Contact Information

Given name	Jaume
Surnames	Barcelo Vicens
E-mail addresses	jaume.barcelo@uc3m.es jaume.barcelo@gmail.com (personal)
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Mailing addresses	(Office address) Universidad Carlos III de Madrid. Avda. de la Universidad, 30 28911 Leganes, Madrid, Spain (Home address) Residencia Fernando de los Rios. Avda. de las Ciudades, 1 28903 Getafe, Madrid, Spain
Web address	http://www.jaumebarcelo.info
References	For references, please contact: Albert Banchs Universidad Carlos III de Madrid, associate professor. IMDEA Networks, deputy director. email: banchs@it.uc3m.es Miquel Oliver Universitat Pompeu Fabra, NeTS research group coordinator. email: miquel.oliver@upf.edu

Research CV and Teaching Experience

Short Bio Jaume Barcelo is a postdoctoral researcher with Universidad Carlos III de Madrid. His research interests are in the field of wireless communications in general and in MAC protocols for WLANs in particular. Jaume holds a Ph.D. from Universitat Pompeu Fabra, where he worked under the supervision of Prof. Miquel Oliver. He obtained his M.Eng. from Universitat Politecnica de Catalunya and his B.Eng. from Universitat de les Illes Balears. Jaume also worked as a research assistant at the Kaiserslautern Universitaet in the group leaded by Prof. Paul W. Baier.

Education

Universitat Pompeu Fabra   2009
Ph.D. in Computer Science and Digital Communications
Thesis: Carrier Sense Multiple Access with Enhanced Collision Avoidance.
Advisor: Prof. Miquel Oliver

Universitat Politecnica de Catalunya   2004
Master of Science in Telecommunications
Thesis: Deployment and configuration of an Open Access Network at the UPF.
Advisor: Prof. Miquel Oliver.

Universitat de les Illes Balears/Kaiserslautern Universitaet   2001
Bachelor of Science in Computer Communications
Thesis: Impact of time variant channels on the performance of Joint Transmission downlinks.
Advisor: Dr. Hendrik Troeger. / Dr. Ignasi Furio

Best Paper Awards

MACOM'11

J. Barcelo, B. Bellalta, M. Oliver, A. Banchs,
"Collision-Free Operation in Ad-Hoc Networks"

MACOM'10

J. Barcelo, B. Bellalta, C. Cano, A.Sfairopoulou, M. Oliver,
"Dynamic Parameter Adjustment in CSMA/ECA"

ISWCS'09

C. Cano, B. Bellalta, J. Barcelo, M. Oliver, A. Sfairopoulou
"Analytical Model of the LPL with Wake up after Transmissions MAC protocol for WSNs"

WWIC'09

C. Cano, B. Bellalta, J. Barcelo, A. Sfairopoulou
"A Novel MAC Protocol for Event-based Wireless Sensor Networks: Improving the Collective QoS"

Eunice'08

J. Barcelo, B. Bellalta, C. Cano, M.Oliver,
"Learning-BEB: Avoiding Collisions in WLAN"

Invited Paper   IEEE VTC Spring'09

J. Barcelo, B. Bellalta, C. Cano, A.Sfairopoulou, M. Oliver,
"CSMA with Enhanced Collision Avoidance: a Performance Assessment"

Journals   IEEE Comm. Letters

J. Barcelo, H. Inaltekin, B. Bellalta,
"Obey or Play: Asymptotic Equivalence of Slotted Aloha with a Game Theoretic Contention Model"

EURASIP Journal on Wireless Communications and Networking

J. Barcelo, B. Bellalta, C. Cano, A. Sfairopoulou, M. Oliver, K. Verma,
"Towards a Collision-Free WLAN: Dynamic Parameter Adjustment in CSMA / E2CA"

Springer Wireless Personal Communications 2011

B. Bellalta, J. Barcelo, M. Oliver,
"The role of the queueing process in the performance of Downlink SDMA systems"

Elsevier Mobile Networks and Applications 2011

C. Cano, B. Bellalta, A. Sfairopoulou, J. Barcelo,
"Taking Advantage of Overhearing in Low Power Listening WSNs: A Performance Analysis of the LWT-MAC Protocol"

Elsevier Computer Networks 2010

C. Cano, B. Bellalta, A. Sfairopoulou, J. Barcelo,
"Tuning the EDCA Parameters in WLANs with Heterogeneous Traffic: A Flow-level Analysis"

IEEE Comm. Letters 2009

C. Cano, B. Bellalta, A. Sfairopoulou, J. Barcelo
"A Low Power Listening MAC with Scheduled Wake Up after Transmissions for WSNs"

ACM Mobile Computing and Communications Review 2008

J. Barcelo, A. Sfairopoulou, B. Bellalta,
"Wireless Open Metropolitan Access Networks"

Workshops and   IEEE ICC'10
conferences
J. Barcelo, A. Lopez-Toledo, C. Cano, M. Oliver,
"Fairness and convergence of CSMA with Enhanced Collision Avoidance (ECA)"

NEUTRAL'09

J. Barcelo, J. Infante, M. Oliver,
"Wireless Open Access Networks: State-of-the-Art and Technological Opportunities "

<div align="right">IWCMC'09</div>

J. Barcelo, B. Bellalta, C. Cano, A.Sfairopoulou, M. Oliver,
"Carrier Sense Multiple Access with Enhanced Collision Avoidance: a Performance Analysis"

<div align="right">MACOM (IEEE ICC'09)</div>

J. Barcelo, B. Bellalta, C. Cano, A.Sfairopoulou, M. Oliver, J. Zuidweg,
"Traffic Prioritization for Carrier Sense Multiple Access with Enhanced Collision Avoidance"

<div align="right">Jitel'08</div>

J. Barcelo, B. Bellalta, A. Sfairopoulou, C. Cano, M. Oliver,
"Dynamic P-Persistent Backoff for Higher Efficiency and Implicit Prioritization"

<div align="right">IEEE/IFIP WONS'08</div>

J. Barcelo, B. Bellalta, C. Cano, A.Sfairopoulou,
"VoIP Packet Delay in Single-Hop Ad-Hoc IEEE 802.11 Networks"

<div align="right">in book IFIP Vol. 265</div>

J. Barcelo, B. Bellalta, C. Cano, A.Sfairopoulou,
"No Ack in IEEE 802.11e Single-Hop Ad-Hoc VoIP Networks"

<div align="right">WEBIST'07</div>

J. Barcelo, B. Bellalta, C.Macian, M.Oliver, A.Sfairopoulou,
"Position Information for VoIP Emergency Calls Originating from a Wireless Metropolitan Access Network"

<div align="right">IEEE MCWC'06</div>

J. Barcelo, C.Macian, P.Novell, M.Isidre, E. Arago,
"Offering VoIP Services in a Wireless Neutral Operator Environment"

<div align="right">ICQT (ACM Sigmetrics'06)</div>

J. Barcelo, M.Oliver, J.Infante,
"Adapting a Captive Portal to enable SMS-based Micropayment for Wireless Internet Access"

<div align="right">IEEE TRIDENTCOM'06</div>

J. Barcelo, C.Macian, J.Infante, M.Oliver, A.Sfairopoulou,
"Barcelona's Open Access Network Testbed"

Research Grant   A4U 2010-2011
"**Postdoctoral award. Media Access Control and Wireless Mesh Networks.**"

Research Projects   CICYT 2009-2011
Project Coordinator: Miquel Oliver
"**Gestión P2P de tráfico multimedia con calidad de servicion sobre redes malladas: Gepeto**"

COST290 2004-2008
Project Coordinator: Y. Koucheryavy
"**Traffic and QoS Management in Wireless Multimedia Networks**"

FP6 2003-2007
Project Coordinator: Sergio Benedetto
"**Network of Excellence in Wireless Communications**"

CICYT 2003-2006
Project Coordinator: Joan Vinyes / Miquel Oliver
"**Servicios Inteligentes Móviles Avanzados**"

Teaching Experience   Jaume Barcelo is currently coordinating complex courses with multiple groups, different languages and up to five different teachers. He is also teaching both at the graduate and undergraduate level at Universidad Carlos III de Madrid. One of the courses he has taught was included in the joint UC3M-UPC master program, with students from UC3M, UPC, IMDEA networks and CTTC. The students in Barcelona remotely followed the course using teleconference. Jaume has also taught for four years at Universitat Pompeu Fabra. He has covered different topics in the wide area of telecommunications, ranging from cryptography to network application and transport layer and prototyping of services for mobile devices. His experience includes lectures, seminars and laboratories.

Courses Taught   Lecturer   Fall'10, Fall'11
Cryptography and Network Security (Grad. School)

Lecturer   Fall'10, Fall'11
Criptografía y seguridad en redes

Lecturer   Spring'10, Spring'11
WLAN Seminar (Grad. School)

Lecturer   Spring'10, Spring'11
Laboratorio de Ingeniería de Servicios

Lecturer   Fall'08
Xarxes i Serveis I

Lecturer   Spring'08
Laboratori de Comunicacions

Teaching Assistant   Fall'07, Spring'07, Spring'06, Spring'05
Xarxes i Serveis, Laboratori de Telemàtica III, Enginyeria de sistemes de transmissió

Services   Organizer   Eunice'09 (Publicity)

                      TPC   Neutral'09, MACOM'10, MACOM'11, MESHTECH'11

Internships   Solutions and Customization Labs Intern   **HP**
                      Sant Cugat, Catalunya, Spain   2003-2004
                      Developed internal tools to assist the validation of the customized products.

                      Camp leader and instructor   **ID Tech Camps**
                      Stanford, Palo Alto, CA   Summer 2002
                      Web Design, Multimedia and Game Creation, Programming and Robotics.

                      Electronic Sales Intern   **Air Europa Airlines**
                      Lluchmajor, Mallorca, Spain   Summer 2000
                      On-line ticket sales developer and maintainer (Html/Wml/Javascript, PL/SQL, Oracle
                      Application Server).