Instituto Andaluz Universitario en Data Science and Computacional Intelligence

Áreas de conocimiento: Ciencias de la Computación e Inteligencia Artificial, Lenguajes y Sistemas Informáticos, Teoría de la Señal y Comunicaciones
Director: Francisco Herrera Triguero (herrera@decsai.ugr.es)
Subdirector: Pedro González García (Universidad de Jaén)
Secretaria: Rosana Montes Soldado (rosana@ugr.es)
Página web: http://dasci.es
Profesorado: CU (9), PTU (23), PTEU (0), PDI (10), Otros (12). Total: 54 miembros

Grupos de Investigación participantes:
    Soft Computing y Sistemas de Información Inteligencies (SCI2S) PAI-TIC186
    Signal Processing and Biomedical Applications (SIPBA) PAI-TIC218
    Intelligent Systems and Data Mining (SIMiDat) PAI-TIC207
    Sistemas Inteligentes Basados en Análisis de Decisión Difusos (Sinbad²) PAI-TIC 206

Tesis leídas:
- NOVEL APPROACHES BASED ON DECOMPOSITION METHODS FOR DETECTING MRI PATTERNS IN THE PROGRESSION OF ALZHEIMER'S DISEASE
Autor: khedher, laila
Universidad: Universidad de Granada
Departamento: Teoría de la señal, telemática y comunicaciones
Fecha de Lectura: 24/07/2017
Programa de doctorado: Programa de Doctorado en Tecnologías de la Información y la Comunicación por la Universidad de Granada
Dirección:
    RAMÍREZ PÉREZ DE INESTROSA, JAVIER (Director)
    GÓRRIZ SÁEZ, JUAN MANUEL (Director)
- AUTOMATION OF THE ASSESSMENT OF CRANIOFACIAL SUPERIMPOSITION USING SOFT COMPUTING AND COMPUTER VISION
Autor: Campomanes Álvarez, Carmen
Universidad: Universidad de Granada
Departamento: Ciencias de la computación e inteligencia artificial
Fecha de Lectura: 25/07/2017
Programa de doctorado: Programa Oficial de Doctorado en Tecnologías de la Información y la Comunicación
Dirección:
    CORDÓN GARCÍA, OSCAR (Director)
    Wilkinson, Caroline (Director)
    Ibáñez Panizo, Oscar (Director)
- NEW DEVELOPMENTS IN EVOLUTIONARY IMAGE REGISTRATION FOR COMPLEX 3D SCENARIOS
Autor: Bermejo Nievas, Enrique
Universidad: Universidad de Granada
Departamento: Ciencias de la computación e inteligencia artificial
Fecha de Lectura: 19/01/2018
Programa de doctorado: Programa de Doctorado en Tecnologías de la Información y la Comunicación por la Universidad de Granada
Dirección:
    CHICA SERRANO, MANUEL (Director)
    CORDÓN GARCÍA, OSCAR (Director)

Grupos de Investigación.
TIC186 SOFT COMPUTING Y SISTEMAS DE INFORMACIÓN INTELIGENTES
- Responsable: FRANCISCO HERRERA TRIGUERO

Dirección y participación en Proyectos I+D
    - 2017 Ciencia de Datos e Inteligencia Artificial, Competitivo, 01/01/2017-31/12/2020
    Responsable FRANCISCO HERRERA TRIGUERO

Publicaciones en revistas
    - 2018 Articulo: A practical tutorial on autoencoders for nonlinear feature fusion: Taxonomy, models, software and guidelines, Information Fusion, 44, , 78-96
    FRANCISCO HERRERA TRIGUERO
    - 2018 Articulo: Mining association rules on BigData through MapReduce genetic programming, Integrated

Computer-Aided Engineering, 25, 1, 31-48
FRANCISCO HERRERA TRIGUERO

- 2018 Articulo: A unifying analysis for the supervised descriptive rule discovery via the weighted relative accuracy, Knowledge-Based Systems, 139, , 89-100
FRANCISCO HERRERA TRIGUERO

- 2018 Articulo: Exploring Consistency for Hesitant Preference Relations in Decision Making: Discussing Concepts, Meaning and Taxonomy, Journal of Multiple-Valued Logic and Soft Computing, 30, 2-3, 129-154
FRANCISCO HERRERA TRIGUERO

- 2018 Articulo: Consistency of hesitant fuzzy linguistic preference relations: An interval consistency index, Information Sciences, 432, , 347-361
FRANCISCO HERRERA TRIGUERO

- 2018 Articulo: Tips, guidelines and tools for managing multi-label datasets: The mldr.datasets R package and the Cometa data repository, Neurocomputing, 289, , 68-85
FRANCISCO HERRERA TRIGUERO

- 2018 Articulo: MRQAR: a generic MapReduce framework to discover Quantitative Association Rules in Big Data problems, Knowledge-Based Systems, 153, , 176-192
FRANCISCO HERRERA TRIGUERO

- 2018 Articulo: Consensus Vote Models for Detecting and Filtering Neutrality in Sentiment Analysis, Information Fusion, 44, , 126-135
FRANCISCO HERRERA TRIGUERO

- 2018 Articulo: Personalized individual semantics based on consistency in hesitant linguistic group decision making with comparative linguistic expressions, Knowledge-Based Systems, 145, , 156-165
FRANCISCO HERRERA TRIGUERO

- 2018 Articulo: Surveying Alignment-free Features for Ortholog Detection in Related Yeast Proteomes by using Supervised Big Data Classifiers, BMC Bioinformatics, 19, 166, 1-17
FRANCISCO HERRERA TRIGUERO

- 2018 Articulo: SMOTE for Learning from Imbalanced Data: Progress and Challenges. Marking the 15-year Anniversary, The Journal of Artificial Intelligence Research, 61, , 863-905
FRANCISCO HERRERA TRIGUERO

- 2018 Articulo: Dynamic Affinity-based Classification of Multi-Class Imbalanced Data with One-vs-One Decomposition: a Fuzzy Rough Set Approach, Knowledge and Information Systems, 56, 1, 55-84
FRANCISCO HERRERA TRIGUERO

- 2018 Articulo: Big Data: Tutorial and Guidelines on Information and Process Fusion for Analytics Algorithms with MapReduce, Information Fusion, 42, , 51-61
FRANCISCO HERRERA TRIGUERO

- 2017 Articulo: Personalized individual semantics in Computing with Words for supporting linguistic Group Decision Making. An Application on Consensus reaching, Information Fusion, 33, 1, 29-40
FRANCISCO HERRERA TRIGUERO

- 2017 Articulo: NMC: Nearest Matrix Classification - A new combination model for pruning One-vs-One ensembles by transforming the aggregation problem, Information Fusion, 36, , 26-51
FRANCISCO HERRERA TRIGUERO

- 2017 Articulo: Since CEC 2005 competition on real-parameter optimisation: a decade of research, progress and comparative analysis's weakness, Soft Computing, 21, 19, 5573-5583
FRANCISCO HERRERA TRIGUERO

- 2017 Articulo: kNN-IS: An Iterative Spark-based design of the k-Nearest Neighbors classifier for big data, Knowledge-Based Systems, 117, , 3-15
FRANCISCO HERRERA TRIGUERO

- 2017 Editorial: Managing consensus based on leadership in opinion dynamics, Information Sciences, 397-398, , 187-205
FRANCISCO HERRERA TRIGUERO

- 2017 Articulo: A survey on data preprocessing for data stream mining: Current status and future directions, Neurocomputing, 239, , 39-57
FRANCISCO HERRERA TRIGUERO

- 2017 Articulo: Fast-mRMR: Fast minimum Redundancy Maximum Relevance algorithm for high dimensional big data, International Journal of Intelligent Systems, 32, 2, 134-152
FRANCISCO HERRERA TRIGUERO

- 2017 Articulo: The NoiseFiltersR package: Label Noise Preprocessing in R, The R Journal, , , -
FRANCISCO HERRERA TRIGUERO

- 2017 Articulo: Sentiment analysis in TripAdvisor, IEEE Intelligent Systems, 32, 4, 2-7
FRANCISCO HERRERA TRIGUERO

- 2017 Articulo: Big Data: Preprocesamiento y calidad de datos, Novática, 237, , 17-23
FRANCISCO HERRERA TRIGUERO

- 2017 Articulo: Cost-Sensitive back-propagation neural networks with binarization techniques in addressing

multi-class problems and non-competent classifiers, Applied Soft Computing, 56, , 357-367
FRANCISCO HERRERA TRIGUERO
- 2017 Articulo: Distributed incremental fingerprint identification with reduced database penetration rate using a hierarchical classification based on feature fusion and selection, Knowledge-Based Systems, 126, , 91-103
FRANCISCO HERRERA TRIGUERO
- 2017 Articulo: Minutiae-Based Fingerprint Matching Decomposition: Methodology for Big Data Frameworks, Information Sciences, 408, , 198-212
FRANCISCO HERRERA TRIGUERO
- 2017 Articulo: Class Switching according to Nearest Enemy Distance for learning from highly imbalanced data-sets, Pattern Recognition, 70, , 12-24
FRANCISCO HERRERA TRIGUERO
- 2017 Articulo: Exploring the effectiveness of dynamic ensemble selection in the one-versus-one scheme, Knowledge-Based Systems, 125, , 53-63
FRANCISCO HERRERA TRIGUERO
- 2017 Articulo: A snapshot of image pre-processing for convolutional neural networks: case study of MNIST, International Journal of Computational Intelligence in Bioinformatics and Systems Biology, 10, , 555-568
FRANCISCO HERRERA TRIGUERO
- 2017 Articulo: An insight into imbalanced Big Data classification: outcomes and challenges, Complex & Intelligent Systems, 3, 2, 105-120
FRANCISCO HERRERA TRIGUERO
- 2017 Articulo: A Pareto Based Ensemble with Feature and Instance Selection for Learning from Multi-Class Imbalanced Datasets, International Journal of Neural Systems, 27, , 1750028-1-1750028-21
FRANCISCO HERRERA TRIGUERO
- 2017 Articulo: An Evolutionary Multi-Objective Model and Instance Selection for Support Vector Machines with Pareto-based Ensembles, IEEE Transactions on Evolutionary Computation, , , -
FRANCISCO HERRERA TRIGUERO
- 2017 Articulo: Nearest Neighbor Classification for High-Speed Big Data Streams Using Spark, IEEE Transactions on Systems, Man, and Cybernetics. Part A: Systems and Humans, , , -
FRANCISCO HERRERA TRIGUERO
- 2017 Articulo: An Information Theory-Based Feature Selection Framework for Big Data under Apache Spark, IEEE Transactions on Systems, Man, and Cybernetics. Part A: Systems and Humans, , , -
FRANCISCO HERRERA TRIGUERO
- 2017 Articulo: SMOTE-GPU: Big Data preprocessing on commodity hardware for imbalanced classification, Progress in Artificial Intelligence, , , -
FRANCISCO HERRERA TRIGUERO
- 2017 Articulo: Fuzzy Rule Based Classification Systems for Big Data with MapReduce: Granularity Analysis, Advances in Data Analysis and Classification, 11, , 711-730
FRANCISCO HERRERA TRIGUERO
- 2017 Articulo: Automatic Handgun Detection Alarm in Videos Using Deep Learning, Neurocomputing, , , -
FRANCISCO HERRERA TRIGUERO
- 2017 Articulo: A snapshot of image pre-processing for convolutional neural networks: case study of MNIST, International Journal of Computational Intelligence Systems, 10, , 555-568
FRANCISCO HERRERA TRIGUERO
- 2017 Articulo: Teranga Go!: Carpooling Collaborative Consumption Community with multi-criteria hesitant fuzzy linguistic term set opinions to build confidence and trust, Applied Soft Computing, , , -
FRANCISCO HERRERA TRIGUERO
ROSA ANA MONTES SOLDADO
- 2017 Articulo: A comparison on scalability for batch big data processing on Apache Spark and Apache Flink, Big Data Analytics, 2, 1, 1-
FRANCISCO HERRERA TRIGUERO
- 2017 Articulo: An Evolutionary Multiobjective Model and Instance Selection for Support Vector Machines With Pareto-Based Ensembles, IEEE Transactions on Evolutionary Computation, 21, 6, 863-877
FRANCISCO HERRERA TRIGUERO
- 2017 Articulo: KEEL 3.0: an open source software for multi-stage analysis in data mining, International Journal of Computational Intelligence Systems, 10, 1, 1239-1249
FRANCISCO HERRERA TRIGUERO
- 2017 Articulo: Why Linguistic Fuzzy Rule Based Classification Systems perform well in Big Data Applications?, International Journal of Computational Intelligence Systems, 10, , 1211-1225
FRANCISCO HERRERA TRIGUERO

Capítulos de libros (con ISBN)
- 2018 Titulo Capítulo: Evolutionary Fuzzy Systems: A Case Study for Intrusion Detection Systems, Titulo Libro: Evolutionary and Swarm Intelligence Algorithms: Springer, , 2018,

FRANCISCO HERRERA TRIGUERO

Contribuciones en congresos

- 2017 Conferencia Congreso no publicada: Neutrality in the Sentiment Analysis Problem Based on Fuzzy Majority,- 2017 IEEE Conference on Fuzzy Systems, 09/07/2017, Napoles, ITALY, Congreso
  FRANCISCO HERRERA TRIGUERO
- 2017 Comunicación en congreso: Sentiment Analysis on TripAdvisor: Are There Inconsistencies in User Reviews?, 12th International Conference on Hybrid Artificial Intelligence Systems, 21/06/2017, Logroño, Congreso
  FRANCISCO HERRERA TRIGUERO
- 2017 Comunicación en congreso: A Consistency-Driven Approach to Set Personalized Numerical Scales for Hesitant Fuzzy Linguistic Preference Relations, IEEE INTERNATIONAL CONFERENCE ON FUZZY SYSTEMS 2017, 09/07/2017, Naples, Congreso
  FRANCISCO HERRERA TRIGUERO
- 2017 Comunicación en congreso: A Decision Making model to evaluate the reputation in Social Networks using HFLTS, IEEE INTERNATIONAL CONFERENCE ON FUZZY SYSTEMS 2017, 09/07/2017, Naples, Congreso
  FRANCISCO HERRERA TRIGUERO
  ROSA ANA MONTES SOLDADO

Profesores visitantes

Invitado	Universidad	Fecha Inicio	Fecha Fin
Das Swagatam	Indian Statistical Institute	17-Feb-17	22-Feb-17
Daniel Peralta	University of Ghent	19-Mar-17	26-Mar-17
Huchang Liao	Sichuan University	1-Mar-17	15-Apr-17
Isaac Triguero	University of Nottingham	16-Apr-17	26-Apr-17
Hamido Fujita	Iwate Prefectural University (Japón)	26-May-17	1-Jun-17
Raymond Chiong Jun Wen	University of Newcastle (Australia)	9-Jun-17	18-Jun-17
David Kaber	North Carolina State University (EEUU)	21-Jun-17	30-Jul-17
Bahram Farhadinia	Quchan University of Advanced Technology (Irán)	28-Aug-17	28-Sep-17
Milton Garcia Borroto	Universidad Tecnológica de la Habana, José Antonio Echeverría	20-Sep-17	19-Oct-17
José Luis García Lapestra	Universidad de Valladolid	16-Oct-17	20-Oct-17
Zipora Kahana Lichter	Hebrew University of Jerusalem	15-Oct-17	23-Oct-17
Andrés Ortiz	Universidad de Malaga	3-Nov-17	3-Nov-17
Roberto Olmos Pimentel	Benemérita Universidad Autónoma de Puebla	6-Sep-17	4-Dec-17

Otras actividades

- *I Seminario Internacional DaSCI de Divulgación de la Ciencia*
  Contacto: Rosana Montes
  Colabora: Centro Universitario del Norte de la Universidad de Guadalajara
  Ponentes: Francisco Herrera, Eugenio Martínez Cámara, Jorge Casillas
  Ponentes visitantes: Carlos Gúzman. IBM México. Alfredo Castro Jímenez. IBM México
  El seminario consta de cinco charlas, seis sesiones para la divulgación de trabajos de investigación y cinco talleres.
  Fecha de realización: lunes 27 de noviembre a viernes 1 de diciembre de 2017 de 15.30 a 20.30h
  Duración: 25 horas
  Asistentes: 30
  RRSS:
    https://twitter.com/DaSCI_es/status/942827831628836864
    https://twitter.com/DaSCI_es/status/936607399451987968
    https://twitter.com/DaSCI_es/status/936551459885387776
    https://twitter.com/DaSCI_es/status/936243732269105153
    https://twitter.com/DaSCI_es/status/935531215322517506
    https://twitter.com/DaSCI_es/status/935517210952519680
    https://twitter.com/DaSCI_es/status/935194288371261440
    https://twitter.com/DaSCI_es/status/935189587290394624
    https://twitter.com/DaSCI_es/status/935178425849008128
    https://twitter.com/DaSCI_es/status/935160147403517953
    https://twitter.com/DaSCI_es/status/935154247771009024

- Ciencia de Datos: Un Enfoque Práctico en la Era del Big Data (4ª edición)
    Contacto: Jorge Casillas
    Fecha de realización: febrero 2018
    Duración: 75 horas
    Asistentes: 27
    Web: http://sci2s.ugr.es/CienciaDatosBigData