espinoza, Université du Mexico), budget : 100,000 Euros par année, 2015 - 2019.

Joint Collaboration Projects

1. CNRS - CONACyT (Mexico), adaptive control, 1984 - 1987, (with R. Lozano, CIEA).
2. CNRS - CONACyT (Mexico), Commande des robots, 1988 - 1990, (with J. Ibarra, CIEA).
3. Ministère français des Affaires Etrangères, France-Israel, Arc en Ciel, 1994, (with A. Ailon, Ben-Gurion U).

4. Conférence des Grandes Ecoles France - University of California Berkeley, USA, budget : 20,000 FF per year, 1995 - 1997, (with R. Horowitz, Berkeley).
5. Responsable de l'action Automatique de la Conférence des Grandes Ecoles, 1997 - 2001.
6. Projet Trident d'Automatique with la Suède, Conférence des Grandes Ecoles, 1997, (with K. J. Astrom, Lund).
7. Conférence des Grandes Ecoles France - MIT, budget : 20,000 FF per year, 1997 - 2002, (with G. Verghese and A. Stankovic, MIT).
8. Conférence des Grandes Ecoles France - COSEF (Korea), budget : 50,000 FF per year, 1999 - 2002, (with G. Nam, POSTECH).
9. GDR Automatique, Sur la commande non-linéaire des systèmes non-autonomes, budget 20,000 FF per year, 1999 - 2000, (with A. Loria, Grenoble and L. Praly, Ecole de Mines).
10. Projet CNRS - British Academy of Sciences, budget : 45,000 FF per year, 2000 - 2002, (with A. Astolfi, Imperial College).
11. NSF (No. ECS0228869), Workshop on Future Directions in Nonlinear Control of Mechanical Systems, budget : 5,000 USD, 2002, (with M. Spong).
12. CNRS - NSF (No INT-0128656), Passivity-based control of networked control systems, global budget : 11,445 Euros, 2002 - 2004, (with M. Spong, University of Illinois).
13. Ministère français des Affaires Étrangères, PAI France - Hong-Kong, No. 04799RC, Robust nonlinear adaptive control of electrical machines, budget : 4,573 Euros, 2002 - 2003, (with L. Qiu, Hong-Kong University of Science and Technology).
14. Eglise Picasso France - Spain, No. 04340SD, Commande non-linéaire des systèmes mécaniques sous-actionnés, budget : 2,847 Euros, 2002 - 2003, (with J. Aracil, U de Sevilla).
15. DSTIC/CNRS - UIUC (No 13189), Etude de la télé-opération bilatérale sur des réseaux de communication non fiables, budget globale : 6,000 Euros, 2003 - 2005, (with M. Spong, University of Illinois).
16. LIAMA France - China, No. 02-05, Flexible AC transmission systems in electrical networks, budget : 8,000 Euros, 2002 - 2003, (with Y. Sun, Tsinghua University).
17. Projet FONDECYT - Chili, No 1030962, Adaptive control of nonlinear systems, budget : 2,000 USD, 2003 - 2004, (with M. Duarte, University of Chili).
18. Projet LAFMA with le Mexique, Amélioration de la qualité de l'énergie utilisant le façonnement de la puissance and les filtres actifs, budget : 7,500 Eu, 2005 - 2006, (with G. Escobar, IPICYT).
19. Eglise van Gogh France - Holland, No. 084111QL, Contribution aux techniques de façonnement d'énergie, budget : 9,000 Euros, 2005 - 2006, (with J. Scherpen, Delft University).
20. Eglise Star France - Korea, Wave effect compensation in delayed and reflected channel master-slave interconnection : Applications to teleoperator, high baud rate circuit, and long cable connected motor drive, budget : 31,000 Euros, 2005 - 2006, (with Jeong-Ho Kang, Dajin System Co. Ltd.).
21. Centre Franco - Indien Pour la Promotion de la Recherche Avancée, A modelling and controllers synthesis for mechanical systems with fluids and flexible elements, budget : 95,000 Euros, 2006 - 2008, (with Ravi Banavar, Indian Institute of Technology, Mumbai, Inde).

22. Projet LAFMA with le Mexico, Commande hybride des filtres actifs, budget : 15,000 Eu, 2007 2008, (with G. Escobar, IPICyT).
23. Projet DIGITEO - Emergence, Au coeur de la pile a combustible : modélisation non linéaire, commande hybride and stockage d'énergie, budget (app) : 150,000 Euros, 2007 - 2008, (collaboration with LGEP and CEA).
24. Projet France - Russia, Efficacite 'energetique : Sources d'énergies nouvelles and renouvelables, budget : 5,000 Euros, 2007 - 2008, (collaboration with lInstitut d'Énergie de Moscou and L'Université de Saint Petersburg).
25. Projet PICS France - Russia, Robust and adaptive control, budget : 5,000 Euros, 2008 - 2010,(collaboration with l'Université de Saint Petersburg).
26. Eglise FAST France - Australie, Transient stability of power systems, budget : 13,000 Euros, 2008 - 2009, (with David Hill, Australian National University).
27. Projet PPF Commande robuste sous contraintes des systemes hybrides incertains, budget (app) : 15,000 Euros, 2007 - 2008, (collaboration with SUPELEC).
28. Eglise NUSANTRA France - Indonesia, Nonlinear control of fuel cell systems, budget : 10,000 Euros,2009 - 2010, (with Bandung Insitute of Technology).
29. Projet PRIN Innovative identification and control methods, budget (app) : 15,000 Euros, 2010 2011, (collaboration with UniRoma-2, A. Astolfi).
30. Project IMHOTEP, France-Egypt, Renewable interconnections to the grid and virtual power plants,2011-2012, (collaboration with Zagazig University, Egypt)
31. Projet CONACyT (Mexico), Teleoperacion y Sincronizacion de Redes de Robots con Retardos,budget 40,300 Euros, 2011 - 2014, (collaboration with Universidad de Guadalajara, Mexico).
32. Project CNRS PEPS INSIS, Une approche robustess pour la commande adaptative, budget 25,000 Euros, 2011-2012, (with L. Praly).
33. Projet de coop'eration franco-bavarois, Commande par passivite des systemes mecaniques, budget830 Euros, 2013, (with Technical University of Munich.)
34. Affiliate Researcher du : Center for Ultra-Wide-Area Resilient Electric Energy Transmission Networks (CURENT), NSF Engineering Research Center, www.curent.utk.edu, 2012-2017.
35. Projet de coop'eration with National Research University of Information Technologies, Mechanics andOptics, St. Petersburg, Russia, Commande nonlineaire and adaptative, budget (app.) 3MEuros, <http://control.ifmo.ru/en/>, 2014-2018, (with A. Bobtsov.)
36. Projet de coop'eration with North Carolina State University, Raleigh, Etats Unis, NSF EngineeringResearch Center for future renewable energy distribution and management (FREEDM), budget (app.) 30KEuros, <https://www.freedm.ncsu.edu>, 2016-2017, (with H. Iqbal).
37. Projet CONACy-FORDECYT, (Mexico), Programa para un avance global e integrado de la matematica mexicana, budget 4,000 Euros, 2016 - 2017, (with D. Langarica).
38. Projet British Engineering and Physical Sciences Research Council (UK), Design for control of flexible robots, budget : 239,000 Pounds, 2017 - 2019, (with A. Astolfi, Imperial College),

39. Projet CONACyT (Mexico), Sincronización de Sistemas Multiagentes, budget 50,000 Euros, 2018 - 2020, (collaboration with Universidad de Guadalajara, Mexico).
40. Project PHC AURORA 2019 (France), Stability analysis of electrical networks containing constant power devices, (Agence française pour la promotion de l'enseignement supérieur.)
41. Indian SPARC Project, "Management of Distributed Energy Resources in Smart Cities: Challenges and Advanced Control Strategies", 2019-2021, (with Birla Institute of Technology, Pilani, India.)
42. Australian Research Council, Discovery Project, "Insect inspired flapping wing robots: autonomous flight control systems", budget 519,000 AU dollars, 2023-2026, (with Peng Shi, Adelaide University, Adelaide, Australia)

Industrial Projects

1. SINTEF, Norvège, Commande hybride des machines asynchrones, 1997, (with O. Egeland).
2. Energy Power Research Institute, Palo Alto, USA, Methods for computer-aided control synthesis in power systems, Contract 8605-1, 1996 - 1998, (with A. Stankovic, Northeastern University).
3. Emotron AB, Sweden, Evaluation of a fully pitched Switched-Reluctance drive system, 1998, (with D. Pulle, Lund).
4. US Army Research Office, USA, Nonlinear and adaptive control of AC electric drives, 1999 - 2002, (with A. Stankovic, Northeastern University).
5. General Motors Corporation, USA, Robust and adaptive control of induction motors in automotive applications, 2001 - 2002, (with A. Stankovic, Northeastern University).
6. Electricité de France, R&D, France, Control de processus energetiques, 2010, (with M. Bitam, EDF).
7. Schneider Electric-Toshiba, France, Robust sensorless control of PMSM, 2012-2014, (with F. Malrait, Technocentre Pacy).
8. Alstom Grid, Massy, France, Control of HVDC Transmission Systems, 2013-2015, (with A. Benchaib, Alstom Grid).

Scientific Responsibilities

- President de la "Asociación Mexicana de Control Automático.
- Organisation nationale member of IFAC, (1989 - 1990).
- Chairman du groupe de travail Adaptive Control and Systems Identification of the IEEE Technical Committee on Theory, (1988 - 1990).
- Chairman du IFAC Technical Committee on Adaptive Control and Tuning, (1996 - 1999).
- Membre du Technical Board of IFAC, (1999 - 2002).
- President of "IFAC Coordinating Committee : Systems and Signals", (1999 - 2002).
- Chairman of Automatica Best Paper Award Committee (1996 - 1999 and 2009 - 2012).

- Member of Automatica Paper Prize Selection Committee, (2020 - 2023).
- Member of IEEE Control Systems Award Committee, (2024 - 2025).

Journals Responsibilities

- Editor in Chief, Int. J. of Adaptive Control and Signal Processing, (from 2014).
- Editor at Large, Asian Journal of Control, (from 2011).
- Associate Editor, Latin American Applied Research Journal., Argentina, (1989 - 1991).
- Associate Editor, Int. J. of Adaptive Control and Signal Processing, (from 1991).
- Associate Editor, Systems and Control Letters, (1995 - 2005).
- Associate Editor, European J. of Control, (1995 - 2000).
- Associate Editor, IEEE Trans. on Control Syst. Techn., (1997 - 1999).
- Associate Editor, Problemy upravleniya i informatiki, (translated in the USA as Journal of Automation and Information Sciences), (from 2003).
- Associate Editor, Computacion y Sistemas : Revista Iberoamericana de Computacion, (1997 - 1999).
- Editor at Large, IEEE Trans. Automatic Control, (2003 - 2009).
- Associate Editor, RIAI : Revista Iberoamericana de Automática e Informática Industrial, (2004 2011).
- Associate Editor, The Open Automation and Control Systems Journal, (from 2007).
- Associate Editor, Mekhatronika, Avtomatizatsiya, Upravlenie, (in Russian), Russia, (from 2017).
- Associate Editor, Cybernetics and Physics, Open Access Journal, Russia, (from 2014).
- Associate Editor, Revista de Ingenieria Electronica, Automatica y Comunicaciones, Cuba, (2017 - 2024).

Invited Editor in journals

- Special Issue on Adaptive and Robust Control, Int. J. on Adap. Cont. and Signal Proc., Vol. 2, No. 4, déc. 1988, (with R. Lozano).
- Special Issue on Robot Control, Int. J. on Adap. Cont. and Signal Proc., Vol. 4, No. 6, December 1990, (with R. Kelly).
- Special Issue on Nonlinear and Adaptive Control, European J. of Control, Vol. 4, No. 3, 1998.
- Special Issue on Nonlinear Control of Induction Motors, Int. J. on Adap. Cont. and Signal Proc., Vol. 14, No. 2/3, March-May 2000, (with G. Asher and E. Mendes).
- Special Issue on Digital Control in Power Electronic Circuits and Drives, IEEE Transactions on Power Electronics, Vol 18, No. 1, January 2003, (Ed. E. Leeb).

- Special Issue on Robust and Nonlinear Control of Power Systems, Int. J. on Nonlinear and Robust Control, Volume 14, Issue 9-10, June - July 2004, (with T. Shen and Z. Sun).
- Special Issue on Advanced Motor Drives, IEEE. J. of Emerging and Selected Topics on Power Electronics, November 2013.
- Special Issue on From Adaptive Control to Variable Structure Systems : Seeking For Harmony, Int. J. on Adap. Cont. and Signal Proc., Vol, 30, No. 8-10, August-October 2016, (with T. Silva and L. Fridman).
- Special Issue on Research on Control Theory in Mexico, RIAI : Revista Iberoamericana de Automática e Informática Industrial, Vol. 19, 2022, (with E. Nuño).

Invitation for Visits to Give Courses and Conferences

(Less than a week, if is not indicated otherwise.)

1983

- University of California, Berkeley, USA, (10 days).

1985

- University of Oxford, Oxford, GB.
- University of Sussex, GB.
- Laboratoire DAutomatique de Grenoble, Saint-Martin-d'Heres, France.

1986

- 6th Brazilian Automatic Control Conf., Belo Horizonte, Brazil.
- Instituto Mathematicas Pura e Aplicada, Rio de Janeiro, Brazil, (15 days).
- XIX National Congress on Mathematics, Guadalajara, Mexico.

1987

- University of Kassel, Kassel, Germany, (15 days).
- Universita di Firenze, Florence, Italy, (21 days).
- International Inst. of Applied Syst. Anal., Laxenburg, Austria.
- University of Toronto, Toronto, Canada.
- University of Southern California, Los Angeles, USA.

1988

- Iowa State University, Iowa City, USA.
- University of Wisconsin, Madison, USA.
- University of Minnesota, Minneapolis, USA.
- University of Pennsylvania, Pittsburgh, USA.
- Ohio State University, Columbus, USA.

- University of Massachusetts, Amherst, USA.
- Massachusetts Inst. of Technology, Boston, USA.
- Michigan State University, East Lansing, USA.
- Texas A & M, College Station, USA.
- Arizona State University, Tempe, USA.

1989

- University of California Berkeley, Berkeley, USA.
- University of Southern California, Los Angeles, USA.
- University of New Mexico, Albuquerque, USA.
- Laboratoire d'Automatique de Grenoble, Saint-Martin-d'Heres, France.
- Universite Catholique de Louvaine-la-Neuve, Belgium, (7 days).

1990

- University of Notre Dame, Southbend, USA.
- Tokyo Institute of Agriculture and Engineering, Tokyo, Japan.
- Ashikaga Institute of Technology, Ashikaga, Japan.
- Tsukuba University, Tsukuba, Japan.
- Tohoku University, Sendai, Japan.
- Osaka University, Osaka, Japan.
- Nagoya University, Nagoya, Japan.

1991

- Kyoto University, Kyoto, Japan.
- Keio University, Tokyo, Japan.
- Twente University, Enschede, Holland, (21 days).
- McGill University, Montreal, Canada.
- Universite de Montreal, Montreal, Canada.

1992

- Ecoles Meditteraneene, Marrakech, Maroc.
- Rensleasser Polytechnical Institute, Troy, USA.
- Queens University, Kingston, CA, USA.
- Rutgers University, New Jersey, USA.
- GRECO-CNRS Reunion annuelle, Paris, France.

- Laboratoire dAutomatique de Nantes, Nantes, France.
- Università di Genova, Genova, Italy.
- Centro de Investigacion y Estudios Superiores, Ensenada, BC, Mexico.
- CINVESTAV, Mexico City, Mexico, (30 days).
- LAAS-CNRS, Toulouse, France.

1993

- Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland, (7 days).
- Universidad Politecnica de Valencia, Valencia, Spain, (7 days).
- Universidad Politecnica de Sevilla, Sevilla, Spain.
- Twente University, Enschede, Holland, (7 days).
- Norwegian Institute of Technology, Trondheim, Norvège, (10 days).
- Georgia Institute of Technology, Atlanta, USA.
- Posgrado de Ingenieria, UNAM, Mexico City, Mexico, (21 days).

1994

- Saint-Petersburg University, Saint-Pétersbourg, Russia.
- Ben-Gurion University, Beer-Sheva, Israel, (45 days).
- Jet Propulsion Lab, Pasadena, CA, USA.
- Australian National University, Canberra, Australie, (30 days).
- Sydney University, Sydney, AUS, (30 days).
- University of Newcastle, Newcastle, Australie.
- GRECO/CNRS Réunion annuelle, Batz-sur-Mer, France.
- Oxford University, Oxford, Great Britain, (7 days).

1995

- LAAS-CNRS, Toulouse, France.
- Ecoles des Mines de Paris, Fontainebleau, France.
- Università degli Studi di Napoli, Naples, Italy.
- Università di Roma, Rome, Italy, (10 days).
- Politecnico di Milano, Milan, Italy, (7 days).
- Université de Picardie, Amiens, France.
- Instituto de Ingenieria, UNAM, Mexico City, Mexico, (15 days).
- Twente University, Enschede, Holland, (10 days).

- Universidad Politecnica de Valencia, Valencia, Spain, (7 days).

1996

- Universidad de los Andes, Bogota, Colombia, (7 days).
- Universidad Simon Bolivar, Caracas, Venezuela, (7 days).
- Norwegian Institute of Technology, Trondheim, Norway.
- Universite Catholique de Louvaine-la-Neuve, Belgium.
- Universidade Federal do Rio de Janeiro, Brazil, (3 mois).
- Universidad del Sur, Bahia Blanca, Argentina.
- Academy of Sciences of the Czech Republic, Prague, Czech Republic.

1997

- ETH, Zurich, Switzerland.
- Universidad Politecnica de Valencia, Valencia, Spain, (15 days).
- Lund University, Lund, Sweden, (15 days).
- University of Linkoping, Linkoping, Sweden
- University of California Berkeley, Berkeley, USA, (7 days).
- University of New Mexico, Las Cruces, USA.
- Imperial College, London, Great Britain.
- Northeastern University, Boston, USA, (5 weeks).
- Yale University, New Haven, USA.
- United Technologies, Hartford, USA.
- Posgrado de Ingenieria, UNAM, Mexico City, Mexico, (15 days).
- Ecoles d'été du Laboratoire d'Automatique de Grenoble, France
- University of Bremen, Bremen, Germany.
- Universidad Politecnica de Sevilla, Sevilla, Spain.
- Hungarian Academy of Sciences, Budapest, Hungary.
- Centro de Investigacion y Estudios Superiores, Ensenada, BC, Mexico.
- Universita di Roma, Rome, Italy.
- Universita degli Studi di Napoli, Naples, Italy.

1998

- University of Lund, Lund, Sweden.
- Imperial College, London, Great Britain.

- Twente University, Enschede, Holland.
- Universidad Politecnica de Sevilla, Sevilla, Spain, (1 mois).
- Universidad de los Andes, Merida, Venezuela.
- Universidad Simon Bolivar, Caracas, Venezuela.
- Universidade Federale de Rio grande do Sul, Porto Alegre, Brazil, (7 days).
- Universidade Federal du Rio de Janeiro, Brazil.
- Northeastern University, Boston, USA, (15 days).
- MIT, Cambridge, USA.
- Centro de Investigacion y Estudios Avanzados, Mexico City, Mexico.

1999

- Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland, (15 days). - Mathematisches Forschungsinstitut, Oberwolfach, Germany, (7 days).
- ETH, Zurich, Switzerland.
- Universitat Politecnica de Catalunya, Barcelona, Spain., (15 days).
- Keio University, Tokyo, Japan, (15 days).- Kyoto University, Uji, Japan.
- National University of Singapore, Singapore, (15 days).
- University of Melbourne, Melbourne, Australia, (2 months).

2000

- Imperial College, London, Great Britain, (1 month).
- University of Linz, Linz, Austria, (7 days).
- University of Twente, Enschede, Holland, (7 days).
- University of Illinois, Champaign, USA, (7 days).
- Polytechnic University Brooklyn, USA.
- Northeastern University, Boston, USA, (7 days).
- Universidade Federal du Rio de Janeiro, Brazil, (21 days).

2001

- Imperial College, London, Great Britain, (21 days).
- Laboratoire dAutomatique de Grenoble, France.
- University of Twente, Enschede, Holland, (7 days).
- Universitat Politecnica de Catalunya, Barcelona, Spain.
- CAS Ecole Nationale Supérieur des Mines, Fontainebleau, France.

- POSTECH, Pohang, Korea, (15 days).
- Hong-Kong University of Science and Technology, HK, China, (18 days).
- Estonian Academy of Sciences, Tallin, Estonia.
- Warsaw Politechnical Institute, Warsaw, Poland, (7 days).
- Taiwan National University, Taiwan, (15 days).
- Tsinghua Univeristy, Taiwan.
- Northeastern University, Boston, USA, (21 days).
- Posgrado de Ingenieria, UNAM, Mexico City, Mexico, (7 days).

2002

- Laboratoire dAutomatique de Grenoble, France.
- CAS Ecole Nationale Supérieur des Mines, Fontainebleu, France.
- University of Twente, Enschede, Holland.
- Delft University of Technology, Holland.
- City University of Hong-Kong, HK, China.
- Hong-Kong University of Science and Technology, HK, China, (7 days).
- Tsinghua University, Beijing, China, (7 days).
- Chinase Academy of Sciences, China.
- Universitat Politecnica de Catalunya, Barcelona, Spain.
- Universidad Politecnica de Sevilla, Sevilla, Spain, (15 days).
- Imperial College, London, Great Britain, (15 days).
- University of Illinois, Champaign, USA, (15 days).
- Istanbul Technical University, Turquie.- Dogus University, Turquie.

2003

- Universidad de Chili, Santiago, Chili.
- Universidad de Concepcion, Chili, (15 days).
- Universidade Federal du Rio de Janeiro,Brazil.
- University of Illinois, Champaign, USA, (10 days).
- Posgrado de Ingenieria, UNAM, Mexico City, Mexico.
- Chinase Academy of Sciences, Beijing, China.
- Tsinghua University, Beijing, China, (30 days).
- Chinase University of Hong Kong, China.

- Hong-Kong University of Science and Technology, HK, China, (7 days).
- Instituto Potosino de Ciencia y Tecnologia, San Luis Potosi, Mexico, (7 days).
- University of California, Berkeley, USA.
- Universita di Roma, Rome, Italy.

2004

- Universidad de Chile, Santiago, Chili, (7 days).
- Universidad Nacional de San Juan, San Juan, Argentina, (7 days).
- Northeastern University, Boston, USA.
- University of Illinois, Champaign, USA, (30 days).
- University of Michigan, Ann Arbor, USA, (7 days).
- Michigan State University, East Lansing, USA.
- Ford Research Center, Dearborne, USA.
- University of Wisconsin, Madison, USA, (7 days).
- Posgrado de Ingenieria, UNAM, Mexico City, Mexico, (10 days).
- Keio University, Tokyo, Japan.
- Sophia University, Tokyo, Japan.
- Imperial College, London, Great Britain.
- Centro de Investigacion y Estudios Superiores, Ensenada, BC, Mexico.

2005

- University of Twente, Enschede, Holland.
- Universidad de Concepcion, Chili, (15 days).
- Centre de Recerca Matematica, Barcelona, Spain, (7 days).
- Universitat Politecnica de Catalunya, Barcelona, Spain.
- Delft University of Technology, Holland.
- Indian Institute of Technology, Mumbai, Inde, (45 days).
- Centro de Investigacion y Estudios Superiores, Ensenada, BC, Mexico.
- Posgrado de Ingenieria, UNAM, Mexico City, Mexico.
- Instituto Potosino de Ciencia y Tecnologia, San Luis Potosi, Mexico, (7 days).

2006

- Indian Institute of Technology, Mumbai, India, (15 days).

- Universitat Politecnica de Catalunya, Barcelona, Spain, (15 days).
- Centro de Investigacion y Estudios Avanzados, Mexico City, Mexico, (7 days).
- POSTECH, Pohang, Korea, (7 days).
- Hyundai Research Center, Seoul, Korea.
- Samsung Research Center, Seoul, Korea.
- Nagoya University, Nagoya, Japan.
- Keio University, Tokyo, Japan.
- Kyoto University, Kyoto, Japan, (15 days).
- Sophia University, Tokyo, Japan, (15 days).
- Imperial College, London, Great Britain, (15 days).
- Cambridge University, Great Britain.

2007

- Sophia University, Tokyo, Japan, (7 days).
- Groningen University, Holland.
- Jiao Tong University, Shanghai, China.
- Wuhan University, Wuhan, China.
- Escuela de Ingenieros Industriales, Seville, Spain.
- Centro de Investigacion y Estudios Avanzados, Mexico City, Mexico.
- Posgrado de Ingenieria, UNAM, Mexico City, Mexico, (30 days).
- Instituto Potosino de Ciencia y Tecnologia, San Luis Potosi, Mexico, (7 days).
- University of Illinois, Champaign, USA, (7 days).
- Moscow Institute of Energy, Russia.
- Oural Technical University, Ekaterinenbourg, Russia.
- Technological University of Saint Petersburg, Russia.
- Kuopio University, Finland, (30 days).

2008

- Imperial College, London, Great Britain, (15 days).
- Universidad de Valladolid, Valladolid, Spain.
- Universita Tor Vergata, Rome, Italy, (15 days).
- Nanyang University, Singapore, (15 days).
- POSTECH, Pohang, Korea.

- Jiao Tong University, Shanghai, China.
- Zhejiang University, Hangzhou, China (30 days).
- Laboratoire d'Automatique de Grenoble, France.
- Indian Institute of Technology, Mumbai, India, (7 days).
- Universidad Simon Bolivar, Caracas, Venezuela.

2009

- Insitute for Problems of Mechanical Engineering, Saint Petersburg, Russia.
- University of Saint Petersburg, Russia.
- Institute of Control Problems, Moscow, Russia.
- Universitat Politecnica de Catalunya, Barcelona, Spain.
- Imperial College, London, Great Britain.
- Centre de Recerca Matematica, Barcelona, Spain, (7 days).
- Instituto Tecnologico de Monterrey, Puebla, Mexico, (7 days).
- Melbourne University, Melbourne, Australia, (7 days).
- Australian National University, Canberra, Australia, (45 days).
- New South Wales University, Sydney, Australia, (7 days).
- Bandung Insitute of Technology, Bandung, Indonesia, (10 days).
- Zhejiang University, Hangzhou, China (7 days).

2010

- Universite de Liege, Belgium.
- Imperial College, London, Great Britain.
- Groningen University, Holland.
- University of Texas, Dallas, USA, (7 days).
- Bandung Insitute of Technology, Bandung, Indonesia, (15 days).
- Nanyang University, Singapore, (7 days).
- Zhejiang University, Hangzhou, China (7 days).
- Norwegian Institute of Technology, Trondheim, Norway.
- Universite Libre, Bruxelles, Belgium.

2011

- Groningen University, Holland.
- Aalborg University, Denmark, (60 days).

- Indian Institute of Technology, Mumbai, India.
- Indian Institute of Science, Bangalore, India.
- Royal Institute of Technology, Stockholm, Sweden.
- Universidad Autonoma de Guadalajara, Los Lagos, Mexico.
- Universitat Politecnica de Catalunya, Barcelona, Spain (7 days).
- Universitat Politecnica de Madrid, Madrid, Spain.
- Yildaz University, Istanbul, Turkey.
- Universidad Javeriana, Caracas, Venezuela.
- Universidad de Santa Catarina, Florianopolis, Brazil, (7 days).
- Zagazig University, Egypt.

2012

- Ecole Centrale Lille, France.
- Indian Institute of Sciences, Bangalore, India.
- Technical University of Munich, Munich, Germany, (7 days).
- Tufts University, Boston, USA, (7 days).
- Zhejiang University, Hangzhou, China (15 days).
- Chinese Academy of Sciences, Beijing, China.
- Norwegian Institute of Technology, Trondheim, Norway, (7 days).
- Centro de Investigacion y Estudios Avanzados, Mexico City, Mexico.
- CENIDET, Cuernavaca, Mexico.
- Instituto Politecnico Nacional, Mexico City, Mexico, (7 days).
- Posgrado de Ingenieria, UNAM, Mexico City, Mexico, (30 days).
- Universidad Autonoma de Guadalajara, Guadalajara, Mexico, (7 days).
- Imperial College, London, Great Britain.
- University of Texas, Dallas, USA.

2013

- University of Colorado, Denver, USA, (11 days).
- Technical University of Berlin, Berlin, Germany.
- Rockwell Automation, Milwaukee, WI, USA.
- University of Maryland, USA.
- Centro de Investigacion y Estudios Avanzados, Mexico City, Mexico.

- Posgrado de Ingenieria, UNAM, Mexico City, Mexico.
- Universidad Autonoma de Guadalajara, Guadalajara, Mexico.
- Zhejiang University, Hangzhou, China (45 days).
- Chinese Academy of Sciences, Beijing, China.
- ONERA, Toulouse, France.
- INSA, Rouen, France.
- U. of Information Technologies, Mechanics and Optics, St. Petersburg, Russia.

2014

- Aalborg University, Denmark (7 days).
- Tufts University, Boston, USA, (15 days).
- MIT, Boston, USA.
- U. of Information Technologies, Mechanics and Optics, St. Petersburg, Russia (100 days).
- Institute of Control Problems of Academy of Science, Moscow, Russia.
- Indian Institute of Technology, Mumbai, India.
- VJ Technology Institute, Mumbai, India, (7 days).
- Zhejiang University, Hangzhou, China (30 days).

2015

- U. of Information Technologies, Mechanics and Optics, St. Petersburg, Russia (100 days).
- Groningen University, Holland.
- Zhejiang University, Hangzhou, China (30 days).
- Jiaotong University, Shanghai, China.
- Posgrado de Ingenieria, UNAM, Mexico City, Mexico.
- Centro de Investigacion y Estudios Avanzados, Mexico City, Mexico.
- Universidad Nacional de Rosario, Rosario, Argentina (15 days).

2016

- U. of Information Technologies, Mechanics and Optics, St. Petersburg, Russia (100 days).
- ETH, Zurich, Switzerland.
- Zhejiang University, Hangzhou, China (60 days).
- Dianzi University, Hangzhou, China (30 days).
- Universidad Nacional de Rosario, Rosario, Argentina (15 days).
- Universidad Politecnica de Catalunya, Barcelona, Spain.

- Tufts University, Boston, USA, (15 days).
- Penn State University, State College, USA.
- Yale University, New Haven, USA.
- Universidad de Guadalajara, UdG, Guadalajara, Mexico.
- Posgrado de Ingenieria, UNAM, Mexico City, Mexico (15 days).

2017

- U. of Information Technologies, Mechanics and Optics, St. Petersburg, Russia (100 days).
- Institute of Control Problems of Academy of Science, Moscow, Russia.
- Zhejiang University, Hangzhou, China (60 days).
- Dianzi University, Hangzhou, China (30 days).
- Imperial College, London, Great Britain.
- Leeds University, Leeds, Great Britain.
- Universita di Roma, La Sapienza, Rome, Italy.
- Posgrado de Ingenieria, UNAM, Mexico City, Mexico (7 days).
- IMDEA, Madrid, Spain.

2018

- Universidad de Guadalajara, UdG, Guadalajara, Mexico, (7 days).
- Posgrado de Ingenieria, UNAM, Mexico City, Mexico, (7 days).
- Sharif University, Tehran, Iran, (7 days).
- Universidad de Chile, Santiago, Chile.
- Pontificia Universidad Catolica del Peru, Lima, Peru.
- Institute of Control Problems of Academy of Science, Moscow, Russia.
- Technical University of Brandenburg, Cottbus, Germany, (7 days).
- Groningen University, Holland.
- Imperial College, London, Great Britain.
- Instituto Potosino de Ciencia y Tecnologia, San Luis Potosi, Mexico.
- Centro de Investigacion y Estudios Avanzados, Mexico City, Mexico.
- Instituto Politecnico Nacional, Mexico, (7 days).
- U. of Information Technologies, Mechanics and Optics, St. Petersburg, Russia (60 days).
- Dianzi University, Hangzhou, China (30 days).
- Nanjing University, Jilin, China.

- Chinese Academy of Sciences, Beijing, China.
- Northeastern University, Shenyang, China.
- Jilin University, Jilin, China.
- Harbin Institute of Technology, Harbin, China.
- Jiaotong University, Shanghai, China.

2019

- Posgrado de Ingenieria, UNAM, Mexico City, Mexico.
- Imperial College, London, Great Britain.
- Centro de Investigacion y Estudios Avanzados, Mexico City, Mexico.
- Instituto Tecnologico y de Estudios Superiores de Monterrey, Monterrey, Mexico, (7 days).
- U. of Information Technologies, Mechanics and Optics, St. Petersburg, Russia (21 days).
- Lyon University, Lyon, France.
- University of Bologna, Bologna, Italy.
- University of Naples, Naples, Italy.
- Tufts University, Boston, USA, (7 days).
- McGill University, Montreal, Canada.
- Waterloo University, Waterloo, Canada.
- Universidad de Guadalajara, UdG, Guadalajara, Mexico, (7 days).
- Universidad Nacional de Rosario, Rosario, Argentina (7 days).
- ETH, Zurich, Switzerland.
- Dianzi University, Hangzhou, China (30 days).
- Nanyang University, Singapore, (7 days).

2020

- Birla Institute of Technology, Pilani, India, (12 days).
- Indian Institute of Technology, Delhi, India.
- Escuela Tecnica Superior de Ingenieria, Universidad de Sevilla, Spain.

2021

- Instituto Tecnologico y de Estudios Superiores de Monterrey, Monterrey, Mexico, (7 days).

2022

- Universitat Politecnica de Catalunya, Barcelona, Spain (7 days).
- Escuela Tecnica Superior de Ingenieria, Universidad de Sevilla, Spain.

- ENSEM Casablanca, Hassan II University of Casablanca, Morocco.
- Instituto Tecnológico y de Estudios Superiores de Monterrey, Monterrey, Mexico, (7 days).

2023

- Universidad Autónoma de Hidalgo, Pachuca, Mexico.
- ITMO University, St. Petersburg, Russia, (7 days).
- Tokyo Institute of Technology, Tokyo, Japan, (21 days).
- Sophia University, Tokyo, Japan.
- Dianzi University, Hangzhou, China (10 days).
- Zhejiang University, Hangzhou, China.
- Sun Yat-sen University, Guangzhou, China.
- Newcastle University, Newcastle, Australia, (21 days).
- Sydney University, Sydney, Australia.
- CICESE, Ensenada, Mexico.
- IPICyT, San Luis Potosí, Mexico.
- Universitat Politècnica de Catalunya, Barcelona, Spain (7 days).
- INRIA, Lille, France.

2024

- Instituto Tecnológico de Celaya, Celaya, Mexico.
- Centro Nacional de Investigación y Desarrollo Tecnológico, Cuernavaca, Mexico.
- Instituto Tecnológico de la Laguna, Saltillo, Mexico.
- LAGEP, Université Claude Bernard, Lyon, France.
- INSA, Rouen, France.
- Universidad de Guadalajara, UdG, Guadalajara, Mexico.
- Unidad Profesional Interdisciplinaria de Ingeniería del IPN, Campus Hidalgo, Mexico.

2025

- ESIME, Instituto Politécnico Nacional, Mexico.