

CURRICULUM VITAE

ARCE RUIZ, ROSA MARIA

PhD OF CIVIL ENGINEERING – U.P.M.

GRADUATE in Centre for Environmental Management and Planning (CEMP), University of Aberdeen, in Environmental Impact Assessment.

- Professor of the Department of Urban and Regional Planning and Environment of the E.T.S.I. de Caminos, C.P., Universidad Politécnica de Madrid.
- Ex- Director of the Environmental Management Area at the Foundation School for Industrial Organisation. This position included responsibilities for postgraduate training actions (www.eoi.es).
- Ex- General Director at the Foundation School for Industrial Organisation.

RESEARCH ACTIVITY (2000-2011)

- Director of the project: MODEL OF INTEGRATION OF INFRASTRUCTURES IN LANDSCAPE USING GIS (MILL). Supported by Ministry of Science and Innovation (2010-2013)
- Member of the COST Action TU1002 “ACCESSIBILITY INSTRUMENTS FOR PLANNING PRACTICE IN EUROPE ”. Financed by the European Union (2011-2013)
- Member of the project: MANAGEMENT OF SAFE, INTELLIGENT AND SUSTAINABLE HIGHWAYS (OPERACIÓN DE AUTOPISTAS SEGURAS, INTELIGENTES Y SOSTENIBLES, OASIS), supported by Ministry of Science and Innovation and CDTI (2008-2011)

- Member of the project: ASSET, ASSESSING SENSITIVENESS TO TRANSPORT, financed by DG TREN of European Commission. SIXTH FRAMEWORK PROGRAMME. THEMATIC PRIORITY 8. POLICY-ORIENTATED RESEARCH. SPECIFIC TARGETED RESEARCH PROJECT – CONTRACT N. 044274 (2007-2009)
- Member of the COST Action 356: "EST - TOWARDS THE DEFINITION OF A MEASURABLE ENVIRONMENTALLY SUSTAINABLE TRANSPORT". Financed by the European Union (2006-2010)
- Director of the project: ANALYSIS OF THE EFFECTIVENESS OF PREVENTIVE, CORRECTIVE AND COMPENSATORY MEASURES OF NEGATIVE ENVIRONMENTAL IMPACTS OF TRANSPORT LINEAR INFRASTRUCTURES IN SPAIN BETWEEN 1988-2003. RECOMMENDATIONS FOR OPTIMIZATION OF DESIGN AND CONSTRUCTION. Financed by Ministry of Publica Works. Ministerio de Fomento. Plan de I+D (2003-2005)
- Director of the project: STRATEGIC ENVIRONMENTAL ASSESSMENT. Financed by agreement EOI-UPM (2006)
- Director of the project TERRITORY AND SUSTAINABILITY. ANALYSIS BASED ON INDICATORS. Bay agreement UPM-EOI (2005)
- Director of the project: EVALUATION OF THE INFLUENCE OF EIA PROCESS IN CONSERVATION OF CULTURAL HERITAGE. IN SPAIN. By agreement UPM-CEDEX (2003-2004)
- Director of the project: REVISION OF INFORMATIVE STUDIES OF CANTABRIC HIGH SPEED TRAIN CORRIDOR. By agreement UPM-EUROCONTROL (2003-2006)
- Director of the project: DESIGN OF INDICATORS AND MONITORING OF ENVIRONMENTAL DATA IN RADIAL HIGHWAYS IN SPAIN. By agreement UPM-CEDEX (2002) U.P.M.).

ACTIVITIES IN THE PRIVATE/PROFESSIONAL SECTOR

Direction of projects:

- **ENVIRONMENTAL QUALITY SUPERVISION OF HIGHWAY LAYOUT AND CONSTRUCTION PROJECTS** for ESTEYCO (1996-2000).
- **ECOLOGICAL, AESTHETIC AND LANDSCAPE PLANNING EXTENSION OF THE LAYOUT AND CONSTRUCTION PROJECT OF THE NATIONAL III HIGHWAY; SECTION: ATALAYA DEL CAÑAVATE-MOTILLA DEL PALANCAR**, for ESTEYCO (1995).
- **ENVIRONMENTAL IMPACT STUDY OF THE NACIONAL III HIGHWAY; SECTION: ATALAYA DEL CAÑAVATE-MOTILLA DEL PALANCAR**, for ESTEYCO (1994).
- **ENVIRONMENTAL IMPACT STUDY OF THE ORENSE VARIANT (N-525/N-120 LINK)**, for EPTISA (1994).
- **ENVIRONMENTAL IMPACT STUDY OF THE GUADALHORCE RIVER LOWER COURSE PROJECT AND CONDITIONING WORK**, for ESTEYCO (1994).
- **ENVIRONMENTAL IMPACT STUDY OF THE AUTOVIA DE LA PLATA MOTORWAY INFORMATIVE STUDY; SECTIONS: ZAMORA-SALAMANCA NORTE; SALAMANCA NORTE-SALAMANCA SUR; SALAMANCA SUR-GUIJUELO; GUIJUELO-BÉJAR**, for ESTEYCO (1992).
- **ENVIRONMENTAL IMPACT STUDY OF THE MOLAR VARIANT INFORMATIVE STUDY**, for SINCONSULT, S.A. (1991).
- **ENVIRONMENTAL IMPACT STUDY OF: 1) INFORMATIVE STUDY, AND 2) DRAFT PROJECT OF THE MALAGA-ESTEPONA MOTORWAY**, for ESTEYCO (both in 1991).

- **ENVIRONMENTAL IMPACT STUDY OF A MINI-POWER PLANT ON THE MUNDO RIVER (HELLIN, ALBACETE)**, for the Compañía Industrial de Hellín, S.A. (1990).
- **ENVIRONMENTAL IMPACT STUDY OF THE AUTOPISTA DEL ATLANTICO MOTORWAY; SECTIONS: FENE-GUISAMO AND RANDE-PUXEIROS**, for Autopistas del Atlántico, Concesionaria Española, S.A. (1990).
- **INITIAL ENVIRONMENTAL IMPACT ESTIMATE FOR THE NEW MADRID-ZARAGOZA HIGH-SPEED TRAIN LINE**, for INECO, as licensee in association with the company TEIS XXI, S.A. (1989).
- **METHODOLOGICAL GUIDE FOR THE ASSESSMENT OF THE ENVIRONMENTAL IMPACT OF ROADS AND RAILROAD LINES**, direction and execution, for the Instituto del Territorio y Urbanismo (MOPU) with the company OCISA (1988).
- **ENVIRONMENTAL IMPACT STUDY OF THE CONSTRUCTION AND COMMISSIONING OF A BRIDGE OVER THE PONTEVEDRA RIVER**, for the company Carlos Fernández Casado, S.A. (1988).
- **URBAN PLANS** for the municipalities of Bande and Calvos de Randín, in the province of Orense (1985), and Orcera and Segura de la Sierra in the province of Jaén, for the company PYPSA (1986).
- **STUDY OF TRAFFIC RESTRICTION MEASURES IN THE OLD SECTOR OF SANTIAGO DE COMPOSTELA**, impact assessment stage, collaboration with the company IDASA of La Coruña (1983).
- **PROJECTS AND CHIEF ENGINEERING** for conditioning of road infrastructures in the municipality of A Peroxa, in the province of Orense (1981-82).

PUBLICATIONS (2000-2010)

Arapis, G., Arce R. et al. (2010) Chapter 7:” Methods for a Joint Consideration of Indicators”. In “Indicators of Environmental sustainability in transport”. ED. INRETS, 2010. Bron, Francia

Arce Ruiz, R. M., Ortega Pérez, E. & Otero Pastor, I. (2010) “Los Sistemas de Información Geográfica aplicados a la Evaluación Ambiental en la planificación de infraestructuras de transporte” *Ciudad y Territorio y Estudios Territoriales. Estudios Territoriales*. Vol XLII. 2010.

Arce Ruiz, R. M., Lanza, C.; Rui-Wamba, J. (2009) “Ingeniería, innovación y sostenibilidad”. En: La contribución de las TIC a la sostenibilidad del transporte en España. Coordinadores: José Ignacio Pérez Arriaga y Ana Moreno Romero. ED. Real Academia de la Ingeniería, Madrid.

Arce Ruiz, R. M., Hernández Casero, J., Martín Ramos, B, Otero Pastor, I (2008) “Efectos de las políticas de Transporte sobre las áreas sensibles” VIII Congreso de Ingeniería del Transporte. La Coruña. Julio 2008.

Arce Ruiz, R.M. Gómez Sánchez, A. (2008) “ Effectiveness of preventive, corrective and compensatory measures of the environmental impacts of roads related to hydrology, soils, noise and historical heritage” 9 Highway and Urban Environment Symposium. June 2008

Arce Ruiz, Rosa M., Aizpurúa Giraldez, N.; del Rey Tapia, J.; González Valls, J.M.; Rojas Marrero, G. (2007) “Las Tecnologías de la Información y las Comunicaciones y el Medio Ambiente”. Ed. : Fundación Gas Natural. Barcelona

Arce Ruiz, R. M., Castro Valencia, A. (2006) “The experience of environmental impact assessment of large dams in Spain. 1988- 2004. Case analysis” In: Dams and Reservoirs, Societies and Environment in the 21st Century. Berga et al (eds). ED. Taylor & Francis Group, London

Arce Ruiz, R. (2006) “ Do we need energy?” INNOVACIÓN, First 2006

Arce Ruiz, R. (2006) “The renewable energy costs” INFOENVIRO. January 2006

Arce Ruiz, R. M., García de Durango, J. y Palomino Monzón, C. (2006) “Propuesta de indicadores para la sostenibilidad de las infraestructuras”. Actas del III Congreso Internacional de Ingeniería Civil, Territorio y Medio Ambiente. “Agua, Biodiversidad e Ingeniería” Zaragoza, 25-27, octubre, 2006. Ed.: Colegio de Ingenieros de Caminos, C.P.

Arce Ruiz, R. M. y Palomino Monzón, C. (2006) “El medio ambiente y la sostenibilidad en las escuelas de ingeniería civil” Actas del III Congreso Internacional de Ingeniería Civil, Territorio y Medio Ambiente. “Agua, Biodiversidad e Ingeniería” Zaragoza, 25-27, octubre, 2006. Edited by: Colegio de Ingenieros de Caminos, C.P. 2006.

Arce Ruiz, R. M., Meneses, J., de Carvajal, A. (2006) “La Transferencia de tecnología y la explotación de resultados, en “Análisis y Propuestas de Actuaciones para el fortalecimiento de las relaciones Universidad-Empresa”. Edited by UPM- Comunidad de Madrid. Madrid

Arce, R.; Feito, M.A.; Cordon, A.; Hurtado, F.; Sánchez, E. (2006). “Las tecnologías de la información y de las comunicaciones en el desarrollo humano: situación y perspectivas”. *Economía industrial*, ISSN 0422-2784, N° 362, 2006 (Number dedicated to: China and India: opportunities and strategies), pags. 165-175

Arce Ruiz, R. M., Aizpurúa Giraldez, N. y Gómez Sanchez, A. (2006). “Análisis de las medidas preventivas, correctoras y compensatorias de las infraestructuras lineales del transporte desde el punto de vista de las ingenierías y constructoras”. Actas del III Congreso Internacional de Ingeniería Civil, Territorio y Medio Ambiente. “Agua, Biodiversidad e Ingeniería” Zaragoza, 25-27 de octubre de 2006. Edited by: Colegio de Ingenieros de Caminos, C.P. 2006.

Arce Ruiz, R. M. (2005) “Impacto Medioambiental de taludes”. En VI Simposio Nacional sobre Taludes y Laderas inestables. Vol. III. Editado por: Corominas, J.; Alonso, E.; Romana, M. y Hürlimann, M. Ed. Universidad Politécnica de Valencia

Arce Ruiz, R. M. (2005) et al. “Situación de las patentes en España”. Ed. EOI. Madrid

Arce Ruiz, R. M. (2004) “Influencia del proceso de EIA en el estudio y la conservación del patrimonio histórico –cultural español”. Actas VI Congreso de Ingeniería del Transporte. Editores: Emilio Larrodé y Luis Castejón. Ed: CIT 2004, Zaragoza 2004. Fundación Transpirenaica, Plataforma Logística de Zaragoza (PLAZA) y Gobierno de Aragón.

Arce Ruiz, R. M., Alvarez-Villamil, G. y Sorribes, C. (2004). “Los Sistemas de Información Geográfica y la localización de actividades en el Territorio”. Edited by: ETS Ingenieros de caminos, CP. UPM. Madrid

Arce Ruiz, R. (2004) “Los proyectos de infraestructuras de transporte y la integración de medidas preventivas, correctoras y compensatorias de daños al medio ambiente en los últimos diez años en España. Perspectivas de futuro” . REVISTA: *Carreteras*, No 131 Enero/febrero 2004. pp 26-36

Arce Ruiz, R. M. (2004) “La conservación del patrimonio histórico español en el proceso de Evaluación de Impacto Ambiental. Lecciones de la experiencia.”. Actas del II Congreso Internacional de Ingeniería Civil, Territorio y Medio Ambiente, Santiago de Compostela. 2004. Ed.: Colegio de Ingenieros de Caminos, C.P.

Arce Ruiz, R. (2004). “Drenaje de carreteras y medio ambiente”. REVISTA: *Carreteras*, monográfico sobre “El agua y la carretera”. 2004. pp 186-209

Arce Ruiz, R. M. y Gómez Sánchez, Adoración (2004) “La experiencia de EIA de infraestructuras de transporte en la Comunidad de Madrid. Análisis de casos”. Actas del II Congreso Internacional de Ingeniería Civil, Territorio y Medio Ambiente, Santiago de Compostela. 2004. Ed.: Colegio de Ingenieros de Caminos, C.P.

Arce Ruiz, R. M. et al. (2003) “Medio Ambiente en España 2003”. Edited by EOI, Madrid

Arce Ruiz, R. M. (2003) “Las Infraestructuras y el Medio Ambiente”. En El desarrollo Sostenible en España. Análisis de los Profesionales. Colegio de Físicos. VI Congreso Nacional de Medio Ambiente. Madrid 2003. Ed.: Colegio Oficial de Físicos.

Arce Ruiz, R. M. (2002) “La Evaluación de Impacto Ambiental en la encrucijada. Los retos del futuro”. Ed. La Ley

Arce Ruiz, R. M. (2001) “Medio Ambiente”. En *La Economía Andaluza al inicio del S XXI. Orientaciones estratégicas*. Coordinadores: José A. Herce, Juan F. Jimeno y Carlos Usabiaga. Ed. FEDEA (Fundación de Estudios de Economía Aplicada) y Confederación de Empresarios de Andalucía (CEA).

Arce Ruiz, R. y Gullón, N. (2000) "The application of Strategic Environmental Assessment to sustainability assessment of infrastructure development". *Environmental Impact Assessment Review*, 20 pp 393-402.

Arce Ruiz, R. M. (2000) "La EIA en España El aprendizaje de la experiencia y los retos de los próximos años". *INTEC URBE*. Nº 64. Año 2000.

Technical Reviews of book translations:

Manual de Auditoría Medioambiental, Higiene y Seguridad,
Editor Lee Harrison.
Publisher. McGraw Hill. 1996. ISBN 84 – 481- 0586 –9

El efecto invernadero. El desastre de mañana, hoy.
Jon Erickson.
Publisher McGraw Hill. 1992. ISBN 84 – 7615 – 789 - 4

As editor:

Director of : *Environmental Impact in Industry Minimisation Manuals Series*, edited by
School of Industrial Organisation and EMGRISA.

Industrial Sectors:

Sector curtidos. ISBN 84 – 88723 – 26 -1

Sector textil. ISBN 84 – 88723 – 28 – 8

Sector tratamiento de superficies. ISBN 84 – 88723 –30- X

GUEST SPEAKER:

Round table: *Transport, territory and sustainable development*. 10º Congreso Nacional de Medio Ambiente. Madrid. Nov. 2010

ICT and Environment. Organized by Fundación Gas Natural. Mallorca. May 2010

Round table: *Environmental Management Systems in construction works and good environmental practices*. Congreso: 9º Congreso Nacional de Medio Ambiente. December 2008.

Initiatives of efficiency in transport. Course: New technologies against climate change. Organized by Fundación Gas Natural and Ministerio de Medio Ambiente. Madrid. November 2008

Environmental correction measures in roads. 50 Aniversary of Civil Engineering Course in Sonora University, Hermosillo, México. September 2008

International Conference on Sustainability of cars. *La Sostenibilidad durante el uso y disfrute del automóvil*. June 2008, Diseño para un mundo sostenible

Course *Diseño y complejidad – Sostenibilidad y diseño responsable en la nueva realidad global*. Madrid, Instituto Italiano de Cultura de Madrid. June 2007

Round Table: *The engineer role in global conflicts*. In Course: *La Ingeniería ante las ciencias sociales y las humanidades*. Madrid, Escuela Universitaria de Ingeniería Técnica de Telecomunicación. 12 y 13 December 2007

Courses

She has taught more than 100 conferences and courses on Environmental Impact Assessment, Engineering and the Environment, Renewable Energies, the Green Book on Urban Environment, the Green Book on Transport, Ethics and the Environment.

Since 1991 until 2007, as Director of the Environmental Management Area of the EOI, she has promoted and directed the creation of the:

- Master's Course in Renewable Energies and Energetic Market. 500 h.
- Master's Course in Environmental Management and Engineering. 900 h. Two Courses each year from 1992.
- Master's Course in Environmental Engineering: Water Management, 900 h.
- Master's Course in Legal, Social and Economic Organisation of the Environment, 500 h

- Master's Course in Environmental Infrastructures and Services Management. 500 h.
- Master's Course in Prevention of Labour Risks. 600 h
- As well as over 100 courses on the Environment for professionals and for young postgraduates in the Framework of European Social Found.

OTHER ACTIVITIES and HONOURS:

- ◆ Member of working group of AENOR and ISO on “Sustainability in construction”
- ◆ Board Member of the Professional Association of Civil Engineers (Colegio Nacional de Ingenieros de Caminos, C.P.). By vote.
- ◆ Evaluator in the National Plan of Universities Quality.
- ◆ Referee in Research Projects for ANEP (AGENCIA NACIONAL DE EVALUACIÓN Y PROSPECTIVA- National Agency of Evaluation and Prospective)
- ◆ **Professional Merit Medal** in 1993, distinction of the Professional Association of Civil Engineers (Colegio Nacional de Ingenieros de Caminos, C.P.)
- ◆ Member of Environmental Commission in the Professional Association of Civil Engineers (Colegio Nacional de Ingenieros de Caminos, C.P.)
- ◆ Member of Associations: APROMA (Asociación Independiente de Profesionales Medioambientales) and IAIA (International Association for Impact Assessment).
- ◆ Co-ordinator of an Action of the ERASMUS Program, with Westminster University (London), National University of Athens and Politécnico de Torino (1991-1995).
- ◆ Member of several Assessment Committees of Environmental Awards at the Ministry of Industry and at the Professional Association of Civil Engineers (Colegio de Ingenieros de Caminos, Canales y Puertos).

◆ Participant in "Hearing of experts" of EU on Strategic Environmental Assessment of the European Transport Infrastructures Network. (1997)

◆ Member of CESPIN: Corporate Environmental and Sustainability Performance Information Network, with Imperial College, of London, the International Institute for Industrial Environmental Economics at the University of Lund and School for Industrial Organisation, Madrid (1998-2000)