MARIA M. LARRONDO PETRIE, PhD

Florida Atlantic University
777 Glades Road, SE-308, Boca Raton, FL 33431-0991
Office: 561 297-3899, FAX: 561 297-1111
http://www.cse.fau.edu/~maria   Email: petrie@fau.edu

PROFESSIONAL PREPARATION

Institution	Major	Degree	Year
Barry University, Miami, FL	Mathematics	BS	1973
Florida Atlantic University, Boca Raton, FL	Computer Science	MCS	1986
Florida Atlantic University, Boca Raton, FL	Computer Engineering	PhD	1992

APPOINTMENTS

1985-present **Florida Atlantic University**, Boca Raton, FL, USA

2003-	Professor and Associate Dean of Engineering - Academic & International Affairs
2002-2003	Associate Professor & Associate Dean of Engineering, Academic & International Affairs 1998-
2002	Tenured Associate Professor, Computer Science & Engineering, College of Engineering
1992-1998	Assistant Professor of Computer Science & Engineering, College of Engineering
1985-1992	Instructor of Computer Science, College of Business

Summer 1993 **Universidad IberoAmericana**, México   Visiting Lect., Informática, Awarded: *Medallón San Ignacio*

1973-1992 **Palm Beach County Public School District**, FL
Tenured High SchoolTeacher (Computer Dept. Chair, Dir. of Math, Science, Eng. & Hi-Tech Magnet)

PUBLICATIONS: 141 publications

Selected Publications:

[1] E. B. Fernandez, M. M. Larrondo-Petrie, N. Seliya, N. Delessy-Gassant, and M. Schumacher, "A pattern language for firewalls," in *Security Patterns*, M. Schumacher, E. Fernandez-Buglioni, D. Hybertson, F. Buschmann, and P. Sommerlad (eds.), John Wiley & Sons, New York, NY, 2006.

[2] E. B. Fernandez, and M. M. Larrondo-Petrie, "Using UML and Security Patterns to Teach Secure Systems Design," *Proceedings of the American Society for Engineering Education Conference, ASEE'05,* Portland, Oregon, USA, 12 – 17 June 2005.

[3] E. B. Fernandez, I. Jawhar, M. M. Larrondo-Petrie, and M. VanHilst, "An overview of the security of wireless networks," in the *Handbook of Wireless LANs*, M. Ilyas (ed.), CRC Press, 2005, pp. 25-50.

[4] T. Sorgente, E. B. Fernandez, and M. M. Larrondo-Petrie, "Analysis patterns for patient treatment," in *Proceedings of the 11th Conference on Pattern Languages of Programs Conference* (PLoP2004), Monticello, Illinois, 8-12 September 2004.

[5] M. M. Larrondo Petrie, "Towards an Engineering Education Capability Maturity Model," invited paper in *Proceedings of the 3rd American Society of Engineering Education (ASEE) International Colloquium on Engineering Education*, Beijing, China, 4 -10 September 2004.

[6] E. B. Fernandez, M. M. Larrondo Petrie, and T. Sorgente, "Security Models for Medical and Genetic Information," in *Proceedings of the International Association for Development of the Information Society (IADIS) International Conference*, Avila, Spain , 16-19 July 2004, 509-516.

[7] R. B. France and M. M. Larrondo-Petrie (eds.), *Proceedings of the IEEE Workshop on Industrial Strength Formal Specification Techniques, WIFT'98*, Boca Raton, FL, IEEE Computer Society Press, Los Alamitos, CA, 1998. Funded by NSF and IEEE. *Citations: 4*

[8] R. B. France, J. -M. Bruel, M. M. Larrondo-Petrie, "An Integrated Object-Oriented and Formal Modeling Environment," *Journal of Object-Oriented Programming* (JOOP), **10** (7), October 1997, 25-34, 50. *Citations: 8*

[9] B. W. Bates, J. -M. Bruel, R. B. France and M. M. Larrondo-Petrie, "Guidelines for Formalizing Fusion Object Oriented Analysis Models", in *Proceedings of 1996 International Conference on Advances in Software Engineering* (CAISE'96), Crete, Greece, May 20-24, 1996, 222-233. Citations: 8

[10] M. M. Larrondo-Petrie, R. B. France, and J. -M. Bruel, "Introducing Formal Specification Techniques into the Undergraduate Software Engineering Curriculum," in *Proceedings of Exploring Formal Methods in the Computer Science Curriculum Workshop*, New York, July 24-26, 1996. *Citation: 1*

[11] M. M. Larrondo-Petrie (ed.) *Fourth Proceedings of the Software Engineering Research Forum, SERF'95*, Boca Raton, FL, USA, November 4-5, 1995.

[12] R. B. France, S. Gerhart and M. M. Larrondo-Petrie (eds.), *Proceedings of IEEE Workshop on Industrial Strength Formal Specification Techniques, WIFT '95,* Boca Raton, FL, USA, April 5-8, 1995, IEEE Computer Society Press, Los Alamitos, CA, 1995. Funded by NSF and IEEE. *Citations: 36*

[13] M. M. Larrondo-Petrie, E. Gudes, H. Song and E. B. Fernandez, "Security policies in object oriented databases" in Database Security II: Status and Prospects, D. Spooner and C.E. Landwehr, eds., North-Holland Press, (1990), 257-268. *Citations: 5*

SYNERGISTIC ACTIVITIES

Selected Research Grant/Contract Activities

Have led **$2,527,792** of sponsored research since fiscal year 1994. Part of the South Florida Center for Ecological Study Unit, and on Qualified Researcher List for South FL Water Management District. Grants within last 6 years appear below.

2004-2008 **Federal Earmark**. Role: Co-Principal Investigator - $251,402
Secure Web Services in the Wireless Environment

2004-2008 **National Science Foundation**, Role: Co-Principal Investigator on 2 grants - $426,503
An Industry-Academia Partnership for Students in STEM Disciplines and *Global Engineering Education Challenge for the Americas*

2003-2007 **State of Florida Governor's Grant**. Role: Principal Investigator - $108,622
ESP Engineering Scholars Program, a summer enhancement program for mathematically gifted 10-12 graders.

2003-2004 **Broward County**. Role: Principal Investigator - $20,602
Broward County Department of Environmental Operations. Engineering internships for underrepresented minorities

1999-2001 **Internet Protection Resources.** Role: Principal Consultant
Consultant to new start-up corporation. Designed and implemented new secure credit-card web payment prototype (using UML, HTML, Java and RSA SecurIDs), and wrote Security Master Plan.

1994-2000 **South Florida Water Management District.** Role: Principal Investigator on 5 grants - $170,835
Funded research through the Florida Center for Environmental Studies to create a *Bioinformatic* and *Hydrological Model* of all data in the Lake Okeechobee Ecosystem Study, develop a language to transform all flat data tables to a pseudo object-oriented database, and create an intelligent, intuitive visual interface that permitted scientists to do unstructured searches and refine them, dealing directly with the data without knowing SQL, and create reports.

Leadership Activities

***International Federation of Engineering Education Societies* (IFEES)**

2006-2007 Elected to the **Executive Board, Conference Co-Chair, Strategic Planning Committee Co-Chair**

2005-2006 **Liaison** representing LACCEI and UPE

***Latin American and Caribbean Consortium of Engineering Institutions* (LACCEI)**

2005-2006 Elected **Executive Vice President** and Appointed Chair of International Engineering Accreditation Taskforce

2003-2006 Elected **Vice President of Research**, Member of **Board of Directors**, **Conference Chair, Technical Co-Chair**

***Association of Computing Machinery* (ACM)**

1994-1999 Appointed Chair of ACM SIGGRAPH Computer Science Curriculum Committee

1994-1999 Appointed Member, ACM SIGGRAPH Education Committee

***International Workshop for Industrializing Formal Specification Techniques* (WIFT)**

1995, 1997 Co-PI, **NSF** & **IEEE** funded workshop. Co-editor of Proceedings published by IEEE, received 40+ citations.

***Upsilon Pi Epsilon International Honor Society for the Computing Sciences* (UPE)**

1993-1999 Elected to UPE International **Executive Council**

1996-1997 Elected UPE International **President**

***American Society for Engineering Education* (ASEE)**

2005-2007 Elected to the **International Division Board**, **Secretary/Treasurer**

2003-2007 Elected to the **Minorities in Engineering Division Board**, **Member-At-Large**

Palm Beach County School Board

2003-2004 Appointed **Chair**, Advisory Council for Engineering & Information Technology Academies

1980-2004 **Curriculum Writer**. Have published 5 Curriculum Guide books adopted District-wide

Florida Atlantic University

1998-2004 ***Center for Advanced Development for Educational Technology*** Co-developed Remote Lab tools for accessing (viewing, controlling, reporting) via the web live science and engineering experiments (not simulations).

2003 *President's Leadership Award*. For continuing the *Leadership in Educational Advanced Program (LEAP)* for women and minorities, after funding source ended, found alternate funding.

COLLABORATORS & OTHER AFFILIATIONS

Collaborators and Co-Editors: B. Alhalabi, A. Bretan, E. B. Fernandez, M. K. Hamza, Sam Hsu, M. Huang, S. Huang, S. Nix, C. Pertuz, D. Raviv, T. Sargente, S. Schlossberg, N. Seliya, K. Stevens, Joe Su, M. VanHilst – FAU; J. P. Bowen – London South Bank U., P. Breuer - Politécnico de Madrid, M. Evett – E. Michigan State, R. France – Colorado State, L. Godoy – UPR, E. Gudes – Ben Gurion U., C. Delgado Kloos - Politecnico de Madrid, S. Lostal - South Florida Water Management District, D. M. Markovitz - VillaNova, N. Martinez - Politecnico de Madrid, I. Pagan – UPR, G. Raghavan – Nokia, M. Saksena, - Motorola.

Graduate and PostGraduate Advisors: Eduardo Fernandez – FAU, Neal Coulter – Univ. of North Florida

Thesis Advisor and Postgraduate-Scholar Sponsor: N. Delessy, A. Escobar, Q. Huang, K. Jin, S. Lostal, I.Portnoy, G.Raghavan, M. Sadicoff, M. Saksena, M. Shroff, L. Thampi, H. K. Vijanagaram. *Advisees*: *12*; 9 thesis, 2 dissertations, 1 postgraduate scholar.