RESUME.

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## Education

Electrical Engineer, Universidad de Los Andes (Venezuela). 1984
M.S Control Engineering, Universidad de Los Andes, 1992
M.E Chemical Engineering, University of South Florida, U.S.A., 1994
Ph.D., University of South Florida, U.S.A., **1996**
Postdoctoral. University of South Florida, U.S.A. **2000- 2001**.

### Academic Experience

- **Escuela Politécnica Nacional**. Quito. Ecuador. (**2017-now**.) Professor. Department of Automation and Industrial Control. Faculty of Electrical and Electronic Engineering.
- **Prometeo Researcher-Senescyt (2014-2017)**. Research activities at the Department of Automation and Industrial Control. Faculty of Electrical and Electronic Engineering. Escuela Politécnica Nacional. Quito. Ecuador
- **Universidad de Los Andes.** Mérida. Venezuela **(1983-2014).** Professor, Department of Circuits and Measurements. School of Electrical Engineering. Engineering Faculty.

## Courses Taught

### Undergraduate

- **Escuela Politécnica Nacional (EPN**). **(2015- now)**: Quito. Ecuador. Control of Industrial Processes, Synthesis of Plants. Research Tools
- **Universidad Nacional (UNAL). (2017).** Medellín. Colombia.

Sliding Mode Control

- **Universidad de Los Andes. (1985-2014).** Mérida, Venezuela. Electrical Measurements. Linear Systems. Control systems. Special Topics of Control. Electrical Machines Laboratory.

Graduate

- **Escuela Politécnica Nacional. (2015-2017).** Quito Ecuador
  Non-linear systems, Process control, Multivariable Systems
- **Universidad de Los Andes. (1996-2009).** Mérida, Venezuela
  Process control I, Process control II
- **University of South Florida, (2000-2001).** Tampa, Florida, U.S.A. *Department of Electrical Engineering. College of engineering.*
  Non-Linear Control

Industry

- **Centro Internacional de Educación y Desarrollo (CIED). Petróleos de Venezuela (PDVSA). (1997- 2001).** Venezuela
  Principles of Chemical Engineering. (40 hours), Process Control (40 hours)
- **Escuela de Ingeniería de Química (Universidad de Los Andes) y Centro Internacional de Educación y Desarrollo (CIED). Petróleos de Venezuela (PDVSA). (1998-2000).** Venezuela.
  Instrumentation and Control. (40 hours).
- **Centro Internacional de Educación y Desarrollo (CIED). Petróleos de Venezuela (PDVSA). (1997-1998).** Cardón, Falcón. Venezuela
  Process Optimization Applications. (40 hours)

Scientific Writing

- **Secretaria Nacional Educación Superior, Ciencia y Tecnologia (Senescyt) – Universidad Tecnologica Equinoccial (UTE). (2017).** Quito. Ecuador.
  General aspects of research and scientific publication. (40 hours).
- **Senescyt. Quito. Ecuador**
  Scientific Writing. (2017). 30 hours.
  Scientific Writing. (2016). 12 hours. INER.
- **Escuela Politécnica Nacional. Quito. Ecuador.**
  II Methodological Workshop on Strategies to Publish in High Impact Indexed Journals. (2016). 40 hours.
  Scientific Initiation Workshop: Research and writing of scientific articles.
  (2016). 20 hours.
  I Methodological Workshop on Strategies to Publish in High Impact Indexed Journals. (2015-2016). 40 hours.

## Gestion

Escuela Politécnica Nacional. Quito Ecuador.
Editor Revista Politécnica (2018-now).
Diffusion Unit Coordinator. (2015-2016).
Editor Revista Politécnica (2015-2016).

Facultad de Ingeniería. Universidad de Los Andes. Mérida, Venezuela
Dean of College of Engineering. (2011-2014).
Dean of College of Engineering. (2008-2011).
Dean of College of Engineering. (2005-2008).
Coordinator of MSc in Automation and Instrumentation. (2004 – 2005).
Coordinator of MSc in Automation and Instrumentation (1999 - 2000).
Director of the School of Electrical Engineering. (1998- 2000).

Engineering Deans Association of Venezuela. Venezuela
Iberoamerican Association of Engineering Education (ASIBEI) (2010).
Secretary of Engineering Deans Association of Venezuela. (2009-2010)

## Projects:

1. Development and implementation of Advanced Control schemes for Artificial Pancreas (PIGR-19-17) (2020-2022). Funding: Escuela Politécnica Nacional. Quito-Ecuador. Role: Director. Status: In execution.

2. Intelligent control of chemical processes using Hardware-In-The-Loop simulations. (PII-19-03) (2020-2021). Funding: Escuela Politécnica Nacional. Quito-Ecuador. Role: director. Status: In execution

3. An autonomous platform as a service for intelligent educational environments characterized in the E.P.N. (PIJ-17-10). (2018-2020). Escuela Politécnica Nacional. Quito-Ecuador. Role: Assistant researcher. Status: In execution

4. Development of advanced control strategies for industrial processes that present elevated delays. (PIS-17-04). (2018-2019). Escuela Politécnica Nacional. Quito Ecuador. Role: Assistant researcher. Status: In execution

5. Synthesis of controllers from advanced control strategies applied to non-linear processes. (2016-2017). Senescyt-Ecuador. Role: Director. Estado: Finalized.

6. Production of biodiesel under supercritical conditions without catalyst and evaluation of alternative compression-ignition internal combustion engines' performance. (PIMI-15-10). (2016-2019). Escuela Politécnica Nacional. Quito Ecuador. Role: Assistant researcher. Status: In execution

7. Development of hybrid control schemes and tuning equations applied to non-linear processes with delay. (2015-2016). Senescyt-Ecuador. Role: Director. Estado: Finalized.

8. Study, Analysis, design, and implementation of robust control schemes for industrial processes with very high delay. Senescyt-Ecuador. Role: Director. Estado: Finalized.

9. Development and construction of a Robust-PID prototype based on advanced control techniques to improve the robustness of industrial processes (PIJ-15-17). (2016-2019). Escuela Politécnica Nacional. Quito. Ecuador. Role: Role: Assistant researcher. Status: In execution.

10. Influence of Instrumentation on Process Stability (2005-2006). Universidad de Los Andes. Mérida. Venezuela. Role: Coordinator. finalized.

## Intellectual Property Registration Products.

1. Control Process Notes (2016). certificate QUI-048525. Procedure No. 000893. IEPI. Quito. Ecuador.

## Chapters in Books.

1. Javier Guevara, Leonardo Guevara, Oscar Camacho, Gustavo Scaglia, Andrés Rosales (2016). "An Approach of a Numerical Methods Controller for Nonlinear Chemical Processes". Impact and Advances of Automatic Control in Latinamerica". Editorial Artes y Letras S.A.S. Medellin, Colombia ISBN: 978-958-8483-34-4.

2. Colina, Eliezer; Baquero, Diego; Ochoa, Cristina; Camacho, Oscar; Chávez, Danilo. (2016). "Identificación en Línea de Sistemas Dinámicos Lineales Usando Métodos Algebraicos". Avances y Retos de la Ciencia e Ingeniería. Coedición sello editorial Publicaciones Vicerrectorado Académico de la Universidad de Los Andes, Facultad de Ingeniería de la Universidad de Los Andes y Pontificia Universidad Católica del Ecuador, sede Ibarra. Mérida. Venezuela.
3. Luis C. Valverde, Oscar Camacho, Edinzo Iglesias, Silvia M. Calderón, Andrés Rosales. (2016). "Módulo Supervisor Basado en la Técnica de Superficie Deslizante para un Controlador Paramétrico de Matriz Dinámica". Avances y Retos de la Ciencia e Ingeniería. Coedición sello editorial Publicaciones Vicerrectorado Académico de la Universidad de Los Andes, Facultad de Ingeniería de la Universidad de Los Andes y Pontificia Universidad Católica del Ecuador, sede Ibarra. Mérida. Venezuela.
4. Oscar Camacho, Ana Rodas. (2016). "Automatización y Estimación de la Composición de una Columna de Destilación Atmosférica: Una implementación real." Avances y Retos de la Ciencia e Ingeniería. Coedición sello editorial Publicaciones Vicerrectorado Académico de la Universidad de Los Andes, Facultad de Ingeniería de la Universidad de Los Andes y Pontificia Universidad Católica del Ecuador, sede Ibarra. Mérida- Venezuela
5. Oscar Camacho, Samaria Muñoz de Camacho. (2016). "Riesgos Tecnológicos: Consideraciones desde la academia." Avances y Aplicaciones de Sistemas Inteligentes y Nuevas Tecnologías. Capítulo 7. pp 99- 116. Consejo de Publicaciones de la Universidad de Los Andes. Mérida. Venezuela. ISBN 978-980-11-1836-7
6. J. Baldeón, J. Escorza, D. Chávez, Oscar Camacho. (2016). "A Hexacopter Models Comparison using Backstepping Sliding Mode Control". Avances y Aplicaciones de Sistemas Inteligentes y

Nuevas Tecnologías. Capítulo 30. pp 413- 436. Consejo de Publicaciones de la Universidad de Los Andes. Mérida. Venezuela. ISBN 978-980-11-1836-7.

7. Oscar Camacho. (2006). "Sliding Mode in Process Industry". Instrument Engineers' Handbook, Fourth Edition, Volume Two. Process Control and Optimization. Capítulo 2.30. pp. 351-359. Liptak Bela EDITOR. Taylor & Francis. New York. U.S.A. ISBN 0-8493-1081-4 (v. 2)

## Books

1. Oscar Camacho, Andrés Rosales, Francklin Rivas. (2020). "Process Control." EPN Editorial. Quito Ecuador. ISBN:978-9978-383-57-5
2. Oscar Camacho, Jesús Martínez. (2017). "Procesos con Retardo de Tiempo Dominante". Editorial Académica Española. Saarbrücken. Alemania. ISBN: 978-620-2-25196-9
3. Oscar Camacho, José Luis Gouveia, Delfina Padilla (2017). "Detección y Diagnóstico de Fallas en procesos industriales". Editorial Académica Española. Saarbrücken. Alemania. ISBN: 978-3-63953217-3.
4. Gustavo Scaglia, Olga Lucia Quintero, Gerardo Espinosa-Pérez; Danilo Chávez, Oscar Camacho. (2016). "Impact and Advances of Automatic Control in Latinamerica". Editorial Artes y Letras S.A.S. Medellín, Colombia ISBN: 978-958-8483-34-4.

## Journals.

1. Estefanía Salazar, Marco Herrera, and Oscar Camacho (2020). "An Application of MVMO Based Adaptive P.I.D. Controller for Process with Variable Delay." Advances in Intelligent Systems and Computing (AISC) series. (To appear). (Scopus)

2. Jorge Arroba, Karina Rocha, Marco Herrera, Paulo Leica, and Oscar Camacho. (2020)." P.I.D. and Sliding Mode Control for a Reactor-Separator-Recycler system: A Regulatory Controllers' comparison." Advances in Intelligent Systems and Computing (AISC) series (To appear) (Scopus)

3. María Sol Soria, Violeta Maldonado, Danilo Chávez, Kleber Patiño and Oscar Camacho. (2020) "Fuzzy Control of Temperature on SACI based on the Emotion Recognition", Advances in Intelligent Systems and Computing (AISC) series (To appear) (Scopus)

4. Sylvia Mercedes Novillo Villegas, Allison Rodríguez, Danilo Chavez, and Oscar Camacho (2020). "Path Planning for Mobile Robots Applied in the Distribution of Materials in an Industrial Environment." Advances in Intelligent Systems and Computing (AISC) series (To appear) (Scopus)

5. Cosme Duque, Jahnett Uzcátegui, Oscar Camacho, Hugo Leiva. (2020). "Controllability of the Burgers Equation Under the Influence of Impulses, Delay and Nonlocal Conditions." International Journal of Applied Mathematics. (To appear).

6. Jefferson Revelo, Marco Herrera, Oscar Camacho, and Hernan Alvarez. (2020). "Non-square Multivariable Chemical Processes: A Hybrid Centralized Control Proposal." Industrial & Engineering Chemistry Research. 2020, 59, 32, 14410-14422. (SCOPUS).

7. C. Obando, D. Chávez, P. Leica, **O. Camacho**. **(2020)**. "Sliding Mode Controller Based on a Hybrid Surface for Tracking Improvement of Non-Linear Processes". **IFAC Papers online**. (To appear). **(Scopus)**

8. Pablo Proaño, **Oscar Camacho**, Marcelo Pozo (**2020)**. "Non -linear control strategies for current regulation and DC voltage stabilization for a wind turbine operating in a microgrid". **NOVASINERGIA** 2020, Vol. 3, No. 1, diciembre-mayo (45-53) ISSN: 2631-2654 https://doi.org/10.37135/ns.01.05.05.

9. Arroyo, Sebastián, Patiño, Kleber; Ulloa, Francisco**; Camacho, Oscar;** Chávez, Danilo **(2020).** "Técnicas de control avanzadas para el sistema bola y plato: implementación y comparación." **Revista Ciencia e Ingeniería.** Vol. 41, No. 2, pp. 147-156, abril-julio, 2020

10. O. Camacho; H. Leiva. (2020). "Impulsive Semilinear Heat Equation with Delay in Control and in State". **Asian Journal of Control**. Volumen 22, Issue 3. 1075-1089. **(Scopus)**

11. B. Peralta, M. Salvador, **O. Camacho,** F. Escobar, C. Goyes **(2020).** "Prediction of the Incrustating Trend in Oil Extraction Pipelines: An Approach Based on Neural Decision Trees" **Communications in Computer and Information Science. Volume 1194.** DOI: 10.1007/978-3-030-42520-3_27. **(Scopus)**

12. Marco Herrera, Xavier Aguas, Oscar Gonzales, **Oscar Camacho (2020)** "Optimal-Robust Controller Applied to an Inverted Pendulum-Cart System: A Graphic Performance Analysis." **Communications in Computer and Information Science. volume 1195.** https: DOI: 10.1007/978-3-030-42531-9_21. **(Scopus)**

13. Cargua-Sagbay, David; Palomo-Lema, Eduardo; **Camacho, Oscar**; Alvarez, Hernan. (2020). "Flash Distillation Control using Feasible Operating Region. A Sliding Mode Control Approach". **Industrial & Engineering Chemistry Research** (Scopus).

14. Marco Herrera, **Oscar Camacho**, Carlos Smith, Hugo Leiva **(2020)** "An approach of Dynamic Sliding Mode Control for Chemical Processes." **Journal of Process Control.** Vol. 85. pp. 112–120. **(Scopus)**

15. Cosme Duque, Jahnett Uzcategui, Hugo Leiva, **Oscar Camacho (2020)** "Approximate Controllability of Semilinear Strongly Damped Wave Equation with Impulses, Delays and Nonlocal Conditions" **Journal of Mathematics and Computer Science.** Volume 20, Issue 2, pp. 108-121 http://dx.doi.org/10.22436/jmcs.020.02.04. **(Scopus)**

16. Xavier Aguas, Jefferson Revelo, Marco Herrera, Andres Cuaycal, **Oscar Camacho**. **(2019)** "A Fuzzy-PD Controller for wall-following of a mobile robot: Experimental Validation". **NOVASINERGIA**, 2019, Vol. 2, No. 2, Diciembre, (49-57). ISSN: 2631-2654. (**DOAJ**)

17. Marco Herrera, Xavier Aguas, Jefferson Revelo, **Oscar Camacho (2019)**. "PSO Tuning for a Centralized Dead Time Compensator Applied to TITO Processes." **RISTI.** Vol. E23

18. Jeysson Tapia, Ana Rodas, **Oscar Camacho (2019).** "Comparación de dos enfoques para la enseñanza en Control de Procesos: Simulación versus Implementación." **RISTI.** Vol. E23

19. Nelson Sotomayor, Danilo Chavez, **Oscar Camacho**, Victor Taramuel, Mayra Sarzosa **(2019)** "An approach for Helping the Mobility of People with Visual Impairment: Design and Implementation." **RISTI.** Vol. E23

20. M. Fabiana Sardella, M. Emanuel Serrano, **Oscar Camacho**, and Gustavo J. E. Scaglia **(2019)**. "Design and Application of a Linear Algebra Based Controller from a Reduced-Order Model for Regulation and Tracking of Chemical Processes under Uncertainties." **Industrial & Engineering Chemistry Research.** Vol. 58, Issue 33, pp. 15222-15231 Publication Date: July 29, 2019, https://doi.org/10.1021/acs.iecr.9b01257. **(Scopus)**

21. Maribel Pérez Pirela, Juan Paulo García Sandoval, **Camacho O. (2019)**. "Discontinuous feedback control strategies for a heat exchanger". **NOVASINERGIA** 2019, Vol. 2, No. 1, Junio (80-87) ISSN: 2631-2654. **(DOAJ)**

22. Oscar Gonzales, Cristian Amaguaña, Marcelo Pozo, **Oscar Camacho**, Jorge Rosero-Beltrán. **(2019)**. "Sliding Mode Controller Applied to a Synchronous DC/DC Power Converter." **Advances in Intelligent Systems and Computing**. (In press). **(SCOPUS).**

23. Gonzáles, Oscar; Herrera, Marco; **Camacho, Oscar**; Rosero, Jorge Luis **(2019)**. "Online Model Predictive Control tuning using Kalman algorithm applied to a vertical take-off and landing platform". **RISTI**. Vol. E19 (SCOPUS).

24. Chávez, Danilo G.; **Camacho, Oscar**; Guanoluisa, J. Daniel; Leiva, Hugo **(2019).** "An Approach for Trajectory Tracking Control of an Underactuated Autonomous Underwater Vehicle Considering Time Delay". **RISTI**. Vol. E19. **(SCOPUS).**

25. **Camacho, Oscar**; Paz, José Luis; Celi, Luis Alberto; Muñoz, Samaria; Páez, Geovanny Javier; Mora, José **(2019)**. "An approach to measure the impact of Scientific Regional Journals: the Latindex case. **RISTI.** Vol. E20. **(SCOPUS).**

26. Xavier Aguas, Marco Herrera, Nelson Sotomayor, **Oscar Camacho (2019)**. "Parallel robot prototype driven by four cables: experimental results". **Enfoque UTE**, V.10-N.1, Mar.2019, pp. 13-25. **ESCI**- **WOS**

27. Byron Cajamarca, **Oscar Camacho**, Danilo Chávez, Paulo Leica, Marcelo Pozo **(2019)**. "Sliding Mode Control Based on Internal Model for a Non-minimum phase Buck and Boost Converter". **Enfoque UTE**, V.10-N.1, Mar.2019, pp. 41-53. **WOS**

28. Marco Herrera, Mayra Sarzosa, Israel Paredes, **Oscar Camacho (2019**). "Optimal Control Based on Fuzzy Estimation of Takagi-Sugeno Model for the Furuta Pendulum: Experimental Results". **WSEAS Transactions on Systems**, Volume 18, 2019, pp. 12-24

29. Guevara L., **Camacho O.,** Rosales A., Guevara J., Scaglia G. **(2019)** "A linear algebra controller based on reduced-order models applied to trajectory tracking for mobile robots: An

experimental validation". **International Journal of Automation and Control**. Vol.13 No.2. pp.176-196. **(SCOPUS)**.

30. Morales L., **Camacho O.**, Chávez D., Aguilar J. **(2019).** "An Evolutionary Intelligent Approach for the LTI Systems Identification in Continuous Time". In: Botto-Tobar M., Pizarro G., Zúñiga-Prieto M., D'Armas M., Zúñiga Sánchez M. (eds) Technology Trends. CITT 2018. **Communications in Computer and Information Science**, vol 895. https://doi.org/10.1007/978-3-030-05532-5_32. Springer, Cham

31. Edgar Baez, Yadira Bravo, Danilo Chavez, **Oscar Camacho (2018).** Tuning Parameters Optimization Approach for Dynamical Sliding Mode Controllers. **IFAC-PapersOnLine.** Volume 51, Issue 13, 2018, p.p 656-661. doi.org/10.1016/j.ifacol.2018.07.355 **(SCOPUS)**

32. M.C. Pérez-Pirela, J.P. García-Sandoval, **O. Camacho (2018)**. Development of a Simplified Model for a Distributed-Parameter Heat Exchange System for Thermodynamic Principles-Based Control Purposes. **IFAC-PapersOnLine.** Volume 51, Issue 13, 2018, p.p 396-401. doi.org/10.1016/j.ifacol.2018.07.355. **(SCOPUS)**

33. Gabriel Grijalva, Danilo Chávez, **Oscar Camacho (2018).** Material Distribution with Mobile Robots in an Industrial Environment: System design and simulation. **IFAC-PapersOnLine.** Volume 51, Issue 13, 2018, p.p 650-655. doi.org/10.1016/j.ifacol.2018.07.354 **(SCOPUS).**

34. Cargua, Walter; Gallegos, Marcelo; Leica, Paulo; Guzmán-Beckmann, Liliana; **Camacho, Oscar. (2018).** "Comparación de esquemas de control para reactores químicos tipo CSTR". **Revista Ciencia e Ingeniería**. Vol.39, No 2, pp. 177-190. **(Latindex, ISI-WEB: Emerging Sources Citation Index)**

35. Lucio Rafael Salinas; Diego Santiago; Emanuel Slawiñski; Vicente Mut; Danilo Chávez ; Paulo Leica; **Oscar Camacho**. **(2018**) "P+d plus sliding mode control for bilateral teleoperation of a mobile robot". **International Journal of Control, Automation and Systems**. 16(4), pp. 1927-1937 doi.org/10.1007/s12555-017-0439-x **(SCIE, Scopus).**

36. Azuaje Ivana, Miranda Moira, Iglesias Edinzo, **Camacho Oscar**, García Yohn. **(2018).** "Controlador difuso mejorado para estrategias de control en cascada y por acción anticipada". **Revista Ciencia e Ingeniería**. Vol.39, No 1, pp. 37-46. (**Latindex, ISI-WEB: Emerging Sources Citation Index**)

37. Báez J., Defaz F., Leica P., **Camacho O. (2018)**. "Application of a Sliding Mode Controller to a Cooling Tower". **Revista Técnica Facultad de Ingeniería**. LUZ. Vol. 41, No. 1, 15-24. **(SCOPUS)**

38. **Oscar Camacho**, Gustavo Scaglia, O. Lucia Quintero. **(2017).** "A Dead Time Compensator Based on Linear Algebra (DTCLA)." **IFAC-PapersOnLine** Volume 50, Issue 1, July 2017, pp. 3075–3080. doi.org/10.1016/j.ifacol.2017.08.678 **(SCOPUS)**
39. Paulo Leica, **Oscar Camacho**, Sebastián Lozada, Robert Guamán, Danilo Chávez y Víctor Andaluz. **(2017**) "Comparison of Control Schemes for Path Tracking of Mobile Manipulators". **International Journal of Modelling, Identification and Control**. Vol. 28, No. 1, pp. 86-96. **(SCOPUS)**

40. Baldeón J.; Escorza J.; Chávez D.; **Camacho O. (2016)** "Control for Hexacopters: A Sliding Mode Control and PID Comparison". **Revista Técnica Facultad de Ingeniería. LUZ**. Vol. 39. No. 3. pp. 137-144. **(SCOPUS).**

41. Iglesias, E.; **Camacho, O.**; Sanjuan, M.; Smith C.; Calderón S. M.; Rosales A. **(2016)**. "A Parametric D.M.C. Approach for Nonlinear Chemical Processes" **WSEAS Transactions on Systems and Control.** Vol.11 No.44. pp. 397-408. **(SCOPUS)**.

42. J. Villacrés, M. Viscaíno, M. Herrera, **Oscar Camacho (2016).** "Real-Time Implementation of Different Controllers for a Two-wheeled Inverted Pendulum." **International Journal of Circuits, Systems and Signal Processing.** Vol. 10. pp. 281-290. **(SCOPUS)**.

43. Cabrera Daniel; **Camacho Oscar**; Salvador Marcelo; Taco Sebastián. **(2016)** "Adsorción del Colorante Anaranjado 2 GL Sobre Sílice Activa Elaborada a Partir de Cascarilla de Arroz". **Revista Ciencia e Ingeniería**. Vol.37, No 3, pp. 147-156. **(Latindex, ISI-WEB: Emerging Sources Citation Index)**

44. Linda Capito, Pablo Proaño, Andrés Rosales, **Oscar Camacho**, Gustavo Scaglia. **(2016)**. "Experimental Comparison of Control Strategies for Trajectory Tracking for Mobile Robots." **International Journal of Automation and Control.** Vol. 10, No. 3, pp. 308-327**. (SCOPUS).**

45. J. Villacrés, M. Viscaíno, M. Herrera, **Oscar Camacho (2016)**. "Controllers Comparison to stabilize a Two-wheeled Inverted Pendulum: P.I.D., L.Q.R. and Sliding Mode Control." **International Journal of Control Systems and Robotics.** Vol. 1. pp. 29-36**. (Compendex, Elsevier, Engineering Index)**

46. A. Gómez, M. Herrera, W. Chamorro, **Oscar Camacho**. **(2015)** "Two-Wheeled Inverted Pendulum Robot NXT Lego Mindstorms: Mathematical Modelling and Real Robot Comparisons". **Revista Politécnica**. Vol. 36, No. 1. pp. 12-18. **(Latindex)**

47. E. Iglesias, J. García, **Oscar Camacho**, S. Calderón, A. Rosales. **(2015)**. "Ecuaciones de Sintonización Para Controlador Por Modos Deslizantes y Control de Matriz Dinámica a partir de un Módulo Difuso". **Revista Axioma**. Nº 14, Vol. 1. pp: 14 – 24. **(Latindex)**

48. F. de la Cruz, **Oscar Camacho**. **(2015)** "Controlador de Modos Deslizantes Basado en Predictor de Smith y Modelo de Segundo Orden para Procesos con Elevado Retardo". **Revista Politécnica**. Vol. 35, No. 2. pp. 18-24. **(Latindex)**

49. Miguel Moreno, **Oscar Camacho**. **(2011)** "Los Riesgos Tecnológicos en la Enseñanza de La Ingeniería". **Revista Ciencia e Ingeniería**. Edición Especial: "Enseñanza de la Ingeniería". pp. 43-52. **(Latindex)**

50. M Guillén, J.L Paredes, **Oscar Camacho**. **(2010)** "Un Enfoque para la Detección y el Diagnóstico de Fallas en la Instrumentación de un Proceso usando Reconocimiento de Patrones en el Dominio Wavelet". **Revista Ciencia e Ingeniería** Vol. 31, Nº 2, 83-90. **(Latindex).**

51. **Oscar Camacho**, E. Iglesias, L. Valverde, F. Rivas. **(2008)** "An Approach to Enhance Dynamic Matrix Control Performance". **International Journal of Mathematics and Computers in Simulation**. Issue 1, Vol. 2, 81-88. **(SCOPUS).**

52. Oscar Camacho, R. Rojas, W. Garcia-Gabin, R. Cáceres, D. Padilla. (2007) "A Sliding Mode Control Approach for Inverse Response Systems." WSEAS Transactions on Systems and Control. Issue 4, Vol. 2, 318-325. (SCOPUS)

53. Oscar Camacho, Delfina Padilla, José L. Gouveia. (2007). "Fault Diagnosis based on Multivariate Statistical Techniques". Revista Técnica de Ingeniería. LUZ. Vol. 30, Nº 3, 253 - 262, (ISI-WEB: Science Citation Index, SCOPUS).

54. Camacho Oscar, R. Rojas, and W. García-Gabin. (2007) "Some Long Time Delay Sliding Mode Control Approaches." I.S.A. Transactions Vol. 46 (1), 95–101. (ISI-WEB: Science Citation Index, SCOPUS)

55. E. Iglesias, Y. García, M. Sanjuán, O. Camacho, C. Smith. (2007). "Fuzzy Surface-based Sliding Mode Control." I.S.A. Transactions Vol. 46 (1), 73–83. (ISI-WEB: Science Citation Index, SCOPUS).

56. Juan C. Terán y Oscar Camacho. (2005) "Genetics Algorithms as a Tuning Tool for PID and Sliding Mode Controllers". Revista Técnica de Ingeniería. LUZ. Vol. 28, Nº 3, 179 -188. (Science Citation Index, SCOPUS).

57. Rubén Rojas, Winston García-Gabín, Oscar Camacho (2005) "On Sliding-Mode Control for Inverse Response Processes." IFAC Proceedings Volumes (IFAC-PapersOnLine). Volume 38, Issue 1, 2005, Pages 525-530. doi.org/10.3182/20050703-6-CZ-1902.01661. (SCOPUS)

58. Jesús Martínez y Oscar Camacho. (2005) "Smith Predictor: Tuning considerations for Performance and Robustness Enhancements". Revista Técnica de Ingeniería. LUZ. Vol. 28, Nº 3, 145 -153. (Science Citation Index, SCOPUS).

59. Jesús Martínez y Oscar Camacho. (2005). "Two New Smith Predictor Proposals for Performance and Robustness Enhancement for Systems with Elevated Time Delay". Revista Técnica De Ingeniería. LUZ. Vol. 28, Nº 3, 200 -209. (Science Citation Index, SCOPUS).

60. Winston García-Gabín, Darine Zambrano, Oscar Camacho. (2005). "Sliding Mode Control for Autonomous Vehicles with Long Delay to Track Straight Paths". Revista Técnica de Ingeniería LUZ. Vol. 28, Nº 3, 137 -144. (Science Citation Index, SCOPUS).

61. Marcos L. Guillén, José L. Paredes, O. Camacho. (2005). "Proposal Method for Fault Detection and Diagnosis in Chemical Processes Instrumentation Using Wavelets". Revista Técnica de Ingeniería. LUZ. Vol. 28, Nº 3, 72 -81. (Science Citation Index, SCOPUS).

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## LANGUAGES

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