



CV date	15/11/2021
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Part A. PERSONAL INFORMATION

First and Family name	Mihaela Ioana Chidean		
Social Security, Passport, ID number	X6473819D	Age	33
Researcher codes	Open Researcher and Contributor ID (ORCID**)	0000-0001-9692-8871	
	SCOPUS Author ID(*)		
	WoS Researcher ID (*)	G-1402-2016	

(*) *Optional*

(**) *Mandatory*

A.1. Current position

Name of University/Institution	Universidad Rey Juan Carlos (URJC)		
Department	Teoría de la Señal y Comunicaciones / Escuela Técnica Superior de Ingeniería de Telecomunicación		
Address and Country	D216, Camino del molino 5, 28942, Fuenlabrada, Spain		
Phone number		E-mail	mihaela.chidean@urjc.es
Current position	Associate Professor (PhD) / Profesora Contratada Doctor	From	2020
Key words	Signal Processing, Wireless Communication, Wireless Sensor Networks		

A.2. Education

Bachelor / Master / PhD	University	Year
Multimedia and Communications (PhD)	URJC	2016
Interuniversity Master's Degree in Multimedia and Communications	Universidad Carlos III (UC3M), URJC	2013
Telecommunication Eng. (5 year degree)	URJC	2011
Computer Systems Eng. (3 year degree)	URJC	2011

A.3. JCR articles, h Index, thesis supervised...

Six-year research periods (Sexenios): 1

SOURCE: Web of Science - Total Publications: 16. Sum of Times Cited: 90, without self-citations: 74. Citing articles: 79, without self citations: 71, Average number of cites per item: 5.63, h-index: 4

SOURCE: Google Scholar - Total number of cites: 136, h-index: 5

Articles published in magazines of the first quartile: 6/11.

Articles published in magazines of the second quartile: 4/11.

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

Mihaela I. Chidean finished the Telecommunications Eng. and the Computer Systems Eng. at URJC. She obtained 2 "Study Grant for Outstanding Academic Achievement" of the Ministry of Education of the Community of Madrid, introducing her to research. She also was the Outstanding Graduate of both degrees and received two research awards for her Final Degree Project. She finished the Interuniversity M. Sc. degree in Multimedia and Communications from UC3M and URJC in 2013. She was awarded as Outstanding Graduate for her master studies and received an award for the research work presented as master thesis project. Finally, she received the Ph.D. Degree in Telecommunications Eng. ("Cum Laude", "Doctor europeus") from URJC, in 2016, within the Multimedia and Communication Interuniversity Ph.D. Program. Her Ph.D. studies were funded by the FPU National Program 2012 call (800 grants for approx. 6000 applicants).



She currently works as Associate Prof. at URJC. Her research interests include massive data processing with application to vehicle and pedestrian traffic and climate analysis, wireless sensor networks with medical applications and for energy efficiency, physiological signal processing and distributed signal processing. The results of her research have been published into 11 journal articles (indexed in JCR), all of them in the first third of their respective categories (some of them in the first tenth of their respective category), and in 8 articles of international congresses with peer review and one article published in a national congress with peer review.

These research interests allowed her to actively collaborate with international groups, such as the "Communications Systems Research Group" from Aarhus University in Denmark. She made a three-month predoctoral research stay and a six-month postdoctoral research stay. The later was funded by the "José Castillejo" Mobility Stays Program for Young Doctors from the Spanish Ministry of Education. The results obtained during both research stays were translated into two international conference publications.

Regarding the teaching activity, she has taught and coordinated multiple degree subjects: Digital Communications, Wireless Communications, Telecommunications Systems Fundamentals, Digital Transmission or Device and Equipment Design. She has also taught and coordinated the subjects of Communications Electronics and Multidisciplinary Applications of ICT in the Master's Degree in Telecommunications Engineering. She has been a tutor for 7 final degree projects and 2 master thesis projects. She obtained the positive evaluation as Assistant Prof. (Ayudante Doctor) and as Associate Prof. (Contratado Doctor) for her teaching and research activity from the National Agency for Quality Assessment and Accreditation of Spain (ANECA) within a period of less than 6 and 14 months, respectively, after her Ph.D. defense.

In addition, she participated and organized several scientific dissemination activities (conferences, Madrid Science Week, European Researchers night, open days, ...) and is one of the coordinators of the seminar series "Seminarios TSC-URJC". Finally, regarding the institutional responsibilities, from September 2017 is the Director of the Master's Degree in Telecommunications Engineering at URJC, from April 2019 she is one of the members of the school board and from June 2020 she coordinates the Degree in Telecommunication Technologies at URJC.

Part C. RELEVANT MERITS

C.1. Publications (including books)

(01) Scientific paper: S. Cornejo-Bueno; et al. (8/4). *Statistical Analysis and Machine Learning Prediction of Fog-caused Low-Visibility Events at A-8 motor-road in Spain*. Atmosphere. Special Issue "Statistical Methods in Weather Forecasting", V.12(5), 679. (2021)

(02) Scientific paper: S. Cornejo-Bueno; et al. (5/2). *A Novel Information Theoretical Criterion for Climate Network Construction*. Symmetry, V.12(9), 1500. (2020)

IF: 2.645; Second Quartile in "Multidisciplinary Sciences" (29/71) (JCR 2019).

(03) Scientific paper: S. Cornejo-Bueno; et al. (8/4). *Persistence Analysis and Prediction of Low-Visibility Events at Valladolid Airport, Spain*. Symmetry, V.12(6), 1045. (2020)

IF: 2.645; Second Quartile in "Multidisciplinary Sciences" (29/71) (JCR 2019).

(04) Scientific paper: **M. I. Chidean**; et al. (5/1). *Spatio-temporal climate regionalization using a self-organized clustering approach*. Theoretical and Applied Climatology, V.140. (2020)

IF: 2.882; Second Quartile in "Meteorology & Atmospheric Science" (40/93) (JCR 2019).

(05) Scientific paper: **M. I. Chidean**; et al. (8/1). *Full Band Spectra Analysis of Gait Acceleration Signals for Peripheral Arterial Disease Patients*. Frontiers in physiology, V.9, 1061. (2018)

IF: 2.089; Second Quartile in "Physiology, Multidisciplinary" (39/135) (JCR 2018).

- (06) Scientific paper: **M. I. Chidean**; et al. (5/1). *Spatio-temporal Analysis of Wind Resource in the Iberian Peninsula with Data-coupled Clustering*. Renewable & Sustainable Energy Reviews, V.81-2, pp 2684-2694. (2018)
IF:10.556; First Quartile in "Green & Sustainable Science & Technology" (1/35) (JCR 2018).
- (07) Scientific paper: **M. I. Chidean**; et al. (5/1). *Ambulatory Gait Measurement System for Natural Environments*. IEEE Sensors J, V.17, n. 4, pp. 1144-1153, (2017)
IF: 2.617; First Quartile in "Instruments & Instrumentation" (14/61) (JCR 2017).
- (08) Scientific paper: **M. I. Chidean**; et al. (6/1). *Energy Efficiency and Quality of Data Reconstruction through Data-Coupled Clustering for Self-Organized Large-Scale WSNs*. IEEE Sensors Journal, V.16, n. 12, pp. 5010-5020, (2016)
IF: 2.512; First Quartile in "Instruments & Instrumentation" (12/58) (JCR 2016).
- (09) Scientific paper: **M. I. Chidean**; et al. (5/1). *Scalable Data-Coupled Clustering for Large Scale WSN*. IEEE Trans on Wireless Comms, V.14, n. 9, pp. 4681-4694, (2015)
IF: 2.925; First Quartile in "Telecommunications" (6/82) (JCR 2015).
- (10) Scientific paper: Eduardo del Arco; et al. (6/3). *Sparse Vehicular Sensor Networks for Traffic Dynamics Reconstruction*. IEEE Transactions on Intelligent Transportation Systems, V.16, n. 5, pp. 2826 - 283, (2015)
IF: 2.534; First Quartile in "Engineering, Civil" (8/126) (JCR Ed. 2015)
- (11) Scientific paper: **M. I. Chidean**; et al. (5/1). *Spatio-temporal trend analysis of air temperature in Europe and Western Asia using data-coupled clustering*, Global and Planetary Change, V.129, pp. 45-55, (2015)
IF: 3.548; First Quartile in "Geosciences, Multidisciplinary" (22/184) (JCR Ed. 2015)
- (12) Conference publication: **S. Cornejo-Bueno**; et al. (5/2). *Comparing traditional methods of complex networks construction in a wind farm production analysis problem*, COMPLEX NETWORKS 2019
- (13) Conference publication: **M. I. Chidean**; et al. (4/1). *Network Traffic Characterization Using L-moment Ratio Diagrams*, The First International Workshop on Efficient and Smart 5G Technologies for IoT. (ES5TI2019)
- (14) Conference publication: Eduardo del Arco; et al. (5/2). *A Geostatistical Approach to Traffic Flow Reconstruction from Sparse Floating-Car Data*. Conference on Traffic and Granular Flow. (TGF2019)
- (15) Conference publication: **M. I. Chidean**; et al. (5/1). *High Diagnostic Quality ECG Compression and CS Signal Reconstruction in Body Sensor Networks*, IEEE International Conference on Acoustics, Speech and Signal Processing. (ICASSP2016)
- (16) Conference publication: **M. I. Chidean**; et al. (7/1). *Incremental Similarity Metric to Evaluate Complexity of Human Gait: A Distributed Wireless Sensor Network Approach*, IEEE Sensors. (SENSORS2014)
- (17) Conference publication: **M. I. Chidean**; et al. (6/1). *Análisis de Tendencias Espacio-Temporales de Temperatura en Europa mediante Clusterización Acoplada a Datos*, X Congreso Español de Metaheurísticas, Algoritmos Evolutivos y Bioinspirados, (MAEB2015)
- (18) Conference publication: **M. I. Chidean**; et al. (5/1). *Wireless Sensor Network for Low-Complexity Entropy Determination of Human Gait*. IEEE International Symposium on Personal, Indoor and Mobile Radio Communications, (PIMRC2013)
- (19) Conference publication: **M. I. Chidean**; et al. (4/1). *Self-Organized Distributed Compressive Projection in Large Scale Wireless Sensor Networks*. IEEE International Symposium on Personal, Indoor and Mobile Radio Communications, (PIMRC 2013)

C.2. Research projects and grants



- (1) Análisis de escala en tráfico de vehículos y peatones mediante sensado inalámbrico disperso: Autosimilaridad y asintóticos intermedios en flujo granular autopropulsado. Univ. Rey Juan Carlos, 1/01/2021 – 31/12/2021. Co-IP
- (2) Medidas de calidad y no intrusivas para la evaluación y optimización energética de edificios con elementos constructivos avanzados (OMEGA-CM). Ref. S2013/MAE-2835. Consejería de Educación de la Comunidad de Madrid. 1/10/2014 -- 30/09/2018. Researcher
- (3) Nonlinear Digital Processing and Autocorrelation-Kernel Statistical Learning for Health Applications (PRINCIPIAS). Ref. TEC2013-48439-C4-1-R. Ministerio de Economía y Competitividad. 01/01/2014 -- 31/12/2016. Researcher

C.3. Contracts

- (1) IOT, Blockchain and Quantum Computing: new challenges. International Business Machines, S.A. 22/05/2018 – 21/05/2019
- (2) Application of novel clustering algorithms for joint data codification and self-organization of WSN. International Business Machines, S.A. 16/10/2017 – 15/10/2018
- (3) Feasibility study of projects presented to the Call for Grants carried out by order of Nov. 30, 2016, from the Employment, Economy and Finance Council (RIS3). 01/02/2017 – 30/09/2017.
- (4) Wireless Sensors networks as a source of big data in the study of energy efficiency in buildings in smarter cities through the internet-of-things in the IBM intelligent operations center and Wartos tools. International Business Machines, S.A. 14/04/2016 -- 14/04/2017
- (5) Energy Efficiency in Buildings for Smarter Cities. International Business Machines, S.A. 3/09/2015 -- 2/09/2016
- (6) Monitoring of arrhythmias and health research in the Murcia region. Fundación para la formación e investigación sanitarias de la región de Murcia. 07/02/2012 -- 06/01/2013

C.4. Institutional responsibilities

From sep 2017: Director of the Master's Degree in Telecommunication Engineering at URJC.
From jun 2020: Coordinator of the Degree in Telecommunication Technologies at URJC.

C.5. Academic Reviewer

Starting in January 2015: expert member of the National Agency for Quality Assessment and Accreditation of Spain (ANECA) for the EUR-ACE® evaluation procedure.

C.6. Scientific dissemination activities

Science Week in Madrid, organized by The Foundation the Knowledge Madri+d (Eds. 2012, 2013, 2014, 2015, 2017, 2018, 2019 and 2020)

European Researchers Night, funded by the Marie Skłodowska-Curie Actions of the European Commission (Eds. 2013, 2014, and 2015)

Academic Secretary of the "IV Seminary Smart Cities URJC-IBM. IOT, Applications and Big Data". March 2018.

Director and organizer of the Seminary "Climate Data Analysis: Detection, Monitoring and Prediction". April 2018 and October 2020

C.7. Awards

- (1) Second Best Publication. "Intelligent Energy" International Campus of Excellence URJC-UAH Awards. 2020
- (2) Young Researchers in Telecommunication Eng. Social Council URJC, 2014
- (3) Outstanding Graduate of the M.Sc. Multimedia and Communications, UC3M, URJC, 2013
- (4) Best Thesis in Telematics Engineering, COIT, Spain 2012
- (5) Young Researchers in Telecommunication Eng. Social Council URJC, 2012
- (6) Outstanding Graduate of the Double Degree of Telecommunication Engineering and Computer Systems Technical Engineering, URJC, 2012
- (7) - (8) Study Grant for Outstanding Academic Achievement, Regional Ministry of Education of the Madrid Autonomous Government, 2009/2010 & 2008/2009