

OPEN POSITIONS AT CMT-MOTORES TÉRMICOS, VALENCIA, SPAIN

About CMT-Motores Térmicos

Throughout the years, the CMT-Motores Térmicos group of the Universidad Politécnica de Valencia, Spain, has established itself as a serious and reliable centre dedicated to research in reciprocating internal combustion engines. Its state-of-the-art experimental facilities and high-profile professors and researchers have attracted many contracts from European and national public funds, as well as from the international automobile industry. CMT prides itself for leading innovative research aimed at finding new solutions to problems related to Diesel engines, in particular to those posed by the new emissions regulations and to noise control.

Research at CMT-Motores Térmicos is centred on 4 main topics, all related to the thermal and fluid dynamic processes in Diesel engines: Injection/Combustion, Turbo-charging, Noise Control and Thermal Management.

CMT-Motores Térmicos is coordinating the VECOM (Vehicle Concept Modelling) project, a Marie Curie Initial Training Network of the European Union.

In the context of this project, CMT-Motores Térmicos has currently 3 vacancies.

About VECOM

Vehicle Concept Modeling refers to the emerging field of up-front pre-CAD functional performance engineering in the vehicle development process. The research area is of highly strategic importance to European automotive OEMs, who must launch products on an ever shorter time frame, at increased quality of multiple performance attributes. When simulation results become available in an early design stage, problems can already be solved before the first detailed CAD model is created, which will increase the quality of the first detailed simulation models and reduce the time to market. Moreover, early what-if studies can be performed to balance and optimize possibly conflicting performance attributes (safety, NVH, dynamics, durability ...) at an increased feasibility and at reduced costs. Novel methods will be developed to address this industrial need for a novel engineering process in which analysis leads the design. Applications will be worked out across partners and application fields, fully embedded in the vehicle industry context. Apart from benefits to researchers, partners and industrial stakeholders (additional OEM and other industry), the project will strengthen the competitive position of the European vehicle industry in the increasingly global market.

Consortium: A well-balanced group of 6 universities, 4 research institutes and 4 companies, active in concept CAE simulation and functional performance engineering of vehicles and its constituent subsystems. The industrial partners bring in application knowledge and expertise, and the academic partners bring in a range of CAE methodologies, the capability of research training, provision of courses and dissemination of results.

Position 1: Early Stage Researcher (ESR)

Position Profile

- Place:** CMT-Motores Térmicos
Universidad Politécnica de Valencia www.cmt.upv.es
- City:** Valencia
- Country:** Spain
- Tasks:** Based on a Career Development Plan the candidate will receive a full doctoral training and will be required to develop own research work leading to PhD degree within the research activities on Mathematical Modelling for Diesel Engines.
To participate and collaborate in the research projects and activities of CMT, becoming a full member of one of its research groups (injection/combustion, turbocharging, thermal management, noise control).
Short stays at other network partners' sites could be required to complete the training program.

Candidate Requirements

- Studies:** The candidate must hold an Engineering degree (MSc or equivalent allowing access to PhD training), preferably in Mechanical Engineering
- Experience:** Less than 4 years post-degree research experience
- Nationality:** According the EC mobility criteria, other than Spanish, preferably European, and not have lived for more than 12 months in Spain previous to the appointment.
- Languages:** Fluent English, and basic speaking abilities of Spanish with the aim to learn it fast.
- Computer skills:** Knowledge of computing software, particularly CFD would be appreciated, as well as programming skills in Fortran or C++, Matlab, ...

Employment Condition

Employment contract: Grant agreement, including the social security coverage applied to employees in Spain.

Commitment length: 3 years

Salary: According to the applicable reference rates specified on the FP 7 Marie Curie Grant Agreement.

Start date: 1st September 2009

Equal opportunities: Female candidates are highly encouraged to apply. Facilities for children care (kindergarten) are available at the University

Application Procedure

Send a **detailed CV** together a **letter of motivation** and **names of reference(s)** to:

Ms. Xandra MARGOT, PhD
CMT-Motores Térmicos
Universidad Politécnica de Valencia
Camino de Vera s/n
46022 Valencia. Spain
Tel. +34 96 387 7650 or +34 96 387 9230 (direct)
E-mail: xmargot@mot.upv.es

Position 2, and 3: Experienced Researcher (ER)

Position Profile

- Place:** CMT-Motores Térmicos
Universidad Politécnica de Valencia www.cmt.upv.es
- City:** Valencia
- Country:** Spain
- Tasks:** Increase his / her knowledge within the Mathematical Modelling on Diesel Engines.
To participate and collaborate in the research projects and activities of CMT, becoming a full member of one of its research groups
Short stays at other network partners' sites could be required to complete the training program.
To collaborate on management issues of the VECOM project and take some related responsibilities

Candidate Requirements

- Studies:** The candidate must hold an Engineering degree (MSc or equivalent), preferably in Mechanical Engineering
A PhD degree will be highly valued.
- Experience:** At least 4 years research experience, but at the time of appointment less than 5 years experience including PhD training.
- Nationality:** According the EC mobility criteria, other than Spanish, preferably European, and not have lived for more than 12 months in Spain previous to the appointment.
- Languages:** Fluent English, and basic speaking abilities of Spanish with the aim to learn it fast.
- Computer skills:** Knowledge of computing software, particularly CFD would be appreciated.

Employment Condition

Employment contract: Post-doctoral contract, including the social security coverage applied to employees in Spain.

Commitment length: From 3 months up to 18 months

Salary: According to the applicable reference rates specified on the FP 7 Marie Curie Grant Agreement.

Start date: Anytime

Equal opportunities Female candidates are highly encouraged to apply. Facilities for children care (kindergarten) are available at the University

Application Procedure

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