

CV date	09/12/22
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Part A. PERSONAL INFORMATION

First and Family name	Francisco Fernández de Vega	
Social Security, Passport, ID number	34774388K	Age 50
Researcher codes	Open Researcher and Contributor ID (ORCID**)	0000-0002-1086-1483
	SCOPUS Author ID (*)	M-1385-2014
	WoS Researcher ID (*)	

(*) *Optional*

(**) *Mandatory*

A.1. Current position

Name of University/Institution	University of Extremadura		
Department	Computers and Communications Technologies		
Address and Country	Sta Teresa de Jornet, 38, 06800 Mérida, Badajoz.		
Phone number	628 000 927	E-mail	fcofdez@unex.es
Current position	Full Professor Computer Architectures	From	31/09/2019
Key words	Parallel and Distributed Computing, Computational Intelligence, Computer Creativity, Art and Music.		

A.2. Education

PhD, Licensed, Graduate	University	Year
Doctor Europeo	Universidad de Extremadura	2001
Licenciado en Informática	Universidad de Sevilla	1994
Music Professional Degree: Clarinet.	Music Conservatory Almendralejo, Badajoz.	2016

A.3. General indicators of quality of scientific production (see instructions)

Part B. CV SUMMARY (max. 3500 characters, including spaces)

FFV is a PhD Extraordinary Award, Director of the Artificial Evolution Group of the University of Extremadura (UEX) since 2002 and chair of the Task Force on Creative Intelligence of the IEEE Computational Intelligence Society. He is a University Professor in the area of Computer Architecture and Technology. He has been CIO of the Uex, Deputy Director of the University Center of Merida and Director of the Ceta-Ciemat Chair of the Uex. FFV has been granted four six-year term research evaluations.

He has published 36 JCR articles, with more than 2300 citations collected in Google Scholar, and h-25 index. He is among the 30 scientists with more publications in Genetic Programming (among more than 4000 collected by the Genetic Programming Bibliography <http://gpbib.cs.ucl.ac.uk/gp-html/index.html>). He has been Principal Investigator of 14 competitive projects, including European, National and Regional ones.

FFV has organized international workshops in the most important conferences of the areas in which he works, such as ACM GECCO, IEEE ICPP, IEEE CEC, IEEE WCCI, IEEE PACT, in particular the Workshops: Parallel and Distributed Evolutionary Algorithms, Parallel architectures and evolutionary algorithms, and Evolutionary Music, each with several editions, held since 2005. He has been local chair of EvoApps 2020, Sevilla, and co-editor of this conference for 8 years. He has also organized several national conferences, including



the MAEB congress in its first and tenth edition (AEB 2002 and 2015) in Mérida, as well as the CASEIB 2003, also in Mérida.

He and his PhD students have received awards for the best papers from several relevant conferences: PPSN 2002, Evohot 2008, ACM Gecco PhD student workshop 2007. He has received the ACM Gecco Evolutionary Art, design and creativity competition 2013, Linextremix International Award 2006, as well as nominations for best article in multiple congresses: IEEE CEC 2013, EvoMusart 2013, etc. His artworks have been internationally selected at Show Your World Competition 2017, New York. He has also received best APP award by the Spanish Association for Artificial Intelligence in 2021.

FFV has given conferences and international tutorials: University of California in San Diego, New Orleans IEEE Section, IEEE CEC Portland, Edinburgh and Beijing, University of Luxembourg, CERN, Bicentennial University of Mexico, Centro de Investigación y Educación Superior de Ensenada, Mexico, Universidad Autónoma Metropolitana, México, etc.; He has given invited conferences at University of the Basque Country, University Complutense of Madrid, University of Seville, University of Granada, University of Malaga.

Part C. RELEVANT MERITS (sorted by typology)

4 six-years research periods.

C.1. Publications (see instructions)

J. Díaz, P. Castillo, F. Fernández de Vega, F. Chávez, J. Alvarado, Population size influence on the energy consumption of Genetic Programming. *Measurement and Control* 2022.

F. Fernández de Vega, [Teaching Programming in the 21st Century](#) *Journal of Computer Information Systems*, 1-12

Francisco Fernández de Vega, Gustavo Olague, Daniel Lanza, Francisco Chávez de la O, Wolfgang Banzhaf, Erik D. Goodman, Jose Menendez-Clavijo, Axel Martinez: Time and Individual Duration in Genetic Programming. *IEEE Access* 8: 38692-38713 (2020)

Villegas-Cortez, J., Benavides-Alvarez, C., Avilés-Cruz, C., Román-Alonso, G., Fernandez de Vega, F., Chávez de la O, F., and Cordero-Sánchez, S.. Interest points reduction using evolutionary algorithms and CBIR for face recognition. *Vis Comput* (2020). <https://doi.org/10.1007/s00371-020-01949-8>

Perla Juárez-Smith, Leonardo Trujillo, Mario García-Valdez, Francisco Fernández de Vega, Francisco Chávez, Local search in speciation-based bloat control for genetic programming, *Genetic Programming and Evolvable Machines*, 20:1-34, 2019, DOI:10.1007/s10710-019-09351-7 (2019).

D. Camacho, C. Cotta, J.J. Merelo-Guervós, F. Fernández de Vega, Bioinspired Algorithms in Complex Ephemeral Environments, *Future Generation Computer Systems* 88:732-734, 2018, DOI:10.1016/j.future.2018.07.056. (2018).

Chávez, F., Fernández, F., Lanza, D., Benavides, C., Villegas, J., Trujillo, L., ... & Román, G. (2016). Deploying massive runs of evolutionary algorithms with ECJ and Hadoop: Reducing interest points required for face recognition. *The International Journal of High Performance Computing Applications*.

García-Valdez, M., Trujillo, L., Merelo, J. J., De Vega, F. F., & Olague, G. (2015). The evospace model for pool-based evolutionary algorithms. *Journal of Grid Computing*, 13(3), 329-349.



Clemente, E., Chavez, F., de Vega, F. F., & Olague, G. (2015). Self-adjusting focus of attention in combination with a genetic fuzzy system for improving a laser environment control device system. *Applied Soft Computing*, 32, 250-265.

[Juan Luís Jiménez Laredo](#), [Pascal Bouvry](#), [D. L. González](#), Francisco Fernández de Vega, [Maribel García Arenas](#), [Juan J. Merelo Guervós](#), [Carlos M. Fernandes](#): **Designing robust volunteer-based evolutionary algorithms**. *Genetic Programming and Evolvable Machines* 15(3): 221-244 (2014)

Francisco Fernández de Vega, [Cayetano Cruz](#), [Lilian Navarro](#), [Patricia Hernandez](#), [Tania Gallego](#), [Luis Espada](#): **Unplugging Evolutionary Algorithms: an experiment on human-algorithmic creativity**. *Genetic Programming and Evolvable Machines* 15(4): 379-402 (2014).

[Gustavo Reis](#), Francisco Fernández de Vega, [Aníbal Ferreira](#): **Automatic Transcription of Polyphonic Piano Music Using Genetic Algorithms, Adaptive Spectral Envelope Modeling, and Dynamic Noise Level Estimation**. *IEEE Transactions on Audio, Speech & Language Processing* 20(8): 2313-2328 (2012)

[Automatic evolution of programs for procedural generation of terrains for video games](#) M Frade, F Fernández de Vega, C Cotta *Soft Computing* 16 (11), 1893-1914 (2012).

[Eva Alfaro-Cid](#), [Juan Julián Merelo Guervós](#), Francisco Fernández de Vega, [Anna Isabel Esparcia-Alcázar](#), [Ken Sharman](#): **Bloat Control Operators and Diversity in Genetic Programming: A Comparative Study**. *Evolutionary Computation* 18(2): 305-332 (2010)

[Daniel Lombraña Gonzalez](#), Francisco Fernández de Vega, [Henri Casanova](#): Characterizing fault tolerance in genetic programming. *Future Generation Comp. Syst.* 26(6): 847-856 (2010)

C.2. Research projects

Title: UEX:DEMOCRATAI. PID2020-115570GB-C21
Funding agency: Ministry of Science, Innovation. National Reserch Programe, Spanish Government.
Participating entities: Ugr, UMA.
From: 2017 to: 2020
Principal Investigator: IP subproyecto: Francisco Fernández de Vega. IP Coordinado: Jeseña Díaz.
Number of researchers: 10
Financiación Subproyecto uex: 48.200€

Title: UEX:DEEPBIO. TIN2017-85727-C4-4-P
Funding agency: Ministry of Science, Innovation and Universities. National Reserch Programe, Spanish Government.
Participating entities: Uex, Ugr, UMA.
From: 2017 to: 2020
Principal Investigator: IP Subproyecto UEX: Francisco Fernández de Vega. IP Coordinado: Carlos Cotta Porras.
Number of researchers: 15
Financiación Subproyecto Uex: 51.062€

Title: Escuela Municipal de Jóvenes Científicos



Funding agency: Fecyt.
Participating entities: Fundación Universidad Sociedad Universidad de Extremadura,
Universidad de Extremadura.
From: 2016 to: 2017
Principal Investigator: Francisco Fernández de Vega.
Number of researchers: 3.
Fundings: 50.000€

Title: UEX:EPHEMECH: ALGORITMOS BIOINSPIRADOS EN ENTORNOS EFIMEROS
COMPLEJOS. TIN2014-56494-C4-2-P
Funding agency: Ministry of Science and Innovation. National Research Programme. Spanish
Government.
Participating entities: Uex, Ugr, UMA.
From: 2014 to: 2017
Principal Investigator: IP Subproyecto UEX: Francisco Fernández de Vega. PI Coordinated
project: Carlos Cotta Porras.
Number of researchers: 15
Fundings: 45.000€

Title: Propiedades FP7-PEOPLE2013-IRSES
Funding agency: European union, VII Frame Programme.
Participating entities: Inria, UB2, France, INESC - ID, France, Instituto de Engenharia de
Sistemas e computadores, Portugal, UEX, España, ITT, Mexico, CICESE, México.
From: 2014 to: 2017
Principal Investigator: IP Subproyecto UEX: Francisco Fernández de Vega.
PI coordinated project: Pierrick Legrand.
Number of researchers: 25.
Fundings: 130.200€

C.3. Contracts, technological or transfer merits

C.4. Patents

P201400096: Sistema de Control remoto de dispositivos con láser.
F. Fernández de Vega, F. Chávez, E. Clemente, G. Olague, L. Donzal.
Universidad de Extremadura – CICESE, México.

P202230016 Modelo y sistema para predicción de valores de glucosa y generación de
alertas de hipoglucemia e hiperglucemia. Universidad de Extremadura – Universidad
Complutense de Madrid.

C.5

Associate Editor, AI Communications.

C.6. Scientific Journals Reviewer

Internacional Journal of Computers and Applications. Acta Press; Cluster Computing;
Evolutionary Computation. MIT Press; Microprocessors and Microsystems. Elsevier;
Applied Mathematics and Computer Science; Pattern Recognition Letters; Journal of
Parallel and Distributed Computing; IEEE Transactions on Intelligent Transportation System;
IEEE Transactions on Systems, Man and Cybernetics, Part C; IEEE Transactions on
Evolutionary Computation; Soft Computing, Springer; Computational Optimization and
Applications, Springer; Genetic Programming and Evolvable Machines; Parallel Computing.

C.7 Committees



ACM GECCO, IEEE CEC, PPSN, EVO*, EVOLVE, Fuzzy Days, CIIC, COMCEV, EuroGP, MAEB...