


CV William Colmenares

Cover Letter: I have been teaching university courses since 1985, mainly at Universidad Simon Bolivar (USB) but also in many other universities. I have always loved teaching and, as I grew up in my academic career, I came to love research, to work in international cooperation projects, to do consulting and to look for new ways to enrich and ease learning. The latter through intensive use of emerging technologies.

Lately, I worked as Higher Education Management consultant for Stonehill Education to serve as Vice-president of Administration and Finances of the future Afro American University of Central Africa (AAUCA) in Equatorial Guinea. Previously, I was vice-chairman for administrative affairs and full professor at Universidad Simon Bolivar, Venezuela.

As VP Admin & Finances at AAUCA, I was responsible for HR, Finances, Facilities Admin & Maintenance, Security, Procurement, and IT (Network, Hardware, Software, Systems), as it was at USB except for IT. At AAUCA, with Stonehill's team, I helped design the new University's Development Plan, and budgets for the first 5 years. I worked closely with local authorities and technical committees to advance the creation law, the Development Plan and the approval of the first-year's budget. I also worked closely with local service providers to assure a smooth university launch. At USB, I contributed to run the university on a very tight budget, generating new income sources, always keeping finances accountable and all services running.

Consultant on Control Systems and Automation for many years. More recently, consulting on Higher Education Management and very interested on the impact of emerging technologies on education (and society). Just to mention some, I have designed and administered eLearning courses, including training of trainers, for two big international cooperation projects, with students from 20 Latin American countries. I have designed, assisted with the designed or administered E-courses on Leadership, University Governance, International Cooperation, Higher Education Institutions (HEI) Funding Sources. HEI Strategic Management, Key Process Indicators (KPIs) for HEI, Sustainable Change, Management by KPIs. Right now, I am working with the Inter American Organization for Higher Education (Canada based) in their IGLU program since 2014 as virtual tutor of their Latin American courses on Leadership, Strategic Management, Finance and Cost Management and University Management & Indicators, the last two designed wholly or partly by me. Also producing seminars for the latinamerican university network Telescopi.

Over 22 years working in international cooperation programs. In most of them as the Venezuelan coordinator and key contact. Wide expertise in project management. Ability to (virtually) put together and align teams (people), physically in different countries to concrete project goals.

Regarding MOOCs, I have alway been a very enthusiastic and keen supporter of them. I participated in the second ever MOOC in February 2012 ("Building a Search Engine" by Udacity), and successfully completed several, including the one mentioned and "A Crash Course on Creativity" from Stanford's Venture Lab with Tina Seelig as professor. One of the subjects was Design Thinking.

Right now I am an expatriate Professor, teaching at the Engineering Faculty at the Afro American University of Central Africa (AAUCA) at the new City of La Paz, Djiboho in Equatorial Guinea. Previously, from August 2017, to December 2020, I teached (Professor) at the Faculty of Engineering of Universidad Nacional de Guinea Ecuatorial (UNGE) in the same country. From February 1985 to March 2015, I teached at Departamento de Procesos y Sistemas de la Universidad Simón Bolívar (USB) in Caracas, Venezuela.

Currently I am researching methodologies, such as those for Search & Planning, when the search space is huge, particularly useful when looking for models developed with some AI methods.

In the following, my (p)resume.

A. Personal Data

- **Name:** Williams R. Colmenares M.
- **E.mail:** wcolmen@gmail.com - williamc@usb.ve
- **Tenure:** retired full professor at Universidad Simon Bolivar, since may 1985.
- **Permanent Address:** Paseo del General Dávila 48A, 3 Izq, Santander, Spain.
- **Ph:** +34 637201071 or +240 222092621
- **Languages:** Spanish (native), English (fluid), French(speak, read).
- **This CV on the Web:** http://links.wiconet.org/MyCV
- **Google Scholar Index:** https://scholar.google.co.ve/citations?user=qaqv3ywAAAAJ&hl=en

B. Studies

1. Electrical Engineering, Universidad Simón Bolívar, Caracas, Venezuela 1977.
2. M.A.Sc. Electrical Engineering, Control Theory, Univ. of Ottawa, Canada, 1983.
3. M.Sc. Systems Engineering, minor: Operations Research, Honor Award. Universidad Simón Bolívar, Caracas, Venezuela, 1989.
4. PhD, Automation, Univ. Paul Sabatier, Toulouse, France, 1996. Thesis: *Sur la robustesse des systèmes linéaires incertains: approche quadratique, retour de sortie*. Award: Très honorable.

Publication Laboratoire d'Analyses et d'Architecture des Systèmes (LAAS) No. 96414. En: https://theses.hal.science/tel-00139742v1 (https://theses.hal.science/tel-00139742v1/document)

C. Research and cooperation projects.

1. Mercosur IPR SMC Help Desk. (2013-2015). Funded by European Commission. http://www.mercosur-iprhelpdesk.eu/
2. SUMA Network: Sustainable Financing for Higher Education Institutions. 2010 – 2013. Venezuelan Coordinator. Funded by ALFA III http://www.suma-network.org.
3. PILA Network: Latin American Network for Innovation and Intellectual Property Promotion on Higher Education Institutions. 2008 – 2011.Venezuelan Coordinator. Funded by ALFA III. (http://www.pila-network.org).
4. Engineering PhD degree in Processes and Systems. Venezuelan Academic Coordinator and Program Professor. 2004-2006. Funded by ALFA II.
5. Control strategies with supervision, optimization and reconfiguration capabilities for distributed control systems. Funded by the Interamerican Development Bank from 2001 up to 2007.
6. Industrial Automation Research Center (Centro de Automatización Industrial), Funded by the Interamerican Development Bank. From 1994 to 1999.
7. PCP Automatique. Graduate Collaboration Programme PCP, Venezuela - Francia. 1992 - 2000.

D. Publications: Papers, Books, Book's Chapters.

1. Diego Mogrovejo, Ernesto Granado, **William Colmenares**, Julio Zambrano, Flavio Quizhpi, "Robust multivariable PID control for quadruple-tank process using an ILMI approach", IEEE Ecuador (ETCM) Congress, Guayaquil, Oct., 2016
2. Granado, E; F. Quizhpi; J. Zambrano; **Colmenares, W.** "Remote Experimentation Using a Smartphone Application with Haptic Feedback".IEEE EDUCON 2016. Abu Dhabi, UAE. April 2016
3. **Colmenares W.** "How to Create Online Courses Just with the Internet conexion... and Not Die in the Attempt" Global Education Conference, 2014 Conference, Nov. 17-22, 2014. Online, In Spanish. http://www.globaleducationconference.com/
4. Espejo H., Amerio M. A., **Colmenares W.**, "An Application of full costing (ABC) to a student service (transport) of Universidad Simón Bolívar", (in Spanish). II Conferencia Internacional de Gestión Financiera Sustentable de Universidades Latinoamericanas, Santa Marta, Colombia, oct. 22-24, 2014
5. **Colmenares W**. "The University Today, where do we go?". America Learning & Media. Edición 28, April 2014. In Spanish. Online: http://www.americalearningmedia.com/edicion-028/325-opinion/5813-la-universidad-hoy-hacia-donde-lideramos

6. **Colmenares W.**, et al, “SUMA Virtual Workshops: Sustainable Finance Management of Higher Education Institutions in Latin America”. Digital Book in Spanish. Editor and Chapters 1 & 2. Oct 2013. Online: http://www.suma-network.org/sites/suma-network.org/files/publicaciones/MODULO_ACT_4_3_WEB.pdf
7. Granado E., **Colmenares W.**, Pérez O., Cataldo G., “Remote Experimentation Using Mobile Technology”, IEEE Latin American Transactions, Vol. 11, No. 4, pp 1121 - 1126, June 2013.
8. Aguilera A, Rodríguez M., Villegas T., **Colmenares, W.**"Explicit Implementation of Predictive Control Based on FPGA". pp. 101 - 106. *Recent Researches in Engineering and Automatic Control*, NAUN Series. WSEAS Publishers Tenerife, Spain. 2011. ISBN: 978-1-61804-057-2. Book Chapter.
9. Sarabia D.; de Prada C.; Cristea S.; Mazeda R.; **Colmenares, W.**“Hybrid NMPC Control of a Sugar House". pp. 495 - 502. *Assessment and Future Directions of Nonlinear Model Predictive Control*, Lecture Notes in Control and Information Sciences , Vol. 358 . Editores: Findeisen, Rolf; Allgöwer, Frank; Biegler, Lorenz. Springer-Verlag, Berlin - Heidelberg Berlin, Alemania. 2007. ISBN: 978-3-540-72698-2. Book Chapter.
10. Granado, E; **Colmenares, W.**; Strefezza, M; Alonso, A.. "A web-based virtual laboratory for teaching automatic control". *COMPUTER APPLICATIONS IN ENGINEERING EDUCATION*, Vol. 15, pp. 192 - 197. 2007.
11. **Colmenares W.**y Tadeo F., *Notes on Robust and Multiobjective Control Systems*, Editorial Equinoccio. ISBN 980-237-223-4, february 2006. In spanish. Book.
12. **Colmenares, W.**; Mata, E.; Revollar, S; Granado, E; Pérez, O. "Tuning industrial controllers – PID type". *Ciencia e ingeniería*. Vol. 26, pp. 9-16. 2005. In spanish.
13. O. Pérez, P. Vega, **W. Colmenares** y M. Francisco, “Integrated design with robust state feedback via LMIs”. *IEEE Revista America Latina*, Vol 2(3), sept. 2004. In spanish.
14. Granado E., **Colmenares W.**, Bernussou J y Garcia G., “LMI based MPC,” *IEE Proceeding D*, Vol. 150, pp. 528 - 533, 2003.
15. **Colmenares W.**, Cristea S., de Prada C., Villegas T., Alonso A. y Pérez O., “MLD Systems: Modeling and Control”, *Journal of Dynamics of Continuous, Discrete and Impulsional Systems*, Vol 10 (1-3), pp 107-121, 2003.
16. Yong A., De la Fuente M. y **Colmenares W.**, “Learning Discrete Linear Systems with The Orthogonal Learning Algorithm”, *Engineering Applications of Artificial Inteligence*, Vol. 14, pp 435-439, 2001.
17. **Colmenares W.**, Tadeo F., Granado E., Pérez O y del Valle F., “H2 Guaranteed Cost Control of Discrete Linear Systems”, *Mathematical Problem in Engineering*, Vol. 6, pp 425-437, 2000.
18. Garcia-Palomares U., **Colmenares W.**, “On the Minimization of a Quasiconcave Function Subject to Linear Constraints”, *Operation Res. Letters*, Vol. 10, No. 2, 1991.
19. **Colmenares W.**, Ahmed N.U., A Controllability Counter Example, *Int. Journal of System Science*, Vol. 15, pp. 837-840, 1985.

E. Proceedings and Invited Lectures. Recent years

1. **Colmenares W.**, “Stock vs Flow. Where is you Digital Product?”. Invited Lecture. Moodle Day 2016. Caracas, Venezuela. Nov. 15, 2016. Online. In Spanish.

http://links.wiconet.org/MoodleDay16.

2. **Colmenares W.,** "A Naive Look into the Future of Knowledge and Learning in the XXI Century". Invited Lecture, in Spanish. II Conferencia Internacional de Gestión Financiera Sustentable de Universidades Latinoamericanas, Santa Marta, Colombia, Oct. 22-24, 2014.
3. **Colmenares W.** "How to Create Online Courses Just with the Internet connexion... and Not Die in the Attempt" Global Education Conference, 2014 Conference, Nov. 17-22, 2014. Online, In Spanish. http://www.globaleducationconference.com/
4. **Colmenares W.**, "Knowledge and Learning in the XXI Century". Invited Lecture, in Spanish, Universidad Pedagógica Nacional, XII Encuentro Internacional de Educación Teziutlán, México, Octubre 24 - 26, 2013
5. **Colmenares W.**, "Communities of Practice and Personal Learning Spaces". Invited Workshop in Spanish, Universidad Pedagógica Nacional, XII Encuentro Internacional de Educación Teziutlán, México, Oct. 24 - 26, 2013
6. **Colmenares W.**, "Knowledge and Learning in the XXI Century". Invited Lecture in Spanish, Universidad Santa María La Antigua, Panamá City, September 13, 2013.
7. **Colmenares W.**, Enciso J., Mayr A., Becerra L., "What Latin American Universities are Telling Us. Finds of the Workshops and Turntables on Sustainable Management of Latin American Higher Education Institutions", Invited Lecture in Spanish, I Conferencia Internacional Gestión Financiera en las Instituciones de Educación Superior. San José, Costa Rica. July 31, 2013.
8. **Colmenares W.,** "Knowledge Management in Higher Education Institutions", Invited Workshop in Spanish, Meeting GEFIES - Ministerio de Educación Nacional, Bogotá, Colombia. July 24 - 25, 2013.
9. **Colmenares W.**, Pepe M., "A Look into the Future of Education. Entrepreneurship Opportunities", Invited Lecture in Spanish, TIED 2012. Caracas, Venezuela. December 3, 2012.
10. Rodríguez, M.; Sandoval S.; de Prada C.; **Colmenares, W.;** "A strategy of specific identification of the plant from closed-loop identification". 2th European Modeling and Simulation Symposium, EMSS'06, SCS. Barcelona, Spain, Oct. 2006.
11. Granado, E; **Colmenares, W.**; Strefezza, M; Alonso, A.. "A Web-based VRML undergraduate control laboratory course". 7th IFAC Symposium on Advances in Control Education (ACE06). Madrid, Spain, June 2006.
12. Pérez, O.; **Colmenares, W.;** Granado, E; Vega P.; Mario F.; "Integrated System Design with PID Controllers via LMIs". 2006 IEEE PES T&D Latin America. Caracas, Venezuela, Aug. 2006.
13. Granado, E; **Colmenares, W.**; Bernussou, J.; Garcia, G.; "LMI Based Robust Output Feedback MPC". 44th IEEE Conference on Decision and Control and European Control Conference. Sevilla, España. Diciembre 2005.
14. Bernussou J; Granado, E.; **Colmenares, W.**; Garcia G.; "Dynamic output controller MPC via LMI", 16th IFAC World Congress on Automatic Control. Prage, July 2005.
15. De Prada, C.; Cristea, S.; Sarabia, D.; **Colmenares, W**., "Hybrid Control of a Mixed Continuous-Batch Process". 14 European Symposium on Computer Aided Process Engineering (ESCAPE '04). Lisboa, may 2004.

16. Granado E., **Colmenares W.**, Bernussou J. y Garcia G., "Robust Multivariable PID Design via LMI Approach", 4th IFAC Symposium on Robust Control Design. Milan, Italy, June 2003.
17. Granado E. **Colmenares W.**, De Santis S., Contreras L. y Pérez O., "Web based Design of Virtual Teaching in the Laboratory of Automatic Control", European Control Conference, Cambridge – Inglaterra, septiembre 2003.
18. O. Pérez, P. Vega y **W. Colmenares**, "Linear Matrix Inequalities in Integrated System Design", European Control Conference, Cambridge – England, sept. 2003.
19. Granado E., **Colmenares W.**, Bernussou J. y Garcia G., "LMI Based MPC", IFAC World Congress, Barcelona – Spain, july 2002.
20. F. Tadeo, F. del Valle, O. Pérez y **W. Colmenares**, "Hinf Loopshaping using Graphical Loopshaping Ideas". IFAC World Congress, Barcelona, Spain, July 2002
21. **Colmenares W.**, Cristea S., De Prada C. y Villegas T, "MLD Modeling and Control. Experience with a Pilot Process", 2001 IEEE Joint International Conference on Control Applications and International Symposium on Intelligent Control, México DF, September 2001.

F. Thesis

1. Mariana Mattícoli. *Modelo para Dimensionamiento de Áreas de Servicio mediante Teoría de Cola*. Oct. 2013.
2. Asdrubal Aguilera, *Explicit Implementation of Predictive Control Based on FPGA*, M.Sc. Systems Engineering, Universidad Simón Bolívar, Nov. 2010. In spanish
3. Luis Oliveros, *Computing optimal industrial control loops*, M.Sc. Systems Engineering, Universidad Simón Bolívar, Nov. 2007. In spanish
4. Ernesto Granado, *Robust Predictive Control*. PhD Automation, Thesis at INSA Toulouse, Directeur de These with Dr. Jacques Bernussou from LAAS, Toulouse, France, July 2004. In french.
5. Tulio Salazar, *A mathematical model for control purposes of a radio controlled helicopter*. M.Sc. Mechanical Engineering, Universidad Simón Bolívar. Oct. 2004. In spanish.
6. Héctor Olivera, *An intelligent controller for energy saving applications*. Electronic Eng, Universidad Simón Bolívar. March 2004- In spanish.
7. Luis Cova, *Automation of a Hot Isostatic Press(HIP)* . Electronic Eng Universidad Simón Bolívar 2003. In spanish.
8. José Perdomo, *Advanced temperature control of a multivariable oven*. Electronic Eng. Universidad Simón Bolívar 2003. In spanish.
9. Carlos Hernández, OPC *Clients/Servers for MATLAB*, Electronic Eng. Universidad Simón Bolívar, January 2002. In spanish.

G. Regular courses

1. Emerging Technologies for Teaching and Learning
2. Linear systems: analysis and design.
3. Feedback control systems: analysis and design
4. Introduction to signals and systems

5. Calculus (Differential & Integral)
6. Linear Algebra
7. Numerical Methods
8. Physics: Electromagnetism & Optics
9. Robust control
10. Optimal control
11. Predictive control
12. Industrial control loops. Análisis and design.
13. Tuning industrial control loops for high performance
14. Strategic Planning/Management for HEIs
15. KPIs for HEIs

H. Positions at USB, UNGE, AAUCA

USB: Vice-Chairman for Administrative Affairs (**07/2009 to 03/2015**), Dean of Extension, Coordinator Graduate Programs in Computing, Systems Engineering and Information Management, Head of Process and Systems Department, Professor (**02/1985 to 03/2015**). UNGE: Professor (10/2017 to 12/2020). AAUCA: Professor(10/2022 to date).

I. Other Positions

Entrepreneur: Bantu Shop. Natural cosmetics, nutrition and supplements. Pickup store (Santander Spain. Sept. 2018 to Sept. 2022). Stonehill Education: Consultant for the developing plan of the new AAUCA (Equatorial Guinea. March 2015 to July 2016).

J. Miscellaneous

- Invited lecturer I Workshop on University Management in the XXI century. Red Telescopi, July 2020.
- Invited professor Course IGLU 2017. Instituto de Gestión y Liderazgo Universitario (IGLU-OUI). Santo Domingo, República Dominicana. August 2017. Also invited professor, previous courses 2014 y 2016. Courses on Leadership and Strategic Management. Online
- Invited professor and tutor of the IGLU Caribe 2017 program. Course Key Process Indicators for Change. October 2017. Online.
- Invited professor Universidad Pedagógica Nacional UPN 212. Workshop on Emerging Technologies for Teaching and Learning. Teziutlán, México, May 2014
- Coordinator Webinars and virtual courses of IPR Mercosur HelpDesk ALFA III Project
- Coordinator, professor and main instructional, technical designer and support of the virtual courses for ALFA III projects PILA (2009) and SUMA (2013)
- Invited professor, Maestría de Control y Automatización Industrial, Universidad Politécnica Salesiana, Cuenca, Ecuador. April 10 - 14, 2012.
- Distinction by the mayor's office to the trajectory in Education. Alcaldía del Hatillo, Caracas 2010.
- Local coordinator, ALFA III Projects: SUMA Network, PILA Network involving 18 Latin American Universities and 4 European Universities. 2006 to 2013.

- Local academic coordinator, ALFA Project: Engineering PhD degree in Processes and Systems. 2004-2006. International Project including universities: Valladolid (Spain), Stuttgart (Germany), Lisbon (Portugal), Ghant (Belgium), Piura (Perú), Santa Catarina (Brasil), and Simón Bolívar (Venezuela).
- Local academic coordinator, PIMA Project for the exchange of students on industrial technologies. 2003-2004.
- Visiting professor Departamento de Ingeniería de Sistemas y Automática, Univ. de Valladolid, España. Sept 1999 - Aug 2000. Funded by CYTED and FEDER.
- Reviewer for the ACC, CDC, ECC and ASME conferences.
- Visiting professor, Departamento de Ingeniería Eléctrica, Univ. de Costa Rica, Costa Rica, Nov. 1998. Funded by CYTED.
- Invited professor I Seminario de Automática de la Escuela Superior Politécnica del Litoral, Guayaquil, Ecuador, april,1997.
- Invited professor, II Curso Iberoamericano de Automática. Santa Cruz, Bolivia, 1996.

J. References:

1. César de Prada. Full Professor Universidad de Valladolid. E.mail: prada@autom.uva.es
2. César Alvarez Alonso. Visiting Researcher. Law School. Universidad de Harvard. E.mail: clavarezalonso@law.harvard.edu
3. Juan Enciso. Director MBA. EGADE Business School. Tecnológico de Monterrey. E.mail: juan.antonio.enciso@itesm.mx
4. Roberto Escarre. Director International Project Management Office. Universidad de Alicante. E.mail: r.escarre@ua.es
5. Enrique Topolansky. Director Centro de Innovación y Emprendimiento. ORT. E.mail: topolansky@ort.edu.uy

K. Other interests (not research)

e-Learning, b-Learning, creativity and innovation in education, teaching ethics, creative thinking.







END