

# **CURRICULUM VITAE**

## **Emilio Mínguez**

### **1. Personal Data:**

Emilio Minguez  
Born in Madrid, Spain

### **2. Education**

Industrial Engineering . Polytechnical University of Madrid (UPM) . 1973  
PhD in Engineering . UPM, 1982

### **3. Academic Positions and Activities:**

Dean of College of Industrial Engineering at UPM (2014 - 2018)  
Professor Chair of Nuclear Engineering at UPM (Universidad Politécnica de Madrid) (at present)

Vice –Rector for Academic Management and Professors at UPM (2004-2012)

Vice-Rector for Post - Degrees and Doctorate at UPM (2012-2014)

Head of the Nuclear Engineering Department (1999-2000)

Co-founder of the Institute of Nuclear Fusion at UPM (1983)

Co-founder of the European Nuclear Engineering Network Association (ENEN) (2002)

Vice-President of ENEN (2009- 2012)

Visiting professor at University of Florida (USA). 1992

Visiting professor at University of Nevada. Reno (USA). 2000

Visiting professor at University of Las Palmas (Spain). 2000 and 2005.

Professor in the Summer School at Norwersten Polytechnical University (NPU), Xi'an (China). 2018

Professor at the Summer School at Polytechnical University of Saint Petersburg (Russia). 2018

Invited at several Universities for collaboration:

- Tec Monterrey (Mexico),
- Purdue University Purdue (USA)
- Universidad de Desarrollo (Chile)
- U. Salesiana (Ecuador)
- Khalifa University (UAE)
- Polytechnical University in Abu Dhabi (UAE)
- Tongi University (China)
- Beihang University (China)
- NPU (China)
- Xi'an Jiaotong (China)
- Polytechnical University of Saint Petersburg (Russia)
- KAIST (Korea)
- KIST (Korea).

Member of the Evaluation and Accreditation Committee of the Basque Country Agency (UNIBASQ) for Accreditation to Professors and Degrees. (2010-2018)

During the period as Dean of the College of Industrial Engineering, I have been involved in the evaluation of all the degrees: bachelor, master and PhD programs by several agencies:

- a. The Spanish Agency (ANECA)
- b. The European Accreditation (EUR-ACE)
- c. The American Agency (ABET).

#### **4. Professional Activities:**

Research Member of the Spanish Nuclear Research Center (CIEMAT). (1973-1982)

Member of the Scientific Technical Committee of Euratom (2014- 2018)

Member of the Board of the Spanish Nuclear Society (1985-1989), (2008-2012)

Member of the Steering Committee of the European Nuclear Worldscan (1985-1989).

Member of the several Committees of Scientific and Nuclear Conferences (4<sup>th</sup> ICENES 1986, 19<sup>th</sup> ECLIM 1988, 24<sup>th</sup> ECLIM 1996, Atomic Physics for Ion Beam 1995).

Member of the European Panel Committee of the Laboratoire pour l'utilisation des Laser Intenses de L'Ecole Polytechnique (1992-2000)

Chairman of the XVII Spanish Nuclear Society Annual Meeting (Jerez 1992).

Chairman of the Editorial Committee of the Spanish Nuclear Society Journal (1984-1986).

Coeditor the book: Advances in Laser Interaction with Matter and Inertial Fusion World Scientific (1997).

Guest editor of Laser and Particle Beams (1996 and 1998).

Chairman of two International Conferences: 24<sup>th</sup> ECLIM 1996, Atomic Physics for Ion Beam 1995.

Member of the Expert Group related to Art. 31 of the Euratom Treaty (1998-2000)

Member of the Expert Group related to Art. 37 of the Euratom Treaty (2000-2008)

Independent Expert in the CEE- Fission for Research Projects of the European Union.(2002-2008)

#### **5. Publications:**

Over more than 150 published papers in the following journals:

- Fusion Technology
- Nuclear Technology
- Atomkerneergie/Kertechnik
- Laser and Particle Beams
- Journal Quantum Spectroscopy and Radiative Transfer
- Physics Letters B
- Nuclear Europe
- Nuclear Instrument and Methods

One chapter in the book "Nuclear Fusion by Inertial Confinement", G. Velarde, Y. Ronen, and J.M. Martínez-Val, Eds. CRC Press (Florida USA, 1993)

Three books in Spanish edited by Foro Nuclear

Over 200 papers in international conference proceedings

Referee to some international journals

## **6. Awards:**

-Jan Runermark Award 2018, by the European Nuclear Society Young Generation Network.

-Award by the Jose Artigas Foundation, 1983, to the best PhD during the Academic Course 1982-83 defended at College of Industrial Engineering (UPM).

## **7. Scientific Fields of Research and Teaching:**

### **Research**

#### **a. Fission**

Reactor Physics: Neutronics and Thermohydraulics

Advanced Reactors. Generation IV

Nuclear Fuel Cycle

Nuclear Transmutation

#### **b. Fusion**

Inertial Fusion

Hybrid Reactors

Atomic Physics for hot dense plasmas

#### **c. Sustainable Nuclear Energy for the Transition to Decarbonization**

### **Teaching**

Nuclear Technology ( bachelor, 1 semester)

Nuclear Power Plants (bachelor, 1 semester)

Advances Technologies for Nuclear Reactors (master, 1 semester)

Transport Theory for neutrons, radiation and charged particles (master, 1 semester)

Tutor of Final Master Thesis.

Tutor of PhD students

Emilio Minguez

March 13,2019