

José Miguel Carrusca Mendes Lopes

Curriculum Vitæ

- Born in Lisbon in 1954.
- PhD from the University of Cambridge (UK) in 1984 - Theme of thesis: *Flame propagation on strain fields*.
- Graduation in Mechanical Engineering, specialization in Applied Thermodynamics at Instituto Superior Técnico, Technical University of Lisbon, Portugal, in 1977.
- Professional activities:
 - Lecturer at Instituto Superior Técnico since 1976 (Assistant Professor since 1984);
 - Researcher at Instituto Superior Técnico's research centres:
 - Centro de Estudos em Inovação, Tecnologia e Políticas de Desenvolvimento IN+ - Centre for Innovation, Technology and Policy Research IN + (since 1999);
 - Instituto de Engenharia Mecânica - Institute of Mechanical Engineering (since its creation in 1992 until 1999);
 - Centro de Termodinâmica Aplicada e Mecânica dos Fluidos da Universidade Técnica de Lisboa - Centre for Applied Thermodynamics and Fluid Mechanics of the Technical University of Lisbon (since 1977 until its dissolution in 1994).
 - Other locations where he developed research:
 - French Petroleum Institute - Paris (France) 12 months (1990 - 1991);
 - University of Zaragoza (Spain) 2 months (1989);
 - Sandia National Laboratories - Livermore (USA): 3 months (1985);
 - University of Cambridge (United Kingdom): 4 years (1980-1984).
- Teaching activity in the recent past and present:
 - responsible and lecturer of *Internal Combustion Engines* – MSc course on Mechanical Engineering at IST;
 - responsible and lecturer of *Combustion* – MSc course on Mechanical Engineering at IST.
- Other subjects taught at IST:
 - MSc course on Mechanical Engineering – responsible and lecturer of
 - Heat Exchangers;
 - Heat and Mass Transfer;
 - MSc course on Mechanical Engineering – lecturer of
 - Aerodynamics
 - Graduation course on Mechanical Engineering – lecturer of
 - Thermodynamics
- Thesis supervision :
 - One Ph. D. thesis in the field of Internal Combustion Engines (completed);
 - One Ph. D. thesis in the field of Internal Combustion Engines – co-supervision (completed);
 - One Master's thesis in the field of Internal Combustion Engines (completed);

- Three Master's thesis in the field of Forest Fire (completed);
- One Master's thesis in the field of Internal Combustion Engines – co-supervision (completed);
- One Master's thesis in the field of Forest Fire – co-supervision (completed);
- One Master's thesis in the field of Internal Combustion Engines – (on going).

- Head of the Laboratory of Internal Combustion Engines (Department of Mechanical Engineering, Instituto Superior Técnico) (since 1990);
- Co-Head of the Laboratory of Forest Fire Research (Department of Mechanical Engineering, Instituto Superior Técnico) (since 1992).

- Research areas - physics of combustion applied to:
 - internal combustion engines;
 - forest fire.

- Participation in recent projects in the field of forest fire:
 - six International Projects since 1990;
 - three National Projects since 1996.

- Participation in recent projects in the field of Internal Combustion Engines:
 - two National Projects since 1998.

- Awards:
 - Arch T Colwell Merit Award (1986) awarded by the Society of Automotive Engineers, Inc for the paper "Direct measurement of the turbulent burning velocity in a homogeneous-charge engine" SAE 861531

- Major scientific publications in the field of Combustion:
 - six in international journals with referees;
 - three in national journals with referees;
 - twenty four at international conferences with referees;
 - one chapter of a book.

- Referee in international journals: seven journals

- Referee and member of Advisory Committees in International Conferences; five conferences, (two held regularly for over twelve years)

- Participation in Juries in PhD vivas:
 - six abroad in Forest Fire;
 - three in Portugal in Internal Combustion Engines;
 - one as a main Reviewer in an *European PhD* evaluation in Forest Fire.

- Patents:
 - One international patent in Internal Combustion Engines

Lisbon, July 2011