**DR. ANGEL GUTIERREZ**

**PROFESSOR**

**DEPARTMENT OF COMPUTER SCIENCE**

**MONTCLAIR STATE UNIVERSITY**

**EDUCATION**:

Licenciado, Universidad Complutense de Madrid, Physics, 1967.

Ph.D., Universidad Complutense de Madrid, Applied Mathematics, 1973.

Ph.D., University of Minnesota, Mathematics, 1979.

M.S., Fairleigh Dickinson University, Computer Science, 1989.

**EXPERIENCE:**

1966‑1967, Teaching Associate, Universidad Complutense Madrid.

1967‑1972, Instructor, Universidad Complutense Madrid.

1970‑1972, Instructor, Universidad Pontificia Comillas, Madrid

1973‑1975, Teaching Assistant, University of Minnesota.

1975‑1978, Assistant Professor, Universidad Complutense Madrid.

1978-1980, Associate Professor, Univ. Autónoma Madrid, Spain

**ASSISTANT DEAN TO THE COLLEGE OF SCIENCE** : 1979-80.

1980-1981, Visiting Fellow, University of Minnesota.

1981-1985, Professor, St. Louis University in Spain. Viña 3, Madrid

28003. The courses were taught in English.

1981-1984, Associate Professor, Univ. Autonoma Madrid, Spain.

**CHAIRMAN OF THE DEPARTMENT OF MATHEMATICS** : 1981-82.

1984-1985, Full Professor, Universidad Autonoma Madrid, Spain.

1986‑1989, Associate Professor, Mercy College, NY

1989‑1994, Assistant Professor, MSU

1990‑1991, Visiting Professor, College of Civil Engineering,

Madrid.

1992‑1993, Visiting Professor, Universidad Politecnica de Madrid

1994‑2000, Associate Professor, MSU

1. 2011, Professor, Undergraduate Advising Coordinator, MSU

2011-2012, Professor, MSU

2012-...., Professor, Interim Department Chair, MSU

**GRANTS FUNDED:**

* Grant from the C.I.M.E. to attend the course on "Non‑Linear Mechanics", Bressanone, Italy, June 1972.
* Grant of the U.S.A.F. 1973‑1974
* Lando Foundation Grant (1975)
* Grant of the French Embassy in Spain, to attend the international Congress on Numerical Analysis organized by INRIA, December 1977.
* Faculty Development Grant of Mercy College, Spring 1986 in collaboration with Dr. Somolinos.
* Technology Mini-Grant from MSU, in May 1998, to integrate the computer graphics programming part of the Computer Graphics courses, with the platform free software interface, OpenGL.
* NSF REU Grant for the summers of 2007-2009, to mentor students in visualization research.

**RESEARCH PAPERS:**

* + A. Gutiérrez, "Acotación de la Energía Potencial Elástica de Un Cilindro" Publicaciones de la Facultad de Ciencias, Madrid, Serie A, #237, 1973.
  + A. Gutiérrez, "Acotación de la Energía Potencial Elástica de un Cilindro de Sección Circular". Collectanea Mathematica, Vol XXVIII, 235‑260, 1976.
  + A. Gutiérrez, "Acotación de la Energía Potencial Elástica de un Cilindro de Sección Cuadrada". Rev. Real Academia Ciencias, tomo 70, 549‑574, 1976.
  + A. Gutiérrez, "Soluciones Fundamentales de Cierta Clase de Operadores Hipo elípticos", XII R.A.M.E, Malaga, 195‑199, 1976.
  + A. Gutiérrez, "Complementos a la Teoría de Estabilidad de Sistemas Autónomos".Publicaciones de la Facultad de Matematicas, Universidad Complutense de Madrid, 1977.
  + A. Gutiérrez, "Cálculo Numérico de la Energía Potencial Elástica de un Cubo", Universidad Complutense de Madrid, Facultad de Matemáticas, Technical Report, 1978.
  + A. Gutiérrez, "Algunas acotaciones de la Energía Potencial Elástica", Actas del 1 Congreso en Ecuaciones Diferenciales y Aplicaciones", El Escorial (Madrid), IV 1 ‑ IV 12, 1978.
  + A. Gutiérrez, "A priori Lp‑Estimates for the Solution of the Navier Equations of Elasticity Given the Forces on the Boundary ", Ph.D. Degree Dissertation, University of Minnesota, 1979.
  + A. Gutiérrez, "On the Invertibility of Operators related to the Boundary Value Problems of Elastostatics on C1-Domains", Research Notes in Math. Contribution to Nonlinear Partial Diff. Eqts, Pitman, 90‑96, 1981.
  + A. Gutiérrez, "Learning Simulation of Vector‑Valued Functions", Proceedings of the Twenty‑Second Annual Pittsburgh Conference on Modeling and Simulation, Vol 22, 1938‑1943, 1991.
  + A. Gutiérrez & Mark Hubey,"Testing Random Numbers Via Cumulants", Proceedings of the Twenty‑Third Annual Pittsburgh Conference on Modeling and Simulation, Vol 23, pp. 146‑153, 1992.
  + A. Gutiérrez, "Learning Simulation Using Data with Random Noise", Proceedings of the Twenty‑Third Annual Pittsburgh Conference on Modeling and Simulation, Vol 23, 139‑145, 1992.
  + A. Gutiérrez, Selecting Vectors from a Training Set for Backpropagation Networks", Actas de la XVIII Conferencia Latinoamericana de Informatica, Panel`92, CLEI, 555‑562, 1992.
  + A. Gutiérrez, "A Dynamical Selection of Training Vectors for Backpropagation Networks", Anales de las Segundas Jornadas de Ingenieria de Sistemas Informaticos y Computacion, Quito (Ecuador), 124‑131, 1993.
  + A. Gutiérrez, "Performance Simulation of Data Management", accepted for publication at the "Ninth International Conference on Mathematical and Computer Modelling", Berkeley, 1993.
  + A. Gutiérrez, "A Hybrid Approach to Backpropagation and Functional‑Link Neural Networks", Actas CNIASE '93, Barquisimeto (Venezuela) pp. 55‑64, 1993,.
  + A. Gutiérrez, "Improving Backpropagation Learning through Selection of Training Vectors”, Proceedings of the IASTED International Conference on Modelling and Simulation May 2‑4, Pittsburgh, PA, 336‑339, 1994.
  + A. Gutiérrez, "Selective Learning for Backpropagation Neural Networks", at the IASTED International Conference on Modelling and Simulation, Pittsburgh, PA, April 27‑29, 285‑288, 1995.
  + A. Gutiérrez, "Usage of Relative Errors to Teach Backpropagation Neural Networks", at the VIII "Conferencia Nacional de Inteligencia Artificial y Sistemas Expertos", CNIASE'95, (Puerto Ordaz, Venezuela), October 23‑27, 81‑86, 1995.
  + A. Gutiérrez, Carlos Fernández & A. Somolinos, "Selection of Wavelet Coefficients for Neural Networks Used in Medical Diagnosis", Proceedings of the Summer Computer Simulation Conference, Arlington, VA, July 13-17, 685-687, 1997.
  + A. Gutiérrez, Carlos Fernández & A. Somolinos, "Inverse Wavelet Transforms for the Diagnosis of Multiple Sclerosis", Proceedings of the "1998 Advanced Simulation Technologies Conference", Boston, MA, April 5‑9, pp. 107-110, 1998.
  + A. Gutiérrez, Carlos Fernández & A. Somolinos, "Diagnosis of Multiple Sclerosis using Radial Basis Functions", Proceedings of the IASTED International Conference on Modelling and Simulation, Pittsburgh, PA, May 13‑16, pp. 3-6, 1998.
  + A. Gutiérrez, Carlos Fernández & A. Somolinos, "Analysis of Auditory Evoked Potentials Using the Inverse Wavelet Transform", Proceedings of the "Summer Computer Simulation Conference", Reno, NV, July 19-22, pp. 166-169, 1998.
  + A. Gutiérrez, Carlos Fernández & A. Somolinos, "The Role of Non Linearity in Neural Networks Used for Medical Diagnosis". Proceedings of the 1999 Health Sciences Simulation Conference, in the Western Multiconference, January 17-20, S. Francisco, CA, organized for the Society for Computer Simulation International, pp. 200-205, 1999.
  + A. Gutiérrez, Carlos Fernández & A. Somolinos, "Clustering Algorithms for Preprocessing of Data in Diagnosis of Multiple Sclerosis using Radial Basis Functions", Proceedings of the IASTED International Conference on Modelling and Simulation, Philadelphia, PA, May 5-8, pp. 123-127, 1999.
  + A. Gutiérrez & A. Somolinos, "Influence of Wavelet Boundary Conditions on the Classification of Biological Signals", Proceedings of the IEEE 26th Annual Northeast Bioengineering Conference, Storrs, CT, April 8-9, pp. 25-26, 2000.
  + A. Gutiérrez & A. Somolinos, "Study of Artifacts Introduced by Wavelet Boundary Conditions in Signal Classification", Proceedings of the IASTED International Conference on Modelling and Simulation, Pittsburgh, PA, May 15-17, pp. 427-433, 2000.
  + A. Gutiérrez & A. Somolinos, "Best Tree on Packet Wavelets to Improve Signal Classification", Proceedings of the Eleventh Conference on Signal Processing Technologies and Applications, ICSPAT 2000, Dallas, TX October 16-19, 2000.
  + A. Gutiérrez & A. Somolinos, "A Clustering Algorithm for Selecting Starting Centers for Iterative Clustering", Proceedings of the International Conference on Computing and Information Technologies: Exploring Emerging Technologies, Montclair State University, NJ, October 12, pp. 269-274, 2001.
  + A. Gutiérrez & A. Somolinos, "Extracting Features for Brain Stem Auditory Potential Signals", Proceedings of the 8th World Multi-Conference on Systemics, Cybernetics and Informatics, Orlando, FL, July 18-21, pp.140-144, 2004.
  + A. Gutiérrez & A. Somolinos, "Influence of Combination of Criteria for Extraction of Features on the Classification of Biological Signals", Proceedings of the 10th International Conference on Information Systems Analysis and Synthesis, Orlando, FL, July 21-25, pp. 34-38, 2004.
* A. Gutiérrez & A. Somolinos, "Preprocessing of Brain Stem Auditory Evoked Potentials for Diagnosing Multiple Sclerosis", Proceedings of the IASTED International Conference on Advances in Computer Science and Technology, Puerto Vallarta, Mexico, January 23-25, pp. 196-201, 2006.
* C. A. Neylan, T. Rush, A. Gutiérrez & S. A. Robila, “Hyperspectral image processing: A direct image simplification method“, Proceedings SPIE Defense and Security Algorithms and Technologies for Multispectral, Hyperspectral, and Ultraspectral Imagery XIV, Volume 6966, pp. 69661Y-69661Y-9, 2008.
* M. Schockling, R. Bonce, A. Gutiérrez, S. A. Robila, “Visualization of Hyperspectral Images”, Proceedings SPIE Defense and Security, Algorithms and Technologies for Multispectral, Hyperspectral, and Ultraspectral Imagery, XV,  7334, DOI:10.1117 /12.818566, 10 pgs, 2009.
* A. Gutiérrez, “Diagnosis of Multiple Sclerosis Using Brain Stem Auditory Evoked Potentials“, Proceedings of the 13th World Multi-Conference on Systemics, Cybernetics and Informatics, Orlando, Florida, July 10-13, Vol. III, pp. 45-50, 2009.
* A. Gutiérrez, “Processing Brain Stem Auditory Evoked Potential for Improving Diagnosis of Multiple Sclerosis“, Proceedings of the International Conference on Artificial Intelligence and Pattern Recognition (AIPR -09), Orlando, Florida, July 13-16, pp. 193-197, 2009.
* A. Gutiérrez & C. Fernández, “Using a Combination of Artificial Neural Networks for the Diagnosis of Multiple Sclerosis”, Proceedings of the 5th. International Symposium on Bio- and Medical Informatics and Cybernetics, Orlando, Florida, July 19th- 22nd, pp. 146-151, 2011.
* A. Gutiérrez, “Wavelets’ Influence on the Diagnosis of Multiple Sclerosis Using Artificial Neural Networks“, Proceedings of the XIVReunión de Otoño de Potencia, Electrónica y Computación, ROPEC 2012, INTERNACIONAL, on Colima, Mexico, November 7-9, pp. 127-132, 2012
* A. Gutiérrez, “Influence of the Training Methods in the Diagnosis of MultipleSclerosis“, Proceedings of the 18th World Multi-Conference on Systemics, Cybernetics and Informatics, Orlando, Florida, July 15-18, Vol. II, pp. 174-179, 2014.

**OTHER PAPERS:**

* + A. Gutiérrez, "Ecuacion Diferencial de la Propagacion de una Excitacion Nerviosa en el Musculo Humano". Ed. Facultad de Ciencias Fisicas, Universidad Complutense Madrid, 1967.

Paper submitted for the Degree of Licenciado en Ciencias Fisicas. Universidad Complutense Madrid, 1967.

* + A. Gutiérrez, "Sobre la Forma Canonica Real Asociada a una Matriz Cuadrada", XII R.A.M.E. Malaga. 1976.

Pedagogical approach to the use of some matrices in the solution of systems of O.D.E.

* + A. Gutiérrez, "Memoria sobre el Concepto, Metodo, Fuentes y Programa de la Asignatura ANALISIS MATEMATICO III", Facultad de Ciencias, Universidad Complutense de Madrid. 1977.

This was written as a prerequisite to be a candidate for the job of "Profesor Adjunto de Universidad" (which means Assistant Professor). It includes a review of ideas, bibliography, teaching methodology and contents in the area of Ordinary and Partial Differential Equations.

* + A. Gutiérrez, "Complementos a la Teoria de Estabilidad de Sistemas Autónomos". Publicaciones de la Facultad de Matemáticas, Universidad Complutense de Madrid. 1977.

Due to the lack of Spanish books on the theory of autonomous systems, I wrote these notes on the subject.

* + A. Gutiérrez, "Memoria sobre el Concepto, Metodo, Fuentes y Programa de la Asignatura ANALISIS MATEMATICO III (Analisis Numerico)", Facultad de Ciencias, Universidad Complutense de Madrid. 1978.

This was written as a prerequisite to be a candidate for the job of "Profesor Agregado de Universidad" (which means Associate Professor). It includes a review of ideas, bibliography, teaching methodology and contents in the area of Ordinary and Partial Differential Equations and its numerical solutions (it is an expansion of the previous paper).

* + A. Gutiérrez, "Vision Global del Analisis Numerico de las Ecuaciones Diferenciales". Publicaciones de la Facultad de Matematicas, Universidad Complutense de Madrid, 1978.

This paper reflects the main ideas of a series of talks to the students. The topic was Numerical Analysis on Differential Equations, so the students could choose among the different courses on the subject.

* + A. Gutiérrez, "Calculo Numerico de la Energia Potencial Elastica de un Cubo", Universidad Complutense de Madrid, Facultad de Matematicas Technical Report, 1978.
  + A. Gutiérrez, "Lp Boundary‑value Problems of Elastostatics on C1‑domains", University of Minnesota Mathematics Report, 81‑105, 1981.
  + A. Gutiérrez & A. Somolinos, "Teaching Incremental Problem Solving", Proceeding of the Fifteenth Annual Eastern Small College Computing Conference, St. Bonaventure, NY, October 15-16, pp. 57-74, 1999.
  + A. Gutiérrez & A. Somolinos, "Working with Sound Files", The Journal of Computing in Small Colleges, Volume 15, Number 5, May, pp. 117-129, 2000.
  + A. Gutiérrez & A. Somolinos, "Building Up a Minimal Subset of Java for a First Programming Course", Proceedings of the International Conference on Computing and Information Technologies: Exploring Emerging Technologies, Montclair State University, NJ, October 12, pp. 201-206, 2001.
  + A. Gutiérrez & A. Somolinos, "Completing a Minimal Subset of Java for a First Programming Course", Proceedings of the International Conference on Computing and Information Technologies: Exploring Emerging Technologies, Montclair State University, NJ, October 12, pp. 207-212, 2001.

**PAPER PRESENTATIONS:**

At the seminar "Reunion sur les equations aux derivees partielles et l'analyse fonctionelle", at Han‑sur‑Lesse, Belgium, January 4‑6,

1980. Paper: "**A priori Lp‑estimates for the Equations of Elasticity**".

At the seminar: "Coloquio Franco‑Español sobre Ecuaciones en Derivadas Parciales No Lineales", Madrid, December 14‑17, 1981. Paper: "**On the Invertibility of Operators Related to the Boundary Value Problems of Elastostatics in C1‑Domains**".

At the Annual Meeting of the AMS in San Antonio, Texas, January, 1987. In collaboration with Dr. A. Somolinos, the paper: "**Numerical Bifurcation of a Competition Model**".

At the Fourth SIAM Conference on Control and Its Applications, May 7-9, 1998, Jacksonwille, Florida. The paper written in collaboration with Dr. Carlos Fernández and Dr. A. Somolinos, "**Neural Networks with Asymmetric Error Function for the Diagnosis of Multiple Sclerosis**", was presented.

At the edTeXpo 2003, September 24, 2003, Montclair State University the paper "Online Communities of Practice: Lessons from Two Projects at Montclair State University" was presented. This paper was written in collaboration with the Dr. Christine Lemesianou, of the Communication Studies Department.

The same paper was presented at the Faculty Forum, on November 12, 2003, at Montclair State University, CO-123.

**RELATED PROFESSIONAL ACTIVITIES:**

Participation on Seminars/Workshops:

* Seminar: "Fourier Analysis", El Escorial, Madrid (Spain), June 17‑23, 1979.
* Seminar: (International) "Non‑Linear Hyperbolic Equations and Reaction‑Diffusion Systems", El Escorial, Madrid (Spain), January 21‑26, 1980. (Organizer)
* Seminar: "Second International Seminar on Fourier Analysis", El Escorial, Madrid (Spain), June 29 ‑ July 4, 1983.
* Seminar: "Harmonic Analysis and Partial Differential Equations”, El Escorial, Madrid (Spain), June 9 ‑ 13, 1987.
* Seminar: "New World Exposition", sponsored by Sun Microsystems, at the Sheraton Fairfield Hotel, Fairfield, NJ, on June 8, 1989.
* Seminar: "Workgroup Computing: The Next Generation", organized by SUN Microsystems, Fairfield, NJ, May 24, 1990.
* Seminar: "Tools for Mastering Change: Object Oriented Tools", organized by IntelliCorp, on February 5, 1992, at the Royce Hotel/Governor Morris, Morristown, NJ.
* Seminar: "Engineering toward 21st Century Software", at the Holiday Inn, Saddle Brook, NJ, April 19, 1993, organized by Digital Equipment Corporation.
* Seminar: "VISUALAGE Forum", at the Sheraton New York Hotel & Towers in New York, May 8, 1997.
* Seminar: "Y2K Testing", at the Parsippany Hilton, Parsippany, NJ, May 12, 1998, organized by Mercury Interactive.
* Seminar: "Knowledge Seminar on he INSPEC Database", at the New Jersey Institute of Technology (NJIT), Newark, NJ, Abril 18, 2001, organized by the IEE Organization.
* Seminar: "Introduction to JRun 3.0", at the Hanover Marriott, Whippany, NJ, May 2, 2001, organized by Macromedia-Allaire.
* Workshop: "Palm-Sized Devices are the Personal Computers of Choice for K-12", The Center of Pedagogy, MSU, May 13, 2002.
* Seminar: "Content Management Solutions", at the Hotel Pennsylvania, New York, October 22, 2002, organized by AIIM.
* Seminar: "Sitraka J2EE Performance Solutions", at the Hilton Hotel, New York, November 6, 2002.
* Seminar: "Tracking Down J2EE Performance Hazards", at the Marriot East Side Hotel, New York, November 7, 2003.
* Seminar: "Avoiding the Risks of Software Outsourcing", a Breakfast with Parasoft Seminar, at the Double Tree Times Square Hotel, New York, October 27, 2004.
* Seminar: "Reducing Risk and Increasing Compliance with Security Information Management", a Breakfast Forum, at the New York’s Palace Hotel, New York, September 29, 2005.
* Seminar: "Content Management Solutions", an AIIM Seminar, at the New York’s Pennsylvania Hotel, New York, October 3, 2005.
* Seminar: "Document Management", a Smooth Solutions’ Seminar, at the Holiday Inn in Saddle Brook, New Jersey, October 19, 2005.
* Workshop:"2009 Summer Symposium for Online Teaching", June 22-25, Montclair State University, 2009.
* Seminar: "From Collaboration to Processes to Control", an AIIM Seminar, at the Westin New York at Times Square, New York, September 29, 2009.
* Seminar: "The New Efficiency: Simplify, Connect, Optimize with Windows 7", a Microsoft seminar, AMC Empire 25, New York, October 20, 2009.

Attendance to Conferences and Conventions:

* + Conference on "Harmonic Analysis Conference" at the University of Minnesota, April 20 ‑ May 1, 1981.
  + The 45th Annual Meeting of the New York Chapter of the American Mathematical Society, May, 1986.
  + Organizer of "The First Annual Mercy College Computer Fair", at Mercy College, Dobbs Ferry, NY, Oct. 27, 1987.
  + Convention "New World Exposition", sponsored by Sun Microsystems, at the Sheraton Fairfield Hotel, Fairfield, NJ, on June 8, 1989.
  + Eastern Conference on "Computer Simulation", sponsored by the Society for Computer Simulation, in Princeton, NJ, Oct. 12‑13, 1989.
  + SIAM Conference on "Geometric Design", Tempe, AZ, Nov. 6‑10, 1989.
  + Conference "Computing in the 90's", Oct. 12, 1990, at MSC.
  + Conference "Visualization 90", San Francisco, CA, Oct. 23 ‑ 25, 1990, organized by the IEEE Computer Society.
  + UNIX EXPO International, at the Jacob K. Javits Center, New York, October 30 ‑ November 1, 1991.
  + MSCSM' (Montclair State Computer Science Meeting) 91 Conference, November 14, 1991.
  + The Twenty-third Annual Pittsburgh Conference on Modeling and Simulation, (Pittsburgh, PA, April 30‑May 1, 1992), where I chaired the "Stochastic Modeling" Session.
  + UNIX EXPO International, at the Jacob K. Javits Center, New York City, September 22 ‑ 24, 1992.
  + Conference " XWorld: The X Information Xchange", at the Marriott Marquis, New York City, March 8‑11, 1993.
  + The "1994 AIIM Show and Conference", sponsored by the Association for Information and Image Management, at the Jacob K. Javits Center, New York, April 18‑21, 1994.
  + The X Information Xchange Conference of the XWorld, at the Marriott Marquis, New York City, April 25 ‑27, 1994.
  + UNIX EXPO International, at the Jacob K. Javits Center, New York, October 4‑6, 1994.
  + XWorld Conference on "Cross Platform Strategies: Solutions for Computing Portability", at the NY Marriott Marquis, March 20‑23, 1995.
  + "IASTED International Conference on Modelling and Simulation", April 27‑29, 1995, Pittsburgh, PA.
  + The ERwin Demo Day, sponsored by Logic Works, Inc., at the Parsippany Hilton, Parsippany, N.J., May 9, 1995.
  + The "Video Expo/Image World" sponsored by the AV Video and Multimedia Producer, at the Jacob K. Javits Center, New York, September 18‑22, 1995.
  + UNIX EXPO International, at the Jacob K. Javits Center, New York, September 19‑21, 1995.
  + "VIII Conferencia Nacional de Inteligencia Artificial y Sistema Expertos", October 23‑27, 1995, Ciudad Guayana, Venezuela.
  + The "DV/CD‑ROM EXPO" at the New York Hilton and Towers, New York, November, 28‑30, 1995.
  + Conference "DB/EXPO '96", at the Jacob K. Javits Convention Center in New York, December 2‑6, 1996.
  + Conference "AIIM '97", at the Jacob K. Javits Convention Center in New York, April 14‑17, 1997. (AIIM = Association for Information and Image Management)
  + Conference "IT Forum 97", Unix/Windows NT Expo, at the Jacob K. Javits Convention Center in New York, September 15-19, 1997.
  + "IASTED International Conference on Modelling and Simulation", Pittsburgh, PA, May 13‑16, 1998.
  + I attended the conference "Java Business Expo", organized by Ziff-Davis Software, Jacob K. Javits Convention Center, New York, December 8-10, 1998.
* I attended the conference "IT for Wall Street '99", organized by the Gartner Group, at the Jacob K. Javits Convention Center, New York, February 23-25, 1999.
  + "IASTED International Conference on Modelling and Simulation", Philadelphia, PA, May 5-8, 1999.
* "Fifteenth Annual Eastern Small College Computing Conference", St. Bonaventure, NY, October 15-16, 1999.
  + I attended the conference "LinuxWorld, Bridging the Revolution of the Linux Solution", organized by IDG World Expo, Jacob K. Javits Convention Center, New York, February 2-4, 2000.
  + I attended the conference "IT for Wall Street 2000", organized by the Gartner Group, at the Jacob K. Javits Convention Center, New York, February 22-24, 2000.
  + Conference "AIIM 2000", at the Jacob K. Javits Convention Center in New York, April 9-14, 2000.
  + "Fifth Annual Consortium for Computing in Small Colleges: Northeastern Conference", Mahwah, NJ, April 28-29, 2000.
  + I attended the conference "LinuxWorld, The Ultimate Stage for the Ultimate Platform", organized by IDG World Expo, Jacob K. Javits Convention Center, New York, January 30 - February 2, 2001.
  + AIIM 2001 Expo and Conference: "Turning Enterprise Content Management into E-Business Success", sponsored by the Association for Information and Image Management, at the Jacob K. Javits Convention Center, New York, April 30 - May 3, 2001.
  + The "Java and Web Services" conference at the New York Hilton and Towers, New York, September 24-25, 2001.
  + The "Ninth Annual Internet World Conference" at the Jacob K. Javits Convention Center in New York, December 10-13, 2001.
  + I attended the conference "LinuxWorld", organized by IDG World Expo, Jacob K. Javits Convention Center, New York, January 29 - February 1, 2002.
  + Conference "Internet World Wireless East 2002", organized by Penton Technology Media, at the Jacob K. Javits Convention Center, New York, February 20-22, 2002.
  + Conference "EDUCAUSE 2002, Juggling Opportunities in Collaborative Environments", at the Georgia World Congress Center, Atlanta, Georgia, October 1-4, 2002.
  + "The Eighteenth Annual Consortium for Computing Sciences in Colleges: Eastern Conference", Bloomsburg, PA, October 18-19, 2002.
  + I attended the conference "LinuxWorld", organized by IDG World Expo, Jacob K. Javits Convention Center, New York, January 21- 24, 2003.
  + Conference "TECHXNY", organized by CMP Media LLC., at the Jacob K. Javits Convention Center, New York, September 15-18, 2003.
  + "Jornada de Difusión Científico-Técnica sobre Innovación en Capital Humano - Las Personas: el activo intangible de mayor valor para las organizaciones", Madrid, Instituto de Ingeniería del Conocimiento, June 12, 2003.
  + edTeXpo 2003, at Montclair State University, September 24, 2003, where a presentation on "Online Communities of Practice: Lessons from Two Projects at MSU" was given.
  + Attended the conference "SpeechTEK 2003: The Voice Solutions Showcase", at the New York Marriott Marquis, NY, September 29- October 2, 2003.
  + Attended the "Nineteenth Annual Conference of Eastern section of the Consortium for Computing Sciences in Colleges" at Montclair State University, October 17-18, 2003. I also helped to organize the programming contest for the students.
  + Attended the conference "Diversity Issues in Higher Education" at the College of New Jersey, Ewing, NJ, March 12, 2004.
  + Attended the conference "Tech Tour- Restoration Panel", organized by the New Jersey Technology Council at e Montclair State University, Montclair, NJ, April 15, 2004.
  + Conference "TECHXNY", organized by CMP Media LLC., at the Jacob K. Javits Convention Center, New York, October 5-7, 2004.
  + Seminar "Reducing Risk and Increasing Compliance with Security Information Management", organized by ArcSight Inc., New York, September 29, 2005.
  + Attended the Twelfth National Conference on "Students in Transition", sponsored by National Resource Center for the First Year Experience & Students in Transition, Costa Mesa, CA, November 6-8, 2005.

Attendance to Courses:

* "Non‑Linear Mechanics", at Bressanone, Italy, June, 1972, organized by the Fondazione C.I.M.E. (International Mathematical Summer Center).
  + "Numerical Methods in Fluid Dynamics", at "Villa Olmo", Como, Italy, July 4‑12, 1983, organized by the Fondazione C.I.M.E. (International Mathematical Summer Center).
  + "Numerical Solutions for Differential Equations", held at Messiah College, Grantham, PA, May 26‑30, 1986.
  + "Visualization Techniques for Graphic Design", Tempe, AZ, Nov 15, 1989, sponsored by the Society of Industrial and Applied Mathematics.
  + "Artificial Intelligence " (Inteligencia Artificial: Expectativas y Realidades), Miraflores de la Sierra, Madrid, July 19‑21, 1990.
  + "Volume Visualization", Oct. 23, 1990, while attending the conference "Visualization 90", San Francisco, CA, Oct. 23‑25, 1990, organized by the IEEE Computer Society.

Talks:

* Universidad Complutense de Madrid. Three talks on "Numerical
* Analysis", January 1978.
* Universidad Autónoma de Madrid. A talk on "Aspectos Estructurales del Análisis Numérico Relativo a las Ecuaciones Diferenciales Ordinarias ", April 1978.
* Universidad Autónoma de Madrid. A talk on "Aspectos Estructurales del Análisis Numérico Relativo a las Ecuaciones en Derivadas Parciales" , May 1978.
* Courant Institute, NYU. A talk on "Problems of Elastostatics with Lp Data", at the Analysis Seminar, on September 1981.
* Mercy College. A talk on "Differential Equations on Mathematics and Other Sciences.", March 1987.
* Universidad Autónoma de Madrid. A talk on "Mathematics and Computer Networks" (Matemáticas Aplicadas a Redes de Ordenadores), June 29, 1989.
* Montclair State College. A talk on "Computer Graphics", February, 1992.
* Universidad Autónoma de Madrid. A talk on "The Use of Mathematics in Computer Graphics", June, 1992.
* "Seminarios del IIC" (Instituto de Ingeniería del Conocimiento, Madrid, Spain). A talk on "Tools to Generate Computer Graphics" (Herramientas para Generación de Gráficos por Ordenador) on July 2, 1992.
  + Montclair State College. A talk on "Backpropagation Neural Networks", December, 1992.
  + Montclair State University. A talk on "NEURAL NETWORKS", December, 1995.
  + Montclair State University: "Wavelets: Mathematical Theory and Applications" at the Sigma Xi Chapter Meeting, on April 21, 1997.
* Universidad Autónoma de Madrid. A talk on "Redes Neuronales Artificiales" (Artificial Neural Networks), at the "Seminario de Analisis", School of Science, on June 19, 1998.
  + Polytechnical University of Madrid. A talk on "Optimización. Redes Neuronales. Un Problema Matemático" (Optimization. Neural Networks. A Mathematical Problem) at the "Departamento de Matemática e Informática Aplicadas a la Ingeniería Civil", E.T.S de Ingenieros de Caminos, Canales y Puertos (Civil Engineering School), on June 8, 1999.
  + Faculty Forum at Montclair State University, "Online Communities of Practice-Lessons from Two Projects at Montclair State", November 12, 2003.

Professional Services:

Served as a programming judge in:

* + The First Annual High School Programming Contest, held at Mercy College, Dobbs Ferry, NY, in January 14, 1988.
  + The Third Annual Kellogg Competition for High School programmers, at Mercy College, Dobbs Ferry, N.Y., January 1990.
  + The Computer Science Club's Programming Contest held on March 3, 1990, at the School of Mathematical and Natural Sciences of MSC.
  + The Fifth Annual Kellogg Competition, on January 6 & 7, 1992.
  + The Sixth Annual Kellogg Competition, on January 5 & 6, 1993.
  + The Seventh Annual Kellogg Competition, on January 5, 1994.
  + The Eighth Annual Kellogg Competition, on January 10, 1995.
  + Judge: Eleventh Annual Kellogg Competition, Mercy College, Dobbs Ferry, NY, May 20, 1998.

Served as a computer science and mathematics judge in:

* + The 7th Annual North Jersey Regional Fair, Morristown, NJ, March 23‑24, 1990.
  + The 8th Annual North Jersey Regional Fair, Morristown, NJ, March 8‑9, 1991. Also the unique judge for the Metric Award.
  + The 9th Annual North Jersey Regional Science Fair, Morristown, NJ, March 27 & 28, 1992. Also the unique judge for the Metric Award.
  + The Tenth Annual North Jersey Regional Fair, Morristown, NJ, March 12‑13, 1993.
  + The Eleventh Annual North Jersey Science Fair, Morristown, NJ, March 4, 1994.
  + The Twelfth Annual North Jersey Science Fair, Morristown, NJ, March 9, 1995. I represented the Association of Computing Machinery (ACM), Piscataway Chapter.
  + The Fifteenth Annual North Jersey Science Fair, Edison, NJ, March 13, 1998.
  + The Sixteenth Annual North Jersey Science Fair, Randolph, NJ, March 12, 1999.
  + The Seventeenth Annual North Jersey Science Fair, Bell Laboratories, Murray, NJ, March 10-11, 2000.
  + The Eighteenth Annual North Jersey Science Fair, Randolph, NJ, March 9-10, 2001.
  + The Twentieth Annual North Jersey Science Fair, North Branch, NJ, March 14-15, 2003.
  + The Twenty-First Annual North Jersey Science Fair, New Brunswick, NJ, March 19-20, 2004.
  + The Twenty-Third Annual North Jersey Science Fair, New Brunswick, NJ, March 24-25, 2006.

Consulting Activities:

I did some consulting for ANI CIGAR, in Union City, NJ, maintaining some software packages with user interface in Spanish. Most of the work was done on December 1990.

I worked on the consulting firm "F&D Allege, Inc.", serving the hispanic community in the area, from 1989 to 1991.

I developed a complete software package for the firm "KU-KEE KUTS", in Lakewood, NJ. The package keeps tracks of inventories, invoices, and supplies. It was developed during the 1993-1996 period. I have been maintaining the program ever since.

Professional Associations:

Member of the following societies:

* IEEE Computer Society, and to the special interest group Computer Graphics and Applications.
* Association for Computing Machinery, and to the special interest group SIGSIM (Simulation).
* Piscataway Chapter of the ACM (until 1997, which ceased to exist).

**OTHER RECOGNITIONS:**

First place in graduating class of 1967, Universidad Complutense de Madrid. Awarded of the "Gonzalez Marti" Foundation for highest final GPA in 1967.

Recipient of the national scholarship "Juan March" (Spain) 1972‑73.

**ADDITIONAL INFORMATION**

Fluent in Spanish and French, reading knowledge of Italian and German.