Curriculum Vitae

Luis Enrique Sucar Succar

1 Datos Generales

Nombre: Luis Enrique Sucar Succar

Grados: Doctorado (PhD) en Computación, Imperial College; Maestría en Ing. Eléctrica, Universidad de Stanford; Ingeniería en Electrónica y Comunicaciones, ITESM

Distinciones: Investigador Nacional (SNI) Nivel III, Miembro de la Academia Mexicana de Ciencias, Miembro de la Academia de Ingeniería, Miembro Fundador de la Academia Mexicana de Computación, Senior Member IEEE, Premio TECNOS 2014

Fecha de Nacimiento: Mayo 17, 1957

Lugar de Nacimiento: Raleigh, N.C., United States of America

Nacionalidad: Mexicano

Género: Masculino

Estado Civil: Casado

Dirección: Camino Real a Cholula # 4214 casa 46, Residencial Hacienda de San Andrés, Puebla, Puebla 72176 México

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Trabajo: INAOE, Coordinación de Ciencias Computacionales

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Objetivo de Investigación:
Estoy interesado en entender y desarrollar sistemas inteligentes que interectuén con el mundo tomando las mejores decisiones bajo incertidumbre. Desarrollo nuevos modelos y técnicas basadas en modelos gráficos probabilistas y las aplico en robótica, biomedicina, visión artificial y energía.

2 Principales Distinciones

- Vicepresidente de la Academia Mexicana de Computación (AMexComp), 2015-2018.

- Premio "TECNOS" del Gobierno de Nuevo Leon en Biotecnología, 2014

- Miembro de la Academia Mexicana de Ingeniería, desde 2013

- Senior Member, Institute of Electrical and Electronics Engineers (IEEE), desde 2009

- Miembro de la Academia Mexicana de Ciencias, desde 2006.

- Miembro del Sistema Nacional de Investigadores, 1984-2020. Nivel III desde 2011.

- Distinguished Speaker, Association of Computing Machinery (ACM).

- Presidente de la Sociedad Mexicana de Inteligencia Artificial, 2000-2002.

- Editor Asociado de la revista Computational Intelligence, Wiley.

- Editor Asociado de la revista Ibero-American Journal on Artificial Intelligence.

- Editor Asociado de la revista "Computación y Sistemas".

- Editor Invitado, International Journal of Approximate Reasoning (IJAR), 2010-2102.

- Miembro del Advisory Board de la International Joint Conference on Artificial Intelligence (IJCAI), 2001.

3 Educación

- Ingeniero en Elctrónica y Comunicaciones, Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM), Monterrey, N.L., México, 1976-1980

- Maestría en Ciencias en Ingeniería Eléctrica (Computer Systems), Stanford University, Palo Alto, CA, USA 1980-1982

- Doctorado (PhD) en Computación, Tesis: "Probabilistic Reasoning in Knowledge-Based Vision Systems", Imperial College, London, GB 1988-1992

3.1 Otros cursos

1. Innovation Readiness Series, INNOVA-Salud Program, IC^2 Institute at The University of Texas at Austin, Octubre 2014.

2. Invent Your Future Program, Technology Business Accelerator, TechBA, Austin, Texas, Junio 2013.

4 Experiencia Profesional

- Investigador Titular "D", Departmento de Ciencias Computacionales, Instituto Nacional de Astrofísica, Óptica y Electrónica (INAOE), Puebla, México, 2006 a la fecha

- Director de Investigación, Instituto Nacional de Astrofísica, Óptica y Electrónica (INAOE), México, 2011 to 2013.

- Profesor-Investigador Titular, Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM), Cuernavaca Campus, Cuernavaca, Morelos, México. 1994-2005.

- Investigador y Jefe de Proyecto, Instituto de Investigaciones Eléctricas (IIE), Cuernavaca, Morelos, México, 1982-1988, 1992-1994.

5 Vistas Académicas

- Profesor Visitante, CREATE-NET, Trento, Italy, February - July, 2015. Sponsored by UBI-HEALTH, European Union Project. Research in ubiquitous computing for health applications.

- Profesor Visitante, Computer Engineering Department, Bosporus University, Istanbul, Turkey, July - August, 2014. Sponsored by UBI-HEALTH, European Union Project. Research in ubiquitous computing for health applications.

- Profesor Visitante, *E-Motion* Group, Research Institute on Informatics and Automatic (INRIA), Grenoble, France, July - Sept. 2008. Sponsored by INRIA. Research in autonomous vehicles and Bayesian perception.

- Profesor Visitante, Department of Computer Science, University of British Columbia, Canada. Sept. 2003 - August 2004. Sponsored by ITESM (sabbatical) and UBC. Research in Robotics and Artificial Intelligence.

- Profesor Visitante, Department of Computing, Imperial College of Science, Technology and Medicine, London, U.K., July 1995. Sponsored by the *Academia de Investigación Científica* and *Royal Society of London*. Research in Bayesian networks and applications.

- Investigador Post-Doctoral, Department of Computing, Imperial College of Science, Technology and Medicine, London, U.K., Nov.1991 - July 1992. Research in computer vision and expert systems.

6 Desarrollo Tecnológico y Transferencia de Tecnología

6.1 Proyectos Tecnológicos

1. "Desarrollo de tecnología basada en inteligencia artificial y mecatrónica para integrar un parque de generación de energía eólica a una red inteligente" - parte del CEMIE-Eólico, Fondo SENER-CONACYT, 2014-2018. $7,883,326 MN. Project Director.

2. "ICON: Desarrollo de una Infraestructura de Cómputo en la Nube con Sistema de Autoayuda Basada en Código Abierto, Proyecto CONACYT nmero: 233173", CONACYT-Secretaría de Economía, 2016. Collaboration with T-Systems México.

3. "Métodos y Técnicas de Inteligencia Computacional y Minería de Datos para la Toma de Decisiones en Explotación de Campos Maduros" Proyecto 146515, Fondo Sectorial CONACYT-SENER-HIDROCARBUROS. Colaboración IMP, INAOE, IIE, CIMAT, IPN. Director del Proyecto por INAOE. 2010-2014.

4. "SIIREX", CONACYT-Secetrataría de Economía, 2014. Collaboration with Probayes and UABC.

5. "VISENS", CONACYT-Secetrataría de Economía, 2014. Collaboration with Probayes and CIMAT.

6. "SICAAV", CONACYT-Secetrataría de Economía, 2013. Collaboration with Probayes and CIMAT.

7. "MIRADA", CONACYT-Secetrataría de Economía, 2012. Collaboration with Probayes.

8. Low Cost System for Rehabilitation after Stroke (2006–2010). A computer system that allows a patient to interact with a virtual environment via visual tracking of arm and hand movements, designed for upper extremity rehabilitation of stroke patients, developed in collaboration with UC Irvine, USA, and the National Institute for Neurology and Neurocirugy (INNN), Mexico. The system has undergone clinical trails and INNN with good results and it is currently under technological transfer for industrial production.

9. Data Mining for Optimization of Steel Production (2006–2009). A set of software tools based on machine learning techniques have been developed for Tennaris-Tamsa (industrial plant in Veracruz, Mexico), and are currently in use at the steel production facility. These tools have been very useful in optimizing the production of steel tubes resulting in important economical savings and quality improvements.

10. Bayesian techniques for power plants (1996-2009). In collaboration with the Electrical Research Institute (IIE, Mexico), we have developed novel techniques based on Bayesian networks and Markov decision processes for data validation, diagnosis, control and tutoring in electrical power systems. Based on these techniques, the IIE has developed several systems for the electrical utilities and industry in Mexico.

11. Supervisory control system for electrical power distribution (1985–1988). A multicomputer system for supervisory control (SCADA) of electrical distribution networks was developed at IIE under my supervision; these systems were transferred to CFE and were under operation in Morelia and Toluca.

12. Remote Terminal Unit (RTU) for electrical distribution (1982–1985). Participation in the team that developed a multi-protocol microprocessor-based RTU at the Electrical Research Institute (IIE), Cuernavaca, Mexico. The RTU was transfered to industry and several hundred were produced and in operation.

6.2 Patentes

1. "SISTEMA DE TERAPIA DE SEGUIMIENTO VISUAL MONOCULAR 3D PARA LA REHA-BILITACIÓN DE LAS EXTREMIDADES SUPERIORES DE SERES HUMANOS". Patente concedida en México (IMPI), Julio 8, 2014. No. Patente MX 321798 B.

2. "MANGO PORTATIL PARA REHABILITACION DE EXTREMIDADES SUPERIORES". Patente concedida en México (IMPI). Febrero 26, 2015. No. Patente MX 328165 B

3. "PORTABLE HANDLE FOR UPPER LIMB REHABILITATION". USA Patent Application No. US 2013/0165825 Al, Published June 27, 2013.

4. "3D MONOCULAR VISUAL TRACKING THERAPY SYSTEM FOR THE REHABILITATION OF HUMAN UPPER LIMBS". USA Patent Application US 2012/0077163 A1, Published March 29, 2012.

5. "Portable handle for upper limb rehabilitation". Solicitud de Patente en Europa No. EP2532392.

6. "3D monocular visual tracking therapy system for the rehabilitation of human upper limbs". Solicitud de Patente en Canadá No. CA2,731,775.

7. Provisional Patent Application: "Hand gripper for visual tracking, pressure sensing and control for rehabilitation of higher extremities", U.S. Patent No. 61/337,965, Feb. 2010.

7 Proyectos de Investigación y Desarrollo Dirigidos

7.1 Proyectos Científicos Internacionales

1. "UBI-HEALTH", Project Sponsored by the European Union / Marie Curie, 2012-2016. International network of 9 institutions in Europe and rest of the World. Project Leader: CREATE-NET, Italy. Project director at INAOE.

2. "An Intelligent Tutoring System Based on Novel Sensing Modalities". Project leader in Mexico, in collaboration with A. Soto, PUC, Chile. Sponsored by LACCIR –Microsoft Research and the Inter-American Development Bank (2012-2013).

3. "Dynamic Probabilistic Graphical Models and Applications". Project Coordinator, in collaboration with 9 institutions in Mexico and Europe. Sponsored by FONCICYT –European Community and CONACYT (2009-2011).

4. "A REAL TIME SYSTEM BASED ON COMPUTER VISION TECHNIQUES TO SUPERVISE AND ALLOCATE CASH REGISTERS AT GROCERY STORES". Project leader in Mexico, in collaboration with D. Mery and A. Soto, PUC, Chile. Sponsored by LACCIR –Microsoft Research and the Inter-American Development Bank.

5. "Targeting T-WREX to Improve Functional Outcomes of Upper Extremity Therapy". Sponsored by the Department of Education, USA. National director of the project. In collaboration with Dr. D. Reinkensmeyer, UC Irvine and the Rehabilitation Institute Research Corporation (2007-2009).

6. "Remote Experimentation Network (RexNet)". ALFA project sponsored by the EEC. Project coordinator in Mexico. Collaboration of 10 institutions in Europe and LA (2005-2006).

7. "Gesture Therapy". Director of the Mexican side. Sponsored by UC MEXUS - CONACYT. In collaboration with Dr. D. Reinkensmeyer, UC Irvine (2005-2007).

8. "ELVIRA II: Applications of Probabilistic Graphical Models". Director: Dr. Javier Díez Vegas, UNED, Spain. Sponsored by Ministerio de Ciencia y Tecnología, Spain. In collaboration with UNED, Univ. Catilla-La Mancha, Spain, and ITESM Campus Cuernavaca, IIE, Mexico (2002-2004).

9. "Integration of probabilistic and logical models for gesture recognition". Project director. Sponsored by CONACYT and *National Science Foundation* (NSF), E.U.A., in collaboration with Dr. Sebastian Thrun, Carnegie-Mellon Univ. (2000 - 2003).

10. "Development of domain–independent natural language models" sponsored by CONACYT and *National Science Foundation* (NSF), E.U.A.; in collaboration with Dr. James Allen (University of Rochester) and Dr. Luis Alberto Pineda (Instituto de Investigaciones Eléctricas)

7.2 Proyectos Científicos Nacionales

1. "Video Vigilancia Automática: Hacia un Sistema Genérico de Análisis Inteligente de Videos", Sponsored by CONACYT-Problemas Nacionales, 2014-2016. $ 990,000 MN. Project Director.

2. "Salud Ubicua" (Ubi-Salud). Research Network sponsored by CONACYT-Redes Temáticas, 2014, $ 1,400,000 MN. Project Director.

3. "Ubiquitous Computing: Ubiquitous Health", Sponsored by CONACYT-Redes Temáticas, 2013-2014. $ 1,080,000 MN. Project Director.

4. "Predicción de la generación eléctrica en parques eólicos y optimización de la compra-venta de energía mediante técnicas de inteligencia artificial", CONACYT-SENER-BID, 2012–2014. Colaboración con IIE, México y CICE, Ecuador.

5. "Data Mining for Secondary Petroleum Extraction", Sponsored by PEMEX-CONACYT (2011-2013)

6. "Visual Grammars". Project director. Sponsored by Ciencia Básica - CONACYT (2009-2012).

7. "Learning by demonstration for humanoid robots". Sponsored by Ciencia Básica - CONACYT (2008-2011). Collaborator, responsible E. Morales.

8. "Low cost system for rehabilitation of upper extremities after a stroke". Project director, in collaboration with UNAM and INNN. Sponsored by Secretaría de Salud and CONACYT (2008-2010).

9. "Integrtating visual and textual information for content–based image retrieval". Group project, coordinated by A. López, collaborators: M. Montes, L. Villaseñor, E. Morales, J. González. Sponsored by Ciencia Básica - CONACYT (2007-2010).

10. "Abstraction and decomposition for solving complex Markov decision processes". Project director. Sponsored by Ciencia Básica - CONACYT (2005-2008).

11. "Intelligent tutors and virtual labs for high–school education". Project director. Sponsored by SEP - CONACYT (2005–2007).

12. "A general and modular architecture for virtual laboratories". Project director. Group project sponsored by CONACYT, in collaboration with ITESM-Mty, ITESM-CEM, UNAM-FC e IPN-CIC. 2003-2004.

13. "Perception and Navigation for mobile robots in dynamic environments". ITESM Campus Cuernavaca. Project director. Sponsored by CONACYT (1999 - 2002)

14. "An environment for knowledge discovery in data bases" Sponsored by CONACYT, in collaboration with Drs. Eduardo Morales, José Torres and Carlos Mendoza, ITESM Campus Morelos.

15. "Virtual robotics laboratory", ITESM Campus Morelos. Project director. Sponsored by REDII–CONACYT (1998).

16. "Multi-modal intelligent interfaces", ITESM Campus Morelos. Project director. Sponsored by REDII–CONACYT (1998).

17. "Multifunctional knowledge bases". Project director. Sponsored by CONACYT. April 1995 – April 1998.

7.3   Proyectos Industriales

1. "System for data validation". Sponsored by Tubos de Acero Mexicanos S.A. (TAMSA). Project Co-director. May 2008 - Jan. 2009.

2. "KDD for Termal Treatment". Sponsored by Tubos de Acero Mexicanos S.A. (TAMSA). Project Co-director. Jan. 2006 - June 2006.

3. "KDD for a Lamination Process (LACO)". Sponsored by Tubos de Acero Mexicanos S.A. (TAMSA). Project Co-director. Jan. 2006 - June 2006.

4. "Car plate recognition". Project director. Sponsored by SIRIUS e ITESM - Campus Morelos. August 1996 – Jun. 1997.

5. "Expert system for operator assistance in electrical power distribution systems", Project director. Sponsored by IIE, 1993-1994.

6. "Expert system for endoscope navigation", Collaborator. Sponsored by Olympus, Japan, Imperial College, London, 1989-1992.

7. "Supervisory control system for electrical power distribution", Project director. Sponsored by CFE (two systems in operation), IIE, 1985-88.

7.4   Competencias Científicas

1. Finalist in RoboCup@Home, Team Markovito (INAOE), RoboCup International Competition, Leipzig, Germany, 2016.

2. 1st place in RoboCup@Home, Team Markovito (INAOE), Mexican Robotics Tournament (TMR), Ciudad Victoria, Tamaulipas, Marzo 2016.

3. 1st place in RoboCup@Home, Team Markovito (INAOE), Mexican Robotics Tournament (TMR), Ciudad de México, April 2015.

4. 2nd place in RoboCup@Home, Team Markovito (INAOE), Mexican Robotics Tournament (TMR), Ciudad del Carmen, Campeche, Mexico, April 2014.

5. 1st place in RoboCup@Home, Team Markovito (INAOE), Mexican Robotics Tournament (TMR), Puebla, Mexico, 2013.

6. Finalist in RoboCup@Home, Team Markovito (INAOE), RoboCup International Competition, Istambul, Turkey, 2011.

8 Publicaciones

8.1 Libros (monografías)

1. L. Enrique Sucar, *Probabilistic Graphical Models: Principles and Applications*, Springer, 2015 (Más de 10,000 accesos sólo en 2015 - dentro del 25% de libros con más *downloads* del área).

8.2 Revistas Científicas

1. HJ Escalante, EF Morales, LE Sucar, "A naive bayes baseline for early gesture recognition", Pattern Recognition Letters: 73, 91–99, 2016

2. F Orihuela-Espina, GF Roldán, I Sánchez-Villavicencio, Lorena Palafox, Ronald Leder, Luis Enrique Sucar, Jorge Hernández-Franco, "Robot training for hand motor recovery in subacute stroke patients: A randomized controlled trial", Journal of Hand Therapy: 29, 51–57, 2016

3. Mallinali Ramírez-Corona, L Enrique Sucar, Eduardo F Morales, "Hierarchical multilabel classification based on path evaluation", International Journal of Approximate Reasoning: 68, pp. 179–193, 2016

4. J. I. Vásquez, L. E. Sucar, R. Murrieta, "View/State Planning for Three-dimensional Object Reconstruction under Uncertainty", *Autonomous Robots*, Published online Dec. 2015. (Q2-CS)

5. F. Orihuela-Espina et al., "Robot training for hand motor recovery in subacute stroke patients: a randomized controlled trial", Journal of Hand Therapy, 29 (2016) 5–57. (Q1-Rehabilitation)

6. Alberto L. Morán, Felipe Orihuela-Espina, Victoria Meza-Kubo, Ana I. Grimaldo, Cristina Ramírez-Fernández, Eloísa García-Canseco, L. Enrique Sucar, "On the effect of previous technological experience on the usability of a virtual rehabilitation tool for the physical activation and cognitive stimulation of elders", Journal of Medical Systems, 39: 104, 2015. (Q2-Med. Inf.)

7. Mallinali Ramírez-Corona , L. Enrique Sucar , Eduardo F. Morales, "Hierarchical multilabel classification based on path evaluation", International Journal of Approximate Reasoning, 2105. Available online 29 July 2015. (Q1-CS)

8. Lindsey J Fiedler, L Enrique Sucar, Eduardo F. Morales, "Transfer learning for temporal nodes Bayesian networks", Applied Intelligence, pp. 1–20, May 2015.

9. Alberto L. Morán, Felipe Orihuela-Espina, Victoria Meza-Kubo, Ana I. Grimaldo, Cristina Ramírez-Fernández, Eloísa García-Canseco, Juan M. Oropeza-Salas, Luis E. Sucar, "Out of context serious games: Transversal reutilization of games across healthcare domains", Comput Syst Sci & Eng (2015) 1: 43–55, 2015. (Q4-CS)

10. Jose Israel Figueroa-Angulo, Jesus Savage, Ernesto Bribiesca, Boris Escalante, Luis Enrique Sucar, "Compound Hidden Markov Model for Activity Labelling", *International Journal of Intelligence Science*, 5:05, pp. 177–195, 2015.

11. Yasmín Hernández, Gustavo Arroyo-Figueroa, L Enrique Sucar, "A Model of Affect and Learning for Intelligent Tutors", *Journal of Universal Computer Science*, 21:7, pp. 912–934, 2015 (Q4-CS)

12. J. Irving Vasquez-Gomez, L. Enrique Sucar, Rafael Murrieta-Cid and Efrain Lopez-Damian. "Volumetric Next-best-view Planning for 3D Object Reconstruction with Positioning Error". *Int J Adv Robot Syst*, 2014, 11:159.

13. Julio Hernández, L. Enrique Sucar, Eduardo Morales, "Multidimensional Hierarchical Classification", *Expert Systems With Applications*, Volume 41, Issue 17, December 2014, Pages 7671–7677.

14. Luis Enrique Sucar, Felipe Orihuela-Espina, Roger Luis Velazquez, David J. Reinkensmeyer, Ronald Leder, and Jorge Hernndez-Franco. "Gesture Therapy: An upper limb virtual reality-based motor rehabilitation platform". *IEEE in Transactions on Neural Systems and Rehabilitation Engineering* Vol. 22, No. 13, Mayo 2014, pp. 634–643.

15. Pablo Hernández-Leal, Enrique Munoz de Cote and L. Enrique Sucar, "A framework for learning and planning against switching strategies in repeated games". *Connection Science*, Special issue on Autonomous Learning Agents, Vol. 26 No. 2, 2014, pp. 103–122.

16. L.E. Sucar, C. Bielza, E. Morales, P. Hernández, J. Zaragoza, P. Larranaga, "Multi-label Classification with Bayesian Network-based Chain Classifiers", Pattern Recognition Letters 41, 2014, pp. 14–22. (Q2-CS)

17. Alejo Mosso Vzquez, David Juárez-Romero, Marco Antonio Cruz-Chávez, Luis Enrique Sucar, "Un método simplex KKT para resolver eficientemente programas lineales para análisis de la sujeción basado en la identificación de restricciones no atadas", Computación y Sistemas 18(2), 2014, pp. 225–242.

18. Ricardo Omar Chavez, Hugo Jair Escalante, Manuel Montes-y-Gómez and L. Enrique Sucar, "Multimodal Markov Random Field for Image Re-ranking based on Relevance Feedback", *ISRN Machine Vision*, Volume 2013 (2013), Article ID 428746, 16 pages.

19. Felipe Orihuela-Espina, Luis Enrique Sucar, et al., "Neural reorganization accompanying upper limb motor rehabilitation from stroke with virtual reality-based Gesture Therapy", *Topics in Stroke Rehabilitation*, Volume 20, Number 3 / May-June 2013, pp.197–209.

20. Pablo Hernńdez-Leal, Alma Ros-Flores; Santiago Ávila-Ros, Gustavo Reyes-Terán, Jess A. González, Lindsey Fiedler-Cameras, Felipe Orihuela-Espina, Eduardo F. Morales, Luis Enrique Sucar, "Discovering HIV mutational pathways using Temporal Bayesian Networks", Artificial Intelligence in Medicine, Volume 57(3), 2013, pp. 185–195.

21. Pablo Hernandez-Leal, Jesus A. Gonzalez, Eduardo F. Morales, L. Enrique Sucar, "Learning temporal nodes Bayesian networks", *International Journal of Approximate Reasoning*, Volume 54(8), October 2013, Pages 956–977.

22. C. Hernández-Gracidas, L.E. Sucar, M. Montes, "Improving image retrieval by using spatial relations", *Journal of Multimedia Tools and Applications*, Vol. 62, pp. 479–505, 2013.

23. L. Chang, J. Hernandez-Palancar, L. E. Sucar, "FPGA-based detection of SIFT interest keypoints", *Computer Vision and Applications*, 24 (2), pp. 371–392, 2013.

24. Escalante, H.J., Montes, M., Sucar, L.E., "Multi-class particle swarm model selection for automatic image annotation", *Expert Systems with Applications*, volume 39, issue 12, pp. 11011–11021, 2012.

25. L. Chang, M. Duarte, L.E. Sucar, E. Morales, "A Bayesian approach for object classification based on clusters of SIFT local features", *Expert Systems with Applications"* 39(2), pp. 1679–1686, 2012.

26. Esau Villatoro-Tello, Luis Villaseñor-Pineda, Manuel Montes-Y-Gómez, Antonio Juárez-González and Luis Enrique Sucar-Succar, "Document Ranking Refinement Using a Markov Random Field Model", *Journal of Natural Language Engineering*, Volume 18, pp. 155–185, 2012.

27. Hugo Jair Escalante, Enrique Sucar, Manuel Montes, "Semantic cohesion for image annotation and retrieval", Computación y Sistemas, Vol. 16, No. 1, January-March, 2012, pp. 121-126.

28. Hugo Jair Escalante, Manuel Montes and Enrique Sucar. "Multimodal Indexing based on Semantic Cohesion for Image Retrieval", Information Retrieval, Volume 15, Number 1, pp. 1-32, 2012.

29. R. O. Chávez, M. Montes, L. E. Sucar, "Using Markov random fields for image re-ranking based on visual and textual features, *Computación y Sistemas Journal*, Vol. 14, No. 4, pp. 393–404, 2011.

30. H.H. Avilés-Arriaga, L.E. Sucar, C.E. Mendoza-Durán, L.A. Pineda-Cortés, "A Comparison of Dynamic Naive Bayesian Classifiers and Hidden Markov Models for Gesture Recognition", *Journal of Applied Research and Technology*, Vol.9 No.1 April 2011.

31. Hugo Jair Escalante, Manuel Montes, Enrique Sucar, "An Energy-based Model for Region-labeling", *Computer Vision and Image Understanding*, Volume 115, No. 6, pp 787-803, June 2011.

32. E. Villatoro, R. Chávez, M. Montes, L. Villaseñor, L.E. Sucar, "A Probabilistic Method for Ranking Refinement in Geographic Information Retrieval", *Procesamiento del Lenguaje Natural*, No. 44, pp. 123–130, 2010.

33. R. Luis, L.E. Sucar, E. Morales, "Inductive Transfer for Learning Bayesian Networks", *Machine Learning Journal*, Vol. 79, No. 1/2, pp. 227–255, 2010.

34. M. A. Palacios-Alonso, C. A. Brizuela and L. E. Sucar, "Evolutionary Learning of Dynamic Naive Bayesian Classifiers", *Journal of Automated Reasoning*, (1), pp. 21–37, 2010.

35. H. Escalante, M. Grubinger, C. Hernández, J. González, A. López, M. Montes, E. Morales, L.E. Sucar, L. Villaseñor, "The Segmented and Annotated IAPR TC-12 Benchmark", *Computer Vision and Image Understanding*, 114 (4), 419–428, 2010.

36. Yasmín Hernández, L. Enrique Sucar, Gustavo Arroyo-Figueroa, "Desarrollo e Integración de un Modelo de Comportamiento Afectivo a un Sistema Tutor Inteligente", *Revista Iberoamericana de Tecnologías del Aprendizaje*, IEEE, Vol. 4, No. 2, pp. 161–169, 2009 (in Spanish).

37. A. Reyes, L.E. Sucar, E. Morales, "AsistO: A Qualitative MDP-based Recommender System for Power Plant Operation", *Computación y Sistemas*, Vol. 13, No. 1, pp. 5–20, 2009.

38. H. Escalante, M. Montes, L.E. Sucar, "Particle Swarm Model Selection", *Journal of Machine Learning Research*, Vol. 10(Feb):405–440, 2009.

39. S.Vadera, A. Rodriguez, E. Succar and J. Wu, "Using Wittgenstein's Family Resemblance Principle to Learn Exemplars", *Foundations of Science*, pp 67–74, Vol 13, No 1, March 2008.

40. L.E. Sucar, J. Noguez, G. Huesca, E. Rodríguez, "A SEMI-OPEN LEARNING ENVIRONMENT FOR MOBILE ROBOTICS", *International Journal of Online Engineering*, Vol. 3, No. 2, 2007.

41. S. Fernández, F.J. Díez, G. Arroyo, L.E. Sucar, "Comparison of two type of Bayesian networks: a case study", *Applied Artificial Intelligence*, Volume 21 (3) March 2007, pp. 185 - 209.

42. L. Romero, E. Morales, L.E. Sucar, "Exploration and navigation for mobile robots with perceptual limitations", *International Journal of Advanced Robotic Systems*, 3(3), 249–258, 2006.

43. A. Montero, L.E. Sucar, "Context-based gesture recognition", *Lecture Notes in Computer Science* 4225, Springer-Verlag, pp. 764–773, 2006.

44. A. Reyes, L.E. Sucar, E. Morales, P. Ibargüengoytia, "Solving Hybrid Markov Decision Processes", *Lecture Notes in Computer Science* 4293, Springer-Verlag, pp. 227–236, 2006.

45. M. Martínez, L.E. Sucar. H.G. Acosta, N. Cruz, "Bayesian Model Combination and Its Application to Cervical Cancer Detection", *Lecture Notes in Computer Science* 4140, Springer-Verlag, pp. 622–631, 2006.

46. G. Arroyo, Y. Hernández, L.E. Sucar, "Intelligent Environment for Training of Power System Operators", *Lecture Notes in Computer Science* 4251, Springer-Verlag, pp. 943–950, 2006.

47. J. Noguez, L.E. Sucar, "Intelligent Virtual Laboratory and Project Oriented Learning for Teaching Mobile Robotics", *International Journal of Engineering Education*, 22(4), 743–757, 2006.

48. P. Ibargüengoytia, S. Vadera, L.E. Sucar, "A probabilistic model for information validation", *British Computer Journal* 49(1), 113–126, 2006.

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62. G. Arroyo-Figueroa, L.E. Sucar, A. Villavicencio, "A Temporal Bayesian Network Model and its Application to Power Plant Operation", Second International Symposium on Artificial Intelligence: Adaptive Systems, Editorial Academia, Cuba, pp. 344–351, 1999.

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82. "Técnicas de Análisis de Confiabilidad en Equipo Electrónico", Memorias Mexicon-86, IEEE, Guadalajara, Jal., México, 1986.

83. "SOPCO-86: Sistema Operativo en Tiempo-Real para Multiprocesadores", Memorias Mexicon-86, IEEE, Guadalajara, Jal., México, 1986.

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85. "Sistema de Adquisición de Datos y Control Supervisorio basado en Microprocesadores", Memorias Mexicon-83, IEEE, Cuernavaca, Mor., México, 1983.

86. "VLSI: Sus Alternativas y Ventajas, Técnicas y Económicas", Memorias Mexicon-83, IEEE, Cuernavaca, Mor., México, 1983.

8.6   Artículos de Divulgación

1. L. E. Sucar, "El Valle Misterioso", Saberes y Ciencias 41, Abril 2015.

2. L. E. Sucar, F. Orihuela-Espino, D. Reinkensmeyer, R. Leder and Jorge Hernández Franco, "Gesture Therapy: a democratic virtual rehabilitation platform", ISVR Newsletter, Number 3, December 2014.

3. L. E. Sucar, F. Orihuela-Espino "Terapia por gestos", in *Ciencia y Desarrollo*, CONACYT, Marzo-Abril, 2013.

4. L. E. Sucar, "Terapia por gestos", in *La Ciencias desde Morelos para el Mundo Tomo III*, Academia de Ciencia de Morelos, pp. 45–48, 2013.

5. L. E. Sucar, "De la visión natural a la visión artificial", in *La Ciencias desde Morelos para el Mundo Tomo III*, Academia de Ciencia de Morelos, pp. 125–128, 2013.

6. L. E. Sucar, E. F. Morales, "Robotnik, trabajador del futuro", Conversus, IPN, pp. 4–7, 2012.

7. L. E. Sucar, E. A. Sucar, "Breve historia de la criptografá: segunda parte", Diario La Unión de Morelos, Columna de la Academia de Ciencia de Morelos, May 2012.

8. L. E. Sucar, E. A, Sucar, "Cómo evitar ser incluido en el portal de WikiLeaks? Historia Breve de la Criptografía", Columna de la Academia de Ciencia de Morelos, La Unión de Morelos, 28 March 2011.

9. L. E. Sucar, "Los robots del futuro y su importancia para México", *Komputer Sapiens*, Sociedad Mexicana de Inteligencia Artificial, Vol. 1, No. 2, pp. 7–12, Sept. 2009 (in Spanish).

10. L. E. Sucar, "La computación cumple 50 años en México", *Hypatia*, No. 29, Jan.-Mar. 2009, p. 23 (in Spanish).

11. L. E. Sucar, "Visión: Natural y Artificial", *Komputer Sapiens*, Sociedad Mexicana de Inteligencia Artificial, Vol. 1, No. 1, pp. 6–10, Oct. 2008 (in Spanish).

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13. L. E. Sucar, Diversos artículos en los Periódicos "Unión de Morelos" y "La Jornada de Oriente" de 2006 a 2009.

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15. L. E. Sucar, O. Mayora, "¿Cómo nos comunicaremos con los robots?", Ciencia y Desarrollo, Julio, (2005) 50–53 (in Spanish).

16. G. Gómez, L. E. Sucar, "Sistema para Reconocimiento de Caracteres en Placas de Automóviles", Soluciones Avanzadas, Vol. 6, No. 58 (1998) 47–53 (in Spanish).

17. L. E. Sucar, "Modelado Probabilístico de Conocimiento Visual y su Aplicación en Endoscopía", Soluciones Avanzadas, Vol. 5, No. 42 (1997) 42–50 (in Spanish).

8.7 Reportes Técnicos

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2. Reporte Técnico No. CCC-10-004, "Semantic Cohesion for Image Annotation and Retrieval ", Hugor Jair Escalante Balderas, Manuel Montes y Gómez, L. Enrique Sucar Succar. 22 de abril de 2010.

3. Reporte Técnico No. CCC-10-006, "Controlling the Supermarket Services", José A. Montero Valverde, Luis E. Sucar Succar. 30 de septiembre de 2010.

4. H. Jair Escalante, C. Hernández, J. A. González, A. López, M. Montes, E. Morales, E. Sucar, and L. Villaseñor. "Segmenting and Annotating the IAPR-TC12 Benchmark". Technical report, INAOE,: CCC-05-08, 2009.

5. J. Vega, E. Morales, E. Sucar, "Data Validation System", INAOE, 2009.

6. E. Morales, E. Sucar, "Modelos en Línea para TTR: Final Report", INAOE, 2007.

7. E. Morales, E. Sucar, B. Vargas, S. Hernández, "KDD Systems in Tenaris Tamsa 2: Final Report", INAOE, 2006.

9 Conferencias

9.1 Conferencias Internacionales Invitadas

1. "Gesture Therapy: Recent Developments" - Conferencia Invitada en University College London - Interaction Center, Julio 2016.

2. "Bayesian network techniques for data analysis", Ubi-Health Winter school, Trento, Marzo-Abril 2016

3. "Improving image annotation and retrieval with graphical models", National Laboratory of Pattern Recognition, China, August 2013.

4. "Gesture Therapy: An intelligent stroke rehabilitation system", University College London, England, July 2013.

5. "User modeling for patient-tailored virtual rehabilitation", Foundation of Biomedical Knowledge Representation, Lorentz Center, The Netherlands, October 2012.

6. "Probabilistic graphical models and their applications in intelligent environments", Keynote Conference, 8th International Conference on Intelligent Environments, June 2012.

7. "Probabilistic graphical models: applications in biomedicine", Microsoft Research Latin America Faculty Summit, Riviera Maya, Mexico, May 2012.

8. "A Service Robot named Markovito", Invited Conference at Computer Science Department, Pontificia Universidad Católica, Santiago de Chile, November 2009.

9. "Interacción Multimodal Humano-Robot", Conferencia Latinoamericana – Sociedad de la Información y el Conocimiento, Cinvestav, Mexico, October 2009.

10. "Is our Brain Bayesian? Probabilistic Graphical Models in Artificial Intelligence", Plenary Talk, MICAI 2007.

11. "Remote Lab and Intelligent Tutor for Mobile Robotics", International Workshop on Virtual Labs and Remote Experimentation, Porto, Portugal, June 2006.

12. "Approximate solution of complex decision problems based on abstraction and decomposition", NSF Workshop on Approximate Dynamic Programming, Cocoyoc, México, April de 2006.

13. "Artificial Intelligence Research at ITESM Cuernavaca", Invited talk, Mathematics and Computer Science Technology, Boing Phantom Works, Seattle, USA, May 2004.

14. "Recognition of Gestures for Human-Robot Interaction", LCI Forum, University of British Columbia, November 2003.

15. "Robotics virtual laboratory", Seminario Internacional de Tecnologías de Internet, Universidad del Cauca, Popayán, Colombia, June 2001.

16. "Gesture recognition", I Encuentro sobre la matemática aplicada a la ingeniería, la computación y las ciencias", Instituto Tecnológico de Costa Rica, Feb. 2001.

17. "Objective Probabilities", IEEE Workshop on Uncertainty Management in Expert Systems, London, GB, Dec 5, 1992.

9.2 Conferencias Nacionales Invitadas

1. "Markovita y Sabina: Robots de Servicio" - Seminario Deprtamenta, CINVESTAV, Febrero 2016.

2. "Searching for objects in domestic environments with mobile robots", 6to Taller de Robótica y Planificación de Movimientos, CIMAT, Abril 2016

3. "Modelos gráficos probabilistas: de datos a decisiones", 8 Congreso Mexicano de Inteligencia Artificial, Puebla, Mayo de 2016

4. 'Enseñando Pensamiento Computacional a Nivel Medio Superior en México", Taller de Pensamiento Computacional, INAOE, Agosto 2014.

5. "Integrating modelling and reward shaping for fast learning: an application in therapy planning", 5to Taller de Planificación de Movimientos, CIMAT, Feb. 2014.

6. "Bayesian Computation: from Data to Decisions", 30 years of computing at CINVESTAV, December 2013.

7. "Terapia de gestos: explorando la plasticidad cerebral mediante ambientes virtuales para la rehabilitación", SIEB-UPIBI, IPN, April 2013.

8. "Hacia dónde va la cienci en México", Panel, CIC-IPN, March 2013.

9. "Markovito: Un robot de servicio", 12o Aniversario del Instituto Tecnológico de Huauchinango, Agosto 2012.

10. "Terapia por gestos: explotando la plasticidad cerebral mediante ambientes virtuales para la rehabilitación", Ciclo de Conferencias Magistrales en Computación, ITAM, Mayo 2012.

11. "Service Robots", Plenary Talk, CONIELECOMP, UDLA, Feb. 2012.

12. "Los robots del futuro", ITESM Laguna, Feb. 2012.

13. "Sistemas inteligentes y sus aplicaciones", ITESM Laguna, Feb. 2012.

14. "Recuperación de imágenes por contenido", Taller-Escuela de Procesamiento de Imágenes, CIMAT, Octubre de 2011.

15. "Modelos gráficos probabilistas y sus aplicaciones", IX Simposium Nacional de Ciencias, Chetumal, Octubre de 2011.

16. "Modelos gráficos probabilistas y sus aplicaciones en biomedicina", 2do Congreso Nacional de Tecnología Aplicada a Ciencias de la Salud, Puebla, Mayo de 2011.

17. "Sistemas inteligentes probabilísticos: principios y apicaciones", inFORO 2011, Inst. Tec. Superior de Sinaloa, Marzo de 2011.

18. "Modelos gráficos probabilistas y sus aplicaciones en biomedicina", II Congreso Nac. de Tec. Aplicadas a Ciencias de la Salud, Puebla, Mayo 2011.

19. "Modelos gráficos recuperación de imágenes", Universidad Tecnológica de la Mixteca, Enero 2011.

20. "Redes bayesianas: principios y aplicaciones", Invited Conference at *CINVESTAV*, Mexico, October 2010.

21. "Terapia por gestos: integrando realidad virtual y visión computacional para la rehabilitación de extremidades superiores", Invited Conference at *Jornadas del X Aniversario Unidad Tizimín*, Universidad Autónoma de Yucatán, Marzo de 2010.

22. "Markovito: un robot de servicio", Invited Conference at *Laboratorio de Tecnologías de Información*, Cinvestav Tamaulipas, November 2009.

23. "Markovito: un robot de servicio", *Primer Congreso Nacional de Computación e Informática - CONACI 2009*, U. A. del Carmen, Cd. del Carmen, Campeche, Mexico, September 2009.

24. "Los robots del futuro" within the series *Domingos en la Ciencia*, Mexican Academy of Science, Universidad Autónoma de Tlaxcala, Feb. 2009.

25. "Búsqueda de Imágenes por Contenido", Encuentro Internacional de Tecnologías de Información", UPAEP, March 2009.

26. "50 años de la Computación en México", Panelista, UNAM, Noviembre 2008.

27. "¿Dónde quedó la foto? Búsqueda de imágenes por contenido", VIII Simposium Internacional en Ciencias Computacionales, Tecnológico de Acapulco, Nov. 2008.

28. "Los robots del futuro o robots de servicio", Domingos en la Ciencia, Academia Mexicana de Ciencias y Universidad Politécnica de Aguascalientes, Nov. 2008.

29. "Markovito: un robot de servicio", IV Congreso de Informática, Robótica e Inteligencia Artificial, Acapulco, Nov. 2008.

30. "Conclusiones sobre la computación en México", Panel de Conclusiones del Congreso 50 años de la computación en México, UNAM, Nov. 2008.

31. "Markovito: un robot de servicio", Facultad de Ingeniera Mecánica, Eléctrica y Electrónica (FIMEE), Universidad de Guanajuato, April 2008.

32. "Approximate solution of complex decision problems and ist application to robot navigation", Primer Taller en Planificación de Movimientos y Robótica, Centro de Investigación en Matemáticas, Feb. 2007.

33. "Modelos gráficos probabilistas en inteligencia artificial", XXXIX Congreso Nacional de la Sociedad Matemática Mexicana, Oct. 2006.

34. "Análisis de imágenes médicas", 2do Simposium Internacional de Ingeniería Biomédica, Tecnológico de Monterrey, March 2006.

35. "Robots controlados por Internet", 6 Concurso nacional de minirobótica, IEEE Sección Querétaro, CIDESI, May 2001.

36. "Teleoperación y manipulación robótica", 1er Simposium Internacional de Cirugía Asistida por Computadora, Inst. Nal. de Cancerología, August 2000.

37. "Presepectivas de desarrollo en inteligencia artificial", 1er Simposium Internacional de Cirugía Asistida por Computadora, Inst. Nal. de Cancerología, August 2000.

38. "Redes bayesianas y sus aplicaciones", 1er Congreso de Informática y Ssitemas Computacionales, Inst. Tec. de San Juan del Rio, May 2000.

39. "Robótica móvil", III Congreso nacional de ingeniería en sistemas computacionales, Inst. Tec. de Tehuacán, Nov. 1999.

40. "De datos a desiciones: un marco probabilistico para la IA", Congreso int. en sistemas comp. e IA, Inst. Tec. de Zacatepec, Sept. 1999.

41. "Descubrimeinto de conocimiento en bases de datos", Foros Computación de la Teoría a la Práctica, Academia Mexicana de Ciencias y CIC-IPN, May 1999.

42. "De datos a desiciones: un marco probabilistico para la IA", Seminario de Computación UNAM, March 1999.

43. "Robótica móvil", Segunda Semana Académica, Inst. Tec. de Zacatepec, Nov. 1998.

44. "Logros y perspectivas de la inteligencia artificial", 4a Semana de la Universidad Mesoamericana, Oaxaca, May 1998.

45. "Redes probabilísticas y su aplicación a la toma de desiciones", II Simposio Interdisciplinario de administración y sistemas, ITESM Campus Mazatlán, April 1998.

46. "Visión computacional", Conferencia Magistral, Universidad Autónoma de Puebla, Sept. 1997.

47. "Computación Flexible", Jueves Computacionales, ITESM–Morelos, May 1997.

48. "Redes Causales Probabilísticas: fundamentos y aplicaciones", III Congreso Internacional de Sistemas Computacionales, Universidad de Tamaulipas, April 1997.

49. "Redes Bayesianas y sus Aplicaciones", Congreso de Computación, Tec. de Acapulco, Dec. 1996.

50. "Redes Causales Probabilísticas: fundamentos y aplicaciones", UDLA, May 1996.

51. "Bayes vs. Rosenbaluth: semejanzas y diferencias de redes Bayesianas y red neuronales", Ciclo de Conferencias IEEE-CENITED-ITESM, ITESM - Morelos, Nov. 1995.

52. "Visión Computacional: Principios y Aplicaciones", Congreso Internacional de Sistemas Computacionales, Universidad de Tamaulipas, Tampico, Tamaulipas, April 1995.

53. "Sistemas Expertos y sus Aplicaciones en Medicina", Facultad de Química, Universidad de Guanajuato, Guanajuato, Gto., March 1994.

54. "Sistema Experto para Endoscopía", Seminario de Sistemas Expertos y sus Aplicaciones, ITESM - Campus Morelos, 1993.

55. "Redes Bayesianas y su Aplicación en Visión por Computadora", Sociedad Mexicana de Inteligencia Artificial, ITAM, México, D.F., March 1993.

56. "Aplicaciones de Microprocesadores", Segundo Seminario de Ingeniería Electrónica, ITESM - Campus Edo. de México, 1987.

57. "Uso de Computadoras como Controladores", IV Symposium de Ingeniería, CETYS, Mexicali, BC, 1987.

58. "Sistema de Control basado en Microprocesadores para aplicaciones Industriales", III Symposium de Ingeniería, CETYS, Mexicali, BC, 1986.

59. "Procesamiento Distribuido mediante Microprocesadoes", Primera Semana de Ingeniería, ITESM - Campus Morelos, 1983.

9.3   Seminarios y Tutoriales

1. "Graphical models for medical applications", Winter School on Ubiquitous Computing, UbiHealth European Project, Puebla, Mexico, January 2014.

2. Tutorial: "Robot Vision: a Bayesian Approach", Robotics Winter School, INAOE, December 2013.

3. Short course: "Bayesian Perception", Summer School on Images and Robotics, LAFMI (France–Mexico), 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2009, 2012.

4. Tutorial: "Planning under Uncertainty with Markov Decision Processes", MICAI 2006, Tlaxcala, México.

5. Tutorial: "Markov Decision Processes", Iberamia 2005, Puebla, México.

6. Short course: "Probabilistic graphical models", I Encuentro sobre la matemática aplicada a la ingeniería, la computación y las ciencias", Instituto Tecnológico de Costa Rica, Feb. 2001.

7. Tutorial: "Computer Vision", CIenSCIA 99, Inst. Tec. de Zacatepec, Sept. 1999.

10 Formación Académica

10.1 Investigadores Post-doctorales Supervisados

1. Luis Valentín, 2015 - 2016. Video surveillance and service robotics.

2. Alejo Mosso, 2014 - 2015. Optimization techniques for robot manipulation and energy markets.

3. Efraín López-Damian, 2008 - 2009. View planning for 3D object reconstruction with mobile robots.

10.2 Tésis Supervisadas

10.2.1 Doctorado

1. Elías Ruiz Hernández, "Representation and Recognition of Visual Categories with Visual Grammars and Probabilistic Graphical Models" PhD thesis, INAOE, Puebla (Febrero 2016).

2. Pablo Hernández Leal, "Strategic Interactions Between Agents with Bounded Rationality", PhD thesis, INAOE, Puebla (December 2015).

3. Leonardo Chang Fernández, "AN OBJECT DESCRIPTION AND CATEGORIZATION METHOD BASED ON SHAPE AND APPEARANCE FEATURES", PhD thesis, INAOE, Puebla (June 2015).

4. Annette Morales González Quevedo, "Methods for automatic object recognition combining appearance models and spatial and hierarchical relations", Inst. Sup. Politécnico José Antonio Echeverría, La Habana, Cuba (December 2014).

5. Juan Irving Vásquez Gómez, "View planning for 3D object reconstruction with mobile robots", PhD thesis, INAOE, Puebla (December 2014).

6. Carlos Arturo Hernández, "Spatial relations for image annotation and retrieval", PhD thesis, INAOE, Puebla (September 2010).

7. Hugo Jair Escalante, "Semantic annotation for image annotation and retrieval", PhD thesis, INAOE, Puebla (Feb. 2010).

8. Francisco Elizalde, "Generación de Explicaciones con Técnicas Probabilistas en Asistentes Inteligentes", (Jan. 2009), PhD Thesis, ITESM - Campus Cuernavaca.

9. Yasmín Hernández, "Modelo de Comportamiento Afectivo para Sistemas Tutores Inteligentes", (Dec. 2008), PhD Thesis, ITESM - Campus Cuernavaca.

10. José Antonio Montero Valverde, "Reconocimiento contextual de gestos para la toma de decisiones" (June 2007), PhD Thesis, ITESM - Campus Cuernavaca.

11. Miriam Martínez Arroyo, "Aprendizaje de clasificadores bayesianos estáticos y dinámicos" (June 2007), PhD Thesis, ITESM - Campus Cuernavaca.

12. Héctor Hugo Avilés Arriaga, "Reconocimiento Visual de Ademanes Aplicado a Robots Móviles" (June 2006) PhD Thesis, ITESM - Campus Cuernavaca.

13. Alberto Reyes Ballesteros, "Representación y aprendizaje ed procesos de decisión de Markov cualitativos" (Nov. 2006). PhD Thesis, ITESM - Campus Cuernavaca. (co–supervisors: Eduardo Morales and Pablo Ibargüengoytia)

14. Julieta Noguez, "Modelo probabilístico relacional del estudiante para laboratorios virtuales". (Dec. 2005) PhD Thesis, ITESM - Campus Cuernavaca.

15. Jaime Solano, "Configuración de sistemas alta confiabilidad". (Jan. 2003) PhD Thesis, ITESM - Campus Morelos.

16. Rocío Díaz de Leon, "Reconocimiento de actividades humanas". (May 2003) PhD Thesis, ITESM - Campus Morelos.

17. Leonardo Romero, "Construcción de mapas y localización de robots móviles: un enfoque probabilista" (Nov. 2001). PhD Thesis, ITESM - Campus Morelos. (co–supervisor: Eduardo Morales)

18. Gustavo Arroyo Figueroa, "Razonamiento Probabilístico Temporal para Predicción y Diagnóstico". (April 1999) PhD Thesis, ITESM - Campus Morelos.

19. Gerardo Torres Toledano, "Redes Bayesianas con Variables Gamma y su Aplicación al Análisis de Confiabilidad" (April 1999). PhD Thesis, ITESM - Campus Morelos.

20. Andres Rodríguez, "Probabilistic Exemplar Model for Case-based Reasoning" (June 1998). PhD Thesis, University of Salford, UK (co–supervisor: Sunil Vadera)

21. Pablo Ibargüengoytia, "Any-Time Probabilistic Sensor Validation" (Dec. 1997). PhD Thesis, University of Salford, UK (co–supervisor: Sunil Vadera)

10.2.2 Maestría

1. Ramón Izquierdo Córdova, "Exploración de Ambientes Estructurados para Búsqueda de Objetos con un Robot Móvil Usando Información Obtenida de Internet", INAOE - Ciencias Computacionales, Enero 2016

2. Nahúm Sánchez Texis, "Método Para la Reduccń de Auto-codificadores en Aprendizaje Profundo" INAOE - Ciencias Computacionales, Febrero 2016

3. Jesús Joel Rivas, "Multi-resolution Semi-Naive Bayesian Classifier for Affective State Estimation: An Application in Virtual Rehabilitation", INAOE - Ciencias Computacionales, Novembre 3, 2015.

4. Mallinali Ramírez Corona, "Multi-label hierarchical classification for tree and DAG structures", INAOE - Ciencias Computacionales, October 7, 2014.

5. Lindsey Fiedler Cameras, "Transfer Learning for Temporal Nodes Bayesian Networks", INAOE - Ciencias Computacionales, November 2013.

6. Harold Andres Vasquez Chavarria, "Método para la segmentación y reconocimiento simultáneo de ademanes", INAOE - Ciencias Computacionales, Septiembre de 2013.

7. Maribel Marín Castro, "Modelo Jerárquico para la Clasificación de Galaxias", INAOE - Ciencias Computacionales, Noviembre de 2012.

8. Augusto Meléndez Teodoro, "Una gramática visual para la detección de rostros", INAOE - Ciencias Computacionales, Enero de 2011.

9. Gerardo Arellano Cervantes, "Etiquetado automático de imágenes con base en múltiples segmentaciones", INAOE - Ciencias Computacionales, Febrero de 2011.

10. Mario Romero Insunza, "Herramienta de autoría para sistema tutores inteligentes basados en modelos relacionales probabilistas", INAOE - Ciencias Computacionales, Nov. 2009.

11. Juan Irving Vásquez Gómez, "Planificador de vistas para reconstrucción tridimensional de objetos", INAOE - Ciencias Computacionales, Nov. 2009.

12. Josué Sánchez Texis, "Localización global y local integrando información visual y de rango para robost móviles en ambientes no estacionarios", INAOE - Ciencias Computacionales, Feb. 2009.

13. Roger Luis Velásquez, "Aprendizaje por transferencia de redes bayesianas", INAOE - Ciencias Computacionales, Feb. 2009.

14. Claudia Cruz Pérez, "Reconocimiento de rostros basado en características invariantes", INAOE - Ciencias Computacionales, Feb. 2009.

15. Ariel Molina Rueda, "Seguimiento Monocular 3D para Rehabilitación", INAOE - Ciencias Computacionales, July 2008.

16. Heidy Marisol Marín Castro, "Etiquetado automático de imágenes digitales mediante un algoritmo de ensamble semi–supervisado", INAOE - Ciencias Computacionales, Febrero 2008 (Co–supervisor: Eduardo Morales).

17. Elías Ruíz Hernández, "Un enfoque bayesiano para un modelo biológico del sistema visual", INAOE - Ciencias Computacionales, Feb. 2008.

18. Gerardo Eliezer Quintana Torres, "Calificación de gestos terapéuticos del brazo humano con modelos ocultos de Markov", INAOE - Ciencias Computacionales, Feb. 2008.

19. Miguel Angel Palacios Alonso, "Aprendizaje evolutivo del clasificador bayesiano simple dinámico", CICESE - Ciencias Computacionales, Feb. 2008.

20. Gildardo Azcárate Hernández, "Sistema de seguimiento visual para rehabilitación", ITESM - Campus Cuernavaca, Dec. 2007.

21. Victor Hugo Enríquez Zendero, "Adaboost bayesiano para detección de rostros" (May 2006), Tesis de Maestría, ITESM - Campus Cuernavaca.

22. Zoroayka Virginia Sandoval Velázquez, "Ambiente virtual para instrucción en mantenimiento a línea viva" (mayo de 2006), Tesis de Maestría, ITESM - Campus Cuernavaca (Co–director: Miguel Pérez Ramírez).

23. Carlos Isaías García Bautista, "Localización robótica Monte Carlo utilizando características invariantes", INAOE - Ciencias Computacionales, August 2006.

24. Gilberto Huesca Juárez, "Laboratorio virtual de robtica mvil en esquemas de coordinacin concurrente", ITESM - Campus Cuernavaca, Nov. 2006 (Co–supervisor: Julieta Noguez Monroy).

25. Eric Rodríguez, "Laboratorio remoto para robótica móvil", ITESM - Campus Cuernavaca, Nov. 2006 (Co–supervisor: Julieta Noguez Monroy).

26. David González, "Sistema de Información médico para la paráilsis facial", (Jan. 2005) Tesis de Maestría, ITESM - Campus Cuernavaca.

27. Francisco Elizalde, "Prototipo de un asistente inteligente para ayuda de operadores", (Nov. 2004) Tesis de Maestría, ITESM - Campus Cuernavaca

28. Pamela Suŕez, "Simulador tridimensional para un laboratorio virtual de robótica", (marzo 2005), Tesis de Maestría, ITESM - Campus Cuernavaca (Co–supervisor: Julieta Noguez)

29. Yandi Ricaño, "Un Rostro Animado para la Interacción Humano-Computadora", (May 2005), ITESM - Campus Cuernavaca (Co–director: Oscar Mayora)

30. Jaqueline Hernández, "Diálogos basados en procesos de decisión de Markov", (Nov. 2005), ITESM - Campus Cuernavaca (Co–supervisor: Oscar Mayora)

31. Michel García García, "Aprendizaje por refuerzo e iteración de valor: dos enfoques para obtener políticas óptimas en el problema de persecución-evasión en robots reales", (Nov. 2005), ITESM - Campus Cuernavaca (Co–supervisor: Eduardo Morales)

32. Sergio Ortiz Gamma, "Descubrimeinto de conocimiento en datos del genoma", (May 2004) (Co–supervisor: Andrés Rodríguez) ITESM - Campus Cuernavaca

33. Gerardo Nava de la Paz, "Modelo de Regulación Genética mediante Redes Bayesianas", (Oct. 2003), ITESM - Campus Cuernavaca.

34. Consuelo Chavarría López, "Sistema para la programación de cursos" (Dec. 2002), ITESM - Campus Cuernavca.

35. Edgar Pinto Pérez, "Descubrimiento de conocimiento en base de datos hospitalarias" (Feb. de 2002), ITESM - Campus Cuernavca.

36. Luis Vega Damian, "Descubrimiento de conocimiento en datos escolares", (Feb. 2002), ITESM - Campus Cuernavaca.

37. Héctor Hugo Avilés, "Reconocimiento de ademanes dinámicos para robots móviles" (2000), ITESM - Campus Morelos.

38. Esmeralda Uraga, "Desarrollo de un corpus de voz para reconocimiento de voz continua en español" (May 1999), ITESM - Campus Morelos. (Co–supervisor: Luis Pineda).

39. Fernando Flores Prior, "Diagnóstico de fallas en redes ele'ctricas usando un sistema de información geográfica y redes bayesianas" (July 1999), ITESM - Campus Morelos.

40. Leonardo Aguilar, "Reconocimiento de Ademanes en una Arquitectura Multimodal" (July 1999), ITESM - Campus Morelos.

41. Giovani Gómez, "Selección de la Escala Local en Procesamiento de Imágenes" (Dec. 1999), ITESM - Campus Morelos. (Co–supervisor: Jose Luis Marroquín)

42. Victor Zamudio, "Propagación de probabilidades en redes bayesianas mediante técnicas de optimización estocástica" (May 1998), ITESM - Campus Morelos.

43. Miguel Salas Zúñiga, "Modelado Geométrico y Localización de Marcas Antropométricas en un Cráneo Humano" (August 1998), ITESM - Campus Morelos.

44. Jorge Aparicio Mayorga, "Planificación de Tareas Flexibles para Sistemas en Tiempo Real" (August de 1998), ITESM - Campus Morelos. (Co–supervisor: Roberto Valdivia)

45. Fernando Bustamante, "Interfase Gráfica para Adquisición y Explicación en Redes Bayesianas". (Feb. 1997), ITESM - Campus Morelos.

46. Graciela Mojica Ortiz, "Análisis de Confiabilidad mediante Redes Bayesinas". (August 1997), ITESM - Campus Morelos. (Co-supervisor: Gerardo Torres-Toledano)

47. Miriam Martínez, "Arendizaje Interactivo de Redes Bayesianas Multiconectadas". (August 1997), ITESM - Campus Morelos.

48. Rocío Díaz de Leon, "Integración de Técnicas Probabilísticas en Visión Computacional de Alto y Bajo Nivel" (March 1996), ITESM - Campus Morelos.

49. Armando Graciliano, "Navegación Robótica basada en Forma de Sombreado". (March 1996), ITESM - Campus Morelos.

50. Roberto Aldave Matar, "Diagnóstico de Radiografías de Soldaduras mediante Visión por Computadora" (March 1995), ITESM - Campus Morelos.

51. Joaquín Pérez Brito, "Aprendizaje Estructural en Redes Bayesianas" (April 1995), ITESM - Campus Morelos.

10.2.3 Licenciatura

1. Juan Manuel Oropeza, "Diseño de un ambiente virtual orientado a la rehabilitación de extremidades superiores", (Dic. 2012), BUAP, Puebla.

2. Thania R. Félix, "Recuperación de Imágenes de Arte basada en sus Descriptores de Texturas y Apariencias de Color", (Nov. 2011), BUAP, Puebla.

3. Gerardo R. Conde, "Segmentación simplificada para etiquetado de imágenes utilizando Quadtrees", (Dic. 2010), BUAP, Puebla.

4. Karolina Meyer, "Simulación de Proxemia mediante Redes Bayesianas", (Feb. 2004), Universidad La Salle, Cuernavaca.

5. Jesus Noriega Rojas, "Herramienta basada en Redes Probabilísticas para Sistemas Expertos con Incertidumbre" (March 1994), UNAM-IIE.

10.3 Cursos Impartidos

- INAOE, Jan 2006–to date. Courses:

  - Doctoral Seminar (Ph.D.) 2009, 2010, 2011
  - Probabilistic graphical models (M.Sc./Ph.D.) 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2016
  - High–Level Vision (M.Sc./Ph.D.) 2009
  - Artificial Intelligence (M.Sc.) 2009, 2014
  - Introduction to Robotics (M.Sc.) 2008
  - Probabilistic Robotics (Ph.D.) 2007
  - Discrete Mathematics (preparation for M.Sc) 2007, 2009, 2014

- UPAEP, Jan 2011–May 2011. Courses:

  - Methods for Artificial Intelligence (B.Sc.) 2011

- ITESM Campus Cuernavaca, full time professor, Jan 1994-Dec 2005. Courses:

  - Computer Vision (M.Sc./Ph.D.) 1994, 1995, 1997, 2002, 2005

- Advanced topics in AI (M.Sc.) 1994
- Discrete mathematics (M.Sc.) 1994
- Artificial intelligence (B.Sc.) 1994, 1995, 1996, 1997
- Reasoning under uncertainty (M.Sc./Ph.D.) 1995, 2001, 2003, 2005
- Computer engineering II (BSc.) 1995
- Probabilistic networks (Ph.D.) 1996
- Knowledge representation (M.Sc.) 1996, 1999, 2000, 2001, 2002
- Advanced Knowledge representation (Ph.D.) 1997
- Probabilistic graphical models (M.Sc./Ph.D.) 1998, 1999
- Robotics and vision (M.Sc./Ph.D.) 1999
- Intelligent robotics (B.Sc.) 2001, 2002, 2002, 2003
- Image processing (master) 2000
- Mobile robots (M.Sc./Ph.D.) 2004
- Image processing (B.Sc.) 2004
- Statistics in AI (Ph.D.) 2005

- Instituto Tecnológico y de Estudios Superiores de Monterrey, Campus Morelos, Cuernavaca, Mor., México, assistant professor 1983-1993. Courses:

  - Assembly language programming (B.Sc.) 1983, 1984
  - Computer organization I (M.Sc.) 1985
  - Computer organization II (M.Sc.) 1983, 1987
  - Computer design (M.Sc.) 1984
  - Digital systems reliability (M.Sc.) 1986
  - Communication systems (M.Sc.) 1993
  - Knowledge representation (M.Sc.) 1993

- Assistant professor, Centro Nacional de Investigación y Desarrollo Tecnológico (CENIDET), Cuernavaca, Mor., México, 1987-1993. Courses:

  - Operating systems (M.Sc.) 1987
  - Computer vision (M.Sc.) 1988, 1993

11 Participación como Editor / Revisor de Revistas y Congresos

11.1 Editor / *Chair*

1. Track Chair International Conference on Pattern Recognition (ICPR), 2016

2. Member of the Editorial Board, Computational Intelligence Journal, since June 2015.

3. Member of the Editorial Board of the Ibero-americana Journal on Artificial Intelligence, since 2006.

4. Invited editor of the special issue "Uncertain Reasoning at FLAIRS 2010", "International Journal of Approximate Reasoning", Elsevier, 2012.

5. Associate Editor of the Ibero-American Journal on Artificial Intelligence.

6. Associate Editor of the Journal "Computación y Sistemas".

7. Invited editor of the special issue "Uncertain Reasoning at FLAIRS 2010", International Journal of Approximate Reasoning (IJAR), 2012.

8. Invited editor of the special issue "Uncertain Reasoning at FLAIRS 2009", International Journal of Approximate Reasoning (IJAR), 2011.

9. Invited editor of the special issue "50 años de la Computación en México", Journal Computación y Sistemas, Sept. 2008.

10. Editor of the "Uncertain Reasoning Track", FLAIRS 2009, 2010.

11. Track Chair on Computer Vision, MICAI 2008.

12. Track Chair on Uncertain Reasoning, Iberamia 2008.

13. Local Chair for Uncertainty on Artificial Intelligence Conference (UAI) 2003.

14. Member of the Advisory Board of the International Joint Conference on Artificial Intelligence (IJCAI), 2001.

15. Conference Chair, Mexican Conference on AI (MICAI), 2002.

16. Program Chair, Mexican Conference on AI (MICAI), 2000.

17. Program Chair, World Congress on Expert Systems, 1998.

18. Program Chair, Reunión Nacional de Inteligencia Artificial", 1995.

11.2 Revisor de Congresos Internacionales

1. Reviewer of the journal IEEE Transactions on Biomedical Engineering, Jan. 2016

2. Reviewer of the journal Robotics and Autonomous Systems, April 2016

3. Reviewer for the Journal Neurocomputing, Elsevier, 2014.

4. Reviewer for the Journal Knowledge–Based Systems, 2010.

5. Reviewer for BioMed Central Journals, 2009-2010.

6. Reviewer for IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2009.

7. Reviewer for the International Journal of Approximate Reasoning, 2008-2010

8. Reviewer for the International Journal on Knowledge and Data Engineering, 2009.

9. Reviewer for the IEEE Transactions on Knowledge and Data Engineering, 2009.

10. Reviewer of Applied Soft Computing Journal, since 2007

11. Reviewer of the Journal IEEE Applied Bionics and Biomechanics, since 2007.

12. Reviewer of the Journal IEEE Decision Support Systems, since 2006.

13. Reviewer of the Journal IEEE Transactions on Robotics, since 2006.

14. Reviewer of the Journal Pattern Recognition Letters, 2005.

15. Reviewer of IEEE Transactions on Systems, Man and Cybernetics, since 1998.

16. Reviewer of the Journal of Real–Time Systems (Kluwer)

17. Reviewer of International Journal of Engineering Applications of Artificial Intelligence (Pergamon Press), 2000.

18. Reviewer of Expert Systems with Applications (Pergamon Press), 1998.

11.3 Miembro de Comité de Programa en Congresos Internacionales

1. Member of the PC of IROS 2016.

2. Member of the PC of Internacional RoboCup Symposium, Mayo 2016

3. Member of the Program Committee of Bayesian Modeling Application Workshop, UAI 2016.

4. Member of the PC of the "Uncertain Reasoning Track", FLAIRS 2016.

5. Member of the PC of Uncertainty on Artificial Intelligence Conference (UAI) 2016.

6. Member of the Program Committee of RoboCup Symposium 2015.

7. Member of the Program Committee of Bayesian Modeling Application Workshop, UAI 2015.

8. Member of the PC of the "Uncertain Reasoning Track", FLAIRS 2015.

9. Member of the Program Committee of ECML-PKDD 2015.

10. Member of the PC of Uncertainty on Artificial Intelligence Conference (UAI) 2015.

11. Member of the Program Committee of IBERAMIA 2014, Area Chair for Computer Vision, November 2014.

12. Member of the Program Committee of "1st International Conference of the Portuguese Society for Engineering Education", Nov. 2013.

13. Member of the Program Committee of "IEEE International Conference on Robotics and Automation", Nov. 2013.

14. Member of the Program Committee of "IEEE International Conference on Robotics and Automation", Nov. 2012.

15. Member of the Program Committee of "Probabilistic Graphical Models (PGM)", 2012.

16. Member of the Program Committee of RoboCup Symposium 2012.

17. Member of the Program Committee of IBERAMIA 2012.

18. Member of the Program Committee of Uncertainty in Artificial Intelligence (UAI), 1998, 2004, 2006, 2009

19. Member of the Program Committee of IROS 2008–2009.

20. Member of the Program Committee of "International Workshop on Algorithmic Foundations of Robotics" (WAFR), 2008.

21. Member of the Program Committee of IBERAMIA 1996–2012.

22. Member of the Program Committee of FLAIRS 2008-2013.

23. Member of the Program Committee of IFAC-Cost Effective Automation, 2007.

24. Member of the Program Committee of IJCAI 2005.

25. Member of the Program Committee of MICAI 2000–2011.

26. Member of the Program Committee of CIARP 2006–2011.

27. Reviewer for the International Joint Conference on Artificial Intelligence (IJCAI) 2003.

11.4 Organización de Eventos Científicos y Académicos

1. General Chair ofe AFI 2016 - Summit on Application of Future Internet, Puebla, México, Mayo 2016.

2. Member of the Organizing Committee of the National Robotics Tournament (TMR), Ciudad Victoria, Tamaulipas, México, Marzo 2016

3. Workshop Chair of WATT 2015 - Workshop on Adaptive Treatment and Therapies. Pervasive Health, May 2015, Istanbul, Turkey.

4. Member of the Organizing Committee of the National Robotics Tournament (TMR), Ciudad de México, México, April 2015.

5. Member of the Organizing Committee of the National Robotics Tournament (TMR), Ciudad del Carmen, Campeche,, México, April 2014.

6. Member of the Organizing Committee of the National Robotics Tournament (TMR), Puebla, Mexico April 2013.

7. Member of the Organizing Committee of RoboCup 2012, Mexico City.

8. Founding member of the Mexican Robotics Federation (organizer of the Mexican Robotics Tournament and representative of RoboCup in Mexico), member of the Executive Council since 2011.

9. Founder of the MICAI series of international conferences, which recognized as the *best* conference in Artificial Intelligence and published by Springer–Verlag. Organizer of MICAI 2000 and 2002.

10. Founder of the Mexican International Conference on Computer Science (ENC), recognized and published by IEEE. Organizer of ENC 1997.

11. Founder of the Metropolitan Contest on Robotics, later the National Tournament on Robotics, which is the main competition in robotics in Mexico. I have been part of the Organizing Committee since 2005.

12. Organizer and member of the Scientific Committee of the French–Mexican Summer School on Images and Robotics since 2001. Local organizer in 2001 (Cuernavaca, Mexico) and 2009 (Puebla, Mexico).

13. Member of the Organizing Committee of the International Conference on Uncertainty in Artificial Intelligence (UAI) in 2003.

12 Comités de Evaluación y Sociedades Profesionales

12.1 Comités Académicos

1. Member of the Committee for the revision of the academic regulations of INAOE, 2006, 2010.

2. Member of the Extended Academic Committee, INAOE, 2007.

3. Reviewer for Professorship Application of Dr. Duncan Gillies, Imperial College, London, 2005.

4. Member of the Professors Classification Committee, ITESM-RSX, 1999-2002.

5. Member of the Technical Committee for revision of the Programs of Private Universities, SEP, 1995.

6. Member of the Technical Committee for the design of the curricula, Master Program in Computer Science, CENIDET, Cuernavaca, Mor., 1987.

7. Member of the Technical Committee for the design of the curricula, Master of Science in Information Systems, I.T.E.S.M., Morelos Campus, Cuernavaca, Mor., 1985.

12.2 Comités de Evaluación

1. Evaluación programas de nuevo ingreso PNPC - CONACYT, junio 2016.

2. Evaluación del Programa de Estímulos a la Innovación - CONACYT, febrero 2016.

3. Project reviewer for ECOS-ANUIES, 2012.

4. Evaluator of Premio Rómulo Garza por Investigación 2012, ITESM, Octubre 2012.

5. Project reviewer for the National Science Foundation - Small Business Innovation Research, USA, 2010.

6. Member of the External Evaluation Board, Centro de Investigación en Matemáticas (CIMAT), 2004-2009.

7. Member of the External Evaluation Board, Instituto Nacional de Astrofísica, Óptica y Electrónica (INAOE), 2001-2005.

8. Project reviewer for FONCYCYT (CONACyT and European Union), 2009.

9. Member of the Sabbatical and Post-doctoral Evaluation Committee, CONACYT, 2007-2009.

10. Project reviewer for CONACYT–Basic research, 1995–2009.

11. Project reviewer for the National Aeronautics and Space Administration (NASA), USA, 2004.

12. Member of the Project Evaluation Committee, CONACYT, 2000-2003 (president in 2003).

13. Member of the committee that evaluated the thesis for the "National Thesis Contest", CFE–IIE, 2001.

14. Member of the committee that designed the exams in computer science, CENEVAL, 2002.

15. Member of the Graduate Programs Evaluation Committee, CONACYT, 2000-2001.

16. Member of the IJCAI-01 Awards Review Committee.

12.3 Sociedades Profesionales

1. Vice-President of the Mexican Academy of Computing, 2015-2018.

2. Founding Member of the Mexican Academy of Computing, 2014

3. Member of the Academia de Ingeniería (México), since 2014

4. President of the Mexican Society for Artificial Intelligence, 2000-2002. Vice-President, 1998-2000.

5. Secretary of the Computer Chapter of the Puebla Section of the IEEE, 2007.

6. President of the Computer Chapter of the Morelos Section of the IEEE, 1999-2001.

7. Member of the Organizing Committee of the Computer Society, IEEE - Mexican Section, México, D.F., 1983.

8. Member of Association for the Advancement of Artificial Intelligence (AAAI), since 2005.

9. Member of Institute of Electrical and Electronic Engineers (IEEE), since 1982.

10. Member of SMIA (Mexican AI Society), since 1995.

13 Distinciones

13.1 Distinciones Científicas y Tecnológicas

1. Founding member of the Mexican Computer Academy (AMEXCOMP), since 2015.

2. "TECNOS" Prize for Technological Development, Government of the State of Nuevo Leon, México, 2014.

3. Member of the Mexican Academy for Informatics (Academia Mexicana de Informática - AMIAC), since 2013.

4. Member of the Mexican Academy of Engineering (Academia de Ingeniería - AI), since 2013.

5. Senior Member, IEEE, 2009

6. Member of the Mexican Academy of Science, since 2006.

7. Member of the Morelos Academy of Science, since 2006.

8. Member of the "National Research System", Mexico, 1984-2015. Level III since January, 2011.

9. Invited Professor, INRIA, France, 2008.

10. Distinguished Speaker for the Mexican Association of Artificial Intelligence (SMIA), 2008.

11. Invited Professor, Univ. of British Columbia, Canada, 2003–2004.

12. Distinguished Speaker for the Association of Computing Machinery (ACM).

13. Professor (Research), ITESM, 1998.

14. Invitation to Imperial College sponsored by the Royal Society, London, 1995.

15. "Engineer of the Year" IEEE Morelos Section, 1995.

13.2   Distinciones al Mejor Artículo

1. *Best Poster Award* FLAIRS 2013, Florida AI association for the paper: LJ Fiedler Cameras, LE Sucar, EF Morales, "A Transfer Learning Approach for Learning Temporal Nodes Bayesian Networks", The Twenty-Sixth International FLAIRS Conference, Florida, USA, 2013.

2. *Best Poster Award* at MICAI 2009 for the paper: Y. Hernández, L. E. Sucar, G. Arroyo, "Obtaining teacher's expertise to refine an affective model in an intelligent tutor for learning robotics", Guanajuato, Mexico, 2009.

3. Selection as one of the Best Papers in the International Joint Conference BIOSTEC 2008, Madeira, Portugal, January 2008.

4. Best Paper Award: "Dynamical Bayesian Networks for Visual Recognition of Dynamic Gestures", Ibero-American Conference on Artificial Intelligence (IBERAMIA 2002), Seville, Spain, 2002.

5. Best Paper Award: "Induction of Dependency Structures from Data and its Application to Ozone Prediction", Eight International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems (IEA/AIE-95), Melbourne, Australia, June 5-9, 1995.

13.3   Distinciones Académicas

1. Supervisor of the PhD thesis the obtained the 2nd place in Informatics and Control, "XXIV Certamenes Nacionales de Tesis" (National Thesis Contest), CFE, FIDE and IIE, Mexico, 2009.

2. Supervisor of the best M.Sc. thesis in Computing, "VII Certamen Nacional sobre la mejor Tesis sobre Informática y/o Computación", ANIEI, Mexico, 1998.

3. Supervisor of the best B.Sc. thesis in Computing, "VII Certamen Nacional sobre la mejor Tesis sobre Inform'atica y/o Computaci'on", ANIEI, Mexico, 1994.

4. Scholarship from CONACYT for Ph.D. studies (1988-1992).

5. Scholarship from CONACYT for M.Sc. studies (1980-1982).

6. Honorable Mention - BSc. in Electronics Engineering, ITESM, 1980.

14 Idiomas

- Español (nativo)
- Inglés (avanzado)
- Italiano (principiante)