Soraya Abad-Mota

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Data Modeling Expert. Database Implementation and Administration.
Knowledge Representation. Information Extraction from Text.
Excellent oral and written communication skills.
Extensive Experience in teaching (27 years) and consulting (18 years)

Education

Doctor of Philosophy (2006)
University of New Mexico. Computer Science.

Master of Science (1992)
Rutgers University. Computer Science.

Magister en Ciencias de la Computación (1983)
Universidad Simón Bolívar. Caracas, Venezuela.

Ingeniero en Computación (1980)
Universidad Simón Bolívar. Caracas, Venezuela.

Academic Experience/Positions

Lecturer III (January 2018-today) UNM, Computer Science Department.

Visiting Faculty/Instructor (May 2014-Dec 2014 and January 2016-December 2017)
University of New Mexico (UNM)
Electrical and Computer Engineering Department (Sep 2013-2017): Visiting Faculty.

Computer Science Department (2014-today):

- Co-advisor of Martha Perez-Arriaga's PhD dissertation. (Estimated completion: May 2018)

- Courses taught: CS152L:Computer Programming. Fundamentals - In Java (Summer 2014), ECE-440/CS-485/CS-585: Introduction to Computer Networks (Fall 2014 and Fall 2016), CS341L: Introduction to Computer Architecture and Organization (Spring and Fall 2017).

Electrical and Computer Engineering Department (2017):

- Courses taught: ECE-131 (Fundamentals of programming with the C language) and ECE-231 (Second programming course with the C++ language) (Fall 2017).

Continuing Education (2016):

- UNMCE SIPI (Southwestern Indian Polytechnic Institute) Adjunct Faculty. 2016 Spring Trimester.

- MVD/Tapestry Project. Training on the Tapestry System for Vehicle Services to provide training for the MVD Partners, before the roll-out of the system on Sep. 2016. (April to August 2016).

Profesor Titular (1993-2013, retired)
Universidad Simón Bolívar (USB)
Departamento de Computación y Tecnología de la Información

- Tenure on february 1997, promoted to Associate Professor on June 2002, promoted to Profesor Titular (Full Professor) on June 2007. Each promotion requires the submission of a research work which is evaluated by a committee of professors in the area of expertise.

- Academic Advisor of 30 students in over 15 undergraduate senior year projects. The projects were defined by Prof. Abad-Mota, some of them based on her research, others provided as a service for USB.

- Academic advisor of over 25 students who worked in joint projects with external organizations (*pasantías largas*) in Venezuela and abroad.

- Academic advisor of three Master thesis.

- Database Laboratory Founder and Director (1999-2009). With grant from BID/Conicit (1999)

- USB representative in ISTEC (1993-2004). Served of the Board of ISTEC 1999-2001.

- Served on several Information Technology Committees at USB. Served as Data Modeller and Consultant for several major USB databases.

- Liason with database software companies.

Coordinadora Académica de los programas de Ingeniería en Computación y postgrados en Computación (Jan. 2009- Feb. 2013)
(Director of the Academic Programs in Computing Engineer, MSc in Computer Science and Doctorate in Computer Science)

- Developed a focus group workshop with employers and alumni to evaluate the characteristics of our graduates in Computing Engineering. (June 2009)

- Courses and activities related to this position (organized by the Dean of Undergraduate Studies):

  2009 Competency-based Teaching, learning and evaluation (16 hours)

  2010 Leadership Workshop (16 hours). IGLU Center USB

  2010-2011 Workshop of Competency-based Curriculum Design. Project where all the Academic Program Directors participated and lasted about 9 months.

- Study of the competencies of the Computing Engineering (Ingeniería en Computación) Program at USB. Development of a questionnaire to validate the competencies of a Computing Engineering administered to advanced students, alumni, faculty and employers.

- Revision, including some changes, of the program of studies.

Instructor (Summer 1991)
Rutgers University. New Brunswick, New Jersey.

Profesor Asistente (1983-1987) (Assistant Professor)
Universidad Simón Bolívar. Departamento de Matemáticas y Computación.
Taught courses for the Computer Engineering Undergraduate Program. Academic advisor of five students in two senior year projects.
Designed and taught a course for the graduate program in *Especialización en Gestión de la Información.* (Information Management).

International Projects

OHI-Guayaquil (2014-2015) The Consortium Biotica/Consulsua was established in Guayaquil, Ecuador to measure the Ocean Health Index in the Gulf of Guayaquil following the methodology developed by B. Halpern et al. from U.C. Santa Barbara. Dr. Abad-Mota participated in the project from November 2014 until its conclusion on July 2015 as part of the Information Management Group. The Consortium was hired by the Secretaría Técnica del Mar (SETEMAR).

Grants/Donations

Hydroclimatic Data Repository for Risk Assessment in Venezuela. (2006-2010)
Project Researcher and Leader. Funding Agency: Fonacit (Venezuela's NSF).
Amount: $500K

2001 Donation from Sun Microsystems of 11 workstations (worth $ 18,000) to create a database/network teaching lab; USB matched these funds to acquire 12 additional workstations.

2007 Grant from Oracle de Venezuela (subsidiary of Oracle Corporation) for equipment for the Laboratorio Docente de Computación (LDC), serving the Computer Science faculty and students at USB ($ 50,000).

Distinctions

- Outstanding Teaching Award (Premio a la Destacada Labor Docente) (2011) (nominated by students and faculty)

- Fonacit. Programa de Promoción al Investigador (PPI). Level I. 2007-2009.

- Conicit. Programa de Promoción al Investigador (PPI). Candidate Level. 1994-1997.

Publications

Books

Lelys Bravo de Guenni, Soraya Abad-Mota, Isabel Llatas, Abraham Salcedo, Laura Delgado, Santiago Ramos, Karenia Córdova. **"HIDROX: Repositorio de Datos Hidroclimáticos para la gestión de riesgos epidemiológicos y ambientales"**. USB-UCV-Fonacit 2012. ISBN: 987-9-8012596-2-6.

Soraya Abad-Mota. **"Document Interrogation. Architecture, Information Extraction, Approximate Answers."** Lambert Academic Publishing 2009. ISBN: 978-3-8383-1032-9. (PhD Dissertation)

Selected Papers (over 100 citations)

"Table Interpretation and Extraction of Semantic Relationships to Synthesize Digital Documents", Martha O. Perez-Arriaga, Trilce Estrada, and Soraya Abad-Mota. Proceedings of the 6th International Conference on Data Science, Technology and Applications, July 2017, pp. 223-232.

"TAO: System for Table Detection and Extraction from PDF Documents", Martha O. Perez-Arriaga, Trilce Estrada and Soraya Abad-Mota. The 29th International FLAIRS Conference, Special Track on Semantic, Logics, Information Extraction and AI. May 16 - 18, 2016, Key Largo, Florida, USA.

"Evaluating Skyline Queries on Spatial Web objects", Alfredo Regalado, Marlene Goncalves and Soraya Abad-Mota, 23rd International Conference on Database Expert Systems Applications, DEXA 2012. Viena, Austria, September 2012. Lecture Notes in Computer Science, vol. 7447, pp. 416-423, Springer 2012.

"A Data Model for Climate Data Curation". Soraya Abad-Mota and Lelys Bravo de Guenni. Proceedings of the V International Symposium on Digital Libraries (V SIBD): Creating and Accessing Knowledge in the Digital Era, October 27-28, 2009, University of New Mexico, Albuquerque, New Mexico.

"An analysis of the Mongeau-Sankoff Algorithm for Music Information Retrieval", Carlos Gómez, Edna Ruckhaus and Soraya Abad-Mota. Short paper and presented as a poster in ISMIR 07, 8th International Conference on Music Information Retrieval, September 23-27, 2007, Vienna, Austria. Based on the senior year project of Carlos Gómez, which was finalist in the Eureka Competition in Caracas, Venezuela.

"Document Interrogation: Architecture, Information Extraction and Approximate Answers", Soraya Abad-Mota, *Lecture Notes in Computer Science*. Volume title: Current Trends in Database Technology - EDBT 2006 Workshops. Editor: T. Grust et al. Springer 2006. Paper presented at the EDBT 2006 PhD Workshop. Munich, Germany, March 26, 2006.

"Experiments in Information Extraction", Soraya Abad-Mota and Eduardo Ruiz I. Proceedings of the 2006 Information Resources Management Association (IRMA) International Conference, Mehdi Khosrow-Pour (editor), Idea Group Publishing. Washington, D.C. May 21-24, 2006.

"ODIL: Ontology-based Document Interrogation Language", Soraya Abad-Mota and Paul A. Helman, Proceedings of the 2004 Information Resources Management Association (IRMA) International Conference, Mehdi Khosrow-Pour (editor), Idea Group Publishing, pp. 517-520, Idea Group Publishing, Pennsylvania.

"DIA: A Document Interrogation Architecture", Soraya Abad-Mota and Paul A. Helman, Proceedings of the PAKDD 2002 Workshop on Text Mining, Taiwan, May 2002, pp. 35-45.

"Databases and Portals for Knowledge Management", Soraya Abad-Mota, chapter in the book "Digital Libraries and Virtual Workplaces: Important Initiatives for Latin America in the information age", pp. 201 - 210. INTERAMER Collection no.71. Editor: Johann van Reenen. The Organization of American States (OEA), April 2002. Washington, DC, ISBN: 0-8270-4377-5.

"Semantic Queries on Image Databases: The IMTKAS Model", Soraya Abad-Mota and Casimir A. Kulikowski, Proceedings of the Basque International Workshop on Information Technology, July 1995, pp. 20-28. IEEE Computer Society Press, Los Alamitos, California, 1995.

"Approximate Query Processing with Summary Tables in Statistical Databases", Soraya Abad-Mota, *Lecture Notes in Computer Science # 580*. Advances in Database Technology - EDBT '92. A. Pirotte, et al. (editors), pp. 499-515. Springer 1992.

"Quasi-copies: efficient data sharing for information retrieval systems", Rafael Alonso, Daniel Barbará, Hector Garcia-Molina and Soraya Abad, *Lecture Notes in Computer Science # 303*. Advances in Database Technology - EDBT '88, pp. 443-468. J.W. Schmidt, S. Ceri and M. Missikoff (editores). Springer 1988.

Selected Conference Attendance

I Coloquio Internacional en Gestión de Archivos y Administración Electrónica de Documentos, March 11-13, 2009 USB, organized by CENDA the Documentation and Archive Center of USB. (International Colloquium on Archive Management and Electronic Management of Documents.)

AGU Fall 2007 Meeting, San Francisco, California, December 10-14, 2007. "A Web 2.0 Application for Executing Queries and Services on Climatic Data" (abstract and poster), Soraya Abad-Mota, Edna Ruckhaus, Alfredo Garboza, Gianpaolo Tepedino.

AGU Spring Joint Conference, Baltimore, Maryland, May 23-26, 2006. "A data integration effort for environmental and epidemiological risk management: an example from Latin America". Soraya Abad Mota, Lelys Guenni, Abraham Salcedo and Yudith Cardinale.

IRMA 2006. Washington, D.C., May 21-24, 2006. "Experiments in Information Extraction". Soraya Abad-Mota and Eduardo Ruiz.

EDBT 2006 and Phd Workshop. Munich, Germany, March 26-29, 2006. "Document Interrogation: Architecture, Information Extraction and Approximate Answers". Soraya Abad-Mota.

Consulting

Technological Consultant for:

- ENELBAR. Barquisimeto, Venezuela. (Electric Power Company). (2005-2006)
  Data modeling and database design.

- Banesco. Caracas. (One of the three largest Banks in Venezuela). (2004)
  Database design, Data Warehouse building.

- Dirección Ejecutiva de la Magistratura, DEM. Caracas. (Venezuelan Judicial System) (2003).
  Database Design and Implementation.

- TELCEL. Caracas. (Largest mobile communications company in Venezuela.) (1998-1999)
  Business Data Model.

- Biblioteca Nacional. (The National Library of Venezuela) (1986). Data modeling and Structured Analysis.

Course Designer and Instructor. (1986-1987 and 1993-2005). Data Base and Data Modeling courses for several private and government organizations.

Professional Positions

- Distelca (1982-1983) Computer Vendor. Analyst.

- Ingedigit (1981-1982). Tandem Computers Representative. Analyst and Education Manager.

- Universidad Simón Bolívar. Centro de Información y Computación (1980-1981). Programmer and Software support analyst.

Languages

Spanish (native) and English (fluent)