



exam course committees. Additionally responsible for carrying out comprehensive research as appropriate (emissions reduction, catalytic combustion).

### Key Projects / Achievements

- Made a major contribution to the energy team's research on 'phase change materials for solar heat storage', by adding a primary focus on 'reactive / absorption solid gas systems'
- Catalytic combustion mechanisms for the minimisation of controlled emissions from diesel engine using diesel-biodiesel/diesel blends
- Researched, developed and coordinated 5 course modules and effectively supervised and delivered the modules to students
- Acted as principal investigator for studies on performance & emissions

### January 2007 to January 2010      University of Leeds      PhD Student (Post-graduate Demonstrator)

Working as a demonstrator on the under-graduate 'process engineering systems' module and on the post-graduate 'renewable sources of energy' module, while undertaking PhD studies and supervising laboratory sessions. Responsibilities included planning experiments and analysing, recording and interpreting results. Successfully published original research articles in peer reviewed international research journals and delivered presentations at international conferences. Additionally contributed as chief invigilator, invigilator and sub-office exams officer, enforcing exam codes of practice and maintaining high standards

### Key Projects / Achievements

- Worked on a project to develop a novel process of hydrogen production, resulting in the publication of 4 research articles in international peer reviewed journals, as well as delivery of research presentations at 3 international conferences
- Gained comprehensive, detailed understanding of materials characterisation for TGA / TGA-FTIR, SEM, EDX, DSC, TEM, GCMS, GC-FID, XRD, UV-vis
- Upstream processing and refinery operations study using ASPEN Hysys, ASPEN Plus, gPROMS.

### Publications

#### 2019

Pimenidou P.; Shanmugapriya N.; Shah N. Performance and emissions study of diesel and waste biodiesel blends with nanosized CZA2 of high oxygen storage capacity *Fuel* 2019, 239, 1072-1082

#### 2015

Pimenidou P.; Dupont V. Dolomite study for in- situ CO<sub>2</sub> capture for chemical looping reforming. *Int J Ambient Energy* 2015, 36, 4, 170-182

#### 2012

Pimenidou P.; Dupont V. Characterisation of palm empty fruit bunch (PEFB) and pinewood bio-oils and kinetics of their thermal degradation. *Bioresource Technol.* 2012, 109, 198- 205. Special Issue: Innovative Researches on Algal Biomass

#### 2010

Pimenidou P.; Rickett G.; Dupont V.; Twigg M. V. Chemical looping reforming of waste cooking oil in packed bed reactor. *Bioresource Technol.* 2010, 101, 16, 6389- 6397.

#### 2010

Pimenidou P.; Rickett G.; Dupont V.; Twigg M. V. High purity H<sub>2</sub> by sorption-enhanced chemical looping reforming of waste cooking oil in a packed bed reactor. *Bioresource Technol.* 2010, 101, 23, 9279-9286.

### Current Affiliations

IChemE (AIChemE)

Associate Member

FHEA (Higher Education Academy)

Fellow Member

### Referees