

RESUME

MANUEL ENRIQUE BERMÚDEZ

PERSONAL INFORMATION:

Born June 21, 1957. US Citizen, Hispanic. Married with twin children. Fluent in English and Spanish.

PRESENT POSITION:

Associate Professor, Computer and Information Science and Engineering, University of Florida, Box 116120, Gainesville, Florida, 32611-6120. Tel: (352)-392-1200. Email: manuel@cise.ufl.edu. Web: www.cise.ufl.edu/~manuel.

RESEARCH INTERESTS:

Software Engineering, Agile Development Methods, Programming Languages, Compilers, Automata Theory, Programming Linguistics.

PROFESSIONAL INTERESTS:

Transfer of Technology and Academic Cooperation with Latin America, Accreditation and Academic Continuous Improvement Processes.

EDUCATION:

- **Bachelor of Science**, Computer Science, University of Costa Rica, 1979.
- **Licenciado**, Computer Science, University of Costa Rica, 1980.
- **M.Sc.**, Computer and Information Sciences, University of California, Santa Cruz, December 1982.
- **Ph.D.**, Computer and Information Sciences, University of California, Santa Cruz, June 1984.

PROFESSIONAL EXPERIENCE.

- **1980-1981**: Lecturer, Computer Science Dept., School of Mathematics, University of Costa Rica.
- **1981-1984**: Teaching Assistant, Research Assistant, Teaching Fellow and Associate in Computer Science, Computer and Information Sciences Board of Studies, University of California, Santa Cruz.
- **1984-1985**: Visiting Assistant Professor, Computer and Information Sciences, University of California, Santa Cruz.
- **1985-1990**: Assistant Professor, Computer and Information Sciences, University of Florida.
- **1990-present**: Associate Professor, Computer and Information Sciences, University of Florida.
- **1986-1992**: Instructional Consultant, IBM.
- **1996-1997**: Fulbright Scholar visiting the University of Costa Rica.
- **2003-2004**: Fulbright Scholar visiting the Universidad de los Andes, Mérida, Venezuela.
- **2002-present**: Latin American Outreach Coordinator, CISE Department.
- **2006-2010**: Course author and Instructor, National Technological University/Walden University. Taught graduate courses in Programming Languages and Advanced Data Structures.
- **2001-present**: Faculty coach, IPPD (Integrated Product and Process Design) program, College of Engineering, University of Florida. Coached student groups to develop software solutions for Dell, Lockheed-Martin, General Dynamics, InfoTech, Entertainment Arts, and Disney.
- **2014**: July-December 2014, Fulbright Scholar visiting the University of Costa Rica.

UNIVERSITY AND PROFESSIONAL ACTIVITIES (selected):

- **Chairman**, CISE Department Comprehensive Examination Committee, 2000-2003.
- **Invited participant**, National Science Foundation sponsored Workshop on Computer Ethics, May 30 - June 3, 2001, Colorado School of Mines, Colorado.
- **Invited participant**, Microsoft Research Faculty Summit, Redmond Washington, 2001, 2002.

- **ABET accreditation co-Coordinator**, CISE Department, 2005-2006.
- **ABET Accreditation Coordinator**, CISE Department, 2006-2013.
- **Chair**, Undergraduate Affairs Committee, CISE Department, 2006-2007.
- **Research proposal reviewer**, National Science Foundation, 2001 and 2009.
- **Panel Member**, National Science Foundation Graduate Research Fellowship Program, Washington, DC, 2004-2007, 2007, 2009-2013. **Computer Science Panel Chair**, 2011, 2012.
- **Panel Member**, Department of Defense Science, Mathematics, and Research for Transformation (SMART) Defense Scholarship for Service Program, Washington, DC, 2008-2011.
- **Panel Chair**, National Defense Science and Engineering Graduate (NDSEG) Fellowship Evaluation, Washington, DC, 2012.
- **Technical Committee Chairman**, Latin American and Caribbean Consortium of Engineering Institutions (LACCEI) Conference, 2007, 2009, 2010, 2011.
- **Program Committee co-Chairman**, CLEI (Centro Latinoamericano de Educación en Informática) Conference, San José, Costa Rica, 2007.
- **Research Proposal Reviewer**, Qatar National Research Fund, 2009, 2010.
- **Accreditation Evaluator**, SINAES (Sistema Nacional de Acreditación de la Educación Superior), San José, Costa Rica, 2008. **Accreditation Evaluation Team Leader**, 2009.
- **Research Proposal Reviewer**, King Fahd University of Petroleum & Minerals, 2014.
- **Referee** for many journals and conferences. **Book reviewer** for many publishing companies.

HONORS.

- Named **CIS Department Teacher of the Year** by the Association for Computing Machinery Student Chapter at the University of Florida, 1989 and 1996.
- Listed in **Who's Who in the South and Southwest**, Marquis, 1995-96.
- Recipient of the University of Florida **Teaching Improvement Award (TIP)**, 1995.
- **Fulbright Scholar**, University of Costa Rica, 1996-1997.
- **Distinguished Visitor**, City of Veracruz, México, March 29, 2000.
- Listed in **Who's Who in Engineering Education**, AcademicKeys.com, 2002.
- **Fulbright Scholar**, Universidad de los Andes, Venezuela, 2003-2004.
- Listed in **Who's Who among Hispanic Americans**, Gale Research, 2006.
- **Honorary Professor**, Universidad Particular de Chiclayo, Chiclayo, Perú, April 21, 2008.
- **Distinguished Visitor (and Medal recipient)**, Universidad Católica Santo Toribio de Mogrovejo, Chiclayo, Perú, April 30, 2010.
- **Founders Medal**, awarded by Latin American and Caribbean Consortium of Engineering Institutions (LACCEI), at LACCEI Conference, Universidad Tecnológica de Panamá, July 26, 2012.
- **Fulbright Scholar**, University of Costa Rica, July-December, 2014.

COURSES TAUGHT AT THE UNIVERSITY OF FLORIDA:

Undergraduate Courses:

- CGS-2531 Problem Solving with Computer Software,
- COT-3001 Discrete Structures,
- CEN-3031 Introduction to Software Engineering.
- COP-3212/3020 Introduction to CIS,
- CGS-3090 Ethics in the Electronic Frontier.
- CGS-3460 Programming using C,
- COP-3530 Data and Program Structures (now Data Structures and Algorithms),
- COP-3603 Software System Development,
- CEN-3031 Introduction to Software Engineering,

- COP-4640/4620 Translators,
- COP-4020 Programming Language Concepts,
- Various courses on programming systems and languages: C, C++, Smalltalk, Ada, and UNIX.

Graduate Courses:

- COP-5506/5550/5555 Principles of Programming Languages,
- COP-5641/5625 Programming Language Translators I,
- COP-6642 Programming Language Translators II,
- COP-6934 Special Topics - Automatic Generation of Translators,

SHORT COURSES.

- **Modern Compiler Construction**, a one-week course, given at the following institutions:
 - Universidad Francisco de Paula Santander, Cúcuta, Colombia, 2004, 2012;
 - Universidad Nacional de Costa Rica, 2008;
 - Universidad Nacional de Colombia, Bogotá, Colombia, 2005;
 - Universidad Nacional Experimental Politécnica, Caracas, Venezuela, 2009;
 - Universidad Ricardo Palma, Lima Perú, 2007, 2008, 2011, 2012, 2013;
- **Advanced Topics in Software Engineering**, a one-week course, given at the following institutions:
 - Universidad Ricardo Palma, Lima Perú, 2009, 2010;
- **Agile Software Development Using Scrum**, given at the following institutions:
 - Universidad Ricardo Palma, Lima Perú, July 21-26, 2014;
 - Universidad Santo Toribio de Mogrovejo, Chiclayo, Perú, July 17-19, 2014.
 - Universidad de Costa Rica, November 11-13, 2014.

INVITED TALKS

- **Java as a First Language**, First Computer Systems Symposium, Instituto Tecnológico de Veracruz, Veracruz, México, September 3, 1998.
- **The Y2K Problem**, invited lecture, University of Honduras, Tegucigalpa, Honduras, May 27, 1999. Also, in San Pedro Sula, May 28, 1999.
- **Qué es y que debiera ser la computación**, First Colombian National Computing Congress, Cali, Colombia, October 13, 2005.
- **Un Sistema Robótico de Imágenes Radiográficas**, I Congreso de Computación Aplicada ICCA 2006, Universidad Nacional Experimental del Táchira, San Cristóbal, Venezuela, October 4-6, 2006. Also at Congreso Internacional en Electrónica y Tecnologías de Avanzada (CIETA), Universidad de Pamplona, Pamplona, Colombia, 2009, 2011. Also at Universidad de Oviedo, Oviedo, Spain, March 8, 2012, and at Universidad del País Vasco, Spain, March 10, 2012. Video conference, Fundación Tecnológica Antonio de Arévalo, March 26, 2012, and again, in person, May 23, 2013. Also at Universidad de Costa Rica, Engineering Faculty, November 13, 2014.
- **Compilers: A Modern Approach**, School of Computer Science and Informatics, University of Costa Rica, March 12, 1998. Also given at Universidad de los Andes, Mérida, Venezuela, in 2002, and Universidad de los Andes, Bogotá, Colombia, October 19, 2007. Also given at Universidad de Costa Rica, September 9, 2011.
- **El Futuro de la Acreditación: La Perspectiva de ABET**, Jornada Informáticos de Calidad; Generando Competitividad Internacional, a seminar organized by SINAES (Sistema Nacional de Acreditación de la Educación Superior), Nov. 28, 2008, San José, Costa Rica.
- **Paradigmas y Perspectivas Futuras en Computación**, keynote speech, Second Computer Systems Symposium, Instituto Tecnológico de Veracruz, Veracruz, Mexico, March 30, 2000. Since 2000, this talk also given (often as keynote address) at the following institutions:
 - Universidad Centro-Occidental Lisandro Alvarado, Barquisimeto, Venezuela, 2002;
 - Universidad Militar Nueva Granada, Bogotá, Colombia, 2003;

- Universidad Nacional Experimental del Táchira, San Cristóbal, Venezuela, 2003;
 - Universidad de los Andes, Mérida, Venezuela, 2003;
 - Universidad Latina de Costa Rica, 2004;
 - Universidad Francisco de Paula Santander, Cúcuta, Colombia, 2004;
 - Universidad Tecnológica Metropolitana, Mérida, Yucatán, México, 2004;
 - Universidad de Costa Rica, 2005;
 - Universidad Santiago de Cali, Colombia, 2005;
 - Universidad Nacional de Colombia, Bogotá, Colombia, 2005;
 - Instituto Tecnológico de Costa Rica, 2006;
 - Universidad Privada del Norte, Trujillo, Perú, 2007;
 - Universidad Distrital Francisco José de Caldas, Bogotá, Colombia, 2007;
 - Escuela Superior Politécnica del Litoral, Guayaquil, Ecuador, 2007;
 - Universidad de Especialidades Espíritu Santo, Guayaquil, Ecuador, 2007;
 - Universidad Nacional de Costa Rica, 2008.
 - Universidad Particular de Chiclayo, Chiclayo, Perú, 2008;
 - Instituto Tecnológico de Antioquia, Medellín, Colombia, 2010.
 - Universidad de Pamplona, Pamplona, Colombia, 2009, 2011, 2012.
 - Universidad Nacional Experimental Politécnica, Caracas, Venezuela, 2009;
 - Universidad Ricardo Palma, Lima Perú, 2008, 2010;
 - Universidad Católica Santo Toribio de Mogrovejo, Chiclayo, Perú, 2010, 2012;
 - Fundación Tecnológica Antonio de Arévalo, May 24, 2013.
 - Universidad de Costa Rica, September 17, 2014.
- **La Interoperabilidad Windows-Linux.** This talk has been given at the following institutions:
- Universidad Centro-Occidental Lisandro Alvarado, Barquisimeto, Venezuela, 2002;
 - Universidad Militar Nueva Granada, Bogotá, Colombia, 2003;
 - Universidad Nacional Experimental del Táchira, San Cristóbal, Venezuela, 2003;
 - Universidad de los Andes, Mérida, Venezuela, 2003;
 - Universidad Francisco de Paula Santander, Cúcuta, Colombia, 2004;
 - Universidad Nacional de Colombia, Bogotá, Colombia, 2005;
 - Instituto Tecnológico de Costa Rica, 2006;
 - Universidad de Especialidades Espíritu Santo, Guayaquil, Ecuador, 2007;
 - Universidad Privada del Norte, Trujillo, Perú, 2007;
 - Escuela Superior Politécnica del Litoral, Guayaquil, Ecuador, 2007;
 - Universidad Particular de Chiclayo, Chiclayo, Perú, 2008;
 - Universidad Nacional Experimental Politécnica, Caracas, Venezuela, 2009;
 - Universidad de Pamplona, Pamplona, Colombia, 2009.
 - Instituto Tecnológico de Antioquia, Medellín, Colombia, 2010.
 - Universidad Ricardo Palma, Lima Perú, 2010;
 - Universidad Católica Santo Toribio de Mogrovejo, Chiclayo, Perú, 2010, 2012;
 - Fundación Tecnológica Antonio de Arévalo, May 24, 2013.

PUBLICATIONS (selected).

Books:

- Manuel E. Bermudez, **Study Guide for C Programming: A Modern Approach**, W.W. Norton, 1998, 244 pages.
- José Daniel Texier, Manuel Bermúdez, **Compiladores - Un Enfoque Diferente**, Editorial Académica Española, 2011, 92 pages.

Journals and Conference Proceedings (all refereed):

- Manuel E. Bermudez, **A Mobile Field Diary System for Infrastructure Construction Project Inspections**, Proceedings of the 10th Latin American and Caribbean Conference for Engineering and Technology, LACCEI 2012, Panamá City, Panamá, July 23-27, 2012.
- Manuel E. Bermudez, **Hybrid Tools for Infrastructure Construction Business Intelligence**, Proceedings of the 9th Latin American and Caribbean Conference for Engineering and Technology, LACCEI 2011, Medellín, Colombia, August 3-5, 2011.
- Manuel E. Bermudez, **NFL Game-day Companion iPhone Application, A Case Study in University-Industry Cooperation**, Proceedings of the 8th Latin American and Caribbean Conference for Engineering and Technology, LACCEI 2010, Arequipa, Perú, June 1 - 4, 2010.
- Manuel E. Bermudez, **Adding Part Features to a Computer-Assisted Manufacturing Process Planning System: A Continuing Case-study in University-Industry Cooperation**, Proceedings of the 7th Latin American and Caribbean Conference for Engineering and Technology, LACCEI 2009, San Cristóbal, Venezuela, June 2 - 5, 2009.
- Manuel E. Bermudez, **Computer-Assisted Process Planning in Manufacturing: A Case-study in University-Industry Cooperation**, Proceedings of the 6th Latin American and Caribbean Conference for Engineering and Technology, LACCEI 2008, Tegucigalpa, Honduras, June 4 - 6, 2008.
- Manuel E. Bermudez and Carl Crane, **The Autonomous Vehicle Program at the University of Florida**, Proceedings of the 5th Latin American and Caribbean Conference for Engineering and Technology, LACCEI 2007, Tampico, México, May 29 - June 1, 2007.
- Bermudez, Manuel E., and Keith Stanfill, **La Integración de la Actividad Empresarial con la Educación de la Ingeniería: el Programa Integrado Tecnológico Empresarial en la Universidad de Florida**, XIV Iberoamerican Conference on Higher Education in Computing, Santiago, Chile, August 20-25, 2006.
- Manuel E. Bermudez, and Keith Stanfill, **Integrating Entrepreneurship with Engineering Education: the Integrated Technology Ventures Program at the University of Florida**, Proceedings of the Fourth Latin American and Caribbean LACCEI Conference, Mayagüez, Puerto Rico. June 21-23, 2006.
- Bermudez, Manuel E, and Scott Banks, **A Dynamic Radiographic Imaging System, Proceedings of the IPSI Conference**, Marbella, Spain, February, 2006.
- Berrios, Joseph, and Manuel E. Bermudez, **Using Wait-free Synchronization to Increase Operating System Reliability**, Proceedings of the 2004 International Conference on Parallel and Distributed Processing Techniques and Applications PDPTA'04, Las Vegas, NV, June 21-24, 2004.
- Berrios, Joseph, and Manuel E. Bermudez, **Using Wait-free Synchronization in the Design of Distributed Applications**, International Journal of Future Generation Computer Systems, special issue on Parallel and Distributed Algorithms and Systems, 2004.
- Bermúdez, Manuel E., **Modernización de la Enseñanza de la Traducción**, XI Congreso Iberoamericano de Educación Superior en Computación CIESC'03, September 29 - October 3, La Paz, Bolivia.
- Berrios, Joseph, and Manuel E. Bermudez, **Using Wait-free Synchronization in the Design of Distributed Applications**, Proceedings of the 2003 International Conference on Parallel and Distributed Processing Techniques and Applications PDPTA'03, Las Vegas, NV, June 23-26, 2003.
- Bermudez, Manuel E., **A Modern Approach to Teaching Computer Translation**, SSGRR (Scuola Superiore G. Reiss Romoli) Winter International Conference on Advances in Infrastructure for Electronic Business, Education, Science, Medicine and Mobile Technologies on the Internet, L'Aquila, Italy, January 6-10, 2003.
- Berrios, Joseph, and Manuel E. Bermudez, **Using Wait-free Synchronization in the Design of Client-Server Applications**, ACM'03 Southeast Conference, Savannah Georgia, March 7-8, 2003.
- George Logothetis and Manuel E. Bermudez, **A Model of Parser-Independent Syntax-Directed Translation**, Proceedings of the 40th Southeast ACM Conference, Raleigh, NC, April 26-27, 2002.

- Manuel E. Bermudez, **A Mobile Commerce Challenge Model**, Proceedings of the Scuola Superiore G. Reiss Romoli Winter Conference 2002, L'Aquila, Italy, January 21-27, 2002.
- Abdelsalam Helal, Pushkar Pradhan, Kushal Thakore and Manuel E. Bermudez, **Un Modelo de Barreras al Comercio Móvil**, Proceedings of the XXVII International Latin American Conference on Informatics CLEI'2001, Merida, Venezuela, September 24-28, 2001.
- Manuel E. Bermudez, **El Caso de Java como Primer Lenguaje**, Proceedings of the International Convention Informatica 2000, and IXth International Convention on Informatics in Education, La Habana, Cuba, May 22-27, 2000.

CONTRACTS AND GRANTS (selected).

- **Fulbright Scholar Award**, U.S. Information Agency, to visit Universidad de Costa Rica, 1996-1997.
- **Modernization of the Translators Course**, Southeastern University and College Coalition for Engineering Education grant, for \$8,000.00, 2000. Principal Investigator: Manuel E. Bermudez.
- **Platform Automated Software Error Detection**, Dell Computer Corporation, IPPD (Integrated Product and Process Design) project, for \$15,000, 2001-2002. Principal Investigator, Manuel E. Bermudez.
- **Modernization of the Compilers Course**, Microsoft Corporation, for \$10,000, 2002-2003. Principal Investigator: Manuel E. Bermudez.
- **BIOS Testing Tools**, Dell Computer Corporation, IPPD (Integrated Product and Process Design) project, for \$15,000, 2002-2003. Principal Investigator, Manuel E. Bermudez.
- **Metric Collection and Reporting System**, Lockheed Martin Corporation, IPPD (Integrated Product and Process Design) project, for \$15,000, 2002-2003. Principal Investigator, Manuel E. Bermudez.
- **Fulbright Scholar Award**, U.S. Department of State, to visit Universidad de los Andes, Mérida, Venezuela, 2003-2004.
- **Software Control System for a Dynamic Radiographic Imaginag System**, University of Florida IPPD and ITV project, for \$15,000, 2005-2006. Principal Investigator: Manuel E. Bermudez.
- **CAPP-ware: Computer-Assisted Process Planning**, General Dynamics, IPPD project, for \$15,000, 2007-2008. Principal Investigator: Manuel E. Bermudez.
- **Computer Assisted Process Planning Feature Library**, General Dynamics, IPPD project, for \$15,000, 2008-2009. Principal Investigator: Manuel E. Bermudez.
- **NFL Game-Day Companion iPhone Application**, Electronic Arts, IPPD project, for \$15,000, 2009-2010. Principal Investigator: Manuel E. Bermudez.
- **Hybrid Tools for Infrastructure Construction Business Intelligence**, InfoTech, Inc., IPPD Project, for \$15,000.00, 2010-2011. Principal Investigator: Manuel E. Bermudez.
- **Highway Construction Mobile Field Diary**, InfoTech, Inc., IPPD Project, for \$16,500.00, 2011-2012. Principal Investigator: Manuel E. Bermudez.
- **ESPN Wide World of Sports Guest Mobile Application**, Walt Disney Parks and Resorts, IPPD Project, for \$16,500.00, 2012-2013. Principal Investigator: Manuel E. Bermudez.
- **Automated Conversion of Data Manipulation Algorithms to GPU Parallel Computing Solutions**, Lockheed Martin Mission Systems and Training, IPPD Project, for \$16,500.00, 2012-2013. Principal Investigator: Manuel E. Bermudez.

GRADUATE STUDENT SUPERVISION.

- Member of over 40 M.Sc. Thesis Committees.
- Chairman of over 20 M.Sc. Thesis Committees.
- Member of over 15 Ph.D. Thesis Committees.
- Chairman of 4 Ph.D. Thesis Committees.