

Annual Report 2008/2009

Department of Computer Architecture



UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH

Introduction

In the framework of the campaign to promote the strategic lines of basic units, the Department of Computer Architecture (DAC) presented a project in the 2009 call for the automated compilation of yearbooks.

This yearbook-the first to be published as a result of this project-describes the DAC's activities over the 2008-2009 academic year.

The information published was obtained from a number of databases held by the DAC (single user, academic management, etc.) and by the UPC (scientific output, PRISMA, etc.). All data were processed automatically by an application developed by the DAC.

The yearbook is a compendium of most of the activities carried out by members of the DAC. Future editions of the yearbook may include other types of activities, providing they have been recorded in a database.

Finally, I would like to express my thanks to all of the staff at the DAC for their efforts over the academic year, and I urge them to continue the good work.



Jordi Domingo-Pascual,
Department director.

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Staff

1.1. Management Team

Director: Jordi Domingo Pascual

Secretary: Ramon Canal Corretger

Assistant Director of Planning and Organization: Enrique Morancho Llena

Assistant Director of Teaching Management:

Marta Jiménez Castells (from 01/Sep/08 to 17/Mar/09)

Llorenç Cerdà Alabern (from 18/Mar/09 to 31/Aug/09)

Head of Doctoral Studies: Xavier Martorell Bofill

Head of the Master's Degree in Computer Architecture, Networks and Systems: Jaime María Delgado Merce

Head of Administration and Services: Maria Dolors Sánchez Lafarga

1.2. Committees of the DAC

Departmental Board:

Alejandro Duran González (from 01/Sep/08 to 17/Mar/09)

Cristina Barrado Muxí (from 01/Sep/08 to 17/Mar/09)

Enrique Herrada Lillo (from 01/Sep/08 to 31/Aug/09)

Fermín Sánchez Carracedo (from 01/Sep/08 to 31/Aug/09)

Jordi Domingo Pascual (from 01/Sep/08 to 31/Aug/09)

José María Barceló Ordinas (from 01/Sep/08 to 17/Mar/09)

José Ramón Herrero Zaragoza (from 01/Sep/08 to 17/Mar/09)

Juan José Costa Prats (from 01/Sep/08 to 31/Aug/09)

Juan José Navarro Guerrero (from 01/Sep/08 to 31/Aug/09)

Leandro Navarro Moldés (from 01/Sep/08 to 17/Mar/09)

Maria Dolors Sánchez Lafarga (from 01/Sep/08 to 31/Aug/09)

Ramon Canal Corretger (from 01/Sep/08 to 31/Aug/09)

Trinidad Carneros Cerezo (from 01/Sep/08 to 17/Mar/09)

Agustín Fernández Jiménez (from 18/Mar/09 to 31/Aug/09)

Alex Muntada Durán (from 18/Mar/09 to 31/Aug/09)

Josep-Llorenç Cruz Díaz (from 18/Mar/09 to 31/Aug/09)

Josep Lluís Larriba Pey (from 18/Mar/09 to 31/Aug/09)

Miguel Valero García (from 18/Mar/09 to 31/Aug/09)

Víctor Muntés Mulero (from 18/Mar/09 to 31/Aug/09)

Teaching Assessment Committee:

Josep Lluís Larriba Pey (from 01/Sep/08 to 13/Jan/09)

Josep Solé Pareta (from 01/Sep/08 to 31/Aug/09)

Marta Jiménez Castells (from 01/Sep/08 to 17/Mar/09)

Sergio Sánchez Lopez (from 01/Sep/08 to 31/Aug/09)

Eva Rodríguez Luna (from 01/Sep/08 to 03/May/09)

Jordi Domingo Pascual (from 14/Jan/09 to 31/Aug/09)

Llorenç Cerdà Alabern (from 18/Mar/09 to 31/Aug/09)

Miguel Valero García (from 04/May/09 to 31/Aug/09)

General Assessment Committee:

Marta Jiménez Castells (from 01/Sep/08 to 17/Mar/09)

Xavier Martorell Bofill (from 01/Sep/08 to 31/Aug/09)

Llorenç Cerdà Alabern (from 18/Mar/09 to 31/Aug/09)

Research and Doctoral Studies Assessment Committee:

Eduard Ayguadé Parra (from 01/Sep/08 to 31/Aug/09)

Jorge García Vidal (from 01/Sep/08 to 31/Aug/09)

Josep Llosa Espuny (from 01/Sep/08 to 31/Aug/09)

Xavier Martorell Bofill (from 01/Sep/08 to 31/Aug/09)

Library officer: Marisa Gil Gómez

Environment officer: José Ramón Herrero Zaragoza

Representatives at the schools:**Representative at EPSC:**

Miguel Valero García (from 04/May/09 to 31/Aug/09)

Eva Rodríguez Luna (from 01/Sep/08 to 03/May/09)

Representative at EPSEVG: Sergio Sánchez Lopez**Representative at ETSETB:** Josep Solé Pareta**Representative at FIB:**

Jordi Domingo Pascual (from 14/Jan/09 to 31/Aug/09)

Josep Lluís Llariba Pey (from 01/Sep/08 to 13/Jan/09)

Representative at Degree FIB: Ramon Canal Corretger

1.3. People

The following tables show a breakdown of DAC staff, divided into Teachers (Functionary and Contract workers), Administration and Services Staff (Functionary and Labor) and Research Associates.

1.3.1. Teachers

Functionary

Full Professors

Ayguadé Parra, Eduard	Delgado Merce, Jaime María
Domingo Pascual, Jordi	García Vidal, Jorge
González Colás, Antonio M.	Labarta Mancho, Jesús José
Llabería Griñó, José María	Medina Llinàs, Manel
Navarro Guerrero, Juan José	Solé Pareta, Josep
Torres Viñals, Jordi	Valero Cortés, Mateo
Valero García, Miguel	

Associate Professors (University)

Barceló Ordinas, José María	Barrado Muxí, Cristina
Bofill Soliguer, Pau	Canal Corretger, Ramon
Careglio, Davide	Cela Espin, José María
Cerdà Alabern, Llorenç	Corbalán González, Julita
Cortés Rosselló, Toni	Cruellas Ibarz, Joan Carles
Espasa Sans, Roger	Fernández Jiménez, Agustín
Freitag, Fèlix	Gallego Fernández, Ma. Isabel
García Almiñana, Jordi	Herrada Lillo, Enrique
Jiménez Castells, Marta	Jordán Fernández, Francisco
Juan Hormigo, Antonio	Llariba Pey, Josep Lluís
Llosa Espuny, Josep	López Álvarez, David
Martorell Bofill, Xavier	Masip Bruin, Xavier (from 30/Oct/08)
Monreal Arnal, Teresa (from 23/Dec/08)	Morancho Llena, Enrique
Navarro Mas, José Ignacio	Navarro Moldés, Leandro
Olivé Duran, Àngel	Pastor Llorens, Enric
Ramírez Bellido, Alejandro	Royo Valles, Dolors
Sánchez Carracedo, Fermín	Sánchez Lopez, Sergio
Tubella Murgadas, Jordi	

Associate Professors (College)

Gil Gómez, Marisa	Masip Bruin, Xavier (to 29/Oct/08)
Vila Martí, Frederic	

Contract workers

Tenured Assistant Professors

Guitart Fernández, Jordi (from 04/Jun/09)	
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Tenure-track Lecturer

González Tallada, Marc	Yannuzzi Sánchez, Marcelo (from 01/Sep/08)
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Collaborating Lecturer

Álvarez Martínez, Carlos	Barlet Ros, Pere
Becerra Fontal, Yolanda	Carrera Pérez, David
Costa Prats, Juan José	Cruz Díaz, Josep-Llorenç
Duran González, Alejandro (to 31/Jan/09)	Farreras Esclusa, Montserrat
Fornés de Juan, Jordi	Gallardo Gómez, Antonia
González García, Rubén	Guerrero Zapata, Manel
Guitart Fernández, Jordi (to 03/Jun/09)	Herrero Zaragoza, José Ramón
Jiménez González, Daniel	Llorente Viejo, Silvia
López Rubio, Juan	Marín Tordera, Eva
Meseguer Pallarés, Roque	Muntés Mulero, Víctor
Otero Calviño, Beatriz	Pajuelo González, Manuel Alejandro
Parcerisa Bundo, Joan Manuel	Reyes Muñoz, María Angélica
Rodríguez Luna, Eva	Salamí San Juan, Esther
Sanjeevan , Kanapathipillai	Santos Boada, German
Serral Gracia, René	Tous Liesa, Rubén
Utrera Iglesias, Gladys	Velasco Esteban, Luis

Adjunct Lecturer

Alonso López, Javier	Álvarez Mesa, Mauricio
Artigas Vidal, Pau (to 08/Mar/09)	Cabellos Aparicio, Alberto (to 31/Aug/09)
Chacín Martínez, Pablo	Gelado Fernández, Isaac
Morillo Pozo, Julián David	Palomar Pérez, Óscar (to 31/Aug/09)
Perelló Muntan, Jordi (from 01/Feb/09)	Royo Chic, Pablo
Sánchez Castaño, Friman	Santamaría Barnadas, Eduard
Solé Simó, Marc	Verdú Mulá, Javier
Villavieja Prados, Carlos	

Part-time Lecturers

Aletà Ortega, Alexandre	Alonso Martínez, Carlos
Barrio Guerrero, Rubén	Canto Rodrigo, Pablo del
Cruellas Ibarz, Marta	Fáundez Zanuy, Marcos
Fernández Barta, Montserrat	Galván Fernandez, Elena

Part-time Lecturers (Cont.)

Garcia Gasulla, Marta	Guim Bernat, Francesc
Herederó Lázaro, Ana M	Jo Ruiz, Jaume
Lara Ochoa, Eduard	López Canalda, José Manuel
Manso Cortés, Óscar	Martínez Tristancho, Josue
Medina Medina, Esunly María	Millán Vizuete, Amador
Mochón Duro, Francisco	Mora Serrano, Francisco Javier
Moya del Barrio, Víctor	Muñoz Baracco, Joan Francesc
Nin Guerrero, Jordi	Pérez Payeras, Andres
Pons Jansana, Josep	Puigpelat Marín, Adrià
Rodenas Picó, David	Rodero Castro, Ivan
Rodríguez Doncel, Víctor	Suñol Capella, Josep
Toribio González, Ángel	Valverde Amador, Antoni Xavier
Vaquero García, Jorge Daniel	Villanueva Gómez, Miguel Ángel

1.3.2. Administration and Services Staff

Functionary

Álvarez Díaz, Marta	Badenas Fontanals, Anna (from 02/Mar/09)
Carneros Cerezo, Trinidad	Fernández González, Pablo (to 28/Dec/08)
Fernández Pastor, Alícia (to 31/Jul/09)	Ortega Fernández, Ana Maria
Pérez del Pozo, Marisa	Pisa Sánchez, Jorge (to 02/Mar/09)
Rubies Casals, Alba	Sánchez Lafarga, Maria Dolors

Labor

Algueró Mujal, Glòria	Casadesús Brugués, Eugeni (to 31/Dec/08) (from 12/Mar/09)
Creus Portolés, Josep (from 23/Sep/08 to 27/Aug/09)	Escobar Casanova, Joan
Fernández González, Pablo (from 29/Dec/08)	Hornos Vidal, Albert
Mora Antolino, Víctor	Muntada Durán, Alex
Pérez Rubio, Robert	Roca Tarazón, Gabriel
Rodríguez Garrido, José Antonio	Serrano Gispert, Xavier

1.3.3. Research Associates

Research Associates

Acosta Ojeda, Carmelo Alexis	Aletà Ortega, Alexandre (from 09/Apr/09)
Armas Galve, Pilar	Balart Tarzán, Jairo
Barràs Sánchez, Manel (to 22/Sep/08)	Barrio Guerrero, Rubén
Bartolomé Rodríguez, Javier	Basteiro Bertolí, Carles (to 07/Mar/09)
Bellido Cerdà, Jordi (from 16/Oct/08)	Bosque Arbiol, Ana (to 10/Jan/09) (from 20/Jan/09)
Cai, Qiong	Carbó Ibars, Gerard (to 26/Sep/08)
Carretero Casado, Javier (to 02/May/09)	Castillejo Marco, Lidia (to 18/Sep/08)
Dominguez Sal, David (from 13/Jan/09)	Ejarque, Jorge (to 09/Oct/08)
Escalé Claveras, Francesc	Ferrer Canal, Jordi (to 14/May/09)
Galván Fernandez, Elena	García-Cervigón Gutiérrez, Manuel (from 05/Mar/09)

Research Associates (Cont.)

Giménez Lucas, Judit	Gómez Villamor, Sergio
Guim Bernat, Francesc (from 01/Sep/08)	Klinkowski , Miroslaw (from 01/Apr/09)
Lafón Gracia, Néstor (to 26/Oct/08)	Lema Rosas, Juan Manuel (from 05/Sep/08)
Lezzi , Daniele (from 04/Dec/08)	López Brescó, Albert (to 02/Oct/08) (from 16/Oct/08)
Lopez Muñoz, Pedro	Luna García, Jesús (to 31/Dec/08)
Macías Lloret, Mario (from 27/Nov/08)	Martínez Bazán, Norbert
Martínez Morais, Raul (to 14/Jun/09)	Martínez Vicente, Alejandro (to 14/Jun/09)
Medina Juventeny, Marcel (from 15/Oct/08)	Monràs , Frederic (from 15/Apr/09)
Moraleda Ribas, Jordi (from 13/Jan/09)	Morales Pacheco, Roberto Antonio (from 30/Apr/09)
Munell Canto, Dórica	Patón Martín, Joan Ramon
Pau , Raquel (from 06/Oct/08)	Quiñones Moreno, Eduardo (from 04/Dec/08)
Ramírez García, Tanausú	Reyes Imbernón, David
Riu Valentí, Oriol	Rodenas Picó, David (from 01/Oct/08)
Rodríguez Doncel, Víctor	Sindreu Abelló, Roger
Tarsà Buenaventura, Carles	Tomás Ozalla, Miguel (from 30/Apr/09)
Trench Ribes, Nuria (from 05/Mar/09)	Urbón Bayes, Pere
Valls Guimerà, Roman (to 29/Jan/09)	Vaquero García, Jorge Daniel (from 13/Jan/09)

2

Teaching

2.1. Subjects taught by DAC staff

This section shows the DAC's teaching activities over this academic year. A list is given of all the course subjects taught by DAC staff. There is an additional list of DAC lecturers who taught those subjects in each semester (coordinator lecturers are shown in **bold**).

2.1.1. Castelldefels School of Superior Engineering (EPSC)

- **AC:** Arquitectura de Computadors
- **APC:** MASTTEAM. Arquitectura per a la Protecció de Continguts
- **FSD:** Fonaments de Sistemes Distribuïts
- **IC:** Introducció als Computadors
- **ICa:** Introducció als Computadors (Aeroàutica)
- **LAE:** Laboratori d'Arquitectura d'Equips
- **LP:** Laboratori de Programació
- **LPII:** Laboratori de Programació II
- **PAD:** Programació d'Aplicacions Distribuïdas
- **PGX:** Projecte de Gestió de Xarxes
- **PSE:** Prototipats de Sistemes Empotrats
- **PSEM:** Programació de sistemes empotrats i mòbils
- **Simula:** Simulació
- **SO:** Sistemes Operatius
- **TCPa:** Tècniques de Computació i Programació

EPSC		
Subj.	Q1	Q2
AC	Meseguer Pallarés, Roque	Meseguer Pallarés, Roque
APC	Canto Rodrigo, Pablo del Gallego Fernández, Ma. Isabel Meseguer Pallarés, Roque	Canto Rodrigo, Pablo del Gallego Fernández, Ma. Isabel Meseguer Pallarés, Roque
FSD	Gallardo Gómez, Antonia Royo Chic, Pablo	Aletà Ortega, Alexandre Gallardo Gómez, Antonia
IC	López Canalda, José Manuel Mochón Duro, Francisco Reyes Muñoz, María Angélica Rodríguez Luna, Eva Valero García, Miguel	Mora Serrano, Francisco Javier Reyes Muñoz, María Angélica Valero García, Miguel
ICa	Mochón Duro, Francisco Reyes Muñoz, María Angélica Sanjeevan , Kanapathipillai Valero García, Miguel	Mora Serrano, Francisco Javier Valero García, Miguel
LAE	López Rubio, Juan	López Rubio, Juan
LP	Canto Rodrigo, Pablo del Reyes Muñoz, María Angélica Valero García, Miguel	Mochón Duro, Francisco Mora Serrano, Francisco Javier Reyes Muñoz, María Angélica Santamaría Barnadas, Eduard

EPSC (Cont.)		
Subj.	Q1	Q2
LPII	Hidalgo Carrillo, Rubén Salamí San Juan, Esther	Hidalgo Carrillo, Rubén Salamí San Juan, Esther
PAD	Reyes Muñoz, María Angélica	Reyes Muñoz, María Angélica Rodríguez Luna, Eva
PGX	Meseguer Pallarés, Roque	Meseguer Pallarés, Roque Rodríguez Luna, Eva
PSE		López Rubio, Juan Royo Chic, Pablo
PSEM	López Rubio, Juan	
SO	Barrado Muxí, Cristina Hidalgo Carrillo, Rubén Royo Valles, Dolors	Barrado Muxí, Cristina Hidalgo Carrillo, Rubén Royo Valles, Dolors
Simula	Santamaría Barnadas, Eduard	
TCPa	Mora Serrano, Francisco Javier Reyes Muñoz, María Angélica	Canto Rodrigo, Pablo del Reyes Muñoz, María Angélica Sanjeevan , Kanapathipillai Valero García, Miguel

2.1.2. Vilanova and the Geltrú School of Superior Engineering (EPSEVG)

- **ARCO(I):** Arquitectura de Computadors (I)
- **ARCO(T):** Arquitectura de Computadors (T)
- **CBAM:** Comunicacions de Banda Ampla
- **ESCI:** Estructura de Computadors I
- **ESCII:** Estructura de Computadors II
- **ICOM:** Introduccio als Computadors
- **ISOP:** Introduccio als Sistemes Operatius
- **SIOP:** Sistemes Operatius
- **SITR:** Sistemes Informàtics en Temps Real
- **USOP:** Utilització dels Sistemes Operatius

EPSEVG		
Subj.	Q1	Q2
ARCO(I)		Marín Tordera, Eva
ARCO(T)	Sánchez Lopez, Sergio	Vila Martí, Frederic
CBAM		Aletà Ortega, Alexandre Masip Bruin, Xavier
ESCI	Alonso López, Javier Masip Bruin, Xavier Yannuzzi Sánchez, Marcelo	Fornés de Juan, Jordi Masip Bruin, Xavier
ESCII	Marín Tordera, Eva	
ICOM	Fornés de Juan, Jordi Marín Tordera, Eva	Vila Martí, Frederic Yannuzzi Sánchez, Marcelo
ISOP	Sánchez Lopez, Sergio Yannuzzi Sánchez, Marcelo	Fornés de Juan, Jordi Sánchez Lopez, Sergio

EPSEVG (Cont.)

Subj.	Q1	Q2
SIOP	Fornés de Juan, Jordi	
SITR		Fornés de Juan, Jordi
USOP	Vila Martí, Frederic	

2.1.3. School of Civil Engineers, Ducts and Ports (ETSECCPB)

- **SBERD:** Serveis Bàsics i Desenvolupament en Entorns Rural

ETSECCPB

Subj.	Q1	Q2
SBERD	Meseguer Pallarés, Roque	

2.1.4. Barcelona School of Telecommunications Engineering (ETSETB)

- **ARISO:** Arquitectura de Computadors i Sistemes Operatius
- **ARISO1:** Arquitectura de Computadors i Sistemes Operatius 1
- **ARISO2:** Arquitectura de Computadors i Sistemes Operatius 2
- **FIFET:** Enginyeria de Telecomunicació
- **IBA:** Internet de Banda Ampla
- **IO:** Introducció als Ordinadors
- **LabARISO:** Laboratorio de Ariso
- **PAST:** Programació Avançada per a Sistemes de Telecomunicació
- **TFO:** Telecomunicacions per Fibra Òptica

ETSETB

Subj.	Q1	Q2
ARISO	Farreras Esclusa, Montserrat	Aletà Ortega, Alexandre Farreras Esclusa, Montserrat
ARISO1	Jiménez Castells, Marta Utrera Iglesias, Gladys	Alonso Martínez, Carlos Jiménez Castells, Marta Jo Ruiz, Jaume Utrera Iglesias, Gladys
ARISO2	Gil Gómez, Marisa	Gil Gómez, Marisa
FIFET	Ayguadé Parra, Eduard	
IBA		Domingo Pascual, Jordi Santos Boada, German Solé Pareta, Josep
IO	Bofill Soliguer, Pau Careglio, Davide Jo Ruiz, Jaume Otero Calviño, Beatriz Villanueva Gómez, Miguel Ángel	Jo Ruiz, Jaume Otero Calviño, Beatriz Rodenas Picó, David Villanueva Gómez, Miguel Ángel
LabARISO	Farreras Esclusa, Montserrat Garcia Gasulla, Marta	Farreras Esclusa, Montserrat Garcia Gasulla, Marta

ETSETB (Cont.)		
Subj.	Q1	Q2
PAST	Cruellas Ibarz, Joan Carles	Arnedo Moreno, Joan Cruellas Ibarz, Joan Carles
TFO	Solé Pareta, Josep	Solé Pareta, Josep

2.1.5. Barcelona School of Informatics (FIB)

- **AC:** Arquitectura de Computadors
- **ACA:** Arquitectura de Computadors Actuals
- **APC:** Arquitectura de un PC
- **ASO:** Administració de Sistemes Operatius
- **CARS:** Configuració i Avaluació del Rendiment de Sistemes
- **DM:** Disseny de Microprocessadors
- **EADAX:** Eines d'Ajuda al Desenvolupament d'Aplicacions a UNIX
- **ECI:** Estructura de Computadors I
- **ECII:** Estructura de Computadors II
- **EDSO:** Estructura i Disseny de Sistemes Operatius
- **IC:** Introduccio als Computadors
- **ILSLD:** Introducció al Linux i al Software de Lliure Distribució
- **MP:** Multiprocessadors
- **PCA:** Programació Conscient de l'Arquitectura
- **PI3M:** Projectes Informàtics als Països del tercer Món
- **PIAM:** Protocols d'Internet i Aplicacions Multimèdia
- **ProSO:** Projecte de Sistemes Operatius
- **PXC:** Projecte de Xarxes de Computadors
- **PXCISO:** Projecte de Xarxes i Sistemes Operatius
- **SI:** La Societat de la Informació
- **SO:** Sistemes Operatius
- **SODX:** Sistemes Operatius Distribuïts i en Xarxa
- **SPD:** Servei Públics de Dades
- **SSI:** Seguretat en Sistemes Informàtics
- **USO:** Utilització de Sistemes Operatius
- **XC:** Xarxes de Computadors
- **XCA:** Xarxes de Computadors i Aplicacions

FIB		
Subj.	Q1	Q2
AC	Fernández Jiménez, Agustín Herrada Lillo, Enrique Herrero Zaragoza, José Ramón Llabería Griñó, José María Olivé Duran, Àngel	Fernández Jiménez, Agustín Herrada Lillo, Enrique Herrero Zaragoza, José Ramón Llabería Griñó, José María Olivé Duran, Àngel
ACA		Espasa Sans, Roger
APC	Cruz Díaz, Josep-Llorenç Fernández Jiménez, Agustín López Álvarez, David Sánchez Carracedo, Fermín	Cruz Díaz, Josep-Llorenç Fernández Jiménez, Agustín López Álvarez, David Sánchez Carracedo, Fermín
ASO	Álvarez Mesa, Mauricio Duran González, Alejandro Martorell Bofill, Xavier Valverde Amador, Antoni Xavier	Martorell Bofill, Xavier Pérez Payeras, Andres Serral Gracia, René
CARS	Carrera Pérez, David Gil Gómez, Marisa Torres Viñals, Jordi	
DM	Canal Corretger, Ramon	
EADAX	Morancho Llena, Enrique	
ECI	Alonso López, Javier Barlet Ros, Pere Lara Ochoa, Eduard Parcerisa Bundo, Joan Manuel Tous Liesa, Rubén Tubella Murgadas, Jordi	Alonso López, Javier Álvarez Martínez, Carlos Barlet Ros, Pere Lara Ochoa, Eduard Moya del Barrio, Víctor Parcerisa Bundo, Joan Manuel Rodríguez Doncel, Víctor Tous Liesa, Rubén Vaquero García, Jorge Daniel
ECII	Álvarez Martínez, Carlos Fernández Barta, Montserrat Llosa Espuny, Josep Sole Clotet, Josep	Álvarez Martínez, Carlos Fernández Barta, Montserrat Llosa Espuny, Josep Sole Clotet, Josep
EDSO	Herederó Lázaro, Ana M Navarro Mas, José Ignacio	Aletà Ortega, Alexandre Herederó Lázaro, Ana M Navarro Mas, José Ignacio
IC	Alonso López, Javier Cruz Díaz, Josep-Llorenç Fáundez Zanuy, Marcos González Tallada, Marc Manso Cortés, Óscar Muntés Mulero, Víctor Navarro Guerrero, Juan José Palomar Pérez, Óscar Reyes Muñoz, María Angélica Roderó Castro, Ivan Sánchez Castaño, Friman Solé Simó, Marc	Aletà Ortega, Alexandre Cortés Rosselló, Toni Cruz Díaz, Josep-Llorenç Fáundez Zanuy, Marcos González Tallada, Marc Manso Cortés, Óscar Muntés Mulero, Víctor Navarro Guerrero, Juan José Palomar Pérez, Óscar Roderó Castro, Ivan
ILSLD	Álvarez Martínez, Carlos López Álvarez, David	Álvarez Martínez, Carlos López Álvarez, David
MP	González García, Rubén Labarta Mancho, Jesús José	González García, Rubén Labarta Mancho, Jesús José
PCA	Jiménez González, Daniel Monreal Arnal, Teresa	Ayguadé Parra, Eduard Jiménez González, Daniel
PI3M	Garcia Almiñana, Jordi	

FIB (Cont.)		
Subj.	Q1	Q2
PIAM	Barceló Ordinas, José María García Vidal, Jorge	Barceló Ordinas, José María García Vidal, Jorge
PXC	Freitag , Fèlix Guerrero Zapata, Manel Jordán Fernández, Francisco Marques Puig, Joan Manel Serral Gracia, René	Cabellos Aparicio, Alberto Freitag , Fèlix Guerrero Zapata, Manel Toribio González, Àngel
PXCSO	Navarro Mas, José Ignacio Velasco Esteban, Luis	Navarro Mas, José Ignacio Velasco Esteban, Luis
ProSO	Becerra Fontal, Yolanda Costa Prats, Juan José Gil Gómez, Marisa González García, Rubén Guitart Fernández, Jordi	Becerra Fontal, Yolanda Costa Prats, Juan José González García, Rubén
SI	Domingo Pascual, Jordi Santos Boada, German	
SO	López Álvarez, David Millán Vizuete, Amador Pajuelo González, Manuel Alejandro	Barrio Guerrero, Rubén López Álvarez, David Millán Vizuete, Amador Pajuelo González, Manuel Alejandro Verdú Mulá, Javier
SODX		Guitart Fernández, Jordi
SPD	Santos Boada, German Solé Pareta, Josep	Santos Boada, German Solé Pareta, Josep
SSI	Arnedo Moreno, Joan Cruellas Ibarz, Joan Carles Cruellas Ibarz, Marta Medina Llinàs, Manel Toribio González, Àngel	Arnedo Moreno, Joan Cruellas Ibarz, Marta Jordán Fernández, Francisco Medina Llinàs, Manel
USO	Monreal Arnal, Teresa	Monreal Arnal, Teresa
XC	Careglio , Davide Cerdà Alabern, Llorenç Delgado Merce, Jaime María Iñigo Griera, Jordi Llorente Viejo, Silvia Morillo Pozo, Julián David Nin Guerrero, Jordi Suñol Capella, Josep Valverde Amador, Antoni Xavier	Careglio , Davide Cerdà Alabern, Llorenç Delgado Merce, Jaime María Iñigo Griera, Jordi Llorente Viejo, Silvia Morillo Pozo, Julián David Nin Guerrero, Jordi Perelló Muntan, Jordi Suñol Capella, Josep Valverde Amador, Antoni Xavier
XCA	Carrera Pérez, David	Carrera Pérez, David

2.1.6. Faculty of Mathematics and Statistics (FME)

- **GOT:** GO Tardor

FME		
Subj.	Q1	Q2
GOT	Bofill Soliguer, Pau	

2.1.7. Master in Computer Architecture, Networks and Systems (Master CANS)

- **AMPP:** Algoritmos y Modelos de Programación Paralelos
- **AP:** Arquitectura de Procesadores
- **ATXA:** Arquitectura y Tecnología de Redes de Transporte Ópticas
- **CAAR:** Compiladores para Arquitecturas de Alto Rendimiento
- **CBA:** Comunicaciones de Banda Ancha
- **CMARC:** Conceptos Matemáticos Aplicados a Redes de Computadores
- **DTP:** Diseño y Tecnología de Procesadores
- **EEAP:** Entornos de Ejecución para Arquitecturas Paralelas
- **EECD:** Entornos de Ejecución para Computación Distribuida
- **HTM:** Herramientas y Técnicas de Medida
- **OANN:** Optimización de Aplicaciones No Numéricas
- **RALIAS:** Redes de Area Local Inalámbricas, Adhoc y de Sensores
- **SD:** Sistemas Distribuidos
- **SIADS:** Seguridad Informática y Aplicaciones Distribuidas
- **SONAR:** Sistemas Operativos para Nuevas Arquitecturas

Master CANS		
Subj.	Q1	Q2
AMPP	Ayguadé Parra, Eduard Herrero Zaragoza, José Ramón Jiménez González, Daniel Navarro Guerrero, Juan José	
AP		González Colás, Antonio M.
ATXA		Solé Pareta, Josep
CAAR	González Tallada, Marc Jiménez Castells, Marta Llosa Espuny, Josep	
CBA	Domingo Pascual, Jordi Santos Boada, German Solé Pareta, Josep	
CMARC	Cerdà Alabern, Llorenç	
DTP		Canal Corretger, Ramon

Master CANS (Cont.)		
Subj.	Q1	Q2
EEAP	Gil Gómez, Marisa Martorell Bofill, Xavier Navarro Mas, José Ignacio	
EECD		Torres Viñals, Jordi
HTM		López Álvarez, David Ramírez Bellido, Alejandro
OANN		Larriba Pey, Josep Lluís
RALIAS		Barceló Ordinas, José María Cerdà Alabern, Llorenç García Vidal, Jorge
SD	Freitag , Fèlix Marques Puig, Joan Manel	
SIADS		Gallego Fernández, Ma. Isabel Jordán Fernández, Francisco Medina Llinàs, Manel
SONAR	Navarro Mas, José Ignacio	

2.1.8. Aerospace Science and Technology Master (Master Ciència i Tecnologia Aeroespacial)

- **SAD:** Sistemes Avionics Digitals

Master Ciència i Tecnologia Aeroespacial		
Subj.	Q1	Q2
SAD		Barrado Muxí, Cristina Pastor Llorens, Enric

2.1.9. Master in Information Technology (Master MINT)

- **APDA:** Advanced Programming and Distributed Applications

Master MINT		
Subj.	Q1	Q2
APDA	Chacín Martínez, Pablo	

2.2. Supervision of final projects

As listed below, there are the final projects presented in this academic career and where any member of the DAC has been involved as director or as a promoter. This relationship is divided according to the degree.

2.2.1. Diploma in Aeronautics, specializing in Air Navigation (EPSC)

AERN			
Date	Title	Student	Director/Promoter
08/Jun/09	Implementación de sistema de mando del simulador CESNA	Ros Salvador, Sergio	Tristancho Martínez, Joshua
23/Jul/09	Viabilidad de los sistemas TCAS en plataformas UAV	Pareja Garcia, Jonathan	Pastor Llorens, Enrique
30/Sep/09	Sistema de terminación de vuelo para plataformas UAV	Feliu Pelach, Raül	Pastor Llorens, Enrique
20/Nov/09	Plataforma d'orientació pel seguiment en temps real de UAVs	Morales Pedro, Ricard	Pastor Llorens, Enrique

2.2.2. Computer Engineering (FIB)

EI			
Date	Title	Student	Director/Promoter
13/Nov/08	Aplicacions web para el desarrollo sostenible a través de ongs	García Miguel, Daniel	Otero Calviño, Beatriz Alonso López, Javier (Codirector)
13/Nov/08	Eines per a l'anàlisi del càncer a catalunya	Trench Ribes, Núria	Larriba Pey, Josep Ribes, Josepa (Codirector)
17/Nov/08	Sistema automático de bots para Quake 3	Palencia Fernández, Jaume	Pajuelo Gonzalez, Manuel Alejandro
02/Dec/08	Adaptació i desenvolupament d'un sistema de mesures de rendiment a Marenostrom	Abellan Ecija, Xavier	Labarta Mancho, Jesus Jose
18/Dec/08	Aplicació de gridss a la bioinformàtica	Díaz Capell, Joan	Ayguadé Parra, Eduardo
22/Dec/08	Sistema de detección y análisis de vulnerabilidades web	Del Ojo Elías, Carlos	Arnedo Moreno, Joan
08/Jan/09	Profilers (programa de visualització i anàlisi d'eines hidrometeorològiques)	Puigdomènech Treserras, Bernat	Costa Prats, Juan José
13/Jan/09	Sistemas de gestión de identidad centrados en el usuario	Campos Vall, David	Jordan Fernández, Francisco
13/Jan/09	La e-identidad gestionada por el usuario	Martínez Jurado, Víctor	Jordan Fernández, Francisco
13/Jan/09	Diseño e implementación de un razonador semántico sobre seguridad y confianza en pki	Pareja Rendón, Miguel Ángel	Jordan Fernández, Francisco
14/Jan/09	Gestor de avisos de vulnerabilidades	Gómez Águila, Abel	Medina Llinàs, Manuel
19/Jan/09	Frontend para un mercado distribuido	Castro Pérez, Javier	Freitag, Felix
20/Jan/09	Pissarra web compartida	Llop Yacobi, Albert	Ramirez Bellido, Alejandro
22/Jan/09	Prototipatge i implementació d'un spu d'un cell en una fpga	Fernández Oreja, Mikel	Jimenez Gonzalez, Daniel

EI (Cont.)			
Date	Title	Student	Director/Promoter
23/Jan/09	Implementació del mòdul d'anàlisi de funcionament de radar	Sancho Alcázar, David	Serral Gracià, René
26/Jan/09	Record linkage paral·lel	Guisado Gámez, Joan	Larriba Pey, Josep
27/Jan/09	Portal web de localització gps	Azor Granada, Carlos	Morillo Pozo, Julián David
29/Jan/09	Desenvolupament d'una plataforma de xarxes de sensors	Soria De León, Antonio	Guerrero Zapata, Manel
29/Jan/09	Cerca eficient de components connexes i fortament connexes sobre grans grafs	Prat Pérez, Arnau	Muntés Mulero, Victor
30/Jan/09	Ub: joc futurista en temps real	Clausell Samitier, Marc	Duran González, Alejandro
30/Jan/09	Rotació eficient d'imatges tiff de gran tamany	Rosas Garcia, Daniel	Morancho Llena, Enrique Llosa Espuny, Jose Francisco (Codirector)
03/Feb/09	Implantació de processos ITIL a una organització multi-seu	Rios Parreño, Sergi	Martorell Bofill, Xavier
04/Feb/09	Análisis y evaluación comparada de redes de acceso gpon y p2p	Garcia Torres, Jose	Santos Boada, German
27/Feb/09	Sai (integración de aplicaciones de seguridad)	Guillen Ruiz, Jonatan	Jordan Fernández, Francisco
01/Apr/09	Casa guatemala - restaurante	Fotopoulou, Eleni	Sánchez Carracedo, Fermin Franquesa, David (Codirector)
01/Apr/09	Casa guatemala - restaurante	Muro Guiu, Isaac	Sánchez Carracedo, Fermin Franquesa, David (Codirector)
20/Apr/09	Desarrollo de una plataforma para aplicaciones en sistemas empotrados	Romeo Fuentes, Laia	Gil Gomez, Maria Luisa
15/May/09	Desktop web para firma electrónica y otros servicios PKI	López Aladro, Julia	Jordan Fernández, Francisco
05/Jun/09	Integración de un sistema de comentarios en factor server	Pereira Varela, Marcos	Valverde Amador, Antonio Javier
09/Jun/09	Acceso a servicios de operador desde plataformas de lifestreaming	Jimenez Castelltort, Jose Luis	Freitag, Felix
15/Jun/09	Manticore: adaptación de un entorno gráfico de configuración de redes ip lógicas	Ferrer Riera, Jordi	Cerdà Alabern, Llorenç
15/Jun/09	Explotació de la api googlemaps en la web upc	Aparicio Calvo, Raul	Guerrero Zapata, Manel
17/Jun/09	Portal web del empleado con SAP Enterprise Portal	Ayala Villuendas, Joan	Palomar Pérez, Oscar
19/Jun/09	Wintour: sistema distribuït de gestió d'agències de viatge	Alvarez Marín, Manuel	Serral Gracià, René
25/Jun/09	Tècniques client d'antifrau financer	Soler Alvarez, Alejandro	Medina Llinàs, Manuel
26/Jun/09	Entorn d'aprenentatge per a l'assignatura seguretat en sistemes informàtics	Segarra Lopez, Marc	Medina Llinàs, Manuel

EI (Cont.)

Date	Title	Student	Director/Promoter
26/Jun/09	Tools for virtual slicing and network provisioning at layer 2	Monje Hernández, Alvaro	Meseguer Pallares, Roque Cervello Pastor, Cristina (Codirector)
26/Jun/09	Implantación de un sistema de monitorización y análisis de tráfico de redes de alta velocidad	Castell Uroz, Ismael	Barlet Ros, Pere Sole Pareta, Josep (Codirector)
26/Jun/09	Generació de codi per a l'arquitectura cell be	Franch Monràs, Sandra	González Tallada, Marc
29/Jun/09	Sistema meteorològic distribuït	Safont Gutiérrez, Ramon	Cortés Rosselló, Antonio
30/Jun/09	Firma de documentos office	Sánchez Cano, Roberto	Medina Llinàs, Manuel
01/Jul/09	Software de adaptación para audífonos programables	Velilla Rodriguez, Hugo	Martorell Bofill, Xavier
01/Jul/09	Web d'edició i compartició de partitures musicals	Gibert Casabona, Xavier	Bofill Soliguer, Pablo
01/Jul/09	DEXCELL: Un sistema de gestió de xarxes de sensors sense fils	Corominas Cruells, Guillem	Gil Gomez, Maria Luisa
01/Jul/09	Channel surting para redes de sensores	Da Silva Campello, Cristian	Guerrero Zapata, Manel
03/Jul/09	Sistema de manteniment embarcat	Tufet Palaci, David	Martorell Bofill, Xavier
03/Jul/09	Sistema de reputación para PKI basado en tecnologías semánticas y Data-Mining	Palacio Franco, Jorge	Jordan Fernández, Francisco
06/Jul/09	Análisis del rendimiento de directx	Gorritz Torner, Xavier	Pajuelo Gonzalez, Manuel Alejandro Verdu Mula, Javier (Codirector)

2.2.3. Telecommunications Engineering (ETSETB)

ET

Date	Title	Student	Director/Promoter
01/Oct/08	QoS guarantees in interoperable GHPLS/OBS Network architecture	Lolli, Luca	Careglio, Davide Sole Pareta, Josep
16/Oct/08	A real-world implementation and parametrization of mobile ad-hoc networks (II)	Medina Medina, Esunly María	Meseguer Pallares, Roque
15/Dec/08	Desenvolupament de subsistemes per a una eina de detecció i gestió d'amenaçes terroristes en instal·lacions de transport metropolitana	Clusa Moreno, Alejandro	Becerra Fontal, Yolanda
11/Feb/09	Modeling the molecular communication nanonetworks	Roca Lacasa, Neus	Sole Pareta, Josep
25/Feb/09	Information-theoretical Secret-key Agreement and Bound Information	Kreißig, Martin René	Sole Pareta, Josep
13/Mar/09	Estudio de la plataforma de software Android para el desarrollo de una aplicación social	Pérez Rodríguez, Iván	Meseguer Pallares, Roque

ET (Cont.)			
Date	Title	Student	Director/Promoter
03/Apr/09	Ahorro de energía y balanceo de carga en centros de datos	Sahuquillo Martínez, Salvador	Otero Calviño, Beatriz
08/May/09	Using XMPP to transport collaborative and context information	Juan Torres, Alberto José	Meseguer Pallares, Roque
24/Jul/09	Design and Implementation of a PTX Emulation Library	Claret Exojo, Albert	Gelado Fernandez, Isaac
29/Jul/09	A new Nanonetwork Architecture using Flagellated Bacteria and Catalytic Nanomotors	Gregori Casas, Maria	Sole Pareta, Josep

2.2.4. Diploma in Computer Software (FIB)

ETG			
Date	Title	Student	Director/Promoter
29/Jan/09	Windreport	Viñado Martínez, Javier	Fernández Jiménez, Agustín
30/Jun/09	Gestió d'auditors web	Blanc Gimeno, Oriol Gaspar	Medina Llinàs, Manuel
03/Jul/09	Signatura digital de documents Machine-Readable	Fontquerni Tomàs, Albert	Tous Liesa, Rubén

2.2.5. Diploma in Computer Software (EPSEVG)

ETIG			
Date	Title	Student	Director/Promoter
12/Feb/09	Software per a la gestió d'un videoclub online	Martínez Albarral, Damian	Vila Marti, Frederic
07/Jul/09	Programación en red para Blu-ray	Peña Bernal, Raúl	Fornes De Juan, Jorge

2.2.6. Diploma in Computer Systems (FIB)

ETS			
Date	Title	Student	Director/Promoter
23/Jan/09	Gestor d'informació versió 2.0 per al v congrés cidui i parametrizació per a properes edicions	Argemí Montoliu, Roger	Cruellas Ibarz, Juan Carlos
26/Jan/09	Desenvolupament d'un front end per record linkage basat en java	Laita Mané, Alberto	Larriba Pey, Josep
29/Jan/09	Base de dades de coneixement, BDC	Roche Pastor, Susana	García Almiñana, Jordi
29/Jan/09	Base de dades de coneixement, BDC	Pardo Pérez, Francisca	García Almiñana, Jordi
29/Jan/09	Desarrollo de un middleware para un mercado distribuido sobre una capa de comunicación P2P	Borja Torres, Vicent	Freitag, Felix

ETS (Cont.)

Date	Title	Student	Director/Promoter
29/Jan/09	Millorar la utilització que fa Linux dels estats C d'ACPI	Morgado Mimbrero, Adrià	Morancho Llana, Enrique
30/Jan/09	Automatització del procés de redacció de projectes d'enginyeria - ICT	Sastre Juan, Adria	Costa Prats, Juan José
21/May/09	Gestió d'identitats amb sistemes One Time Password	Casanovas Palau, Isaac	Medina Llinàs, Manuel
04/Jun/09	Extensions del protocol Imp per optical impairments	Font Freixa, Marc	Velasco Esteban, Luis Domingo Agraz, Fernando (Codirector)
04/Jun/09	En el teu idioma, el cas colombià	Casanellas Berges, Fèlix	Freitag, Felix Casasbuenas, Julián (Codirector)
05/Jun/09	Tolerancia a fallos en el plano de control de redes ópticas	Hernandez Andreu, Daniel	Velasco Esteban, Luis Domingo Perelló, Jordi (Codirector)
05/Jun/09	Implementació d'un proxy de videostreaming	Llamas Pons, Jordi	Velasco Esteban, Luis Domingo Hernández, Guillem (Codirector)
19/Jun/09	Anàlisi forense digital mitjançant l'ús d'eines open source	Ahmed Akhtar, Adib	Martorell Bofill, Xavier
29/Jun/09	Diseño e implementación de una red GPON multioperador	Barroso Quintero, Alex	Santos Boada, German
29/Jun/09	Aplicació web per a la gestió d'un ajuntament	Ojeda Martín, José Luis	Martorell Bofill, Xavier
01/Jul/09	Emulación del tiempo en aplicaciones instrumentadas	Urós Guardiola, Pol	Pajuelo Gonzalez, Manuel Alejandro
01/Jul/09	Monitorització d'un entorn informàtic de sistemes	Pérez Riera, Joaquim	Carrera Pérez, David
02/Jul/09	Migració d'Exchange 5.5 a Exchange 2003	Luque Marente, Antonio Manuel	Martorell Bofill, Xavier
02/Jul/09	Gestió d'activitats del SCM	Marcos Martínez, Ana M ^a	Martorell Bofill, Xavier
03/Jul/09	Entorn d'aprenentatge per Computer Forensics	Segovia Lopez, Jordi	Arnedo Moreno, Joan
03/Jul/09	Integració d'un crm open-source a un callcenter ip basat en asterisk	Valencia Blanco, Ignacio	Carrera Pérez, David

2.2.7. Diploma in Telecommunications, specializing in Telecommunications Systems (EPSC)

SIST			
Date	Title	Student	Director/Promoter
21/May/09	Engine Monitoring Unit for Unmanned Aerial Vehicles	Sagardoy Pérez, Julio	Pastor Llorens, Enrique
25/May/09	Implementación de la capa Modelo de Elevación Digital en la plataforma ISIS	Romero Gomez, Susana	Tristancho Martínez, Joshua
17/Jul/09	Implementation And Verification Of A Lunar Mission Subsystems	Cuadrado Santolaria, Raul	Tristancho Martínez, Joshua
17/Jul/09	Implementation And Verification Of A Lunar Mission Subsystems	Fernández Murcia, Enric	Tristancho Martínez, Joshua
01/Sep/09	Una aplicacio GeoWeb: Morella	Bellvís Milián, Marc	Meseguer Pallares, Roque
10/Nov/09	Gestió remota dels laboratoris de la EPSC	Ballestero Cano, Juan	Royo Vallés, M. Dolores
11/Nov/09	Near future VANET¿s prototyped by the Moway robot.	Cuenca Granados, Javier	Reyes Muñoz, M. Angelica
18/Nov/09	Estudio de una red de sensores sin hilos basada en la tecnología Arduino bajo protocolos de comunicaciones Zig-bee.	Aguirre Solvez, Lorena	Mora Serrano, Francisco Javier

2.2.8. Diploma in Telecommunications, specializing in Telematics (EPSC)

TEL			
Date	Title	Student	Director/Promoter
11/Feb/09	Aplicación Web para gestión de instalaciones de servicios informáticos en tiendas	Carrillo Camino, Raúl	Meseguer Pallares, Roque
24/Apr/09	Experiments about a real use of mobile ad-hoc networks	Franco Rossello, Nuria	Meseguer Pallares, Roque
25/May/09	Intelligent Communication Gateway for Unmanned Airborne Systems	Luque Oliver, Joan Miquel	López Rubio, Juan
25/May/09	Intelligent Communication Gateway for Unmanned Airborne Systems	Giménez Verdugo, Daniel	López Rubio, Juan
04/Jun/09	Implementació d'una xarxa P2P Pastry sobre una xarxa MANET MCL	Basets Roca, Xavier	Royo Vallés, M. Dolores
11/Jun/09	Accés web a un laboratori domòtic	Pallarés Pascual, Javier	Meseguer Pallares, Roque
12/Jun/09	System administration, design and development of an application to register and maintain project related data	Martinez Illan, Alberto	Royo Chic, Pablo
12/Jun/09	Implementació d'un sistema d'adreçament intencional	Carenys Roca, Antoni	López Rubio, Juan

TEL (Cont.)

Date	Title	Student	Director/Promoter
23/Jun/09	Red-eye. Sistema per la monitorització semi-automàtica d'incendis forestals.	Ortega Parrado, Sergio	López Rubio, Juan
02/Jul/09	Disseny d'un software per l'extracció de mesures amb analitzador d'espectres	Flores Rosconi, Daniel Andrés	López Rubio, Juan
28/Jul/09	Wifi mesh network nodes on guifi.net	Duran Rosich, Eduard	Meseguer Pallares, Roque
14/Sep/09	Generación musical basada en protocolos de red	Ustarroz Molina, Paula Maria	López Rubio, Juan
24/Nov/09	Implementació d'una aplicació de transferència de fitxers UDP sobre MANETS	Gago Castaño, Rafael	Royo Vallés, M. Dolores
22/Dec/09	Estrategias de agrupamiento en MANETs	Lopez Tore, Anabel	Meseguer Pallares, Roque
16/Feb/10	Estudi de l'entorn MediaScape	Giménez Sánchez, Rubén	Royo Vallés, M. Dolores
16/Feb/10	Estudi de l'entorn MediaScape	Neblesa Pañella, Enric	Royo Vallés, M. Dolores

2.3. Masters thesis Address

Below is a list of the master's degree dissertations submitted this academic year and for which a member of DAC staff acted as supervisor.

2.3.1. Master in Computer Architecture, Networks and Systems (FIB)

CANS

Date	Title	Student	Director/Promoter
04/Feb/09	A hybrid MPI/SMPs programming model	Marjanovic, Vladimir	Labarta, Jesús Valero, Mateo
04/Feb/09	Automatic overlap of communication and computation	Subotic, Vladimir	Labarta, Jesús Valero, Mateo
04/Feb/09	The software caching techniques for The Cell BE Architecture	Vujic, Nikola	González, Marc Ayguadé, Eduard
04/Feb/09	Techniques for improving the performance of software transactional memory	Stipic, Srdan	Cristal, Adrián Valero, Mateo Unsal, Osman
04/Feb/09	Performance, power and thermal modeling in 3D Die-Stacking architectures	Vega, Augusto Javier	Ramírez, Alex Valero, Mateo
04/Feb/09	Energy efficiency of parallel applications and workloads	Etinski, Maja	Corbalán, Julita Labarta, Jesús
04/Feb/09	Data Collection for Troubleshooting database management systems	Sindreu Abelló, Roger	Larriba, Josep Lluís
04/Feb/09	Analysis and evaluation of the automatic generation of domain-specific accelerators	González Álvarez, Cecilia Noemí	Jiménez, Daniel
06/Feb/09	Measuring operating system overhead on CMT processors	Radojkovic, Petar	Pajuelo, Álex Verdú, Javier Nemirovsky, Mario

CANS (Cont.)			
Date	Title	Student	Director/Promoter
06/Feb/09	Identification of network applications based on machine learning techniques	Carela Español, Valentin Daniel	Barlet Ros, Pere
06/Feb/09	CoolRuc 2.0: a P2P live streaming using quality-adaptable video codings	Crespo Sanjusto, José Francisco	Navarro Moldés, Leandro
06/Feb/09	Counting network flows over sliding windows	Sanjuàs Cuxart, Josep	Barlet Ros, Pere
06/Feb/09	Adaptative cache sharing for future many core architectures	Erola Cañellas, Pau	González Colás, Antonio
06/Feb/09	Using semantics for resource allocation and task scheduling	Ejarque Artigas, Jorge	Badía Sala, Rosa Maria
09/Jul/09	Effect of Spatio-temporal Variations on Memory Systems.	Ganapathy , Shrikanth	González, Antonio Canal, Ramon Rubio, Antonio
09/Jul/09	Improving Dynamic Binary Optimizers Efficiency Through Specific Hardware Support.	Pavlou, Demos	González, Antonio Gibert, Enric Latorre, Fernando
09/Jul/09	Thread-Level Speculation in Heterogeneous Multicore Architectures.	Álvarez Martí, Lluc	Gil, Marisa González, Marc Navarro, Nacho
09/Jul/09	On the Use of Resource-level Information for Enhancing SLA Negotiation in Market-based utility Computing Environments.	Macías Lloret, Mario	Guitart Fernández, Jordi
09/Jul/09	Cooperative caching prototype in a cluster environment	Miranda Bueno, Alberto	Cortés Rosselló, Toni
09/Jul/09	CPU Accounting for CMP Architectures.	Ruiz Luque, Jose Carlos	Cazorla, Francisco J. Gioiosa, Roberto Valero, Mateo
09/Jul/09	Portscan Detection with Sampled NetFlow.	Paredes Oliva, Ignasi	Barlet, Pere Solé, Josep
09/Jul/09	Towards the Use of Cloud Computing for Web Hosting Providers.	Fitó Comellas, Josep Oriol	Guitart Fernández, Jordi
08/Sep/09	Prediction of Job Resource Requirements for Deadline Schedulers in Virtualized Environments	Reig Ventura, Gemma	Guitart Fernández, Jordi
08/Sep/09	Light-Weight Error Detection Schemes for Performance Oriented Cores	Carretero Casado, Javier Sebastián	Abella Ferrer, Jaume
09/Sep/09	Parallelizing Complex Serial Application Using Software Transactional Memory	Gajinov, Vladimir	Cristal Kestelman, Adrian Valero Cortes, Mateo Unsal, Osman Aygudé Parra, Eduardo
09/Sep/09	RMS-TM challenging benchmark suite of Recognition, Mining and Synthesis for Transactional Memory	Kestor, Gokcen	Unsal, Osman Cristal, Adrian
09/Sep/09	Parallelization and performance analysis of GEGL, the GIMP image processing library	Akesson , Henrik	Badia Sala, Rosa M.

2.3.2. Master of Science in Telecommunication Engineering & Management (EPSC)

MASTEAM			
Date	Title	Student	Director/Promoter
25/Jun/09	E-Administration: Enterprise Administration applications for the ¿Sindic de Greuges de Catalunya¿ using RIA with COM+ technologies.	Clemente Pascual, Jordi	Meseguer Pallares, Roque
15/Sep/09	Ground Control Station for UAS over ICARUS System	López Liévana, Borja	Royo Chic, Pablo
01/Oct/09	An infrastructure for remote UAS mission monitorization	Mestre Fernandez, Miguel	Santamaria Barnadas, Eduard
26/Oct/09	Adaptation of voice sever to automotive environment	Salinas Vila, David	Meseguer Pallares, Roque

2.3.3. Master of Science in Information and Communication Technologies (ETSETB)

MINT			
Date	Title	Student	Director/Promoter
25/Feb/09	Information-theoretical Secret-key Agreement and Bound Information	Kreißig, Martin René	Sole Pareta, Josep

2.3.4. Master in Information Technology (FIB)

MTI			
Date	Title	Student	Director/Promoter
14/Sep/09	Service Level Agreement Driven Adaptive Resource Management For Web Applications on Heterogeneous Compute Clouds	Iqbal , Waheed	Carrera Pérez, David
14/Sep/09	Parallel ioagent	Sebastià Martínez, Francesc	Larriba Pey, Josep
23/Sep/09	Simulació amb memòries transaccionals sobre FPGA	Arcas Abella, Oriol	Cristal, Adrián
23/Sep/09	Parallel-architecture simulator development using htm	Armejach Sanosa, Adrià	Cristal, Adrián
23/Sep/09	Estudi comparatiu de tècniques de prebúsqueda	Torrents Lapuerta, Marti	González Colás, Antonio

2.4. Doctoral Theses

Between 1980 and August 2009, 152 doctoral theses have been defended at the DAC. In the September 2008 - August 2009 period, the following doctoral theses were defended:

Doctoral Theses			
Date	Title	Author	Advisor(s)
18/Sep/08	Contribución a la teoría de redes de interconexión y de radiocomunicación	Jose Gomez Marti	Jorge Garcia Vidal Miguel Escudero Royo
03/Oct/08	Improving web server efficiency on commodity hardware	Vicenç Beltran Querol	Eduard Ayguade Parra Jordi Torres Viñals
22/Oct/08	Self-tuned parallel runtimes: a case of study for OpenMP	Alejandro Duran Gonzalez	Eduard Ayguade Parra Julita Corbalan Gonzalez
31/Oct/08	Aplicación de la simulación en tiempo real para mejorar la calidad de servicio del middleware	Ramon Nou Castell	Jordi Torres Viñals
18/Nov/08	Predicated execution and register windows for out-of-order processors	Eduardo Quiñones Moreno	Antonio M. Gonzalez Colas Joan Manel Parcerisa Bundo
03/Dec/08	iDRM - Interoperability Mechanisms for Open Rights Management Platforms	Carlos Jose Corredoura Serrao	Jaime Delgado Merce Miguel Salles Dias
09/Dec/08	Affordable kilo-instruction processors	Miquel Pericas Gleim	Adrian Cristal Kestelman Mateo Valero Cortes
12/Dec/08	Optimizing programming models for massively parallel computers	Montserrat Farreras Esclusa	Antonio Cortes Rossello
15/Dec/08	Load shedding in network monitoring applications	Pere Barlet Ros	Gianluca Iannaccone Josep Sole Pareta
16/Dec/08	On the transition to the mobile internet	Alberto Cabellos Aparicio	Francisco J. Garcia Jordi Domingo Pascual
16/Jan/09	Towards End-to-End SLA Assessment	Rene Serral Garcia	Jordi Domingo Pascual
29/Jan/09	Optimization and functional improvement of disk arrays	Jose Luis Gonzalez Compean	Antonio Cortes Rossello
03/Feb/09	GRID superscalar: a programming model for the Grid	Raül Sirvent Pardell	Rosa Maria Badia Sala
05/Feb/09	Coordinated Scheduling and Resource Management for Heterogeneous Clusters and Grid Systems	Ivan Rodero Castro	Julita Corbalan Gonzalez
16/Apr/09	The way of the lazy	Marc Sole Simo	Enrique Pastor Llorens
18/Jun/09	Clustered Multithreaded Processors	Fernando Latorre Salinas	Antonio González José González
07/Jul/09	Securing Group Based Peer-to-Peer Systems	Joan Arnedo Moreno	Joan Carles Cruellas (tutor) Jordi Herrera Joancomartí
07/Jul/09	Heterogeneity-Awareness in Multithreaded Multicore Processors	Carmelo Alexis Acosta Ojeda	Alex Ramírez Francisco J. Cazorla Mateo Valero
14/Jul/09	Improving Wireless Networks with Cooperative ARQ Protocols	Julián David Morillo Pozo	Jorge García Vidal
15/Jul/09	Autonomous Management in VM-based Resource Providers	Fernando Rodríguez Haro	Felix Freitag Leandro Navarro

3

Research

The activities of each research group over the academic year are described below. All of this information was automatically retrieved from the UPC's scientific output database and from the DAC's application for the management of research reports.

The research groups in the DAC are:

- **ANA:** Grup d'Arquitectures Avançades de Xarxes.
- **ARCO:** Microarquitectura i Compiladors.
- **CAP:** Grup de Computació d'Altes Prestacions.
- **CBA:** Sistemes de Comunicacions de Banda Ampla.
- **CNDS:** Xarxes de Computadors i Sistemes Distribuïts.
- **DAMA-UPC:** Data Management Group.
- **DMAG:** Grup d'Aplicacions Multimèdia Distribuïdes.

3.1. Research Group ANA

The research activities carried out by ANA are focused on three areas: Networking, with special focus on the design of next generation network architectures and protocols, both in IP and optical networks, E-health and Design of real-time applications and services.

Web page: <http://research.ac.upc.edu/ANA>

Responsible: Xavier Masip Bruin

Date creation: 26/May/09

People

Castro Casales, Alberto	Fornés de Juan, Jordi
German Duarte, Martin	Marín Tordera, Eva
Masip Bruin, Xavier	Serral Gracià, René
Sánchez López, Sergio	Vilà Martí, Frederic
Yannuzzi, Marcelo	

Journals

- Yannuzzi, M., Masip, X., Marín, E., Domingo, J., Fonte, A. and Monteiro, E. "Improving the Performance of Route Control Middleboxes in a Competitive Environment", **IEEE network**, 22(5), Sep/08, 56-64.
- Yannuzzi, M., Masip, X., Sánchez, S. and Marín, E. "OBGP+: An improved path-vector protocol for multi-domain optical networks", **Optical switching and networking**, 6(SI:2), Apr/09, 111-119.
- Yannuzzi, M., Masip, X., Grampin, E., Gagliano, R., Castro, A. and German, M. "Managing Interdomain Traffic in Latin America: A New Perspective based on LISP", **IEEE communications magazine**, 47(7), Jul/09, 40-48.

Book Chapters

- Careglio, D., Aracil, J., Fernández, J., Jajszczyk, A., Larrabeiti, D., López, V., Masip, X., Sánchez, S. and Spadaro, S. "Introduction to IP over WDM", **Enabling optical Internet with advanced network technologies**, 01/Jun/09, 5-29.

Conference Presentations

- Serral, R., Barlet, P. and Domingo, J. "Distributed Sampling for On-line SLA Assessment" in **LANMAN 2008 16th IEEE Workshop on Local and Metropolitan Area Networks**, Cluj Napoca, 30/Sep/08, 1-2.
- Castro, A., German, M., Masip, X., Yannuzzi, M., Gagliano, R. and Grampin, E. "Advantages of a PCE-based control plane for LISP" in **Proceedings of ACM CoNEXT 2008 Student Workshop**, Madrid (España), 09/Dec/08.
- Yannuzzi, M., Quagliotti, M., Maier, G., Marín, E., Masip, X., Sánchez, S., Erangoli, W. and Tamiri, G. "Performance of translucent optical networks under dynamic traffic and uncertain physical-layer information" in **13th International Conference on Optical Network Design and Modelling**, Braunschweig (Alemania), 01/Feb/09.
- Azodolmolky, S., Pointurier, Y., Klinkowski, M., Marín, E., Careglio, D., Solé, J., Angelou, M. and Tomkos, I. "On the offline physical layer impairment aware RWA algorithms in transparent optical networks: state-of-the-art and beyond" in **Proceedings of 13th Conference on Optical Network Design and Modeling (ONDM2009)**, Braunschweig (Alemania), 18/Feb/09.
- Masip, X. and Yannuzzi, M. "Optical Multi-Domain Routing" in **Proceedings of the Optical Fiber Communication Conference and Exposition and the National Fiber Optic Engineers Conference**, San Diego (Estats Units d'Amèrica), 01/Mar/09.
- Yannuzzi, M. and Masip, X. "Avoiding Path-Vectors in Multi-Domain Optical Networks" in **Proceedings of the Optical Fiber Communication Conference and Exposition and the National Fiber Optic Engineers Conference**, San Diego (Estats Units d'Amèrica), 01/Mar/09.
- Gagliano, R., Grampin, E., Baliosian, J., Masip, X. and Yannuzzi, M. "Understanding IPv4 prefix de-aggregation: challenges for routing scalability" in **Proceedings of the IEEE/IFIP International Workshop on Management of the Future Internet**, New York (Estats Units d'Amèrica), 01/Jun/09.
- German, M., Castro, A., Masip, X., Yannuzzi, M., Martínez, R., Casellas, R. and Muñoz, R. "On the challenges of finding two link-disjoint lightpaths of minimum total weight across an optical network" in **NOC/OC&I 2009 Proceedings 14th European Conference on Networks and Optical Communications**, Valladolid, 30/Jun/09, 217-224.
- Marín, E., Martínez, R., Muñoz, R., Casellas, R. and Solé, J. "Improving IA-RWA algorithms in translucent networks by regenerator allocation" in **Proceedings of 11th International Conference on Transparent Optical Networks**, Island of Sao Miguel, Azores, 31/Jul/09, 1-4.

Participation in research projects

Competitive Projects				
Start date	End date	Title	Responsible Researcher	Funding Body
01/Jan/09	30/Oct/09	2009LID2-B-05	Masip, X.	AGAUR, AGENCIA GESTIÓ AJUTS UNIV.
01/Jan/08	31/Dec/08	2007LIDEREU0044	Masip, X.	AGAUR, AGENCIA GESTIÓ AJUTS UNIV.
01/Jan/07	31/Dec/08	12TH INTERNACIONAL CONFERENCE ON OPTICAL NETWORKING DESIGN AND MODELING-ONDM. 2007ARCS200024	Sánchez, S.	AGAUR, AGENCIA GESTIÓ AJUTS UNIV.
01/Sep/08	31/Aug/09	Architectures lab for scalability and interdomain traffic engineering on the Internet: A LISP and PCE integration - LITE	Yannuzzi, M.	Red Clara
01/Jan/09	31/Dec/09	COST ACTION IC0806	Masip, X.	COMMISSION OF EUROPEAN COMMUNITIES
01/Jan/08	31/Dec/08	Estudio de estrategias de ingeniería de tráfico en países de baja conectividad Interdominio	Masip, X.	AECI, PCI Iberoamérica, A/014117/07
01/Jan/09	31/Dec/09	Implementación de Estrategias de Ingeniería de Tráfico en países con baja conectividad inter-dominio basadas en PCE	Masip, X.	Agencia Española de Cooperación Internacional. (Aeci)
01/Jan/09	31/Dec/12	Intelligent Monitoring Control and Security of Critical Infrastructure Systems	Masip, X.	European Commission
01/Mar/06	30/Sep/08	NEXT GENERATION OPTICAL NETWORK FOR BROADBAND EUROPEAN LEADERSHIP II (TEC2006-26835-E) COMPLEMENTARIA EUROPEU	Sánchez, S.	MINISTERIO DE EDUCACIÓN Y CIENCIA
01/Jan/09	31/Dec/09	Path-State Vectors - Cisco	Yannuzzi, M. Masip, X.	Cisco Systems
01/Jan/09	31/Dec/09	PREPARACIÓ PROPOSTA PREFIX AL VII PM (TEC2008-02406-E)	Masip, X.	MINIST.CIENCIA INNOVACIÓ
01/Jan/09	31/Dec/09	Proposta X-TALK Call 5 ICT	Masip, X.	AGAUR, AGENCIA GESTIÓ AJUTS UNIV.
01/Jan/07	31/Dec/08	TEC2007-30852-E (FEDNEXT SOLÀ.LICITUD DE PROJECTE INTEGRAT AL VIIÈ PM)	Masip, X.	MINIST.CIENCIA E INNOVACIÓ
01/Jan/08	31/Dec/08	TEC2007-30328-E (NEWBONE)	Masip, X.	MEC **BLOQUEJA*
01/Dec/07	31/Dec/08	TEC2007-30332-E (ONDM2008)	Masip, X.	MEC **BLOQUEJA*

Competitive Projects (Cont.)				
Start date	End date	Title	Responsible Researcher	Funding Body
01/Jan/07	31/Dec/08	TEC2007-30521-E (SAFE : SOLÂ·LICITUD D'STREP AL VIIÈ PM)	Masip, X.	MINIST.CIENCIA E INNOVACIÓN
01/Jan/07	31/Dec/08	TEC2007-30850-E (DEMOLITION : SOLÂ·LICITUD D'STREP AL VIIÈ PM)	Masip, X.	MINIST.CIENCIA E INNOVACIÓN
01/Jan/07	31/Dec/08	TEC2007-30330-E (OPTIFLOW)	Sánchez, S.	MEC **BLOQUEJA*
01/Jan/09	30/Sep/10	XARXA MULTINIVELL : IP SOBRE XARXA DE TRANSPORTS (TEC2008-02552-E/TEC)	Masip, X.	MINIST.CIENCIA INNOVACIÓN

Non-competitive Projects				
Start date	End date	Title	Responsible Researcher	Funding Body
01/Sep/06	30/Sep/08	Nous Format DVD (Blu-ray y HDDVD)	Fornés, J.	DVDREAMS, S.L.
16/Dec/08	31/Dec/09	Si us plau, cal informar el títol	Fornés, J.	
01/Jul/09	30/Jun/11	THE ATOMIC REDESIGN OF THE INTERNET FUTURE ARCHITECTURE"	Masip, X.	FUNDACIÓ i2CAT

3.2. Research Group ARCO

ARCO is formed by members of the Department of Computer Architecture at UPC, members of the Intel-UPC Barcelona Research Center and members of the Computer Science Department at the Universitat Rovira Virgili (URV). The group is formed by professors, PhD students, and post-doc researchers. The research of the group focuses on microarchitectures and compilers for future processors, bearing in mind the underlying technology. The main goal is to increase performance, enhance reliability and reduce power dissipation of future processors.

Web page: <http://research.ac.upc.edu/ARCO>

Responsible: Antonio M. González Colás

People	
Abella Ferrer, Jaume	Aleta Ortega, Alexandre
Aliagas Castell, Carles	Canal Corretger, Ramon
Codina Viñas, Josep M	Cruz Diaz, Josep Llorenç
Gibert Codina, Enric	González Colas, Antonio Maria
Magklis , Grigorios	Parcerisa Bundo, Joan Manuel
Piñeiro Riobo, Jose Alejandro	Tubella Murgadas, Jordi
Unsal , Osman Sabri	Vera Rivera, Francisco Javier

Journals

- Abella, J., Vera, X., Unsal, O., Ergin, O. and González, A. "Refueling: A Technique to Avoid Wire Degradation due to Electromigration", **IEEE micro**, 28(6), Dec/08, 37-46.
- González, A. "Key Microarchitecture Innovations for Future Microprocessors", **Lecture notes in computer science**, 5455, Mar/09, 2-2.
- Zyulkyarov, F., Gajinov, V., Unsal, O., Cristal, A., Ayguade, E., Harris, T. and Valero, M. "Atomic Quake: Using Transactional Memory in an Interactive Multiplayer Game Server", **ACM SIGPLAN notices**, 44(4), Apr/09, 25-34.
- Kulkarni, C., Unsal, O., Cristal, A., Ayguade, E. and Valero, M. "Turbocharging Boosted Transactions or: How I Learnt to Stop Worrying and Love Longer Transactions", **ACM SIGPLAN notices**, 44(4), Apr/09, 307-308.
- Aleta, A., Codina, J., Sanchez, F., González, A. and Kaeli, D. "AGAMOS: A Graph-Based Approach to Modulo Scheduling for Clustered Microarchitectures", **IEEE transactions on computers**, 58(6), Jun/09, 770-783.
- Lira, J., Molina, C. and González, A. "Last Bank; Dealing with Address Reuse in Non-Uniform Cache Architecture for CMPs", **Lecture notes in computer science**, 1(5704), Aug/09, 297-308.

Conference Presentations

- Carretero, J., Xavier, V., Abella, J., González, A. and Chaparro, P. "A Low-Overhead Technique to Protect the Issue Control Logic Against Soft Errors" in **Actes de les XIX Jornades de Paral·lismo**, Castelló, 30/Sep/08, 241-246.
- Canal, R., Xiaoyao, L., Gu-Yeon, W. and Brooks, D. "DRAM-based On-Chip Cache Architectures to Combat Process Variations" in **Proceedings of the 2008 Intel European Research and Innovation Conference**, Leixlip, 30/Sep/08, 73-73.
- Herrero, E., González, J. and Canal, R. "A Scalable and Power-Efficient Memory Hierarchy for Multicore Architectures" in **Proceedings of the 2008 Intel European Research and Innovation Conference**, Leixlip, 30/Sep/08, 44-44.
- LUPON, M. and González, A. "Version Management Alternatives for Hardware Transactional Memory" in **Proceedings of the MEDEA Workshop - MEMory performance: DEaling with Applications, systems and architecture**, Toronto, 31/Oct/08, 69-76.
- Qiong, C., González, A., Rakvic, R., Grigorios, M. and Chaparro, P. "Meeting Points: Using Thread Criticality to Adapt Multicore Hardware to Parallel Regions" in **Proceedings of the Parallel Architectures and Compilation Techniques**, 31/Oct/08, 240-249.
- Herrero, E., Gonzalez, J. and Canal, R. "Distributed Cooperative Caching" in **Parallel Architectures and Compilation Techniques**, Toronto (Canada), 31/Oct/08, 134-143.
- Alonso, J., Lopez, D., Cruz, J., Alvarez, C., Jimenez, D., Fernandez, A. and Sanchez, F. "Work in Progress - Achieving the ABET professional Skills Using Solidarity Projects" in **Frontiers in Education Conference 2008**, New York, 31/Oct/08, 9-10.
- Jimenez, D., Alvarez, C., Lopez, D., Parcerisa, J.-M., Alonso, J., Christian, P., Tous, R., Barlet, P., Fernandez, M. and Tubella, J. "Work in Progress-Improving Feedback Using an Automatic Assessment Tool" in **Frontiers in Education Conference 2008**, New York, 31/Oct/08, 199-200.
- Madriles, C., López, P., Codina, J.M., Gibert, E., Latorre, F., Martinez, A., Martinez, R. and González, A. "Boosting single-thread performance in multi-core systems through fine-grain multi-threading" in **Proceedings of the 36th Annual International Symposium on Computer Architecture**, Austin, TX (Estats Units d'Amèrica), 01/Jan/09, 474-483.

- Abella, J., Carretero, J., Chaparro, P., Vera, F. and González, A. "Low Vccmin fault-tolerant cache with highly predictable performance" in **Proceedings of the 42nd Annual IEEE/ACM International Symposium on Microarchitecture**, New York, DC (Estats Units d'Amèrica), 01/Jan/09, 111-121.
- Valero, A., Sahuquillo, J., Petit, S., Lorente, V., Canal, R., López, P. and Duato, J. "An hybrid eDRAM/SRAM macrocell to implement first-level data caches" in **Proceedings of the 42nd Annual IEEE/ACM International Symposium on Microarchitecture**, Nova York (Estats Units d'Amèrica), 01/Jan/09, 213-221.
- Zyulkyarov, F., Gajinov, V., Unsal, O., Cristal, A., Ayguade, E., Harris, T. and Valero, M. "Atomic Quake: using transactional memory in an interactive multiplayer game Server" in **14th ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming**, Raleigh, North Carolina, 01/Feb/09.
- González, A. "Key Microarchitectural Innovations for Future Microprocessors" in **Proceedings of the 22nd International Conference on Architecture of Computing Systems**, Delft, 31/Mar/09, 1-2.
- Lira, J., Molina, C. and González, A. "Analysis of Non-Uniform Cache Architecture Policies for Chip-Multiprocessors Using the Parsec Benchmark Suite" in **N/A**, Washington, 31/Mar/09, 1-2.
- Carretero, J., Vera, F., Abella, J., Chaparro, P. and González, A. "A low-overhead technique to protect the issue control logic against soft errors" in **Proceedings of the 2009 IEEE Workshop on Silicon Errors in Logic-System Effects**, Stanford, 31/Mar/09, 1-2.
- Vera, X., Abella, J., Carretero, J., Chaparro, P. and González, A. "Online Error Detection and Correction of Erratic Bits in Register Files" in **Proceedings of the IEEE International On-Line Testing Symposium**, Sesimbra-Lisbon (Portugal), 01/Jun/09, 81-86.
- Carretero, J., Vera, F., Abella, J. and González, A. "End-to-End Register Data-Flow Continuous Self-Test" in **The 36th Annual International Symposium on Computer Architecture**, Austin, Texas, 30/Jun/09, 105-115.
- Franquesa, D., Cruz, J., Alvarez, C., Sanchez, F., Fernandez, A. and Lopez, D. "Cómo formar Ingenieros en Informática en la competencia Sostenibilidad y Compromiso Social" in **Actas de las XV Jornadas de Enseñanza Universitaria de la Informática**, Barcelona (España), 01/Jul/09, 271-278.
- Lira, J., Molina, C. and González, A. "Last Bank: Dealing with Address Reuse in Non-Uniform Cache Architecture for CMP's" in **Euro-Par 2009 Conference on Parallel Processing**, Delft, 31/Aug/09, 297-308.

Research reports

- Isidro González, Adrián Cristal, Alex Veindenbaum, Marco Antonio Ramírez and Mateo Valero **The MS-Processor's Register File Timing and Power Evaluation** (UPC-DAC-RR-2008-51), 02/Sep/08.
- Lira Rueda, Javier, Molina Clemente, Carlos and González Colás, Antonio M. **The Auction: Optimizing Banks Usage in Non-Uniform Cache Architectures** (UPC-DAC-RR-2008-70), 25/Nov/08.
- Lupon Navazo, Marc, Grigorios Magklis and González Colás, Antonio M. **Version Management Alternatives for Hardware Transactional Memory** (UPC-DAC-RR-2008-77), 28/Nov/08.
- Lupon Navazo, Marc, Grigorios Magklis and González Colás, Antonio M. **FASTM: A Log-based Hardware Transactional Memory with Fast Abort Recovery** (UPC-DAC-RR-2008-78), 28/Nov/08.
- Sreekarshenoy, Govind, Tubella Murgadas, Jordi and González Colás, Antonio M. **A Performance and Area Efficient Architecture for Intrusion Detection Systems** (UPC-DAC-RR-2008-79), 15/Dec/08.
- Lira Rueda, Javier, Molina Clemente, Carlos and González Colás, Antonio M. **Analysis of Non-Uniform Cache Architecture Policies for Chip-Multiprocessors Using the Parsec Benchmark Suite** (UPC-DAC-RR-2008-81), 22/Dec/08.
- Lira Rueda, Javier, Molina Clemente, Carlos and González Colás, Antonio M. **Data Eviction Policies on Non-Uniform Cache Architectures for Chip Multiprocessors** (UPC-DAC-RR-2009-2), 16/Jan/09.

- Lira Rueda, Javier, Molina Clemente, Carlos and González Colás, Antonio M. **Data Eviction Policies on Non-Uniform Cache Architectures for Chip Multiprocessors** (UPC-DAC-RR-2009-3), 16/Jan/09.
- Lira Rueda, Javier, Molina Clemente, Carlos and González Colás, Antonio M. **Last Bank: Dealing with Address Reuse in Non-Uniform Cache Architecture for CMPs** (UPC-DAC-RR-2009-4), 16/Jan/09.
- Herrero Abellanas, Enric, José González and Canal Corretger, Ramon **System-Aware Spilling Techniques for Chip Multiprocessors** (UPC-DAC-RR-2009-5), 20/Jan/09.
- Rakesh Ranjan, Pedro Marcuello, Fernando Latorre and Antonio Gonzalez **Pre-Computation Slice Based Efficient Speculative Multithreading** (UPC-DAC-RR-2009-13), 04/Feb/09.
- Herrero Abellanas, Enric, José González and Canal Corretger, Ramon **Power-Aware Spilling Techniques for Chip Multiprocessors** (UPC-DAC-RR-2009-25), 27/Mar/09.
- Lira Rueda, Javier, Molina Clemente, Carlos and González Colás, Antonio M. **LRU-PEA: A Smart Replacement Policy for Non-Uniform Cache Architectures on Chip Multiprocessors** (UPC-DAC-RR-2009-33), 14/May/09.
- Herrero Abellanas, Enric, José González and Canal Corretger, Ramon **Adaptive Cooperative Caching: A Dynamic Memory Hierarchy for Chip Multiprocessors** (UPC-DAC-RR-2009-37), 22/May/09.
- Lira Rueda, Javier, Molina Clemente, Carlos and González Colás, Antonio M. **Energy and Performance Analysis of NUCA Policies for CMPs Using the Parsec v2.0 Benchmark Suite** (UPC-DAC-RR-2009-41), 09/Jun/09.

Participation in research projects

Competitive Projects				
Start date	End date	Title	Responsible Researcher	Funding Body
01/Jan/06	01/Dec/08	Arquitecturas y Compiladores, ref. 2005SGR00950	González, A.	Generalitat de Catalunya (Ajuts SGR2005 del AGAUR)
01/Oct/07	01/Aug/10	Microarquitectura y compiladores para futuros procesadores, ref. TIN2007-61763/	González, A.	CICYT
01/Jan/08	31/Dec/10	TIN2007-61763 Arquitecturas i Compiladors 2	González, A.	MEC

Patents

- González, A., Abella, J. and Vera, X.. Si us plau, indiqueu l'entitat titular (04/Nov/08). **NBTI-Resilient Memory Cells with Nand Gates**. US 7447054
- González, A., Sanchez, J., Garcia, C., Madriles, C., Rundberg, P. and Marcuello, P.. Si us plau, indiqueu l'entitat titular (25/Nov/08). **Selection of Spawning Pairs in a Speculative Multithreaded Processor**. US 7,458,065
- Latorre, F., González, J. and González, A.. Intel Corporation (09/Jan/09). **Multithreaded Clustered Microarchitecture with Dynamic Back-End Assignment-Extension**. US 12/351,780
- González, A. and Latorre, F.. Si us plau, indiqueu l'entitat titular (13/Feb/09). **Multithreaded Clustered Microarchitecture with Dynamic Back-End Assignment**. US 7,478,198
- Ergin, O., Unsal, O., Vera, X. and González, A.. Intel Corporation (07/Jul/09). **Reducing the Soft Error Vulnerability of Stored Data**. US 7,558,992

3.3. Research Group CAP

HPC group researches on improving the efficiency of high-performance computing systems. To that end, it is necessary to take different approaches that require a certain level of cooperation and integration: microarchitecture and multiprocessor architecture, compilers, operating systems, analysis, visualization and prediction tools, algorithms and applications. When measuring efficiency, and besides the classical approach that includes the execution time, we will use metrics that consider design aspects (such as cycle time, area and power dissipation of the processor and memory hierarchy, scalability of the microarchitecture and multiprocessor organization), systems correctness, portability and easy-to-use of the programming models and performance when running on multiuser, multiprogrammed and distributed environments, among others.

Web page: <http://research.ac.upc.edu/CAP>

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Research reports

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- Álvarez Martínez, Carlos, Jiménez González, Daniel, López Álvarez, David, Alonso López, Javier, Tous Liesa, Rubén, Parcerisa Bundo, Joan Manuel, Barlet Ros, Pere, Fernández Barta, Montserrat, Tubella Murgadas, Jordi and Pérez Llamas, Christian **Una herramienta automática de feedback para ensamblador** (UPC-DAC-RR-2008-59), 10/Oct/08.
- González García, Juan, Giménez Lucas, Judit and Labarta Mancho, Jesús José **Comparing Different Clustering Algorithms on Performance Analysis of Parallel Applications** (UPC-DAC-RR-2008-60), 11/Oct/08.
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- José R. Herrero **Exposing Inner Kernels and Block Storage for Fast Parallel Dense Linear Algebra Codes** (UPC-DAC-RR-2008-63), 28/Oct/08.
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- Vladimir Gajinov, Adrian Cristal, Ferad Zylkyarov, Eduard Ayguade. Osman Unsal, Tim Harris and Mateo Valero **QuakeTM: Parallelizing a Complex Serial Application Using Transactional Memory** (UPC-DAC-RR-2008-69), 24/Nov/08.
- Rodero Castro, Ivan and Corbalán González, Julita **Extension and Re-design of the eNANOS Grid Resource Broker for Supporting Grid Interoperability** (UPC-DAC-RR-2008-71), 26/Nov/08.
- Paolieri , Marco, Quiñones Moreno, Eduardo, Cazorla Almeida, Francisco Javier, Guillem Bernat and Valero Cortés, Mateo **Hardware Support for WCET Analysis of Hard Real-Time Multicore Systems** (UPC-DAC-RR-2008-72), 26/Nov/08.
- Paolieri , Marco, Quiñones Moreno, Eduardo, Cazorla Almeida, Francisco Javier, Guillem Bernat and Valero Cortés, Mateo **Hardware Support for WCET Analysis of Hard Real-Time Multicore Systems** (UPC-DAC-RR-2008-73), 26/Nov/08.
- Carlos Ruiz, Francisco J Cazorla, Roberto Gioiosa and Mateo Valero **ITCA: Inter-Thread Conflict-Aware CPU accounting for CMP+SMT Systems** (UPC-DAC-RR-2008-74), 26/Nov/08.
- Solé Simó, Marc and Pastor Llorens, Enric **Relative timing verification revisited** (UPC-DAC-RR-2008-75), 26/Nov/08.
- Kamil Kedzierski, Francisco J. Cazorla, Roberto Gioiosa, Alper Buyuktosunoglu and Mateo Valero **Re-CaC: Power and Performance Aware Reconfigurable Cache for CMPs** (UPC-DAC-RR-2008-76), 26/Nov/08.
- Rodero Castro, Ivan, Guim Bernat, Francesc, Corbalán González, Julita, Liana Fong and Seyed Masoud Sadjadi **Evaluation of Broker Selection Strategies** (UPC-DAC-RR-2008-80), 15/Dec/08.
- David López, José R. Herrero, Alex Pajuelo and Alejandro Duran **Results of the pedagogical strategies implemented in an Operating Systems Course** (UPC-DAC-RR-2008-82), 22/Dec/08.
- Carlos Villavieja , Manolis Katevenis , Nacho Navarro , Dionisios Pnevmatikatos , Alex Ramirez , Stamatis Kavadias , Vassilis Papaefstathiou and and Dimitrios S. Nikolopoulos **Hardware Support for Explicit Communication in Scalable CMP's** (UPC-DAC-RR-2009-1), 15/Jan/09.
- Acosta Ojeda, Carmelo Alexis, Ayose Falcon, Ramírez Bellido, Alejandro and Valero Cortés, Mateo **Maximizing Multithreaded Multicore Architectures through Thread Migrations** (UPC-DAC-RR-2009-6), 21/Jan/09.
- Acosta Ojeda, Carmelo Alexis, Cazorla Almeida, Francisco Javier, Ramírez Bellido, Alejandro and Valero Cortés, Mateo **The MPsim Simulation Tool** (UPC-DAC-RR-2009-7), 21/Jan/09.
- Fitó Comellas, Josep Oriol and Guitart Fernández, Jordi **Analyzing the Performance of a Multithreaded Application Server and its Limitations in a Multiprocessor Environment** (UPC-DAC-RR-2009-8), 21/Jan/09.
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- Marc Casas, Harald Servat, Rosa M. Badia and Jesús Labarta **Analyzing the Temporal Behavior of Applications Using Spectral Analysis** (UPC-DAC-RR-2009-14), 06/Feb/09.
- Rodero Castro, Ivan, Guim Bernat, Francesc and Corbalán González, Julita **Performance-driven Coordinated Grid Scheduling** (UPC-DAC-RR-2009-15), 10/Feb/09.
- Francesc Guim and Scott Madry **Google Earth Based Distributed Infrastructure to Face Natural Disaster Catastrophes** (UPC-DAC-RR-2009-16), 21/Feb/09.
- Beatriz Otero, Salvador Sahuquillo, Pere Barlet-Ros, Salvatore Spadaro and Josep Solé-Pareta **Self-* Algorithms and Autonomic Communication Systems** (UPC-DAC-RR-2009-20), 25/Feb/09.
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- Acosta Ojeda, Carmelo Alexis, Cazorla Almeida, Francisco Javier, Ramírez Bellido, Alejandro and Valero Cortés, Mateo **The MPsim Simulation Tool** (UPC-DAC-RR-2009-24), 25/Mar/09.
- Francesc Guim and Julita Corbalan **Green Job Scheduling Strategies: Power-Conscious Backfilling** (UPC-DAC-RR-2009-26), 01/Apr/09.
- Beltran Querol, Vicenç, Carrera Pérez, David, Torres Viñals, Jordi and Ayguadé Parra, Eduard **Cooperative Multithreading on the Cell BE** (UPC-DAC-RR-2009-27), 08/Apr/09.
- Muhammad Shafiq, Nacho Navarro and Eduard Ayguade **A Hybrid Processor with Homogeneous Architecture for Heterogeneous Solutions** (UPC-DAC-RR-2009-28), 15/Apr/09.
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- Rodero Castro, Ivan, Guim Bernat, Francesc and Corbalán González, Julita **Performance-driven Coordinated Grid Scheduling** (UPC-DAC-RR-2009-32), 04/May/09.
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- Vladimir Marjanovic, Josep M. Perez, Eduard Ayguade, Jesus Labarta and Mateo Valero **Overlapping Communication and Computation by Using a Hybrid MPI/SMPs Approach** (UPC-DAC-RR-2009-35), 18/May/09.
- Servat Gelabert, Harald, Llorc Sánchez, Germán, Labarta Mancho, Jesús José and Giménez Lucas, Judit **Detailed performance analysis using coarse grain sampling (PROPER 2009)** (UPC-DAC-RR-2009-36), 20/May/09.

- Paolieri , Marco, Quiñones Moreno, Eduardo, Cazorla Almeida, Francisco Javier and Valero Cortés, Mateo **GAMC: A Generic Analyzable Memory Controller for Hard Real-Time Multicore Processors** (UPC-DAC-RR-2009-38), 26/May/09.
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- #jordap, #ddenadal, Carrera Pérez, David, Becerra Fontal, Yolanda, Beltran Querol, Vicenç, Torres Viñals, Jordi and Ayguadé Parra, Eduard **Adaptive Task Scheduling for MultiJob MapReduce Environments** (UPC-DAC-RR-2009-40), 29/May/09.
- González García, Juan, Casas Guix, Marc, Moretó Planas, Miquel, Giménez Lucas, Judit, Ramírez Bellido, Alejandro, Labarta Mancho, Jesús José and Valero Cortés, Mateo **Simulating Whole Super-computer Applications** (UPC-DAC-RR-2009-44), 17/Jun/09.
- González García, Juan, Giménez Lucas, Judit and Labarta Mancho, Jesús José **Automatic evaluation of parallel applications computation structure** (UPC-DAC-RR-2009-45), 17/Jun/09.
- Llorc Sánchez, Germán, González García, Juan, Servat Gelabert, Harald, Giménez Lucas, Judit and Labarta Mancho, Jesús José **On-line detection of large-scale parallel application's structure.** (UPC-DAC-RR-2009-47), 16/Jul/09.

Participation in research projects

Competitive Projects				
Start date	End date	Title	Responsible Researcher	Funding Body
11/Dec/07	11/Dec/09	AUTOMATIC ECONOMIC RECONFIGURABLE UAV SYSTEM	Pastor, E.	AGAUR, AGENCIA GESTIÓ AJUTS UNIV.
01/Oct/07	01/Aug/12	Computación de altas prestaciones V	Valero, M.	Ministerio de Ciencia y Tecnología
01/Jan/04	01/Dec/08	CoreGRID network of excellence	Labarta, J.	Comissió Europea
01/Jan/06	01/Dec/10	Enabling Linux for the grid, XtreamOS	Cortes, A.	Comissió Europea
23/Jul/09	31/Mar/10	F-00272	Pastor, E.	MINISTERIO DE CIENCIA E INNOVACIÓN
01/Sep/06	31/Jul/09	FP6-2005-IST-5 BREIN	Torres, J. Guitart, J.	Unió Europea - Projecte BREIN
01/Aug/06	30/Jun/09	FP6-2005-IST-5 SORMA	Torres, J. Guitart, J.	Unió Europea - Projecte SORMA
01/Sep/04	31/Dec/08	Hipeac - European Network of Excellence on High-Performance Embedded Architecture and Compilation	Valero, M.	
01/Sep/08	30/Sep/09	Incorporació de sistemes de resposta interactiva a la docència presencial	Sanchez, F.	Universitat Politècnica de Catalunya (UPC)
01/Oct/07	01/Oct/10	Intelligent Communications and Avionics for Robust Unmanned (Aerial) Systems (ICARUS)	Pastor, E.	Ministerio de Educación
01/Jun/06	31/May/09	IST-034869-ACOTES - Advanced Compiler Technologies for Embedded Streaming	Ayguade, E.	Information Society Technologies (EU)

Competitive Projects (Cont.)

Start date	End date	Title	Responsible Researcher	Funding Body
01/Jan/08	31/Dec/08	Participación en dos misiones docentes a Burkina Faso,	Garcia, J.	CCD
01/Jan/08	31/Dec/08	PROGRAMA PLATINO	Pastor, E.	MINIST.CIENCIA E INNOVACIÓN
01/Jan/09	31/Dec/09	Proposta AEROSSEC Call Security (Novembre 2009)	Pastor, E.	AGAUR,AGENCIA GESTIÓ AJUTS UNIV.
01/Jan/06	01/Dec/09	Scalable Computer Architecture (SARC)	Valero, M.	Information Society Technologies (EU), FET Proactive Initiatives
01/Jun/08	01/Jun/13	Smooth UAV: Evaluation and new strategies for the smooth integration of civil mission oriented UAV in non-segregated airspace	Pastor, E.	Eurocontrol
01/Jan/07	31/Dec/11	Supercomputación y eCiencia	Valero, M.	Proyecto Consolider del Programa Ingenio-2010
01/Mar/06	28/Feb/09	SYnchronous Components for High performance Embedded Systems (Psyches)	Ramirez, A.	Comunidad Europea (MC-ToK, FP6) (30072)
01/Jun/06	31/May/09	TIN2006-27680-E ADVANCED COMPLEX TECHNOLOGIES FOR EMBEDDED STREAMING (ACOTES IST-034869)	Ramirez, A.	MINISTERIO DE EDUCACIÓN Y CIENCIA

Non-competitive Projects

Start date	End date	Title	Responsible Researcher	Funding Body
01/Jan/03	01/Dec/09	eNANOS	Badia, R.	Barcelona Supercomputing Center
21/Jul/09	30/Jul/09	I-01052	Royo, M.	AJUNTAMENT CASTELLDEFELS
01/Oct/06	01/Oct/08	IBM POWER5 SMT/CMP Capabilities	Cazorla, F.	IBM T.J. Watson Research Lab. (BSC05-001)
01/Sep/08	30/Apr/09	La investigación sobre la implementación eficiente de la rotación a 90 grados de imágenes de alta resolución en formato TIFF	Morancho, E. Llosa, J.	Hewlett Packard
01/Jan/06	01/Jan/12	Latin American Grid	Badia, R.	IBM
01/Oct/07	01/Sep/10	MareIncognito	Valero, M.	IBM Corp
01/Jan/06	01/Dec/10	MareIncognito	Labarta, J.	IBM
01/Jan/09	01/Jan/10	PAN-EUROPEAN RESEARCH INFRASTRUCTURE ON HIGH PERFORMANCE COMPUTING	Sanchez, F.	BCN.SUPERCOMPUTING CENTER
01/Jan/08	31/Dec/08	PAN-EUROPEAN RESEARCH INFRASTRUCTURE ON HIGH PERFORMANCE COMPUTING HPC-Europa 2	Sanchez, F.	Barcelona Supercomputing Center (Bsc) / Centro Nacional de Supercomputación (Cns)

Non-competitive Projects (Cont.)				
Start date	End date	Title	Responsible Researcher	Funding Body
01/Sep/07	31/Dec/08	Participación en dos misiones docentes a Burkina Faso, en el > proyecto que lidera Jordi Garcia en cañilidad de Cap d'Estudis de la FIB	Garcia, J.	CCd de la UPC
01/Nov/05	31/Dec/08	Participación en dos misiones docentes a Burkina Faso, en el > proyecto que lidera Jordi Garcia en cañilidad de Cap d'Estudis de la FIB	Garcia, J.	CCD de la UPC
01/Jan/06	01/Dec/09	SARC	Gil, Marisa	Information Society Technologies (EU)
01/Jan/09	30/Jun/09	SATELLITE-UNMANNED AERIAL VEHICLE (UAV) COOPERATIVE MISSIONS: STATUS AND OUTLOOK	Pastor, E.	INDRA ESPACIO,S.A.
30/Oct/08	31/Dec/08	Si us plau, cal informar el títol	Torres, J.	

Patents

- González, M., Tong, C., Eichenberger, A., Zera, S., Kathryn, O., O'brien, K. and Zhang, T.. IBM (02/Oct/08). **OPTIMIZED CODE GENERATION TARGETING A HIGH LOCALITY SOFTWARE CACHE.** US YOR9200802

3.4. Research Group CBA

The investigation is focused on the Broadband networks, services and applications. Key topics in the development of research activities are: capture and traffic analysis, traffic modeling, traffic engineering, congestion control, switching and routing protocols. These issues within the group are developed for both IP / MPLS as well as for optical networks. In the latter case are included the development of control plane protocols and network physical level.

Web page: <http://research.ac.upc.edu/CBA>

Responsible: Jordi Domingo Pascual

People	
Barlet Ros, Pere	Cabellos Aparicio, Alberto
Careglio , Davide	Cruellas Ibarz, Juan Carlos
Domingo Pascual, Jordi	Fornés de Juan, Jordi
Jakab , Lorand	Klinkowski , Miroslaw
Marín Tordera, Eva	Masip Bruin, Xavier
Santos Boada, Germán	Serral Gracià, René
Solé Pareta, Josep	Sánchez López, Sergio
Vilà Martí, Frederic	Yannuzzi , Marcelo

Journals

- Yannuzzi, M., Masip, X., Marín, E., Domingo, J., Fonte, A. and Monteiro, E. "Improving the Performance of Route Control Middleboxes in a Competitive Environment", **IEEE network**, 22(5), Sep/08, 56-64.
- Barlet, P., IANNACCONE, G., Sanjuàs, J. and Solé, J. "Robust network monitoring in the presence of non-cooperative traffic queries", **Computer networks**, 1(53), Jan/09, 310-321.
- Cuevas, R., Albert Cabellos-Aparicio, Domingo, J. and Azcorra, A. "fP2P¿HN: A P2P-based route optimization architecture for mobile IP-based community networks", **Computer networks**, 53(4), Mar/09, 528-540.
- Azodolmolky, S., Klinkowski, M., Marín, E., Careglio, D., Solé, J. and Tomkos, I. "A survey on physical layer impairments aware routing and wavelength assignment algorithms in optical networks", **Computer networks**, 53(7), Mar/09, 926-944.
- Masip, X. and Jukan, A. "Special Issue: Recent trends on optical network design and modeling - selected topics from ONDM 2008", **Optical switching and networking**, 6(SI: 2), Apr/09, 77-78.
- Klinkowski, M., Careglio, D. and Solé, J. "Reactive and proactive routing in labelled optical burst switching networks", **IET communications**, 3(3), Apr/09, 454-464.
- Sanjuàs, J., Barlet, P. and Solé, J. "Counting Flows over Sliding Windows in High Speed Networks", **Lecture notes in computer science**, 1(1), May/09, 79-91.
- Paredes, I., Barlet, P. and Solé, J. "Portscan Detection with Sampled NetFlow", **Lecture notes in computer science**, 1(5537), May/09, 26-33.
- Comellas, J. and Solé, J. "A Dynamic Impairment-Aware Networking Solution for Transparent Mesh Optical Networks", **IEEE communications magazine**, 47(5), May/09, 38-47.
- Pavon-Marino, P., Azodolmolky, S., Aparicio-Pardo, R., Garcia-Manrubia, B., Pointurier, Y., Angelou, M., Solé, J., Garcia-Haro, J. and Tomkos, I. "Offline Impairment Aware RWA Algorithms for Cross-Layer Planning of Optical Networks", **Journal of lightwave technology**, 27(12), Jun/09, 1763-1775.
- Klinkowski, M., Careglio, D., Solé, J. and Marciniak, M. "Performance Overview of the Offset Time Emulated OBS Network Architecture", **Journal of lightwave technology**, 27(14), Jul/09, 2751-2764.
- Paredes-Oliva, I., Barlet, P. and Solé, J. "Traffic Monitoring and Analysis", **Lecture notes in computer science**, 1(1), Aug/09, 26-33.

Book Chapters

- Domingo, J., Plagemann, T., Canonico, R., Guerrero, C. and Andreas, M. "Infrastructures for Community Networks", **Content Delivery Networks**, Feb/09, 367-388.
- Klinkowski, M., Careglio, D., Solé, J. and Marciniak, M. "A performance overview of quality of service mechanisms in optical burst switching networks", **Current research progress of optical networks**, 01/Apr/09, 1-20.
- Careglio, D., Aracil, J., Azodolmolky, S., García, J., Gunreben, S., Hu, G., Izal, M., Kimsas, A., Klinkowski, M., Köhn, M., Magaña, E., Morató, D., Pavón, P., Perello, J., Scharf, J., Spadaro, S., Tomkos, I., Tzanakaki, A. and Veiga, J. "Performance issues in Optical Burst/Package Switching", **Towards digital optical networks**, 01/Apr/09, 189-235.
- Careglio, D., Aracil, J., Fernández, J., Jajszczyk, A., Larrabeiti, D., López, V., Masip, X., Sánchez, S. and Spadaro, S. "Introduction to IP over WDM", **Enabling optical Internet with advanced network technologies**, 01/Jun/09, 5-29.

Conference Presentations

- Klinkowski, M., Pioro, M., Careglio, D., Zolkiewicz, M., Solano, F. and Solé, J. "Physical layer impairment aware routing and wavelength assignment in optical networks" in **3rd COST 293 workshop on GRaphs and ALgorithms in Communication Networks (GRAAL 2008)**, Arcachon (França), 24/Sep/08.
- Serral, R., Barlet, P. and Domingo, J. "Distributed Sampling for On-line SLA Assessment" in **LANMAN 2008 16th IEEE Workshop on Local and Metropolitan Area Networks**, Cluj Napoca, 30/Sep/08, 1-2.
- Otero, B., Barlet, P., Solé, J. and Salvatore, S. "Mapping Ecology to Autonomic Communication Systems" in **Budapest Tutorial and Worsshop on Autonomic Communications and Component-ware**, Budapest, 30/Sep/08, 1-5.
- Rares, C., Albert Cabellos-Aparicio, Domenech, J., Gimenez, J., Martinez, J., Cristian, M., Fuentetaja, A., Lopez, A., Domingo, J. and Quemada, J. "Measurement-Based Analysis of the Performance of Several Wireless Technologies" in **LANMAN 2008 16th IEEE Workshop on Local and Metropolitan Area Networks**, Cluj Napoca, 30/Sep/08.
- Careglio, D., Klinkowski, M. and Solé, J. "Preemption Window mechanism for efficient QoS support in E-OBS network architecture" in **Fifth International Conference on Broadband Communications, Networks, and Systems**, Londres, 30/Sep/08, 1-8.
- Jimenez, D., Alvarez, C., Lopez, D., Parcerisa, J.-M., Alonso, J., Christian, P., Tous, R., Barlet, P., Fernandez, M. and Tubella, J. "Work in Progress-Improving Feedback Using an Automatic Assessment Tool" in **Frontiers in Education Conference 2008**, New York, 31/Oct/08, 199-200.
- Sanjuàs-Cuxart, J., Barlet, P., Iannaccone, G. and Solé, J. "Distributed Scheduling in Large Scale Monitoring Infrastructures" in **ACM CoNEXT 2008**, Madrid, 31/Dec/08.
- Azodolmolky, S., Pointurier, Y., Klinkowski, M., Marín, E., Careglio, D., Solé, J., Angelou, M. and Tomkos, I. "On the offline physical layer impairment aware RWA algorithms in transparent optical networks: state-of-the-art and beyond" in **Proceedings of 13th Conference on Optical Network Design and Modeling (ONDM2009)**, Braunschweig (Alemanya), 18/Feb/09.
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- Sahuquillo, S., Solé, J., Otero, B., Ferrari, L., Manzalini, A. and Moiso, C. "Self-organized server farms for energy savings" in **Proceedings of the 2009 ACM/IEEE Conference on International Conference on Autonomic Computing**, Barcelona, 15/May/09, 39-40.
- Paredes, I., Barlet, P. and Solé, J. "Portscan Detecion with Sampled NetFlow" in **Traffic Monitoring and Analysis**, Aachen, 31/May/09, 26-33.
- Sanjuas, J., Barlet, P. and Solé, J. "Counting Flows over Sliding Windows in High Speed Networks" in **NETWORKING 2009, 8th International IFIP-TC 6 Networking Conference**, Aachen, 31/May/09, 79-91.
- Paredes, I., Barlet, P. and Solé, J. "Portscan Detection with Sampled NetFlow" in **First International Workshop Traffic Monitoring and Analysis**, Aachen, 31/May/09, 26-33.
- Albert Cabellos-Aparicio, Ruben Cuevas, Cuevas, A., Guerrero, C. and Domingo, J. "fP2P-HN: A P2P-based Route Optimization Solution for Mobile IP and NEMO clients" in **Communications, 2009. ICC '09. IEEE International Conference on**, 11/Jun/09, 1-6.
- Albert Cabellos-Aparicio, Marc Portoles-Comeras, Josep Mangues-Bafalluy and Domingo, J. "Impact of Transient CSMA/CA access delays on Active Bandwidth Measurements" in **Proceedings of the 9th ACM SIGCOMM conference on Internet measurement conference**, Chicago, 12/Jun/09, 397-409.

- Pedrola, O., Rumley, S., Careglio, D., Klinkowski, M., Pedroso, P., Solé, J. and Gaumier, C. "A Performance Survey on Deflection Routing Techniques for OBS Networks" in **ICTON '09. 11th International Conference on Transparent Optical Networks, 2009**, Sao Miguel (Azores) (Portugal), 28/Jun/09, 147-152.
- Marín, E., Martínez, R., Muñoz, R., Casellas, R. and Solé, J. "Improving IA-RWA algorithms in translucent networks by regenerator allocation" in **Proceedings of 11th International Conference on Transparent Optical Networks**, Island of Sao Miguel, Azores, 31/Jul/09, 1-4.
- Rumley, S., Pedrola, O., Klinkowski, M., Pedroso, P., Gaumier, C., Careglio, D. and Solé, J. "Adaptive burst admission and forwarding in OBS networks" in **Proceedings of 11th International Conference on Transparent Optical Networks**, Island of Sao Miguel, Azores, 31/Jul/09, 1-3.

Research reports

- Guido Maier, Marín Tordera, Eva, Marco Quagliotti, Walter Erangoli, Giovanni Tamiri, #yannuzzi, Masip Bruin, Xavier, Sánchez Lopez, Sergio and Solé Pareta, Josep **Cross-Layer Control of Semi-Transparent Optical Networks under Physical-Parameter Uncertainty** (UPC-DAC-RR-2008-52), 03/Sep/08.
- Claudio Mazzariello, Jakab , Loránd, Domingo Pascual, Jordi and Giorgio Ventre **An Overview of Security Threats in Peer-to-Peer Content Delivery Networks** (UPC-DAC-RR-2008-55), 15/Sep/08.
- Mihai Cristian, Cabellos Aparicio, Alberto, Rares Cosma, Domingo Pascual, Jordi, Pedro Vale Pinheiro and Fernando Boavida **Measurement-based characterization of the load of a Mobile IPv6's Home Agent** (UPC-DAC-RR-2008-56), 01/Oct/08.
- Marc Portoles-Comeras, Albert Cabellos-Aparicio, Josep Mangues-Bafalluy and Jordi Domingo-Pascual **Analysis of Bandwidth Measurement Methodologies over WLAN systems** (UPC-DAC-RR-2008-57), 01/Oct/08.
- M. Yannuzzi, M. Quagliotti, G. Maier, E. Marín-Tordera, X. Masip-Bruin, S. Sánchez-López, J. Solé-Pareta, W. Erangoli and G. Tamiri **Performance of translucent optical networks under dynamic traffic and uncertain physical-layer information** (UPC-DAC-RR-2008-65), 06/Nov/08.
- Azodolmolky , Siamak, Klinkowski , Miroslaw, Marín Tordera, Eva, Careglio , Davide, Solé Pareta, Josep and Ioannis Tomkos **A Survey on Physical Layer Impairments Aware Routing and Wavelength Assignment Algorithms in Optical Networks** (UPC-DAC-RR-2008-66), 12/Nov/08.
- Sanjuàs Cuxart, Josep and Barlet Ros, Pere **Counting Network Flows over Sliding Windows** (UPC-DAC-RR-2009-17), 23/Feb/09.
- Carela Español, Valentín and Barlet Ros, Pere **Identification of Network Applications based on Machine Learning Techniques** (UPC-DAC-RR-2009-18), 23/Feb/09.
- Sanjuàs Cuxart, Josep, Barlet Ros, Pere, Gianluca Iannaccone and Solé Pareta, Josep **Load Distribution in Large Scale Network Monitoring Infrastructures** (UPC-DAC-RR-2009-19), 24/Feb/09.
- Beatriz Otero, Salvador Sahuquillo, Pere Barlet-Ros, Salvatore Spadaro and Josep Solé-Pareta **Self-* Algorithms and Autonomic Communication Systems** (UPC-DAC-RR-2009-20), 25/Feb/09.
- Beatriz Otero, Pere Barlet-Ros, Salvatore Spadaro and Josep Solé-Pareta **Mapping Ecology to Autonomic Communication Systems** (UPC-DAC-RR-2009-21), 25/Feb/09.
- Carela Español, Valentín, Barlet Ros, Pere and Solé Pareta, Josep **Traffic Classification with Sampled NetFlow** (UPC-DAC-RR-2009-22), 26/Feb/09.
- Pedro Pedroso, Oscar Pedrola, Dimitri Papadimitriou, Davide Careglio and Miroslaw Klinkowski **Anytraffic routing algorithm for label-based forwarding** (UPC-DAC-RR-2009-43), 11/Jun/09.
- Cabellos Aparicio, Alberto, Damien Saucez, Olivier Bonaventure and Jordi Domingo-Pascual **Validation of a LISP Simulator** (UPC-DAC-RR-2009-46), 19/Jun/09.

Participation in research projects

Competitive Projects				
Start date	End date	Title	Responsible Researcher	Funding Body
01/Jan/09	30/Oct/09	2009LID2-B-05	Masip, X.	AGAUR, AGENCIA GESTIÓ AJUTS UNIV.
01/Jan/08	31/Dec/08	2007LIDEREU0044	Masip, X.	AGAUR, AGENCIA GESTIÓ AJUTS UNIV.
01/Jan/07	31/Dec/08	12TH INTERNACIONAL CONFERENCE ON OPTICAL NETWORKING DESIGN AND MODELING-ONDM. 2007ARCS200024	Sánchez, S.	AGAUR, AGENCIA GESTIÓ AJUTS UNIV.
01/Sep/08	31/Aug/09	Architectures lab for scalability and interdomain traffic engineering on the Internet: A LISP and PCE integration - LITE	Yannuzzi, M.	Red Clara
23/Mar/09	30/Mar/10	ASTARFIN: AUTORIDAD DE SELLADO DE TIEMPO DE ALTO RENDIMIENTO PARA EL FUTURO SECTOR FINANCIERO EN INTERNET	Cruellas, J.	MINISTERIO INDUSTRIA, TURIS. COMERC
01/Jan/09	31/Dec/09	Beyond Bandwidth Networking (BEYOND)	Albert Cabellos-Aparicio	MINISTERIO DE CIENCIA E INNOVACIÓN
01/Jul/06	30/Jun/09	CONTENT Networks and Services for Home Users	Domingo, J.	UE FP6-0384239
01/Jan/09	31/Dec/09	COST ACTION IC0806	Masip, X.	COMMISSION OF EUROPEAN COMMUNITIES
05/May/09	04/May/13	Energy efficiency in large scale distributed systems	Careglio, D.	COMMISSION OF EUROPEAN COMMUNITIES
01/Jan/08	31/Dec/08	Estudio de estrategias de ingeniería de tráfico en países de baja conectividad Interdominio	Masip, X.	AECI, PCI Iberoamérica, A/014117/07
01/Jan/08	31/Dec/08	FINANÇAMENT DE L'ELABORACIÓ DE PROPOSTES DE PROJECTES ADREÇADES A CONVOCATÒRIES DEL 7È PROGRAMA MARC LIDERADES PER GRUPS DE RECERCA	Domingo, J.	AGAUR, AGENCIA GESTIÓ AJUTS UNIV.
01/Jan/08	31/Dec/08	FINANÇAMENT PER ELABORACIÓ DE PROJECTS ADREÇATS AL 7PM	Solé, J.	AGAUR, AGENCIA GESTIÓ AJUTS UNIV.
01/Jan/09	31/Dec/09	Herramientas para la monitorización y el análisis de tráfico en la internet del futuro	Barlet, P.	MINISTERIO DE CIENCIA E INNOVACIÓN
01/Jan/09	31/Dec/09	Implementación de Estrategias de Ingeniería de Tráfico en países con baja conectividad inter-dominio basadas en PCE	Masip, X.	Agencia Española de Cooperación Internacional. (Aeci)

Competitive Projects (Cont.)

Start date	End date	Title	Responsible Researcher	Funding Body
01/Jan/09	31/Dec/12	Intelligent Monitoring Control and Security of Critical Infrastructure Systems	Masip, X.	European Commission
01/Jan/08	01/Dec/10	IST FP7-216863 BONE, "Building the Future Optical Network in Europe"	Solé, J.	European Union
01/Mar/06	30/Sep/08	NEXT GENERATION OPTICAL NETWORK FOR BROADBAND EUROPEAN LEADERSHIP II (TEC2006-26835-E) COMPLEMENTARIA EUROPEU	Sánchez, S.	MINISTERIO DE EDUCACIÓN Y CIENCIA
01/Jan/09	31/Dec/09	Path-State Vectors - Cisco	Yannuzzi, M. Masip, X.	Cisco Systems
01/Oct/08	30/Sep/09	Preparación propuesta proyecto IP FP7-Call4 STRONGEST	Careglio, D.	Gobierno de España. Ministerio de Ciencia e Innovación (Micinn)
01/Jan/09	31/Dec/09	Preparación propuesta proyecto STREP FP7-Call5 EULER	Careglio, D.	MINISTERIO DE CIENCIA E INNOVACIÓN
01/Oct/08	30/Sep/09	Preparación propuesta proyecto STREP FP7-Call4 PLANET	Careglio, D.	Gobierno de España. Ministerio de Ciencia e Innovación (Micinn)
01/Jan/09	31/Dec/09	PREPARACIÓ PROPOSTA PREFIX AL VII PM (TEC2008-02406-E)	Masip, X.	MINIST.CIENCIA INNOVACIÓN
01/Jan/09	31/Dec/09	Proposta COPEQOS Call 5 ICT	Solé, J.	AGAUR,AGENCIA GESTIÓ AJUTS UNIV.
01/Jan/09	31/Dec/09	Proposta ENTRICOM (FETOPEN 2009)	Solé, J.	AGAUR,AGENCIA GESTIÓ AJUTS UNIV.
01/Jan/09	31/Dec/09	Proposta X-TALK Call 5 ICT	Masip, X.	AGAUR,AGENCIA GESTIÓ AJUTS UNIV.
31/Dec/05	31/Dec/08	Provisión de Servicios de Red Interdominio (CEPS)	Domingo, J.	MEC, TSI2005-07520-C03-02
01/Jan/07	31/Dec/08	RESTORE SOLICITUD DE STREP 7PM	Domingo, J.	MINIST.CIENCIA E INNOVACIÓN
01/Jan/08	31/Dec/08	Si us plau, cal informar el títol	Domingo, J.	AGAUR,AGENCIA GESTIÓ AJUTS UNIV.
01/Jan/09	31/Dec/09	Sustained future networks (SUSTAIN-NET)	Domingo, J.	MINISTERIO DE CIENCIA E INNOVACIÓN
01/Jan/07	31/Dec/08	TEC2007-30852-E (FED-NEXT SOLÀ.LICITUD DE PROJECTE INTEGRAT AL VIIIÈ PM)	Masip, X.	MINIST.CIENCIA E INNOVACIÓN
01/Jan/08	31/Dec/08	TEC2007-30328-E (NEW-BONE)	Masip, X.	MEC **BLOQUEJA*
01/Dec/07	31/Dec/08	TEC2007-30332-E (ONDM2008)	Masip, X.	MEC **BLOQUEJA*
01/Jan/07	31/Dec/08	TEC2007-30521-E (SAFE : SOLÀ.LICITUD D'STREP AL VIIIÈ PM)	Masip, X.	MINIST.CIENCIA E INNOVACIÓN

Competitive Projects (Cont.)				
Start date	End date	Title	Responsible Researcher	Funding Body
31/Dec/05	31/Dec/08	TEC2005-08051-C03-01/TCM diSeño y EvaluacióN De arquitecturas de Redes Ópticas" (SENDERO)	Solé, J.	MEC
01/Jan/07	31/Dec/08	TEC2007-30850-E (DEMOLITION : SOLÂ·LICITUD D'STREP AL VIIÈ PM)	Masip, X.	MINIST.CIENCIA E INNOVACIÓN
01/Jan/07	31/Dec/08	TEC2007-30330-E (OPTIFLOW)	Sánchez, S.	MEC **BLOQUEJA*
01/Jan/09	30/Sep/10	XARXA MULTINIVELL : IP SOBRE XARXA DE TRANSPORTS (TEC2008-02552-E/TEC)	Masip, X.	MINIST.CIENCIA INNOVACIÓN

Non-competitive Projects				
Start date	End date	Title	Responsible Researcher	Funding Body
19/Mar/09	19/Jul/09	C-08046	Cruellas, J.	KINAMIL DATA INTEGRITY, S.L.
01/Sep/06	30/Sep/08	Nous Format DVD (Blu-ray y HDDVD)	Fornés, J.	DVDREAMS, S.L.
16/Dec/08	31/Dec/09	Si us plau, cal informar el títol	Fornés, J.	
16/Jul/03	31/Dec/08	SMARTxAC	Solé, J.	Centre de Supercomputació de Catalunya (CESCA)
01/Jan/04	31/Dec/08	TDON	Solé, J.	Comisión Europea, Acción COST 291
01/Jul/09	30/Jun/11	THE ATOMIC REDESIGN OF THE INTERNET FUTURE ARCHITECTURE"	Masip, X.	FUNDACIÓ i2CAT

3.5. Research Group CNDS

The goals of the group are to perform basic and applied research, education and dissemination in topics on computer networks and distributed systems. Topics: Computer networks with support for mobility. Ad-hoc and sensor networks. Design of network equipment. Evaluation of performance. Internet protocols. Security protocols, mechanisms and specifications. Protocols and distributed applications. Decentralized and large scale systems. Educational and collaborative applications.

Web page: <http://research.ac.upc.edu/CNDS>

Responsible: Jorge García Vidal

People	
Arnedo Moreno, Joan	Artigas Vidal, Pau
Barcelò Ordinas, José María	Brunner , René
Cerdà Alabern, Llorenç	Chacín Martínez, Pablo
Cruellas Ibarz, Marta	Cruellas Ibarz, Juan Carlos
Freitag , Felix	García Vidal, Jorge
González Garcia, Ruben	Guerrero Zapata, Manel
León Gutiérrez, Xavier	Lopez Chaparro, Johann
Medina Llinàs, Manuel	Meseguer Pallarés, Roque

People (Cont.)

Morillo Pozo, Julián David	Navarro Moldes, Leandro
Reyes Muñoz, M. Angélica	Sanjeevan , Kanapathipillai

Journals

- Brunner, R., Freitag, F. and Navarro, L. "Uncertainty Management for the Retrieval of Economic Information from Distributed Markets", **Lecture notes in computer science**, 1(5291), Oct/08, 106-119.
- Gallardo, A., Cerio, L. and Sanjeevan, K. "A Self-configuring Grid Resource Discovery", **Journal of computing and information technology**, 1(4), Dec/08, 1-6.
- Gallardo, A., Díaz, L., Meseguer, R., Isern-Deya, A. and Sanjeevan, K. "GRID Resource Searching on the GridSim Simulator", **Lecture notes in computer science**, 5544, Jan/09, 357-366.
- Guimarães, R., Cerdà, L., Barcelo Ordinas, J.M., García, J., Voorhaen, M. and Blondia, C. "Quality of service through bandwidth reservation on multirate ad hoc wireless networks", **Ad hoc networks**, 7(2), 02/Mar/09, 388-400.
- Rodríguez-Haro, F., Freitag, F. and Navarro, L. "Enhancing virtual environments with QoS aware resource management", **Annales des télécommunications. Annals of telecommunications**, 65(5-6), Jun/09, 289-303.

Books

- García, P., Jorba, J., Marquès, J., Navarro, L., Suppi, R. and Vilajosana, X. **Arquitectura de Sistemas Distribuidos**, 08.
- Liviu, J., Omer, F., Isaac, C., Chacín, P., Freitag, F., Navarro, L. and Ardaiz, O. **Grid Middleware and Services**, Dec/08.
- Iñigo, J., Barcelo Ordinas, J.M., Cerdà, L., Peig, E., Abella, J. and Corral, G. **Estructura de redes de computadores**, 01/Jan/09.

Book Chapters

- Morillo, J., Trullols, O., Barcelo Ordinas, J.M. and García, J. "Evaluation of a cooperative ARQ protocol for delay-tolerant vehicular networks", **Wireless systems and mobility in next generation Internet**, 16/Oct/08, 157-166.
- Medina, M. "Risc a la xarxa", **Informe 2008:Aigua: font de vida, font de risc.**, 01/Nov/08.
- Navarro, L. "Spain", **Global Information Society Watch 2008**, 04/Dec/08, 178-180.

Conference Presentations

- Serna, J.M., Luna, J. and Medina, M. "Trust management and privacy for vehicular ad-hoc networks" in **Jornadas Paralelismo**, Castelló (Espanya), 01/Sep/08, 680-685.
- Del Canto, P., Gallego, M., López, J., Mora, J., Reyes, M., Rodríguez, E., Sanjeevan, K., Santamaria, E. and Valero-Garcia, M "Diferentes usos de aprendizaje cooperativo en asignaturas de introducción a la programación de ordenadores" in **proceedings del congreso**, Castellón, 07/Sep/08, 1-10.
- Del Canto, P., Gallego, M., López, J., Mora, J., Reyes, M., Rodríguez, E., Sanjeevan, K., Santamaria, E. and Valero-Garcia, M "¿Qué hacemos con los alumnos que van mal?" in **memorias del congreso**, Cádiz (Espanya), 23/Sep/08, 1-11.
- Delgado, M., Sala, V., Navarro, L., Ruiz, G. and Urresty, J. "Método de diagnóstico para cojinetes aplicado a motores de inducción mediante corrientes en modo común" in **SAAEI 2008**, Cartagena (Espanya), 30/Sep/08, 1-1.
- Poncelas, O., Sala, V., Delgado, M., Navarro, L. and Ortega, J. "Detección de fallos en motores de inducción mediante sonda Rogowski sin integrador" in **SAAEI 2008**, Cartagena (Espanya), 30/Sep/08, 1-1.
- Navarro, L., Delgado, M., Cardenas, J., Garcia, A. and Ortega, J. "Sistema online de adquisición y registro multipunto de temperaturas para moldes de inyección de aluminio" in **SAAEI 2008**, Cartagena (Espanya), 30/Sep/08, 1-1.
- Canto, P., Gallego, M., López, J., Mora, J., Reyes, A., Rodriguez, E., Sanjeevan, K., Santamaria, E. and Valero-Garcia, M "¿Qué hacemos con los alumnos que van mal?" in **XVI Congreso Universitario de Innovación Educativa en las Enseñanzas Técnicas. ACTAS**, Cádiz (Espanya), 30/Sep/08.
- Krishnaswamy, R., Navarro, L. and Vlassov, V. "A Democratic Grid: Collaboration, Sharing and Computing for Everyone" in **Collaboration and the Knowledge Economy: Issues, Applications, Case Studies**, Stockholm (Suècia), 01/Oct/08, 1-8.
- Rodriguez, F., Freitag, F. and Navarro, L. "Autonomous Management in Virtual-machine-based Resource Providers" in **Proceedings of the 2008 Second IEEE International Conference on Self-Adaptive and Self-Organizing Systems**, San Francisco (Estats Units d'Amèrica), 01/Oct/08, 255-264.
- Medina, M., Delgado, E. and Fernández, D. "Identity Management in Open Environments" in **isse 2008**, Madrid, 09/Oct/08.
- Olguin, O. and Medina, M. "GIDRE: Grid-based Detection Intrusion and Response Environment" in **ISSE 2008**, Madrid, 09/Oct/08.
- Trullols, O., Morillo, J., Barcelo Ordinas, J.M. and García, J. "New networking paradigms applied to vehicular ad hoc networks" in **EuroNF workshop on wireless and mobility**, Estocolm, 24/Oct/08.
- Del Canto, P., Gallego, M., López, J., Mora, J., Reyes, M., Rodríguez, E., Sanjeevan, K., Santamaria, E. and Valero-Garcia, M "La mejora continuada en el EEES" in **Proceedings V Congreso Iberoamericano de Docencia Universitaria**, 29/Oct/08.
- PAOLIELLO, R. and Cerdà, L. "A Periodic Refreshment Method for Resource Reservation in Mobile Ad-hoc Networks" in **IFIP Wireless Days Conference 2008**, Dubai, 30/Nov/08, 1-5.
- Meseguer, R. "L'ús d'Atenea per gestionar l'assignació de temes, horaris, grups..." in **Jornada Dia d'Atenea**, 01/Jan/09.
- Borissov, N., Brunner, R., Neumann, D., Freitag, F., Navarro, L. and Weinhardt, C. "Fostering efficiency of computational resource allocation - Integrating information services into markets" in **17th. European Conference on Information Systems ECIS 2009**, Verona (Itàlia), 01/Jan/09, 1-12.
- Garcia-Lopez, P., Gracia, R., Espelt, M., París, G., Arrufat, M. and Meseguer, R. "Topology-aware group communication middleware for MANETs" in **Proceedings of the Fourth International ICST Conference on COMMunication System softWARE and middlewaRE**, Dublin, 01/Jan/09, 1-10.

- Meseguer, R., Damián-Reyes, P., Favela, J. and Navarro, L. "Context awareness and uncertainty in collocated collaborative systems" in **Groupware: Design, Implementation, and Use: 14th International Workshop, CRIWG 2008**, Omaha (Estats Units d'Amèrica), 01/Jan/09, 41-56.
- Gallardo, A., Diaz De Cerio, L., Meseguer, R., Isern-Deyà, A. and Sanjeevan, K. "Grid resource searching on the gridsim simulator" in **International conference on computational science**, Louisiana, 31/Jan/09, 1-31.
- Arnedo, J. "A security layer for JXTA core protocols" in **Proceedings of the Third International Workshop on P2P, Parallel, Grid and Internet Computing**, 31/Mar/09, 463-468.
- Gallardo, A., Diaz De Cerio, L. and Sanjeevan, K. "Fault tolerant Log2N resource management for grids" in **Fifth international conference on networking and services**, València, 30/Apr/09, 1-31.
- Zilan, Ruken, Verdu, J., García, J., Nemirovsky, M. and Valero, M. "Internet Traffic and the Behavior of Processing Workloads" in **Proceedings of the 5th International Summer School on Advanced Architecture and Compilation for Embedded Systems**, Terrassa (Barcelona) (Espanya), 01/Jun/09, 269-272.
- Trullols, O., Morillo, J., Barcelo Ordinas, J.M. and García, J. "A Cooperative Vehicular Network Framework" in **Proceedings of the IEEE International Conference on Communications 2009 (ICC'09)**, Dresden, 01/Aug/09, 1-6.

Research reports

- Zilan , Ruken, Barceló Ordinas, José María and btavli@etu.edu.tr **A Survey of Wireless Multimedia Sensor Network Platforms** (UPC-DAC-RR-2008-53), 05/Sep/08.

Participation in research projects

Competitive Projects

Start date	End date	Title	Responsible Researcher	Funding Body
23/Mar/09	30/Mar/10	ASTARFIN: AUTORIDAD DE SELLADO DE TIEMPO DE ALTO RENDIMIENTO PARA EL FUTURO SECTOR FINANCIERO EN INTERNET	Cruellas, J.	MINISTERIO INDUSTRIA, TURIS. COMERC
01/Sep/08	01/Oct/09	CENIT INTEGRAL	Medina, M.	Centro para el Desarrollo Tecnológico Industrial (Cdti)
01/Dec/06	01/Dec/11	EuroNGI (7th Framework Program)	García, J.	UE
01/Jul/07	31/Dec/08	GILDDA.	Medina, M.	CICYT - PROFIT Proyecto Tractor
15/Jul/09	15/Jul/10	IE09.Conferencia internacional: Intelligent Environments 2009 (IE09, quinta edición)	Navarro, L.	MINISTERIO DE CIENCIA E INNOVACIÓN
01/Sep/08	01/Sep/09	InfoMOB: Information Mobility in Ad Hoc Wireless Networks	Barcelo Ordinas, J.M.	European Commission
01/Jan/08	31/Dec/10	Network of Excellence (NoE) "Networks of the Future" (NF)	García, J.	European Commission
01/Jan/08	01/Jan/10	P2PGRID: Self-adjusting Peer-to-peer and Grid Systems (TIN2007-68050-C03-01)	Navarro, L.	MEC

Competitive Projects (Cont.)				
Start date	End date	Title	Responsible Researcher	Funding Body
16/Jun/09	15/Jun/10	recerca anti frau financer	Medina, M.	Centre d'Innovació i Desenvolupament Empresarial (Cidem)À
01/Jul/09	30/Jun/11	Redacciones Integradas	Medina, M.	Centre d'Innovació i Desenvolupament Empresarial (Cidem)À
01/Jan/09	31/Dec/09	Regulation of resource allocation for experimental distributed systems	Navarro, L.	AGAUR,AGENCIA GESTIÓ AJUTS UNIV.
01/Jun/06	01/Jan/09	Self-* Grid: Dynamic Virtual Organizations for schools, families, and all	Navarro, L.	Gobierno de España. Ministerio de Educación y Ciencia (Mec)
01/Aug/06	31/Jul/09	TIN-2006-27667 E Self-organizing ICT Resource Management	Freitag, F.	MINISTERIO DE EDUCACIÓN Y CIENCIA
01/Jun/08	31/Aug/10	TSI-2007-66869-C02-01 "Integración de Redes Ad Hoc, Mesh y Celulares"	García, J.	Centro de Investigación Científica y Tecnológica
15/Oct/05	14/Oct/08	TSI2005-08145-C02-01 DETECCIÓN DE ATAQUES DISTRIBUIDOS MEDIANTE GRID	Medina, M.	MINISTERIO DE EDUCACIÓN Y CIENCIA

Non-competitive Projects				
Start date	End date	Title	Responsible Researcher	Funding Body
19/Mar/09	19/Jul/09	C-08046	Cruellas, J.	KINAMIL DATA INTEGRITY, S.L.
01/Feb/09	01/Feb/10	Tareas de asesoramiento y consultoría sobre tecnología de redes móviles ad-hoc	García, J.	CLIENTS VARIS

3.6. Research Group DAMA-UPC

The work of the group focuses on the research and technology transfer in topics related to the management and retrieval of large data volumes, information quality and data exploration. Topics of interest for our group include studying and improving performance in several scenarios such as relational databases, graph databases, data cleansing and integration and, in general, in any operation related to the management of very large data volumes.

Web page: <http://research.ac.upc.edu/DAMA-UPC>

Responsible: Josep Lluís Larriba Pey

People	
Dominguez Sal, David	Dominguez Sal, David
Escale Claveras, Francesc	Escale Claveras, Francesc
Gomez Villamor, Sergio	Gomez Villamor, Sergio
Lafon Gracia, Nestor	Larriba Pey, Josep
Larriba Pey, Josep	Martinez Bazan, Norbert
Martinez Bazan, Norbert	Muntés Mulero, Víctor
Muntés Mulero, Víctor	Pons Sumalla, Xavier

People (Cont.)

Pons Sumalla, Xavier	Pérez Casany, Marta
Pérez Casany, Marta	Rius Cruz, Carles
Sindreu Abello, Roger	Sindreu Abello, Roger
Tarsa Buenaventura, Carles	Tarsa Buenaventura, Carles

Conference Presentations

- Aguilar, J., Mohammad, J., Sharpe, D. and Muntés, V. "Exploiting Pipeline Interruptions for Efficient Memory Allocation" in **Proceedings of the 17th ACM Conference on Information and Knowledge Management, CIKM 2008**, California (Estats Units d'Amèrica), 31/Oct/08, 639-648.
- Dominguez, D., Pérez-Casany, M. and Larriba, J. "Cache-aware load balancing vs. cooperative caching for distributed search engines" in **Proceedings: 11th IEEE International Conference on High Performance Computing and Communications**, Seül, 25/Jun/09, 415-423.

Participation in research projects

Competitive Projects

Start date	End date	Title	Responsible Researcher	Funding Body
18/Oct/05	18/Oct/08	Ajuts de suport als Grups de Recerca de Catalunya	Larriba, J.	Generalitat de Catalunya (AGAUR), 2005SGR-00352 DAMA-UPC
01/Jan/07	31/Dec/08	COMPLEMENTÀRIA AL PROJECTE EUROPEU SEMEDIA	Larriba, J.	MEC **BLOQUEJA*
01/Jan/09	31/Dec/10	CONTINUACIÓN DE LA CREACIÓN DE UN SISTEMA DE ANALISIS DE LA INVESTIGACIÓN EN ESPAÑA, TIN2007-30380	Larriba, J.	MINIST.CIENCIA INNOVACIÓN
01/May/09	31/Mar/10	Exploración Intuitiva de Recursos Bibliograficos a Gran Escala	Larriba, J.	MINISTERIO DE CIENCIA E INNOVACIÓN
01/Oct/06	30/Sep/09	Gestión, acceso y exploración de grandes volúmenes de datos heterogeneos en la web y en entornos relaciones	Larriba, J.	Ministerio de Educación y Ciencia TIN2006-15536-C02-02
01/Jul/07	30/Jun/09	IMPLEMENTACIÓN DE UN SISTEMA DE ANÁLISIS DE LA INVESTIGACIÓN EN ESPAÑA	Larriba, J.	MEC **BLOQUEJA*
01/Jan/09	31/Mar/10	K-00402	Larriba, J.	CIDEM
01/Jan/09	31/Dec/09	Proposta XVI B Call 5 ICT	Larriba, J.	AGAUR, AGENCIA GESTIÓ AJUTS UNIV.

3.7. Research Group DMAG

The current research and development activities mainly deal with: the production, management and distribution of multimedia content in a secure and standard way, including electronic commerce of multimedia services and products and its business models; metadata use, search and interoperability to manage and store information about content; and all aspects of security, privacy and digital management of rights along the content life cycle. A key issue in all the previous topics is standardisation. Furthermore, research is also progressing on topics such as content adaptation and semantics, event reporting, ontologies and privacy and rights in online social networks.

Web page: <http://research.ac.upc.edu/DMAG>

Responsible: Jaime María Delgado Merce

People

Barrio Guerrero, Ruben	Castillejo Marco, Lidia
Delgado Mercè, Jaime	Gallego Fernández, M. Isabel
Llorente Viejo, Silvia	Rodríguez Doncel, Víctor
Rodríguez Luna, Eva	Tous Liesa, Rubén

Journals

- Doller, M., Tous, R., Gruhne, M., Yoon, K., Sano, M. and Burnett, I. "The MPEG Query Format: Unifying Access to Multimedia Retrieval Systems", **IEEE multimedia**, 15(4), Dec/08, 82-95.
- Tous, R. and Delgado, J. "Semantic-Driven Multimedia Retrieval with the MPEG Query Format", **Lecture notes in computer science**, 5392(1), Dec/08, 149-163.

Books

- Cadenato, A., Martínez, M., Graells, M., Pérez, I., Perez-Poch, A., Amante, B., Jordana, J., Salán, N., Salant, M., Grau, M.D., Gallego, M., Periago, M., Portet, E., Gorchs, R., Bohigas, X., Algaba, I., Albareda-Sambola, M., Raventos, M., García-Almiñana, Daniel and altres, I. **Guia per a l'avaluació de les competències en els laboratoris de ciències i tecnologia (AQU)**, Apr/09.

Conference Presentations

- Del Canto, P., Gallego, M., López, J., Mora, J., Reyes, M., Rodríguez, E., Sanjeevan, K., Santamaria, E. and Valero-Garcia, M "Diferentes usos de aprendizaje cooperativo en asignaturas de introducción a la programación de ordenadores" in **proceedings del congreso**, Castellón, 07/Sep/08, 1-10.
- Rodríguez, E., Delgado, J., Waller, A., Price, D. and de Ward, P. "DRM and Access Control architectures interoperability" in **Proceedings ELMAR-2008**, Zadar (Croàcia), 10/Sep/08, 447-450.
- Del Canto, P., Gallego, M., López, J., Mora, J., Reyes, M., Rodríguez, E., Sanjeevan, K., Santamaria, E. and Valero-Garcia, M "¿Qué hacemos con los alumnos que van mal?" in **memorias del congreso**, Cádiz (Espanya), 23/Sep/08, 1-11.
- Canto, P., Gallego, M., López, J., Mora, J., Reyes, A., Rodriguez, E., Sanjeevan, K., Santamaria, E. and Valero-Garcia, M "¿Qué hacemos con los alumnos que van mal?" in **XVI Congreso Universitario de Innovación Educativa en las Enseñanzas Técnicas. ACTAS**, Cádiz (Espanya), 30/Sep/08.
- Torres, V., Rodríguez, E. and Delgado, J. "Reporting Events in a multimedia content distribution and consumption system" in **2008 dms**, Boston, 30/Sep/08, 44-50.
- Del Canto, P., Gallego, M., López, J., Mora, J., Reyes, M., Rodríguez, E., Sanjeevan, K., Santamaria, E. and Valero-Garcia, M "La mejora continuada en el EEES" in **Proceedings V Congreso Iberoamericano de Docencia Universitaria**, 29/Oct/08.

- Gallego, M., Morte, J., Villas, S. and Torra, I. "Atenea de la UPC: Del Proyecto Piloto al Servicio" in **5º Encuentro de Usuarios de Moodle España**, Barcelona, 31/Oct/08.
- Jimenez, D., Alvarez, C., Lopez, D., Parcerisa, J.-M., Alonso, J., Christian, P., Tous, R., Barlet, P., Fernandez, M. and Tubella, J. "Work in Progress-Improving Feedback Using an Automatic Assessment Tool" in **Frontiers in Education Conference 2008**, New York, 31/Oct/08, 199-200.
- Rodríguez, E., Gallego, M. and Delgado, J. "Use of MPEG-21 for license protection and key management in DRM systems" in **Proceedings of the Third International Conference on Automated production of cross media content for multi-channel distribution**, Barcelona (Espanya), 28/Nov/08, 163-170.
- Carreras, A., Maroñas, X. and Delgado, J. "A standard-based approach on the use of contextual information for the adaptation authorisation" in **Proceedings of the Fourth International Conference on Automated Production of Cross Media Content for Multi-Channel Distribution, 2008**, Florencia , 30/Nov/08, 232-237.
- Llorente, S., Delgado, J., Maroñas, X. and Barrio, R. "Experiencing Digital Rights Management in Mobile Environments" in **Proceedings of the Fourth International Conference on Automated Production of Cross Media Content for Multi-Channel Distribution, 2008**, Florencia , 30/Nov/08, 147-154.
- Torres, V., Rodríguez, E. and Delgado, J. "Event Reporting scenarios and implementations in multimedia content distribution and consumption" in **Proceedings of the Fourth International Conference on Automated Production of Cross Media Content for Multi-Channel Distribution, 2008**, Florencia , 30/Nov/08, 155-162.
- Carreras, A., Andrade, M., Masterton, T., Arachchi, H., Barbosa, V., Dogan, S., Delgado, J. and Kondoz, A. "Contextual information in virtual collaboration systems beyond current standards" in **Proceedings of the 10th Workshop on Image Analysis for Multimedia Interactive Services**, London (Regne Unit), 01/Jan/09, 209-213.
- Rodriguez, V. and Delgado, J. "Semantic Expression and Execution of B2B Contracts on Multimedia Content" in **Lecture Notes In Computer Science**, 01/Jan/09, 89-100.
- Carreras, A., Tous, R. and Delgado, J. "How MPEG Query Format enables advanced multimedia functionalities" in **Proceedings of the 10th International Workshop of the Multimedia Metadata Community on Semantic Multimedia Database Technologies**, Graz (Àustria), 01/Jan/09.
- Tous, R. "Query formats for multimedia applications ISO/IEC 15938-12 (MPEG Query Format) & ISO/IEC 24800 (JPSearch)" in **CATAI 2009 Super-Resolution and Optical Biopsy ¿ Proc XVII Winter Course**, Tenerife (Espanya), 01/Jan/09, 25-32.
- Tous, R. and Delgado, J. "A LEGO-like metadata architecture for image search & retrieval" in **Proceedings of the 20th International Workshop on Database and Expert Systems Application**, 01/Jan/09, 246-250.
- Martínez, M., Torra, I., De Corral, I., Gallego, M., Esperanza, P., Araceli, A. and Darnell, I. "Cómo fomentar la innovación docente en la UPC: Proyecto RIMA(ICE)" in **VCongrés internacional de docència universitària i innovació: el canvi en la cultura docent universitària**, Lleida, 31/Jan/09.
- Carreras, A., Tous, R., Rodríguez, E., Delgado, J., Giovanni, C., Gianluca, F. and Gibellino, D. "A Standards-Based Generic Approach for Complex Multimedia Management" in **Wmm'09 9th Workshop on Multimedia Metadata**, Toulouse, 31/Mar/09, 147-159.
- Torres, V., Delgado, J., Maroñas, X., Llorente, S. and Gauvin, M. "A web-based rights management system for developing trusted value" in **Proceedings www09 Developers Track**, 20/Apr/09, 54-56.
- Torres, V., Delgado, J., Maroñas, X., Llorente, S. and Gauvin, M. "Enhancing Rights Management Systems Through the Development of Trusted Value Networks" in **Proceedings of the 7th International Workshop on Security in Information Systems - WOSIS 2009**, Milan, 31/May/09, 26-35.

Participation in research projects

Competitive Projects				
Start date	End date	Title	Responsible Researcher	Funding Body
10/Apr/08	09/Apr/09	AXMEDIS2007	Delgado, J.	MINIST.CIENCIA E INNOVACIÓN
22/Jun/09	22/Jun/10	CulturaLive: Servei d'Explotació de Continguts Culturals en directe per a usuaris professionals	Delgado, J.	AGAUR, AGENCIA GESTIÓ AJUTS UNIV.
01/Oct/05	01/Oct/08	DRM-MM (Gestió de Drets Digitals en E-Serveis Multimèdia)	Delgado, J.	CICYT
01/Jul/07	31/Dec/08	E2E RM (End to End Rights Management)	Delgado, J.	Ministerio de Industria y Comercio
01/Jan/09	31/Dec/11	GESTION DE CICLO DE VIDA DE CONTENIDOS MULTIMEDIA	Delgado, J.	MINIST.CIENCIA INNOVACIÓN
01/Oct/08	01/Oct/11	Gestión del ciclo de vida de contenidos multimedia	Rodríguez, E.	Gobierno de España. Ministerio de Ciencia e Innovación (Micinn)
01/Oct/07	31/Dec/08	GILDDA (Gestión Integral para el Libro Digital: Derechos de Autor, Contenidos y Negocio)	Delgado, J.	Ministerio de Industria, Turismo y Comercio
01/Jan/08	31/Dec/08	INFOPODCAST PLATAFORMA EXPERIMENTAL PARA LA CREACIÓN, GESTIÓN Y DIFUSIÓN MULTICANAL DE CONTENIDOS INFORMATIVOS MULTIMEDIA...	Delgado, J.	MINISTERIO INDUSTRIA, TURIS. COMERC
01/Jan/08	31/Dec/08	MUSITECA	Delgado, J.	Gobierno de España. Ministerio de Industria, Turismo y Comercio (Mityc). Secretaria de Estado de Telecomunicaciones y para la Sociedad de la Información
01/Jul/07	01/Dec/10	Seguretat i Confiança en la Societat de la Informació (Segur@)	Delgado, J.	Ministerio de Industria
30/Sep/06	01/Jun/09	VISNET II (NETworked audio-VISual media technologies)	Delgado, J. Delgado, J.	

Non-competitive Projects				
Start date	End date	Title	Responsible Researcher	Funding Body
01/Jan/07	01/Dec/08	CMOnto	Delgado, J.	
01/Jan/07	01/Dec/08	TSI2005-05277 DRM	Delgado, J.	MEC

3.8. Other research activities

Journals

- Iglesias, F., Lorente, P., Miguelez, X. and Serra, A. "La TV i l'Internet del Futur", **Connecta't**, Any 7(18), Sep/08, 16-18.
- Faúndez, M. "Biometric dispersion matcher", **Pattern recognition**, 41(11), Nov/08, 3412-3426.
- Faúndez, M. "Biometric dispersión Matcher", **Pattern recognition**, 41(11), Nov/08, 3412-3426.
- Perello, J., Spadaro, S., Comellas, J. and Junyent, G. "A load-based reflection routing protocol with resource pre-allocation for contention resolution in OBS networks", **European transactions on telecommunications**, 20(1), Dec/08, 1-7.
- Velasco, L., Spadaro, S., Comellas, J. and Junyent, G. "Shared-path protection with extra traffic in ASON¿GMPLS ring networks", **Journal of optical networking**, 8(2), Jan/09, 130-145.
- Xhafa, F., Carretero, J., Dorronsoro, B. and Alba, E. "Tabu search algorithm for scheduling independent jobs in computational grids", **Computing and informatics**, 28(2), Jan/09, 237-250.
- Faúndez, M. "An efficient low cost approach for on-line signature recognition based on length normalization and fractional distances", **Pattern recognition**, 42(1), Jan/09, 183-193.
- Faúndez, M. "Investigation on LP-residual representations for speaker identification", **Pattern recognition**, 42(3), Mar/09, 487-494.
- Guillem, C., Javier, L., López, J., Xavier, C., Oller, A., Flaminio, M. and Alcober, J. "MCU basada en SIP para videoconferencias seguras", **Iris (Madrid)**, Apr/09.
- Josep, P., Oller, A., López, J., Fanning, C., Flaminio, M. and Alcober, J. "Escritorios remotos en máquinas virtuales aplicados en grandes corporaciones", **Iris (Madrid)**, Apr/09.
- Agraz, F., Velasco, L., Perello, J., Ruiz, M., Spadaro, S., Junyent, G. and Comellas, J. "Design and implementation of a GMPLS-controlled grooming-capable optical transport network", **IEEE/OSA journal of optical communications and networking**, 1(2), Jul/09, A258-A269.
- Perello, J., Spadaro, S., Comellas, J. and Junyent, G. "Controlled loops for quality-of-service differentiation in delay-sensitive optical burst switching networks", **IET communications**, 3(8), Aug/09, 1263-1273.

Book Chapters

- Juan, A. and Marques, J. "Castelldefels Project: Modeling and Simulation of the Computer System that gives support to the Virtual Campus of the Open University of Catalonia", **Proceedings of the 2007 Winter Simulation Conference**, Dec/08, 2364-2364.
- Juan, A. and Marques, J. "J-SAEDES: A Simulation Software to improve Reliability and Availability of Computer Systems and Networks", **Proceedings of the 2007 Winter Simulation Conference**, Dec/08, 2285-2292.
- Llop, C., Jornet, S. and Pastor, E. "Carta del paisatge: ordenació del territori i desenvolupament local a les Valls d'Àneu", **Paisatges en transformació. Intervenció i gestió paisatgístiques**, Aug/09, 414-416.

Conference Presentations

- Perello, J., Velasco, L., Agraz, F., Spadaro, S., Comellas, J. and Junyent, G. "Demonstration of GMPLS-controlled Integrated IP/WDM routing over a Grooming-capable ASON/GMPLS Network Test-bed" in **ECOC**, Vienna, 30/Sep/08, 1-2.
- Perello, J., Spadaro, S., Sinnset, I., Zouganeli, E., Cholda, P., Jajszczyk, A., Wajda, C., Verchere, D., Gruenzinger, R., Fernandez, J., Gonzales, O. and Chandrakumar, V. "The NOBEL2 resilience approach in future transport networks" in **Proceedings de 34th European Conference on Optical Communications**, Bruselas, 30/Sep/08, 83-85.
- Velasco, L., Spadaro, S., Comellas, J. and Junyent, G. "Wavelength Selective Switches time requirements for shared path protection in ASON/GMPLS rings" in **ECOC**, Vienna, 30/Sep/08, 1-2.
- Rodríguez, D., López, J., Oller, A., Ríos, A., Alcober, J. and Minerva, F. "Hybrid Fixed-Mobile P2P Super-Distribution" in **Proceedings of the NEM Summit 2008:Towards Future Internet**, Saint-Malo, 30/Sep/08, 1-1.
- Dominguez, D. and Surdeanu, M. "Cache-aware Load Balancing for Questions Answering" in **Proceedings of the 17th ACM Conference on Information and Knowledge Management, CIKM 2008**, California (Estats Units d'Amèrica), 31/Oct/08, 1271-1280.
- Alcober, J., Iglesias, F., Lorente, P., Miguelez, X., Sallent, S. and Serra, A. "Media Layer: redesigning the Internet as the media network of the future" in **Proceedings of Euro NF: Future Internet Architecture 2008**, Paris, 30/Nov/08.
- Herranz, J. and Nin, J. "Partial Symbol Ordering Distance" in **Modeling Decisions for Artificial Intelligence, proceedings.**, Awaji Isl (Japan), 01/Jan/09, 293-302.
- Salamí, E., Pastor, E. and Barrado, C. "Near Remote Sensing for Tactical Earth Protection" in **Proceedings of the 33rd International Symposium on Remote Sensing of Environment**, Stresa, 01/Jan/09, 1-4.
- Ramírez, J., Barrado, C., Pastor, E. and García, J. "A proposal for using UAS in radio navigation aids flight inspection" in **47th AIAA Aerospace Sciences Meeting and Exhibit with New Horizons Forum (2009)**, Orlando, 01/Jan/09.
- Perello, J., Spadaro, S., Comellas, J. and Junyent, G. "Burst contention avoidance schemes in hybrid GMPLS-enabled OBS/OCS optical networks" in **13th International Conference on Optical Network Design and Modelling**, Braunschweig (Alemanya), 01/Feb/09, 1-6.
- Santamaria, E., Barrado, C. and Pastor, E. "An Event Driven Approach for Increasing UAS Mission Automation" in **AIAA Unmanned Unlimited 2009 Proceedings**, Seattle (Estats Units d'Amèrica), 23/Mar/09.
- Suárez, D., Monreal, T., Vallejo, F., Bevide, R. and Viñals, V. "Light NUCA: a proposal for bridging the inter-cache latency gap" in **Design, Automation and Test in Europe (DATE-09)**, Nice, 30/Apr/09, 530-535.
- Agraz, F., Velasco, L., Perello, J., Ruiz, M., Spadaro, S., Junyent, G. and Comellas, J. "An experimental GMPLS-controlled network test-bed enabling sub-wavelength connection provisioning" in **ICTON '09. 11th International Conference on Transparent Optical Networks, 2009**, Sao Miguel (Azores) (Portugal), 28/Jun/09, 1-4.
- Alvarez, M. "Is engagement with a purpose the essence of active learning?" in **Active Learning for Engineering Education (ALE2009)**, Barcelona, 30/Jun/09.
- Triay, J., Perello, J., Cervelló, C. and Spadaro, S. "On Avoiding-Minimizing Burst Collisions in Optical Burst-Switched Networks without Wavelength Conversion" in **11th International Conference on Transparent Optical Networks**, Sao Miguel, Azores, 30/Jun/09, 1-4.
- QUIÑONES, E., Guillem, B., Berger, E. and Cazorla, F. "Using Randomized Caches in Probabilistic Real-Time Systems" in **Proceedings of the 21st Euromicro Conference on Real-Time Systems**, Dublin, 31/Jul/09, 129-138.

- Spadaro, S., Velasco, L., Perello, J., Fernando, A., Comellas, J. and Junyent, G. "Some Open Issues in Multi-Domain/Multi-Operator/Multi-Granular ASON/GMPLS Networks" in **Proceedings of 11th International Conference on Transparent Optical Networks**, Island of Sao Miguel, Azores, 31/Jul/09, 1-4.
- Roca, J. and Grossman, M. "Scaling of 3D Game Engine Workloads on Modern Multi-GPU Systems" in **Hpg 2009: The 1st ACM Conference on High-Performance Graphics**, New Orleans, 31/Aug/09, 37-46.

Research reports

- Zilan , Ruken, Barceló Ordinas, José María and Bulent Tavli **A Survey of Wireless Multimedia Sensor Network Platforms** (UPC-DAC-RR-2008-54), 05/Sep/08.
- Mohammad Alaei and Jose M. Barcelo-Ordinas **FoV-based node clustering for Wireless Multimedia Sensor Networks** (UPC-DAC-RR-2009-42), 10/Jun/09.
- Vladimir Subotic, Jesus Labarta, Mateo Valero and Alex Veidenbaum **On the Potential of Automatic Computation - Commuication Overlap** (UPC-DAC-RR-2009-48), 22/Jul/09.

Participation in research projects

Competitive Projects

Start date	End date	Title	Responsible Researcher	Funding Body
01/Dec/06	01/Dec/10	"biometrics for electronic IDs"	Drygalo, A.	European Science Foundation Accción COST-2101
01/Oct/08	31/Dec/10	Cálculo de radiación electromagnética en presencia de dieléctricos mediante análisis numérico (CARDIAN)	Mora, J.	MEC
01/Dec/06	01/Dec/10	"Cross-Modal Analysis of Verbal and Non-verbal Communication"	Esposito, A.	European Science Foundation Accción COST-2102
01/Jan/08	01/Jul/10	DICONET, "Dynamic Impairment Constraining Networking for Transparent Mesh Optical Networks"	Comellas, J.	European Union
01/Sep/07	31/Dec/08	Elaboració de la Guia per a l'avaluació de competències en el projecte final de carrera d'Enginyeria i Arquitectura	Valderrama, E.	Agència per a la Qualitat Universitària
01/Sep/07	31/Dec/08	Elaboración de la Guía para la evaluación de competencias en el proyecto final de carrera de Ingeniería y Arquitectura	Valderrama, E.	Gobierno de España. Ministerio de Educación y Ciencia (Mec)
01/Jan/08	31/Dec/08	gaZ: Grupo de Arquitectura de Computadores de la UZ: Reconocimiento y financiación de grupo Consolidado de investigación (BOA de 18 de Abril de 2008).	Víctor, D.	Gobierno de Aragón.
01/Jan/07	31/Jan/12	HiPEAC-2 Network of Excellence. High-Performance Embedded Architectures and Compilers FP7/ICT-217068	Bosschere, K.	7th Framework Programme. Subprogramme Area: Computing Systems

Competitive Projects (Cont.)				
Start date	End date	Title	Responsible Researcher	Funding Body
01/Jan/07	31/Dec/10	Jerarquía de Memoria de Alto Rendimiento.	Viñals, V.	CICYT-TIN-2007-66423.Progr. Nac. de Tecn. Informat. (PRON-TIN).
23/Mar/09	31/Dec/09	LAYERS4MOODLE	Alier, M.	MINISTERIO INDUSTRIA, TURIS. COMERC
01/Sep/07	31/Aug/09	"New MSc Curriculum in Tele-Informatics"	Smekal, Z.	Unión europea, proyecto TEMPUS application Nr. JEP CD_JEP-34030-2006 (
01/Jan/07	31/Dec/09	"Sistema de identificación biométrica multimodal amigable para el usuario"	Ferrer, M.	MEC TEC2006-13141-C03-02/TCM

