

Alejandro Rodríguez González

Current position: Teaching Assistant at University Carlos III of Madrid

Email: alejandro.rodriguez@uc3m.es

Last update: December 02, 2011

ACADEMIC TITLES

- Computer Engineering (BSc) in specialty of Business with reinforcements in objectives of Applications integration on the Internet and System administration. University of Oviedo.
- MS.c. in Information Science & Technology with reinforcement in artificial intelligence. University Carlos III of Madrid.
- MS.c in Decision Systems Engineering. University Rey Juan Carlos.
- PhD Candidate in the Computer Science PhD program at University Carlos III of Madrid. All but Dissertation. Tentative: December 2011.

BACKGROUND & INTERESTS

- Artificial Intelligence techniques
 - Expert Systems
 - Decision Support Systems
 - Evolutionary computation
 - Neural Networks
 - Genetic Algorithms
 - Data Mining
 - Planning & Scheduling
- Biomedical informatics
 - Development of Diagnosis Systems
 - Management of Medical Information
 - Application of Computer Science to Medical Health Care
 - Application of Artificial Intelligence to Medicine
- Artificial Intelligence & Finances
 - Creation of Trading Systems using Artificial Intelligence

TEACHING ACTIVITY

- Undergraduate Capstone Project Supervision:

Title	Author	University	Mark
SemMed	Tomas Suarez	Oviedo	9 (SB)
Color Blindness Diagnosis	Francisco Igelmo	Oviedo	-
PSP Acquire	Miguel Casado	UC3M	8 (NT)
NFC Shopper System	Javier Vazquez Romero	UC3M	10 (MH)
bSync	Javier Torres	UC3M	10 (MH)
PointThis	Antonio Cabanas	UC3M	10 (MH)

- Subjects Taught

Subject	Degree	University	Course
Computing (In-person and distance education course)	Library and Information Science	UC3M	2010-11
Corporative Work: Methods and Techniques	Computer Science	UC3M	2011-12

PUBLICATIONS

Conference Proceedings:

- Rodriguez-González, A. et al., MEDBOLI: Medical Diagnosis Based on Ontologies and Logical Inference. *The Third International Conference on Digital Society (ICDS 09)*. 2009
- Rodriguez-González, A. et al., MedFinder: Using Semantic Web, Web 2.0 and Geolocation methods to develop a Decision Support System to locate doctors. *5th International Conference on Web Information Systems and Technologies (WEBIST)*. 2009
- Rodriguez-González, A. et al., SemMed: Applying Semantic Web to Medical Recommendation Systems. *InfoSys 2009*. 2009
- Rodriguez-González, A. et al., A Multi-agent System for Traffic Control for Emergencies by Quadrants. *WebTel 2009*. 2009
- Rodriguez-González, A., Using Semantic Web Technologies to build intelligent medical systems. *2nd International Seminar on New Issues in Artificial Intelligence*. 2009
- Rodriguez-González, A. et al., ADONIS: Automated Diagnosis System based on Sound and Precise Logical Descriptions. *The 22 nd IEEE International Symposium on Computer-Based Medical Systems (CBMS 09)*. 2009.
- Rodriguez-González, A. et al., Applying Caching Capabilities to Inference Applications based on Semantic Web. *1st International Conference on Computational Collective Intelligence - Semantic Web, Social Networks & Multiagent Systems (ICCCI 09)*. 2009. Indexing: DBLP, SprigerLink, ISI Web of Knowledge.
- Alor-Hernandez, G. et al., A hybrid architecture for e-procurement. *1st International Conference on Computational Collective Intelligence - Semantic Web, Social Networks & Multiagent Systems (ICCCI 09)*. 2009.
- Alor-Hernandez, G. et al., Towards Dynamic representation of Rich Internet Applications through Web service Invocation. *The Second International Conference on Advances in Human-oriented and Personalized Mechanisms, Technologies, and Services (CENTRIC 09)*. 2009
- Alor-Hernandez, G. et al., RIA Optimization to support Web Service Invocations on Mobile Safari for iPhone. *The Second International Conference on Advances in Human-oriented and Personalized Mechanisms, Technologies, and Services (CENTRIC 09)*. 2009
- Juarez-Martinez, U. et al., An Aspect-Oriented Approach for Assertion Verification. *The First International Conference on Advances in System Testing and Validation Lifecycle (VALID 09)*. 2009
- Cortes-Robles, G. et al., Resources oriented search: a strategy to transfer knowledge in the TRIZ-CBR synergy. *10th International Conference on Intelligent Data Engineering and Automated Learning (IDEAL 09)*. 2009.
- Rodriguez-González, A. et al., A proposal for a Semantic Intelligent Document Repository Architecture. *2009 Electronics, Robotics and Automotive Mechanics Conference (CERMA 2009)*. 2009
- Rodríguez-González, A. et al., Improving N Calculation of the RSI Financial Indicator Using Neural Networks. *2nd IEEE International Conference on Information and Financial Engineering (ICIFE 2010)*. 2010.
- Rodríguez-González, A. et al., Improving Trading Systems using the RSI Financial Indicator and Neural Networks. *11th International Workshop on Knowledge Management and Acquisition for Smart Systems and Services (PKAW 2010) as part of The 11th Pacific Rim International Conference on Artificial Intelligence (PRICAI 2010)*. 2010.
- Rodríguez-González, A. et al., RECOMETH: Using CBR and Characteristic Weights to recommend a Software Development Methodology in Software Engineering. *IEEE International Conference on Software Engineering and Service Sciences (ICSESS 2010)*. 2010.

- Rodríguez-González, A. et al., Using Ontologies and Probabilistic Networks to Develop a Preventive Stroke Diagnosis System (PSDS). *The 23RD IEEE International Symposium on Computer-Based Medical Systems (CBMS 2010)*. 2010.
- Alor-Hernandez, G. et al., MİKONOS: A Middleware-oriented Integrated Architecture for Clinical Knowledge based on Computational Intelligence Techniques. *VII Congreso Internacional en Tecnologías Inteligentes y de la Información*. 2010.
- Rojas-Patiño, N. et al., Capitalización de experiencias utilizando el razonamiento basado en casos como estrategia de mejora en el servicio de asistencia técnica a clientes. VI Congreso Internacional de Sistemas de Innovación para la Competitividad (Sinco 2011). 2011
- Hernandez, G. et al., Uso de tecnologías semánticas para el desarrollo de plataformas que ayuden a aumentar la competencia lectora en diferentes niveles educativos. Conferencia Conjunta Iberoamericana sobre Tecnologías para el aprendizaje. (Kaambal 2011). 2011
- Rodríguez-González, A. et al. Designing an Ontology to Support the Creation of Diagnostic Decision Support System. First International Workshop on Semantic Applied Technologies on Biomedical Informatics (SATBI 2011), In conjunction with ACM International Conference on Bioinformatics and Computational Biology (ACM-BCB 2011). 2011.
- Torres-Niño, J., Rodríguez-González, A., Gomez-Berbis, J.M. (2011). Entailing User Preferences from Common Interests in Social Data. International Workshop on User Profile Data on the Social Semantic Web, in conjunction with ESWC 2011. Position paper.
- Colombo-Mendoza, L.O., Alor-Hernandez, G., Rodríguez-González, A. (2011). An Extension to PPRD for Source Code Generation of Multi-device RIAs. International Conference on Computers and Advanced Technology in Education.
- Salas-Zarate, M.P., Alor-Hernandez, G., Rodríguez-González, A. (2011). Best Practices for the Development of Lift-based Web Applications. International Conference on Computers and Advanced Technology in Education.
- Monfil-Contreras, E.U., Alor-Hernandez, G., Cortes-Robles, G., Rodríguez-González, A. (2011). A Survey of Techniques for Developing Recommendation Systems. International Conference on Computers and Advanced Technology in Education.
- Paredes-Valverde, M.A., Alor-Hernandez, G., Rodríguez-González, A., Hernandez-Chan, G. (2011). A Review of REST-based APIs for Developing Social Networks Mashups. International Conference on Computers and Advanced Technology in Education.
- Colombo-Mendoza, L.O., Alor-Hernandez, G., Rodríguez-González, A. (2012). A Novel Approach for Generating Multi-device Rich Internet Applications. 22nd International Conference on Electronics, Communications and Computers (CONIELECOMP 2012).

Journals ISI-JCR:

- Garcia-Crespo, A. et al., ODDIN: Ontology-driven Differential Diagnosis based on Logical Inference and Probabilistic Refinements. *Expert Systems with Applications*. 2010. (Impact factor 2010: 1.596)
- Rodríguez-González, A. et al., CAST: Using neural networks to improve trading systems based on technical analysis by means of the RSI financial indicator. *Expert Systems With Applications*. 2011. (Impact factor 2010: 1.596)
- Rodríguez-González, A. et al. SeDeLo: Using Semantics and Description Logics to Support Aided Clinical Diagnosis. *Journal of Medical Systems*. 2011. (Impact factor 2010: 1.064)
- Rodríguez-González, A. et al. FAST: Fundamental Analysis Support for Financial Statements. Using semantics for trading recommendations. *Information Systems Frontiers*. (Impact factor 2010: 1.596)
- Rodríguez-González, A. et al. Towards an Ontology to support semantics enabled Diagnostic Decision Support Systems. *Current Bioinformatics*. (Impact factor 2010: 0.95)

International Journals:

- Alor-Hernandez, G. et al., HYDRA: A Middleware-oriented Integrated Architecture for e-procurement in Supply Chains. *Transactions On Computational Collective Intelligence*. 2010.
- Rodríguez-González et al. Automated Diagnosis through Ontologies and Logical Descriptions: the ADONIS approach. *International Journal of Decision Support System Technology (IJDSST)*. 2011

- Rojas-Patiño, N., Cortes-Robles, G., Castillo-Intrigao, V.R., Rodríguez-González, A. (2011). Capitalización de experiencias utilizando el razonamiento basado en casos. *Ide@s CONCYTEG*, 6(73), 874-888.
- Rodríguez-González, A., García-Crespo, Á., Colomo-Palacios, R., Gómez-Berbís, J.M., & Jiménez-Domingo, E. (2011). Using Ontologies in Drug Prescription: The SemMed Approach. *International Journal of Knowledge-Based Organizations*, 1(4), pp. 1-15.

Book Chapters:

- Rodríguez-González, A. et al. 2010. Using Caching Techniques to Improve the Performance of Inference Applications in Semantic Technologies. *Ontology-Driven Web Mining, Concepts and Techniques. (to appear)*
- Rodríguez-González, A. et al. 2010. Locating Doctors using Social and Semantic Web Technologies: The MedFinder Approach. *Semantic Web Personalization and Context Awareness: Management of Personal Identities and Social Net*. 2011.
- Hernandez-Chan, G., Rodríguez-González, A., Colomo-Palacios, R. (2012). Using Social Networks to Obtain Medical Diagnosis. In: I. Maria Miranda & M.M. Cruz-Cunha (Eds.). *Handbook of Research on ICTs for Healthcare and Social Services*. PA: IGI-Global. (to appear)

CONFERENCE MEMBER COMITEE

- The First International Conference on Advanced Cognitive Technologies and Applications (COGNITIVE 09). 2009
- The First International Conference on Adaptive and Self-adaptive Systems and Applications (ADAPTIVE 09). 2009
- The Second International Conference on Advanced Cognitive Technologies and Applications (COGNITIVE 10). 2010
- The Second International Conference on Adaptive and Self-adaptive Systems and Applications (ADAPTIVE 10). 2010
- The Third International Conference on Advanced Cognitive Technologies and Applications (COGNITIVE 11). 2011
- The Third International Conference on Adaptive and Self-adaptive Systems and Applications (ADAPTIVE 11). 2011
- Coloquio de Investigación Multidisciplinar (CIM 2011). 2011

CONFERENCE REVIEW

- 15th International Congress on Computer Science Research (CIICC'08-SICI'08). 2008
- IV Jornadas Científico-Técnicas en Servicios Web y SOA (JSWEB 08). 2008
- The Fifth International Conference on Networking and services (ICNS 2009). 2009
- The Sixth International Conference on Networking and services (ICNS 2010). 2010

JOURNAL REVIEW

- Reviewer board
 - Behavior & Information Technology
 - Applied Clinical Informatics
 - Journal of Medical Systems
- Occasional reviewer
 - Computer Standards and Interfaces
 - Sensors
 - IEEE Transactions on Systems, Man, and Cybernetics, Part C: Applications and Reviews
 - IET Software

JOURNAL EDITOR

- Guest Editor of Special Issue on “Medical Diagnosis Systems” in Journal of Information Technology Research (2010).
- Guest Editor of Focused Topic Issue on “Consuming and Producing Linked Data on Real World Applications” in International Journal of Software Engineering and Knowledge Engineering.

RESEARCH ACTIVITY

- Researcher of the Computer Science Department. Universidad Carlos III of Madrid.
- Summer School of Biomedical Informatics. Beirut, Lebanon (5-10 July 2010). Organized by Lebanese American University (LAU).
- Summer School of Artificial Intelligence in the Web. Guadalajara, Spain (28-30 July 2010). Organized by UNED.
- Organizer and Chair of First International Workshop on Semantic Applied Technologies on Biomedical Informatics (SATBI 2011), In conjunction with ACM International Conference on Bioinformatics and Computational Biology (ACM-BCB).
- Course taught: Introduction to Biomedical Informatics: Concepts for the application of IT to medicine. Diagnosis processes and biomedical modeled using Semantic Technologies. October 24th, 2011 to October 26th, 2011. Orizaba, Veracruz, Mexico.

RESEARCH EXCHANGES

- April – May, 2010 (6 weeks). Visiting researcher at Division of Research and Postgraduate Studies of Instituto Tecnológico de Orizaba, México

RESEARCH PROJECTS

- SONAR2: Recommendation and support system for corporative financial based on Semantic Technologies. 2008-2009.
- GODO2: Goal Oriented Discovery for Semantic Web Services. 2008-2009.
- SONAR: Corporative Financial Searcher based on Semantic Technologies. 2007-2008.

COMUNICATIONS AND SPEECH IN CONFERENCES

- A Multi-agent System for Traffic Control for Emergencies by Quadrants. Venice (Italy). May 2009. IARIA. International.
- SONAR: A Semantically Empowered Financial Search Engine. Santiago de Compostela (Spain). June 2009. IWINAC. International.
- Applying Caching Capabilities to Inference Applications based on Semantic Web. Wroclaw (Poland). October 2009. ICCCI. International.
- A hybrid architecture for e-procurement. Wroclaw (Poland). October 2009. ICCCI. International.

INVITED TALKS (KEYNOTE SPEAKER)

- Applications of Semantic Technologies in Real World. Particularization in applications based on Linked Data. Keynote Speaker at Coloquio de Investigación Multidisciplinar, October 28th, 2011, Orizaba, Veracruz, Mexico.

PATENTS

- Intellectual property of ODDx Project.

GRANTS, HELPS AND AWARDS

- Award “Best EUTIO Idea” organized by CEEI Asturias in 2008.
- Award “II Award to innovate spirit” organized by the Company TreeLogic in 2008.
- “Personal Investigador en formación” grant. Universidad Carlos III de Madrid