Francisco Herrera
http://decsai.ugr.es/~herrera
Short Curriculum Vitae

I. Professional Data

Name: Francisco Herrera
[redacted]
Affiliation: University of Granada
Official address: Dept. of Computer Science and Artificial Intelligence
ETS de Ingenierías Informática y de Telecomunicación, University of Granada, 18071-Granada, SPAIN
Current position(s): Full Professor.
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II. Education

MS (1988) - University of Granada (Spain) - Mathematics
PhD (1991) - University of Granada (Spain) - Mathematics

III. Publications, Ph Theses Advisor, Areas of Interest, and Research Profiles

Summary of Publications

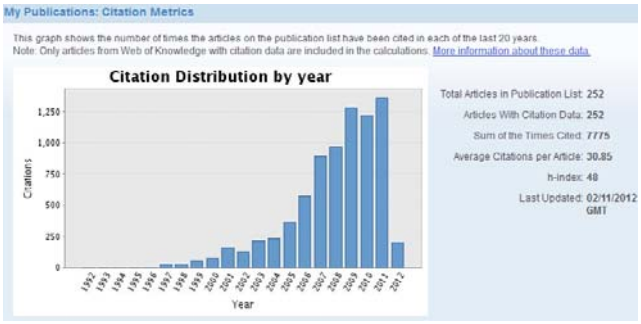
- Number of international journal papers: 226 (The APPENDIX B contains the journal publications of the last 7 years, 2005-2012, 126 papers. The APPENDIX C contains the remaining journal papers from 1992 to 2004, 100 papers)
- Number of Book chapters: 71
- Number of Conference contributions: 327
- Edited Special Issues: 27 (APPENDIX D contains the list of special issues).
- Book: *O. Cordón, F. Herrera, F. Hoffmann, L. Magdalena. GENETIC FUZZY SYSTEMS. Evolutionary Tuning and Learning of Fuzzy Knowledge Bases. World Scientific, July 2001. ISBN 981-02-4016-3*

Ph D theses advisor: 25 (The APPENDIX A contains the list of Ph D thesis).

Areas of Interest: Fuzzy rule-based systems, genetic fuzzy systems, computing with words, decision making, ant colony optimization, memetic algorithms, real-coded genetic algorithms, data mining, data preparation, instance selection and generation, imperfect data, imbalanced classification, subgroup discovery, bibliometrics.

Research Profiles:

ISI ResearchID Profile (February 2012)
http://www.researcherid.com/rid/C-6856-2008



Scholar Google Research Profile (February 2012)
http://scholar.google.es/citations?user=HULIk-QAAAAJ&hl=es

IV. Projects and Contracts: Principal Researcher

He is the Principal Researcher of several projects and contracts on the areas of Data Mining and Soft Computing and their applications. In the following subsections there are the projects, contracts and software registered under GNU General Public License as a result of some projects.

IV.1. Projects

Learning fuzzy rule based systems with genetic algorithms and neural networks. Applications.
Project: CICYT TIC96-0778
Period: August 1996 - Juy 1999
Funding: 39.065,79 €

Intelligent data analysis using fuzzy rule based systems and genetic learning.
Project: CICYT PB-981319
Period: January 2000 - December 2002
Funding: 28.247,57 €

KEEL: Platform for knowledge extraction based on evolutionary algorithms: Implementation and development
Coordinated project: Univ. Granada, Univ. de Oviedo, Univ. Córdoba, Univ. Ramon Llull, Univ. Jaén. Project: TIC2002-04036-C05
Period: December 2002 – November 2005
Subproject: Evolutionary algorithms for knowledge extraction for fuzzy rule based systems, instance selecdtion and data mining. KEEL implementation and development.
Subproject: TIC2002-04036-C05-01
Funding: 93.274,00 €

KEEL II: Platform for knowledge extraction based on evolutionary algorithms
Coordinated project: Univ. Granada, Univ. Oviedo, Univ. Córdoba, Univ. Ramon Llull, Univ. Jaén. Project: TIN2005-08386-C05
Period: December 2005 – December 2008
Subproject: KEEL II: Evolutionary algorithms for data reduction and fuzzy rules extraction. Diversity and convergence in evolutionary algorithms. Interpretability versus precision in data mining.
Subproject: TIN2005-08386-C05-01
Funding:104.720 €

MINDAT-PLUS: Data Mining for users in different application areas.
Regional excellence project: P05-TIC-00531
Coordinated project: 10 research groups and 7 andalusian universities (UGR, UMA, US, UH, UA, UJ y UCO).
Period: January 2006 – February 2009
Funding: 84.800 €

KEEL-CTNC: Knowledge Discovery based on Evolutionary Learning: Current Trends and New Challenges
Coordinated project: Univ. Granada, Univ. Oviedo, Univ. Córdoba, Univ. Ramon Llulll, Univ. Jaén, Univ. Huelva.
Project: TIN2008-06681-C06
Period: January 2009 – December 2011
Subproject: KEEL-CTNC: EVOLUTIONARY LEARNING OF FUZZY RULE BASED SYSTEMS, IMBALANCED DATA SETS, FREQUENT AND INTERESTING PATTERN MINING. DATA PREPROCESSING AND ALGORITHM SCALABILITY IN DATA MINING. WEB MINING. Subproject: TIN2008-06681-C06-01
Funding: 164.560,00 €

MIBISOC. Medical Imaging Using Bio-inspired and Soft Computing
Project Ref. 238819 Marie Curie Initial Training Networks (ITN)
FP7-PEOPLE-ITN-2008
Period: October 2009 – August 2013
Funding: 374.655,80 €

New Challenges in the use of Soft Computing Techniques in Data Mining
Regional excellence project: P10-TIC-06858
Period: March 2011 – February 2015
Funding: 190.747,00 €

ASOCO-DM: Applying Soft Computing Techniques in Data Mining. New Approaches
Project: TIN2011-28488
Period: January 2012 – December 2015
Funding: 101.882,00 €

Data Reduction in Data Mining with Soft Computing Techniques
Regional excellence project: P11-TIC-7765
Period: January 2012 – December 2016
Funding: 179.642,00 €

IV.2. Contracts

Using data mining for low quality pattern extraction for banking operations.
Contract Project: CajaGranada, Reference: FEUG 3022-00
Period: March 1, 2008 – March 2009
Funding: 76.968,17 €

Data Mining and Soft Computing to improve the data quality for banking scoring
Contract Project: Caja Navarra, Reference: FEUG 3245-00
Period: March 15, 2009 – January 30, 2010
Funding: 118.000,00 €

CAB: Biometrical Authentication Center
Contract Project: INCITA (OTRI Contract 2845)
Period: July 10, 2011 – October 10, 2013
Funding: 236.000,00 €

aPLaCA: Advanced Platform Cloud for Andalucía
Contract Project: INDRA (OTRI Contract 3056)
Period: December 1, 2011 - May 31, 2013
Funding:: 445.804,00 €

IV.3. Software registered GNU General Public License

Two open source (license GPLv3 http://www.gnu.org/licenses/gpl-3.0.html) software tools:

KEEL: A Software Tool to Assess Evolutionary Algorithms to Data Mining Problems

http://www.keel.es

SciMAT

SciMAT: Software Science Mapping Analysis Tool

http://sci2s.ugr.es/scimat/

V. Editorship Activity

Editor in Chief
Progress in Artificial Intelligence (Springer) (Springer launchs the Journal in 2012).
http://www.springer.com/journal/13748

Area Editor of the International Journal:
Soft Computing (Springer) ISSN: 0888-613X.
Area: Genetic Algorithms and Genetic Fuzzy Systems.
International Journal of Computational Intelligence Systems (Atlantis Press)
ISSN: 1875-6891. Area: Information Systems.

Associated Editor of the International Journals:
IEEE Transactions on Fuzzy Systems, (IEEE Computational Intelligence Society, IEEE Press) ISSN: 1063-6706
Information Sciences (Elsevier) ISSN: 0020-0255
Advances in Computational Sciences and Technology (Research India Pub.) ISSN: 0973-6107
Advances in Fuzzy System (Hindawi Publishing Corporation) ISSN: 1687-7101
International Journal of Applied Metaheuristic Computing (IJAMC) (IGI Global) ISSN: 1947-8283
International Journal of Swarm Intelligence and Evolutionary Computation (Ashdin Publishing)

Member of the Editorial Board of the International Journals:
Fuzzy Sets and Systems (NORTH-HOLLAND) ISSN: 0165-0114
Applied Intelligence (Springer) ISSN: 0924-669X
Information Fusion (Elsevier) ISSN: 1566-2535
Knowledge and Information Systems (Springer) ISSN: 0219-1377
Evolutionary Intelligence (Springer-Verlag) ISSN: 1864-5909
International Journal of Hybrid Intelligent Systems (IOS Press) ISSN: 1448-5869
International Journal of Computational Intelligence Research (Research India Pub.) ISSN: 0973-1873
Swarm and Evolutionary Computing (Elsevier)
Memetic Computing (Springer) ISSN: 1865-9284
International Journal of Information Technology and Intelligent Computing
(Academy of Humanities and Economics Poland) ISSN: 1895-8648
The Open Cybernetics and Systemics Journal (Bentham Science Publishers) ISSN: 1874-110X
Recent Patents on Computer Science (Bentham Science Publishers) ISSN: 1874-4796
Journal of Advanced Research in Fuzzy and Uncertain Systems (I-ASR) ISSN: 1943-1430
International Journal of Bio-Science and Bio-Technology (SERSC) ISSN:1976-118
International Journal of Intelligent Engineering Informatics (Inderscience Pub.) ISSN:1758-8715
Journal of Artificial Intelligence and Soft Computing Research (Polish Neural Network Society)
Inteligencia Artificial (Asociación Española de IA – AEPIA) Open Journal
International Journal of Soft Computing, Simulation and Software Engineering (EUROSIS)

Co-editor of four research books published by Springer:
- **Genetic Algorithms and Soft Computing** (Physica-Verlag, 1996)
- **Interpretability Issues in Fuzzy Modeling** (Springer, 2003)
- **Accuracy Improvements in Linguistic Fuzzy Modeling** (Springer, 2003)
- **Fuzzy Sets and Their Extensions: Representation, Aggregation and Models. Intelligent Systems from Decision Making to Data Mining, Web Intelligence and Computer Vision** (Springer, 2008)

Co-editor of twenty seven special issues: in international journals on different Soft Computing and data mining topics, such as, "Preference Modelling", "Computing with Words", "Ant Colony Optimization", "Real Coded Genetic Algorithms", "Fuzzy Modelling", "Genetic Fuzzy Systems", "data reduction", ... (APPENDIX D contains the list of special issues).

VI. Experience in Scientific-Academic Management Positions

- Head of the Research Group "Soft Computing and Information Intelligent Systems", TIC-186, 2001-Present. http://sci2s.ugr.es 
- Director of the "Genetic Fuzzy Systems" Task Force, Fuzzy Systems Technical Committee (FSTC), IEEE Computational Intelligence Society (CIS) from June 2007-November 2009.
- President of the National Comission for Young Researchers/Teachers Accreditation in Engineering (National Agency for Quality Assessment and Accreditation - ANECA), PEP Accreditation Program (http://www.aneca.es/Programas/PEP/Comites-composicion). March 2011 - Present.

VII. Invited Lectures

1. **EUROGEN 2003:** Evolutionary Methods for Design, Optimisation and Control with Applications to Industrial and Societal Problems. September 15-17, 2003, Barcelona.
   Invited Talk: Genetic Fuzzy Systems
2. **ESTYLF 2004:** XII Congreso Español sobre Tecnologías y Lógica Fuzzy. 15-17 Septiembre 2004, Jaen.
   Invited talk: Sistemas Difusos Evolutivos
3. **COMCEV 2005:** II Congreso Mexicano de Computación Evolutiva. 25-27 Mayo 2005, Aguscalientes, Mexico.
   Invited talk: Algoritmos Meméticos
4. **IWAI 2005:** II Internacional Workshop of Artificial Intelligence. Nov. 30 – Dec. 2, 2005, Pamplona.
   Invited talk: Data Reduction in KDD
5. **EUROFUSE 2007:** EUROFUSE Workshop "New Trends in Fuzzy Preference Modeling", 11-13 April, 2007, Jaén.
   Invited talk: Computing with words in decision making.
6. **HAIS 2008:** 3rd International Workshop on Hybrid Artificial Intelligence Systems, September 24-26, 2008, Burgos.
   Invited talk: Design of Experiments in Computational Intelligence: On the use of Statistical Inference.
7. **HM 2008:** International Workshop on Hybrid Metaheuristics, October *8-9, 2008. Málaga.*
   Invited talk: Evolutionary Algorithms and Fuzzy Systems
8. **IDEAL 2009:** 10th International Conference on Intelligent Data Engineering and Automated Learning, September 23-26, 2009, Burgos.
   Invited talk: Subgroup Discovery: Foundations and Applications.
9. **AEPIA 2009:** XIII Conferencia de la Asociación Española para la Inteligencia Artificial. Noviembre 10-12, 2009, Sevilla.
   Invited tutorial: Introducción a los Algoritmos Metaheurísticos.
10. **GEFS 2010:** Fourth International Workshop Genetic and Evolutionary Fuzzy Systems, March 17-19, 2010, Mieres (Asturias).
    Invited talk: Genetic Fuzzy Systems for Subgroup Discovery: Models and Applications.
11. **HAIS 2011:** 6th Hybrid Artificial Intelligence Systems, May 23-25, 2011, Wroclaw, Poland**.**
    Invited talk: Imbalanced Classification: Common Approaches and Open Problems. Challenges on Class Distribution
12. **IWANN 2011:** International Work Conference on Artificial neural Networks, June 8-10, 2011, Málaga
    Invited talk: Dataset Shift in Classification: Approaches and Problems.
13. **EUROFUSE 2011:** International EUROFUSE WORKSHOP 2011: FUZZY METHODS FOR KNOWLEDGE-BASED SYSTEMS, September 21-23, 2011, Régua, Portugal.
    Invited talk: On the Usefulness of Interval Valued Fuzzy Sets for Learning Fuzzy Rule Based Classification Systems
14. **NABIC 2011:** Third World Congress on Nature and Biologically Inspired Computing, October 19-21, 2011, Salamanca.
    Invited talk: A Snapshot on the use of Evolutionary Algorithms for Parameter Optimization: Milestones and Current Trends

VIII. Awards and Honors

- ECCAI Fellow 2009 (He has been elected a fellow of the European Coordinating Committee for AI in recognition of his research and service to the community).
- 2009 Outstanding Associate Editor IEEE Transactions on Fuzzy Systems
- 2010 Spanish National Award on Computer Science ARITMEL to the "Spanish Engineer on Computer Science". This award is promoted by the Computer Sciences Spanish Scientific Society (SCIE) (Premio Nacional de Informática ARITMEL 2010).
- 2010 International Award: International Cajastur "Mamdani Prize" for Soft Computing (Fourth Edition, November, 2010). This award is promoted by Cajastur and the Foundation for the Advancement of Soft Computing, through the European Centre for Soft Computing.

Papers/Conference contributions awards:

- IEEE Transactions on Fuzzy System Outstanding 2008 Paper Award (bestowed in 2011), IEEE Computational Intelligence Society, for the following paper:
  Francisco Herrera, Enrique Herrera-Viedma and Luis Martinez Lopez "fuzzy linguistic methodology to deal with unbalanced linguistic term sets," published in IEEE Transactions on Fuzzy Systems, vol. 16, no. 2, pp. 354-370, April 2008.
- 2010 Winning Entry Certificate. CEC 2010 High-dimensional Numerical Optimisation Competition. IEEE Computational Intelligence Society 2010, IEEE Conference on Evolutionary Computation, Barcelona, July 18-23, 2010, with the contribution:. Daniel Molina, Manuel Lozano, Francisco Herrera. MASWChains: Memetic Algorithm Based on Local Search Chains for Large Scale Continuous Global Optimization Proc. IEEE CEC 2010. WCCI 2010 IEEE World Congress on Computational Intelligence. Pages: 3153 - 3160 .
- 2010 Award to the Top Cited Article 2005 – 2010 of the Journal Engineering Applications of Artificial Intelligence for the paper: Rafael Alcalá, Jorge Casillas, Oscar Cordón, Antonio González, Francisco Herrera. A Genetic Weighted Rule Derivation and Rule Selection Process for Fuzzy Control of HVAC Systems. Engineering Applications of Artificial Intelligence 18:3 (2005) 279-296.
- 2010 Award ICPR Landscape Contest. ICPR 2010 Contest for Classifier Domains of Dominance. Champion of the Offline Test and Champion of the Real-Time test, with the contribution::
  J. Derrac, S. García, F. Herrera. IFS-CoCo in the Landscape Contest: Description and results. Proceedings of Twentieth Conference of the International Association for Pattern Recognition (ICPR'2010), Estambul (Turkey), D. Ünay, Z. Cataltepe, and S. Aksoy (Eds.), LNCS vol. 6388, Springer, 210, pp. 56-65.
- 2011 Best paper Award University of Granada, Engineering Area (Best Paper Awaerd 2008-09) for the following paper:
  Francisco Herrera, Enrique Herrera-Viedma and Luis Martinez Lopez "fuzzy linguistic methodology to deal with unbalanced linguistic term sets," published in IEEE Transactions on Fuzzy Systems, vol. 16, no. 2, pp. 354-370, April 2008.
- 2011 Lotfi A. Zadeh Prize (Best Paper Awaerd 2009-10), International Fuzzy Systems Association, for the following paper:
  A. Fernandez, M.J. del Jesus, F. Herrera, Hierarchical Fuzzy Rule Based Classification Systems with Genetic Rule Selection for Imbalanced Data-Sets. International Journal of Approximate Reasoning 50 (2009) 561-577.

Ph students awards:

- 2009 IFSA Ph Student Award: Julián Luengo received the Best Student Paper Award for the work presented at 2009 IFSA World Congress/ EUSFLAT Conference (July 2009), for the contribution:
  Julián Luengo (student), Francisco Herrera (supervisor). On the use of Measures of Separability of Clases to Characterise the Domain of Competence of a Fuzzy Rule Based Classification System. Proc. 2009 IFSA Congress and EUSFLAT Conference. Pages: 1027-1032.
- 2011 ISDA Ph Student Award: José Antonio Sáez received the Best Special Session Student Paper Award at the ISDA 2011 (November 2011) "11th International Conference on. Intelligent Systems Design and Applications", for the contribution:
  José A. Sáez (student), Julián Luengo (co-supervisor) and Francisco Herrera (co-supervisor), "Fuzzy Rule Based Classification Systems versus Crisp Robust Learners Trained in Presence of Class Noise's Effects: a Case of Study," in Proceedings of the 2011 11th International Conference on Intelligent Systems Design and Applications, pp. 1229-1234.
- 2011 AEPIA Student Master Award: Isaac Triguero received the AEPIA Best Student Master Award (Spanish Association for the Artificial Intelligence, First edition, November 2011) for the work: Prototype generation. IPADE: Iterative Prototype Adjustment for Nearest Neighbor Classification. (Co-advisors: Salvador García, Francisco Herrera).
- 212 ESTYLF Ph Student Award: Victoria López received the Best Student Paper Award (Application modality) for the work presented at the ESTYLF 2012 "XVI Spanish Conference on Fuzzy Logic and Technologies", February, 2012.

Victoria López (Ph student), Alberto Fernández, María José del Jesús, Francisco Herrera, "Un sistema de clasificación basado en reglas difusas jerárquico con programación genética para problemas de clasificación altamente no balanceados", in Proceedings of ESTYLF 2012, pp. 313-318.

- 212 MAEB Ph Student Award: Isaac Triguero received the Best Student Paper Award for the work presented at the MAEB2012 "VIII Spanish Conference on Metaheuristics, Bioinspired and Evolutionary Algorithms", February, 2012.
  Isaac Triguero, Joaquín Derrac, Salvador García y Francisco Herrera. Evolución Diferencial para Reducción de Prototipos y Ponderación de Características, Proceedings of MAEB 2012, pp. 267-274.

IX. Profiles and International Rankings

ISI Essential Science Indicators - Most Cited Scientists in Engineering

March 1, 2012, to cover an eleven-year period, January 1, 2001- December 31, 2011.

Position: 200 (Top 1%, A total of 7414 in the 1% of the most cited authors list).

Nineteen of his papers are classed as highly cited and four highly cited papers in closed periods, being in the top 1% of most cited papers in its field. (see Appendix E: High Cited Papers)

High Cited Papers – ISI-ESI: 22 (areas Engineering and Computer Sciences)

High Cited Papers – ISI-ESI (closed period): 7

Profiles and h-Index: **An author's *h* score is the number of papers that have *h* or more citations each.**

h Index (ISI Web of Science): 48 **(February 2012)**

ISI ResearchID Profile

http://www.researcherid.com/rid/C-6856-2008

h Index (Scholar Google profile): 70 **(February 2012)**

Scholar Google Research Profile

http://scholar.google.es/citations?user=HULIk-QAAAAJ&hl=es

The next pictures show the publications and citations data from ISI Web of Science (Thomson Reuters)
Author=(Herrera F*) AND Address=(Univ Granada) **available at Research ID Labs**

ResearcherID: C-6856-2008
http://www researcherid.com/rid/C-6856-2008

X. Other Scientific Activities

- Member of the "Fuzzy Systems Technical Committee" of the IEEE Computational Intelligence Society from June 2007.
- Member of the "Emergent Technologies Technical Committee" of the IEEE Computational Intelligence Society from January 2007.
- Member of the "Genetic Fuzzy Systems" Task Force, Fuzzy Systems Technical Committee (FSTC), IEEE Computational Intelligence Society (CIS) from June 2005 to June 2007. Coordinator from June 2007 to November 2009.
- Member of the MIR labs Advisory Board: Machine Intelligence Research Labs (MIR Labs) (http://www.mirlabs.org/). Scientific Network for Innovation and Research Excellence.
- Member of the Program Committees of numerous conferences in the fields of Artificial Intelligence, Soft Computing, data mining, intelligent information systems, ….
- Conference Organization:
  1. Programme Co-chair of the 2013 IEEE International Conference on Fuzzy Systems – FUZZ-IEEE 2013, July 07-10, 2013, Hyderabad, India.
  2. Publicity Co-chair of the 2013 IEEE Symposium Series on Computational Intelligence (IEEE SSCI 2013), April 15-19, 2013, Singapore.
  3. Program Chair of the Seventh International Coference on Knowledge, Management, Services and Cloud Computing (KMO 2012), July 11-13, Salamanca, Spain.
  4. Programme Co-chair of the Spanish Conference on Fuzzy Logic and Technologies, ESTYLF 2012, February 1-3, Salamanca, Spain.
  5. Publicity Co-chair of the 2011 IEEE International Conference on Fuzzy Systems – FUZZ-IEEE 2011, June 27-30, 2011, Taipei, Taiwan.
  6. Technical Co-chair of the IEEE Congress on Evolutionary Computation - CEC 2010, July 18-23, Barcelona, Spain.
  7. President of the Organizing Committee of the Spanish Conference on Fuzzy Logic and Technologies, ESTYLF 2010, February 3-6, Huelva, Spain.
  8. Area chair of the 13TH International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems, IPMU 2010, 28 June - 02 July 2010 Westfallenhallen, Dortmund, Germany. Area: Decision Analysis.
  9. Programme Co-Chair of 23rd International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems, IEA/AIE 2010, Córdoba, Spain, June 1 - June 4, 2010.
  10. President of the Organization Committee of XV Spanish Conference on Fuzzy Logic and Technologies, ESTYLF'2010, Huelva, Spain, February 3-6, 2010.
  11. General Co-Chair of the 1th World Congress on Nature and Biologically Inspired Computing (NABIC'09), Coimbatore, India, December 9 –December 11, 2009.
  12. Programme Co-Chair of the 9th International Conference on Intelligent Systems Design and Applications, Pisa, Italy, November 30 – December 2, 2009.
  13. Programme Co-chair of the 8th International Conference on Hybrid Intelligent Systems (HIS2008), Barcelona, Spain, September 10-12, 2008.
  14. Area chair of the IEEE International Conference on Fuzzy Systems - FUZZ-IEEE 2007, July 23 - 26 2007, London, England. Area: Soft Computing and Hybrid Systems (Adaptive, hierarchical, evolutionary, neural and nature-inspired systems).
  15. Programme Co-chair of the 1ª Jornadas de Algoritmos Evolutivos y Metaheurísticas (JAEM'2007), (First Spanish workshop on Evolutionary Algorithms and Metaheuristics). 11-14 Septiembre de 2007. (2º Congreso Español de Informática, CEDI2007), Zaragoza, España.
  16. Conference Co-chair of the First International Workshop on Genetic Fuzzy Systems, Granada, Spain, March 17-19, 2005.
  17. Conference Co-chair of the IV Congreso Español de Metaheurísticas, Algoritmos Evolutivos y Bioinspirados, 14-16 September, 2005, Granada. (Spanish Conference on Metaheuristics, Evolutionary and Bioinspired Algorithms).
  18. Conference Co-chair of the 2nd ACIDCA'2005 International Conference on Machine Intelligence. Tozeur, Tunisia, November 5-7, 2005.
  19. Member of the organizing committee. Workshop: "Aprendizaje y Minería de Datos". 12-15 Noviembre, Sevilla (en el Marco de la Conferencia Iberoamericana de Inteligencia Artificial, IBERAMIA 2002). (First Spanish Workshop on Learning and Data Mining).
  20. Technical Program Chair of the Seventh Online World Conference on Soft Computing in Industrial Applications, September 2002, Granada.
  21. Member of the organizing committee. Primer Congreso Español de Algoritmos Evolutivos y Bioinspirados, February 2002, Merida, Spai. (First Spanish Conference on Evolutionary and Bioinspired Algorithms).
  22. President of the organizing committee. EUROFUSE Workshop on Preference Modeling, April 2001, Granada, Spain.
  23. Member of the organizing committee. Primer y Segundo Seminario Español de Computación Evolutiva (SCETA'97 y SCETA'99). November 1997, Torremolinos, Spain, November 1999, Murcia, Spain. (First and Second Spanish Workshop on Evolutionary Computation).
  24. Member of the organizing committee. Sixth International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems (IPMU96), July 1996, Granada.
  25. Member of the organizing committee. Primer Congreso Español de Tecnologías y Lógica Fuzzy (First Spanish Conference on Fuzzy Logic and Technologies), June 1991, Granada, Spain.

APPENDIX A: Ph D Thesis Advisor (25)

Enrique Herrera-Viedma
Linguistic models in group decision making
Co-advisor: J.L. Verdegay
University of Granada, June 1996

Manuel Lozano
Using fuzzy tools for improving genetic algorithms behaviour
University of Granada, October 1996

Oscar Cordón
A methodology for genetic learning of fuzzy rule based systems
University of Granada, October 1997

Luis Martínez
A new model for representing linguistic information based on 2-tuple for aggregating linguistic preferences
University of Granada, October 1999

María José del Jesus
Genetic fuzzy systems for classification
University of Granada, November 1999

Francisco Chiclana
Integrating preference presentation models in multi-expert decision making
Co-advisor: E. Herrera-Viedma
University of Granada, March 2000

Antonio Peregrín
Integration of implication operators and defuzzification methods in fuzzy rule based systems.
University of Granada, September 2000

Pedro Villar
Evolutionary earning of fuzzy partition in linguistic fuzzy models.
Co-advisor: O. Cordón
University of Vigo, December 2000

Igor Zwir
Hierarchical fuzzy rule based models and their learning methodologies
Co-advisor: O. Cordón
University of Granada, January 2001

Jorge Casillas
Cooperative learning for linguistic modelling: interpretability and precision
Co-advisor: O. Cordón
University of Granada, July 2001

Ana María Sánchez
Balance between diversity and precision with multiple descendant based crossover operators in real coded genetic algorithms.
Co-advisor: M. Lozano
University of Vigo, July 2002.

José Ramón Cano de Amo
Data reduction based on evolutionary instance selection for data mining.
Co-advisor: M. Lozano
University of Granada, October 2004

Sergio Alonso
Group Decision Making with Incomplete Fuzzy Preference Relations
Co-advisors: E. Herrera-Viedma, F. Chiclana
University of Granada, May 2006.

Jesús Alcalá
Flexible linguistic modelling using 2-tuple linguistic representation
Co-advisor: R. Alcalá
University of Granada, Septembre 2006.

Daniel Molina
Memetic algorithms with application of adaptive local search for continuous optimization.
Co-advisor: M. Lozano
University of Granada, October 2007.

Francisco A. Márquez
Cooperation among inference components, defuzzification methods and fuzzy rule based system learning methods.
Co-advisor: A. Peregrín
University of Huelva, November 2007.

Pedro José Sánchez
Models for combining heterogeneous preferences in decision making: Tools and applications
Co-advisor: L. Martínez
University of Granada. December 2007.

Pedro González
Evolutionary learning of fuzzy rules for subgroup discovery
Co-advisor: M.J. del Jesus
University of Granada. January 2008

Salvador García
New challenges for the evolutionary instance selection: scalability, learning with imbalanced data sets and efficacy characterization
University of Granada, December 2008.

Alberto Fernández
Linguistic fuzzy rule based classification systems for imbalanced data sets.
Co-advisor: M.J. del Jesus
University of Granada, March 2010.

Francisco Berlanga
Genetic Programming for designing compact and interpretable fuzzy rule based systems.
Co-advisor: M.J. del Jesus
University of Granada, June 2010.

María José Gacto
Evolutionary multi-objective optimization of interpretability and complexity measures for linguistic fuzzy systems.
Co-advisor: R. Alcalá
University of Granada, October 2010.

Julian Luengo
Soft Computing based learning and Data Analysis: Missing Values and Data Complexity
University of Granada, January 2011.

José Antonio Sanz
Fuzzy rule based classification systems using interval fuzzy valued and ignorance tuning.
Co-advisors: H. Bustince, A. Fernández
University of Pamplona, July 2011.

Manuel Jesús Cobo Martín
SciMAT: Software tool for science mapping. An evaluation methodology
Co-advisors: A.G. López-Herrera, E. Herrera-Viedma
University of Granada, October 2011

APPENDIX B: It contains the last 8 years journal publications (2005-2012): 126 papers

1. J. Luengo, S. García, F. Herrera. On the choice of the best imputation methods for missing values considering three groups of classification methods. Knowledge and Information Systems, doi:10.1007/s10115-011-0424-2 in press (2012).
2. M. Galar, A. Fernandez, E. Barrenechea, H. Bustince, F. Herrera. A Review on Ensembles for Class Imbalance Problem: Bagging, Boosting and Hybrid Based Approaches. IEEE Transactions on System, Man and Cybernetics - Part C: Applications and Reviews, in press (2011).
3. S. García, J. Luengo, José A. Sáez, V. López, F. Herrera, A Survey of Discretization Techniques: Taxonomy and Empirical Analysis in Supervised Learning. *IEEE Transactions on Knowledge and Data Engineering, in press (2012)*.
4. E. Pérez, M. Posada, F. Herrera. Analysis of New Niching Genetic Algorithms for Finding Multiple Solutions in the Job Shop Scheduling. Journal of Intelligent Manufacturing, in press (2012).
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APPENDIX B: It contains the REMAINING journal publications (1991-2004): 100 papers

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APPENDIX D: Edited Special Issues (27)

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APPENDIX E: High Cited Papers (Papers in the top 1.00%)

TOP PAPERS FOR HERRERA, F IN ENGINEERING and COMPUTER SCIENCES

PAPERS IN AN ACTIVE PERIOD - 22

Percentiles of cites
for papers published by field, January 1, 2001 – December 31, 2011
Publication Date: March 1, 2011

Computer Science	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	All Years
0.01 %	933	3825	2051	745	690	681	252	421	397	86	26	688
0.10 %	450	334	286	171	191	139	113	93	51	31	7	171
1.00 %	88	94	64	49	47	36	38	29	18	10	3	44
10.00 %	19	20	13	11	10	8	12	9	6	3	1	9
20.00 %	10	11	7	6	5	4	7	6	4	2	1	5
50.00 %	3	3	2	1	1	1	2	2	1	1	0	1

Engineering	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	All Years
0.01 %	860	643	488	477	338	239	238	122	102	48	16	335
0.10 %	228	204	193	171	134	118	102	62	45	22	7	131
1.00 %	79	76	70	64	55	46	40	29	21	11	4	47
10.00 %	23	22	20	20	17	15	13	10	7	4	1	13
20.00 %	13	13	12	12	11	9	8	6	5	3	1	7
50.00 %	4	4	4	4	4	3	3	2	2	1	0	2

Title: TEN YEARS OF GENETIC FUZZY SYSTEMS: CURRENT FRAMEWORK AND NEW TRENDS
DOI: 10.1016/S0165-0114(03)00111-8
Authors: O. Cordón, F. Gomide, F. Herrera, F. Hoffmann, L. Magdalena
Source: FUZZY SET SYSTEM 141 (1): 5-31 JAN 1 2004
Addresses: Univ Granada, Dept Comp Sci & Artificial Intelligence, Granada 18071, Spain. State Univ Campinas, FEEC, Dept Comp Engn & Ind Automat, BR-13083970 Campinas, SP, Brazil. Royal Inst Technol, Ctr Autonomous Syst, S-10044 Stockholm, Sweden. Univ Politecn Madrid, ETSI Telecommun, Dept Math Appl, Madrid 28040, Spain
Field: ENGINEERING
Current Citations : 115

Title: A MODEL BASED ON LINGUISTIC 2-TUPLES FOR DEALING WITH MULTIGRANULAR HIERARCHICAL LINGUISTIC CONTEXTS IN MULTI-EXPERT DECISION-MAKING
DOI: 10.1109/3477.915345
Authors: F. Herrera, L. Martínez
Source: IEEE TRANS SYST MAN CYBERN B 31 (2): 227-234 APR 2001
Addresses: UNIV GRANADA, ETS INGN INFORMAT, DEPT COMP SCI & AI, E-18071 GRANADA, SPAIN. UNIV JAÉN, DEPT COMP SCI, JAÉN 23071, SPAIN.
Field: ENGINEERING
Current Citations: 122

Title: INTEGRATING MULTIPLICATIVE PREFERENCE RELATIONS IN A MULTIPURPOSE DECISION-MAKING MODEL BASED ON FUZZY PREFERENCE RELATIONS
DOI: 10.1016/S0165-0114(00)00004-X
Authors: F. Chiclana, F. Herrera, E. Herrera-Viedma
Source: FUZZY SET SYSTEM 122 (2): 277-291 SEP 1 2001
Addresses: Univ Granada, Dept Comp Sci & Artificial Intelligence, E-18071 Granada, Spain.

Field: ENGINEERING
Current Citations: 97

Title: SOME ISSUES ON CONSISTENCY OF FUZZY PREFERENCE RELATIONS
DOI: 10.1016/S0377-2217(02)00725-7
Authors: E. Herrera-Viedma, F. Herrera, F. Chiclana, M. Luque
Source: EUROPEAN JOURNAL OF OPERATIONAL RESEARCH 154 (1): 98-109 APR 1 2004
Addresses: Univ Granada, Lib Sci Studies Sch, Dept Comp Sci & Artificial Intelligence, E-18071 Granada, Spain.
Field: ENGINEERING
Current Citations : 100

Title: MULTIPERSON DECISION-MAKING BASED ON MULTIPLICATIVE PREFERENCE RELATIONS
Authors: **HERRERA F;** HERRERA-VIEDMA E; CHICLANA F
Source: EUR J OPER RES 129 (2): 372-385 MAR 1 2001
Addresses: Univ Granada, ETS Ingn Informat, Dept Comp Sci & Artificial Intelligence, Adva Andalucia 38, E-18071 Granada, Spain.
Field: ENGINEERING
Current Citations: 90

Title: A CONSENSUS MODEL FOR MULTIPERSON DECISION MAKING WITH DIFFERENT PREFERENCE STRUCTURES
Authors: HERRERA-VIEDMA E; **HERRERA F;** CHICLANA F
Source: IEEE TRANS SYST MAN CYBERN A
32 (3): 394-402 MAY 2002
Addresses: Univ Granada, Dept Comp Sci & Artificial Intelligence, E-18071 Granada, Spain.
Field: ENGINEERING
Current Citations: 78

Title: MANAGING NON-HOMOGENEOUS INFORMATION IN GROUP DECISION MAKING
DOI: 10.1016/j.ejor.2003.11.031
Authors: F. Herrera, L. Martínez, P.J. Sánchez
Source: EUROPEAN JOURNAL OF OPERATIONAL RESEARCH 166 (1): 115-132 OCT 1 2005
Addresses: Univ Granada, Dept Comp Sci & Artificial Intelligence, E-18071 Granada, Spain. Univ Jaén, Dept Com Sci, Jaén 23071, Spain.
Field: ENGINEERING
Current Citations: 81

Title: A CONSENSUS MODEL FOR GROUP DECISION MAKING WITH INCOMPLETE FUZZY PREFERENCE RELATIONS
Authors: HERRERA-VIEDMA E; ALONSO S; CHICLANA F; **HERRERA F**
Source: IEEE TRANS FUZZY SYST
15 (5): 863-877 OCT 2007
Addresses: Univ Granada, Dept Comp Sci & Artificial Intelligence, E-18071 Granada, Spain.
De Montfort Univ, Sch Comp, Ctr Computat Intelligence, Leicester LE1 9BH, Leics, England.
Field: ENGINEERING
Current Citations:47

Title: GROUP DECISION-MAKING MODEL WITH INCOMPLETE FUZZY PREFERENCE RELATIONS BASED ON ADDITIVE CONSISTENCY
Authors: HERRERA-VIEDMA E; CHICLANA F; **HERRERA F;** ALONSO S
Source: IEEE TRANS SYST MAN CYBERN B

	37 (1): 176-189 FEB 2007
Addresses:	Univ Granada, Dept Comp Sci & Artificial Intelligence, Granada 18071, Spain. De Montfort Univ, Ctr Computat Intelligence, Sch Comp, Leicester LE1 9BH, Leics, England.
Field: Current Citations:46	ENGINEERING

Title: A FUZZY LINGUISTIC METHODOLOGY TO DEAL WITH UNBALANCED LINGUISTIC TERM SETS
DOI: 10.1109/TFUZZ.2007.896353.
Authors: HERRERA F; HERRERA-VIEDMA E; MARTINEZ L
Source: IEEE TRANS FUZZY SYST 16 (2): 354-370 APR 2008
Addresses: Univ Granada, Dept Comp Sci & Artificial Intelligence, E-18071 Granada, Spain. Univ Jaén, Dept Com Sci, Jaén 23071, Spain.
Field: ENGINEERING
Current Citations: 39

Title:	A STUDY ON THE USE OF NON-PARAMETRIC TESTS FOR ANALYZING THE EVOLUTIONARY ALGORITHMS' BEHAVIOUR: A CASE STUDY ON THE CEC'2005 SPECIAL SESSION ON REAL PARAMETER OPTIMIZATION
Authors:	GARCIA S; MOLINA D; LOZANO M; **HERRERA F**
Source:	J HEURISTICS 15 (6): 617-644 DEC 2009
Addresses:	Univ Granada, Dept Comp Sci & Artificial Intelligence, E-18071 Granada, Spain. Univ Cadiz, Dept Comp Engn, Cadiz, Spain.
Field: Current Citations: 49	ENGINEERING

Title:	GROUP DECISION MAKING WITH INCOMPLETE FUZZY LINGUISTIC PREFERENCE RELATIONS
Authors:	ALONSO S; CABRERIZO FJ; CHICLANA F; **HERRERA F**; HERRERA-VIEDMA E
Source:	INT J INTELL SYST 24 (2): 201-222 FEB 2009
Addresses:	Univ Granada, Dept Software Engn, E-18071 Granada, Spain. Univ Granada, Dept Comp Sci & Artificial Intelligence, E-18071 Granada, Spain. De Montfort Univ, Sch Comp, Ctr Computat Intelligence, Leicester LE1 9BH, Leics, England.
Field: Current Citations: 25	ENGINEERING

Title: INTEGRATION OF AN INDEX TO PRESERVE THE SEMANTIC INTERPRETABILITY IN THE MULTIOBJECTIVE EVOLUTIONARY RULE SELECTION AND TUNING OF LINGUISTIC FUZZY SYSTEMS **Authors:**GACTO MJ; ALCALA R; **HERRERA F**

Source: IEEE TRANS FUZZY SYST
18 (3): 515-531 JUN 2010
Addresses: Univ Jaen, Dept Comp Sci, Jaen 23071, Spain.
Univ Granada, Dept Comp Sci & Artificial Intelligence, E-18071 Granada, Spain.
Field: ENGINEERING
Current Citations: 12

Title: KEEL: A SOFTWARE TOOL TO ASSESS EVOLUTIONARY ALGORITHMS FOR DATA MINING PROBLEMS
Authors: ALCALA-FDEZ J; SANCHEZ L; GARCIA S; DEL JESUS MJ; VENTURA S; GARRELL JM; OTERO J; ROMERO C; BACARDIT J; RIVAS VM; FERNANDEZ JC; **HERRERA F**
Source: SOFT COMPUT 13 (3): 307-318 FEB 2009
Addresses: Univ Granada, Dept Comp Sci & Artificial Intelligence, E-18071 Granada, Spain.
Univ Oviedo, Dept Comp Sci, Gijon 33204, Spain.
Univ Jaen, Dept Comp Sci, Jaen 23071, Spain.
Univ Cordoba, Dept Numer Anal & Comp Sci, E-14071 Cordoba, Spain.
Univ Ramon Llull, Dept Comp Sci, Barcelona 08022, Spain.
Univ Nottingham, Dept Comp Sci & Informat Technol, Nottingham NG8 1BB, England.

Field: COMPUTER SCIENCE
Current Citations: 54

Title: AN EXTENSION ON "STATISTICAL COMPARISONS OF CLASSIFIERS OVER MULTIPLE DATA SETS" FOR ALL PAIRWISE COMPARISONS
Authors: GARCIA S; **HERRERA F**
Source: J MACH LEARN RES 9: 2677-2694 DEC 2008
Addresses: Univ Granada, Dept Comp Sci & Artificial Intelligence, E-18071 Granada, Spain.
Field: COMPUTER SCIENCE
Current Citations: 57

Title: A STUDY OF STATISTICAL TECHNIQUES AND PERFORMANCE MEASURES FOR GENETICS-BASED MACHINE LEARNING: ACCURACY AND INTERPRETABILITY
Authors: GARCIA S; FERNANDEZ A; LUENGO J; **HERRERA F**
Source: SOFT COMPUT 13 (10): 959-977 AUG 2009
Addresses: Univ Jaen, Dept Comp Sci, Jaen 23071, Spain.
Univ Granada, Dept Comp Sci & Artificial Intelligence, E-18071 Granada, Spain.
Field: COMPUTER SCIENCE
Current Citations: 49

Title: ADVANCED NONPARAMETRIC TESTS FOR MULTIPLE COMPARISONS IN THE DESIGN OF EXPERIMENTS IN COMPUTATIONAL INTELLIGENCE AND DATA MINING: EXPERIMENTAL ANALYSIS OF POWER
Authors: GARCIA S; FERNANDEZ A; LUENGO J; **HERRERA F**
Source: INFORM SCIENCES
180 (10): 2044-2064 Sp. Iss. SI MAY 15 2010
Addresses: Univ Jaen, Dept Comp Sci, Jaen, Spain.
Univ Granada, Dept Comp Sci & Artificial Intelligence, E-18071 Granada, Spain.
Field: COMPUTER SCIENCE
Current Citations: 26

Title: H-INDEX: A REVIEW FOCUSED IN ITS VARIANTS, COMPUTATION AND STANDARDIZATION FOR DIFFERENT SCIENTIFIC FIELDS
Authors: ALONSO S; CABRERIZO FJ; HERRERA-VIEDMA E; **HERRERA F**
Source: J INFORMETR
3 (4): 273-289 OCT 2009
Addresses: Univ Granada, Software Engn Dept, Periodista Daniel Saucedo Aranda S-N, E-18071 Granada, Spain.
Univ Granada, Software Engn Dept, E-18071 Granada, Spain.
Univ Granada, Dept Comp Sci & Artificial Intelligence, E-18071 Granada, Spain.
Field: COMPUTER SCIENCE
Current Citations: 39

Title: KEEL DATA-MINING SOFTWARE TOOL: DATA SET REPOSITORY, INTEGRATION OF ALGORITHMS AND EXPERIMENTAL ANALYSIS FRAMEWORK
Authors: ALCALA-FDEZ J; FERNANDEZ A; LUENGO J; DERRAC J; GARCIA S; SANCHEZ L; **HERRERA F**
Source: J MULT-VALUED LOG SOFT COMPUT
17 (2-3): 255-287 Sp. Iss. SI 2011
Addresses: Univ Granada, CITIC UGR, Dept Comp Sci & Artificial Intelligence, E-18071 Granada, Spain.
Univ Jaen, Dept Comp Sci, Jaen 23071, Spain.
Univ Oviedo, Dept Comp Sci, Gijon 33204, Spain.
Field: COMPUTER SCIENCE
Current Citations: 7

Title: ADAPTATION AND APPLICATION OF MULTI-OBJECTIVE EVOLUTIONARY ALGORITHMS FOR RULE REDUCTION AND PARAMETER TUNING OF FUZZY RULE-BASED SYSTEMS
Authors: GACTO MJ; ALCALA R; **HERRERA F**
Source: SOFT COMPUT 13 (5): 419-436 MAR 2009
Addresses: Univ Granada, Dept Comp Sci & AI, E-18071 Granada, Spain.
Field: COMPUTER SCIENCE
Current Citations: 20

Title: HG-INDEX: A NEW INDEX TO CHARACTERIZE THE SCIENTIFIC OUTPUT OF RESEARCHERS BASED ON THE H- AND G-INDICES
Authors: ALONSO S; CABRERIZO FJ; HERRERA-VIEDMA E; **HERRERA F**
Source:SCIENTOMETRICS
82 (2): 391-400 FEB 2010
Addresses: Univ Granada, Software Engn Dept, C Periodista Daniel Saucedo Aranda S-N, E-18071 Granada, Spain.
Univ Granada, Software Engn Dept, E-18071 Granada, Spain.
Distance Learning Univ Spain UNED, Dept Software Engn & Comp Syst, Madrid 28040, Spain.
Univ Granada, Dept Comp Sci & Artificial Intelligence, E-18071 Granada, Spain.
Field: SOCIAL SCIENCES, GENERAL
Current Citations: 12

Title: AN APPROACH FOR DETECTING, QUANTIFYING, AND VISUALIZING THE EVOLUTION OF A RESEARCH FIELD: A PRACTICAL APPLICATION TO THE FUZZY SETS THEORY FIELD
Authors: COBO MJ; LOPEZ-HERRERA AG; HERRERA-VIEDMA E; **HERRERA F**
Source:J INFORMETR
5 (1): 146-166 JAN 2011
Addresses: Univ Granada, Dept Comp Sci & Artificial Intelligence, CITIC UGR Res Ctr Informat & Commun Technol, E-18071 Granada, Spain.
Field: COMPUTER SCIENCE
Current Citations: 3

PAPERS IN A CLOSED PERIOD - 7

Percentiles

for papers published by field, 1995 - 2005

Publication Date: March 1, 2006

Engineering	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	All Years
0.01 %	335	280	315	279	224	164	138	110	75	30	10	223
0.10 %	129	122	128	111	93	81	66	44	29	14	5	88
1.00 %	50	47	47	40	36	32	26	19	13	7	3	33
10.00 %	14	14	14	12	11	10	9	7	5	3	1	9
20.00 %	8	8	8	7	7	6	5	4	3	2	0	5
50.00 %	2	2	2	2	2	2	2	1	1	1	0	1

1 **Citations:** 53

Period: January 1, 1995-December 31, 2005

WEB OF SCIENCE®

Title: TUNING FUZZY-LOGIC CONTROLLERS BY GENETIC ALGORITHMS

Authors: HERRERA F; LOZANO M; VERDEGAY JL

Source: INT J APPROX REASONING
12 (3-4): 299-315 APR-MAY 1995

Addresses: UNIV GRANADA, ETS INGN INFORMAT, DEPT COMP SCI & AI, E-18071 GRANADA, SPAIN.

Field: ENGINEERING

Percentiles

for papers published by field, 1996 - 2006

Publication Date: March 1, 2007

Engineering	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	All Years
0.01 %	365	393	401	273	230	252	205	133	82	39	15	262
0.10 %	144	153	136	118	109	94	71	53	33	18	6	98
1.00 %	54	55	48	44	44	35	29	22	15	8	3	35
10.00 %	15	16	14	14	14	11	9	7	5	3	1	10
20.00 %	9	9	8	8	8	7	6	5	3	2	1	5
50.00 %	2	2	3	3	3	2	2	2	1	1	0	1

1 **Citations:** 60

Period: January 1, 1996-December 31, 2006

WEB OF SCIENCE®

Title: A MODEL OF CONSENSUS IN GROUP DECISION MAKING UNDER LINGUISTIC ASSESSMENTS

Authors: HERRERA F; HERRERAVIEDMA E; VERDEGAY JL

Source: FUZZY SET SYSTEM
78 (1): 73-87 FEB 26 1996

Addresses: UNIV GRANADA, DEPT COMP SCI & ARTIFICIAL INTELLIGENCE, E-18071 GRANADA, SPAIN.

Field: ENGINEERING

Percentiles of cites
for papers published by field, 1998 –2008
Publication Date: March 1, 2009

Engineering	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	All Years
0.01 %	603	405	368	467	288	232	171	121	86	39	14	287
0.10 %	176	168	155	139	116	95	75	55	35	19	6	107
1.00 %	60	57	55	50	44	39	32	22	15	8	3	39
10.00 %	17	17	16	16	14	12	10	8	5	3	1	10
20.00 %	10	10	10	10	8	7	7	5	3	2	0	6
50.00 %	3	3	3	3	3	2	3	2	1	1	0	2

1 **Citations:** 131

WEB OF SCIENCE

Title: TACKLING REAL-CODED GENETIC ALGORITHMS: OPERATORS AND TOOLS FOR BEHAVIOURAL ANALYSIS

Authors: **HERRERA F;** LOZANO M; VERDEGAY JL

Source: ARTIF INTELL REV
12 (4): 265-319 AUG 1998

Addresses: Univ Granada, Dept Comp Sci & AI, ETS Ingn Informat, Avda Andalucia 38, E-18071 Granada, Spain.
Univ Granada, Dept Comp Sci & AI, ETS Ingn Informat, E-18071 Granada, Spain.

Field: ENGINEERING

2 **Citations:** 84

WEB OF SCIENCE

Title: INTEGRATING THREE REPRESENTATION MODELS IN FUZZY MULTIPURPOSE DECISION MAKING BASED ON FUZZY PREFERENCE RELATIONS

Authors: CHICLANA F; **HERRERA F;** HERRERA-VIEDMA E

Source: FUZZY SET SYSTEM
97 (1): 33-48 JUL 1 1998

Addresses: Univ Granada, Dept Comp Sci & Artificial Intelligence, Granada 18071, Spain.

Field: ENGINEERING

Percentiles of cites
for papers published by field, 2000 –2010
Publication Date: March 1, 2011

Computer Science	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	All Years
0.01 %	836	641	3640	1456	526	413	348	153	178	80	8	606
0.10 %	362	395	282	210	126	133	87	63	37	16	5	155
1.00 %	71	74	78	53	39	34	25	23	15	6	2	40
10.00 %	16	17	17	11	9	8	6	7	5	2	1	9
20.00 %	8	9	10	6	5	4	3	4	3	1	0	4
50.00 %	2	2	3	2	1	1	1	2	1	1	0	1

Title: A FUSION APPROACH FOR MANAGING MULTI-GRANULARITY LINGUISTIC TERM SETS IN DECISION MAKING

DOI: 10.1016/S0165-0114(98)00093-1

Authors: F. Herrera, E. Herrera-Viedma, L. Martínez

Source: FUZZY SET SYSTEM 114 (1): 43-58 AUG 16 2000

Addresses: UNIV GRANADA, ETS INGN INFORMAT, DEPT COMP SCI & AI, E-18071 GRANADA, SPAIN. UNIV JAÉN, DEPT COMP SCI, JAÉN 23071, SPAIN.

Field: ENGINEERING

Citations : 79

Title:	A 2-TUPLE FUZZY LINGUISTIC REPRESENTATION MODEL FOR COMPUTING WITH WORDS
DOI:	10.1109/91.890332
Authors:	F. Herrera, L. Martínez
Source:	IEEE TRANS FUZZY SYST 8 (6): 746-752 DEC 2000
Addresses:	UNIV GRANADA, ETS INGN INFORMAT, DEPT COMP SCI & AI, E-18071 GRANADA, SPAIN. UNIV JAÉN, DEPT COMP SCI, JAÉN 23071, SPAIN.
Field:	ENGINEERING
Citations: 133	

Title:	LINGUISTIC DECISION ANALYSIS: STEPS FOR SOLVING DECISION PROBLEMS UNDER LINGUISTIC INFORMATION
DOI:	10.1016/S0165-0114(99)00024-X
Authors:	F. Herrera, E. Herrera-Viedma
Source:	FUZZY SET SYSTEM 115 (1): 67-82 OCT 1 2000
Addresses:	UNIV GRANADA, ETS INGN INFORMAT, DEPT COMP SCI & AI, E-18071 GRANADA, SPAIN
Field:	ENGINEERING
Citations : 126	