

Part A. PERSONAL INFORMATION

First and Family name	José Manuel Arco Rodríguez		
Researcher numbers	Researcher ID	6507455500	
	Orcid code	0000-0001-7752-3561	

A.1. Current position

Name of University/Institution	University of Alcala		
Department	Automatica		
Address and Country	Escuela Politecnica. Ctra. Madrid-Barcelona, km.33,6. Spain		
Phone number	918856627	E-mail	Josem.arco AT uah.es
Current position	Associate Professor	From	2002
Espec. cód. UNESCO			
Key words	Advances switches, SDN		

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

- 8 articles indexed in JCR: Q1 (1), Q2 (6), Q4 (1)
- Google Scholar Statistics (as of 2019/10/07):
 - Total: Cites: 124; h-index: 7; i10-index: 5
 - From 2014: Cites: 63; h-index: 5; i10-index: 2
- 1 international patent y 1 national patent (B2) granted
- One research periods (of 6 years each) with positive evaluation (last year evaluated: 2011)

Part B. CV SUMMARY

José Manuel Arco Rodríguez received his Ph.D. in Telecommunications engineering from the University of Alcala, Spain, in 2013. He is Associate professor in the Automatica Department (Telematic Area) at the University of Alcalá in Spain since 2002. His current research interests encompass SDN, high performance and scalable Ethernet, and data center networks. He also teaches SDN and data center networks. He has participated on different competitive research project from Madrid regional government (Medianet, Tigre5), National projects (CIVTRAFF) and European project ALFA. His research activity has been published in high impact JCR indexed research magazines such as IEEE Communication Letters, Computer Communications or Annals of Telecommunication. Moreover, he has been reviewer in the high quality scientific magazine IEEE Communication Magazine.

Part C. RELEVANT MERITS

C.1. Publications (including books)

Joaquín Álvarez Horcajo, Diego López Pajares, Isaias Martinez Yelmo, Juan Antonio Carral Pelayo, José Manuel Arco Rodríguez. Improving multipath routing of TCP flows by network exploration. IEEE Access. 18/01/2019. ISSN 2169-3536 DOI: 10.1109/ACCESS.2019.2893412

Elisa Rojas Sánchez; Joaquín Álvarez Horcajo; Isaias Martinez Yelmo; Juan Antonio Carral Pelayo; José Manuel Arco Rodríguez. 2018. TEDP: An enhanced topology discovery service for Software-Defined Networking. IEEE Communications Letters. Vol 22/8, pp. 1540 - 1543. DOI: 10.1109/LCOMM.2018.2845372

Elisa Rojas Sánchez; Joaquín Álvarez Horcajo; Isaias Martinez Yelmo; José Manuel Arco Rodríguez; Juan Antonio Carral Pelayo. 2017. GA3: scalable, distributed address assignment

for dynamic data center networks. *Annales des Telecommunications*. DOI: 10.1007/s12243-017-0569-4

Elisa Rojas Sánchez; Guillermo Agustín Ibáñez Fernández; Jose Manuel Gimenez-Guzman; Juan Antonio Carral Pelayo; Alberto García Martínez; Isaias Martinez Yelmo; José Manuel Arco Rodríguez. 2015. All-Path Bridging: Path Exploration Protocols for Data Center and Campus Networks, *Computer Networks*, 79/March 2015, 120- 132, 1389-1286. DOI: 10.1016/j.comnet.2015.01.002

Elisa Rojas Sánchez; Jad Naous; Guillermo Agustín Ibáñez Fernández; Diego Rivera Pinto; Juan Antonio Carral Pelayo; José Manuel Arco Rodríguez, 2011, Implementing ARP-Path Low Latency Bridges in NetFPGA, *COMPUTER COMMUNICATION REVIEW*, 41/4, 444- 445, ISSN 0146-4833.

Guillermo Agustín Ibáñez Fernández; Juan Antonio Carral Pelayo; José Manuel Arco Rodríguez; Diego Rivera Pinto; Aarón Montalvo Taravillo. 2011. ARP-Path: ARP- Based, Shortest Path Bridges, *IEEE Communications Letters*, 15/7, 770-772, 1089-7798.

Guillermo Agustín Ibáñez Fernández; Alberto García Martínez; Juan Antonio Carral Pelayo; Pedro Gonzalez; Arturo Azcorra Saloña; José Manuel Arco Rodríguez. 2010. HURP/HURBA: Zero-configuration hierarchical Up/Down routing and bridging architecture for Ethernet backbones and campus networks, *Computer Networks*, Vol 54 pp. 41-56

Guillermo Agustín Ibáñez Fernández; Alberto García Martínez; Juan Antonio Carral Pelayo; José Manuel Arco Rodríguez; Arturo Azcorra Saloña, 2009, Evaluation of Tree-based Routing Ethernet, *IEEE Communications Letters*, Vol 13 (6) pp. 444-446

C.2. Research projects and grants

S2018/TCS-4496, Técnicas Avanzadas para Potenciar la Inteligencia de las Redes 5G (TAPIR-CM), COMUNIDAD AUTONOMA DE MADRID, IP-UAH: Juan Ramón Velasco, 01/1/2019- 31/12/2020, UAH-Budget 78.000€.

EsPECIE - Evaluación de protocolos basados en exploración de caminos mediante equipamiento hardware específico compatible con el lenguaje p4. (11x NetFPGA-SUME Virtex-7 FPGA Development Board), Universidad de Alcalá, Isaias Martínez Yelmo, 16/11/2017-20/12/2018, 16258,91 €

SIMPSONS: SDN Intelligent Management, ProviSioning and Optmizationof NetworkS, Universidad de Alcalá, Isaias Martínez Yelmo, 1/12/2017-30/11/2018, 3000 €

S2013/ICE-2919, Tecnologías integradas de gestión y operación de red 5G (TIGRE5-CM), COMUNIDAD AUTONOMA DE MADRID, IP-UAH: Juan Antonio Carral Pelayo, 01/10/2014-30/09/2018, UAH-Budget 165.000€.

TEC2013-45183-R, Inteligencia colectiva para la navegación inteligente de tráfico vehicular, MINISTERIO DE ECONOMIA Y COMPETITIVIDAD, López Carmona, Miguel Ángel, 01/01/2014- 31/12/2016, 51.100€.

CCG2014/EXP-008, Ecosistema de Detección Ubicua basado en SENSores para diagnóstico y tratamiento de disfunciones motoras en niños (EDUSENS), Universidad de Alcalá, Martinez Yelmo, Isaias, 15/12/2014- 14/03/2016, 3.300€

S-2009/TIC-1468, Integración de Servicios Multimedia de Siguiete Generación en la Internet del Futuro, COMUNIDAD AUTONOMA DE MADRID, Guillermo Agustín Ibáñez Fernández, 01/01/2010- 31/05/2014, 858.840,41€.

PII1I09-0204-4319, Extensiones, variantes y mejoras de arquitectura de red escalable de capa dos (EMARECE), JUNTA DE COMUNIDADES DE CASTILLA-LA MANCHA CONSEJERIA DE EDUCACION Y CIENCIA, Ibáñez Fernández, Guillermo Agustín, 01/04/2009- 31/03/2012, 99.793,05.

UAH2011/EXP-016, Aplicación de direcciones MAC combinadas (CMAC) en redes Ethernet e inalámbricas, Universidad de Alcalá, Ibáñez Fernández, Guillermo Agustín, 01/03/2012-28/02/2013, 4.000€.

C.4. Patents

ES2647665-P201600530. Procedimiento cooperativo, entre puentes y controlador, de reparación de caminos en fallo y puente de red. Ibáñez Fernández, Guillermo; Álvarez Horcajo, Joaquín; Arco Rodríguez, José Manuel y Giménez Guzmán, José Manuel. 17/04/18. Universidad de Alcalá.

P201100516. Guillermo Agustín Ibáñez Fernández; Elisa Rojas Sánchez; Diego Rivera Pinto; Juan Antonio Carral Pelayo; José Manuel Arco Rodríguez.. Procedimiento de reparación de caminos de tramas de datos y puente de red España. 31/05/2013. Universidad de Alcalá.

C.5 Selected Conferences

Diego Lopez-Pajares, Guillermo Ibanez, Jose M. Arco, Bobby N. Constantin, Elisa Rojas "Combined ARP-Path&RSTP Bridges for Smooth Migration to Robust Shortest Path Bridging" LCN Local Computer Networks (LCN), October 14-17, 2019, Osnabrück, Germany

Joaquin Alvarez-Horcajo, Guillermo Ibanez, Bobby N. Constantin, Isaias Martinez-Yelmo, Jose M. Arco "Scaling and Interoperability of All-Path with Bridged and SDN Domains using VXLANs" Local Computer Networks (LCN), October 14-17, 2019, Osnabrück, Germany;

Joaquín Álvarez Horcajo; Diego López Pajares; Isaias Martinez Yelmo; Juan Antonio Carral Pelayo; José Manuel Arco Rodríguez. 2017. TCP-Path: Improving Load Balance by Network Exploration. IEEE International Conference on Cloud Networking (Prague). **Best Paper Award**

Elisa Rojas Sánchez; Jad Naous; Guillermo Agustín Ibáñez Fernández; Diego Rivera Pinto; Juan Antonio Carral Pelayo; José Manuel Arco Rodríguez, Implementing ARP-Path Low Latency Bridges in NetFPGA, Ponencia, ACM Special Interest Group on Data Communication (SIGCOMM)2011, Toronto (Canadá), 2011.

Guillermo Agustín Ibáñez Fernández; Jad Naous; Elisa Rojas Sánchez; Diego Rivera Pinto; Juan Antonio Carral Pelayo; José Manuel Arco Rodríguez, A Simple, Zero-configuration, Low Latency Bridging Protocol, Póster, IEEE LCN, Denver (Estados Unidos), 2010.

Guillermo Agustín Ibáñez Fernández; Juan Antonio Carral Pelayo; Alberto García- Martínez; José Manuel Arco Rodríguez; Diego Rivera Pinto; Arturo Azcorra Saloña, Fast Path Ethernet Switching: On-demand Efficient Transparent Bridges for Data Center and Campus Networks, Ponencia, IEEE LAN/MAN Workshop, New Jersey (Estados Unidos), 2010