

# Dr Panagiota Pimenidou

## University Lecturer – Qualified Chemical Engineer – Research and Development

An ambitious, diligent, results-orientated University Assistant Professor and highly qualified Chemical Engineer combining excellent engineering, research, forward- planning and strategic skills acquired during academic studies, lecturing and industry-based laboratory and supervision experience. An expert in heterogeneous catalysis for hydrogen production, catalytic combustion, emissions and waste reduction technologies. A confident, disciplined and dedicated programme leader/ tutor/ mentor/ assistant professor, able to demonstrate a practical and analytical approach to resolving and decision-making on challenging problems and issues, even under significant pressure. An academically talented individual who can understand, interpret and articulate and communicate complex information to various audiences. Proactive and versatile, this dynamic team player is keen to develop and seeks to make a significant contribution.

### Skills

<b>Team Working</b>	Enjoys working collaboratively in a range of multi-disciplinary teams
<b>Complex Research</b>	Possesses a highly analytical mind & develops new research methods
<b>Highly Adaptable</b>	Works well in different environments / roles, delivers under pressure
<b>Innovation</b>	Development of science of a new process, e-learning in teaching
<b>Project planning- management</b>	Research projects, programme and modules leadership, students' supervision
<b>Lecturing</b>	Experienced in supervising and organising new course modules & exams
<b>Mentoring</b>	Provides sound advice and guidance to under/post-graduate, research students
<b>Leadership</b>	Manages and delegates programme of studies: people, content, delivery

### Selected Achievements

- ✓ Successfully planned experiments, analysed, recorded, interpreted and published research on waste biomass fuels, for hydrogen-rich syngas & high purity hydrogen production with in-situ CO<sub>2</sub> capture, combustion emissions' reduction, kinetics modelling of CO<sub>2</sub> capture
- ✓ Carried out supervision and independent research to formulate biodiesel, immobilise nanocatalysts for reduction of pollutants by AOPs (Advanced Oxidation Processes), materials for gas- solid reaction solar heat storage systems,
- ✓ Programme leader of the BEng/MEng in Chemical Engineering (Top 5 in the Guardian League table: 2018-2020). Successful accreditation of the Programme by IChemE. Strategy for implementing online delivery of the Programme
- ✓ Trained UCU Equality secretary and all Unions delegate at the Equality and Diversity Committee of the University of Bradford
- ✓ Six Sigma Black Belt training (*International Institute of Business Analysis*)
- ✓ *LeanIn* circle "Women in STEM research" founder and leader
- ✓ *Global Greek Influence* podcast (technology) founder and hostess
- ✓ Principal investigator of the performance and emission studies for DST-UKIERI Thematic Partnerships (British Council) on biofuel blended with high oxygen storage capacity nanoparticles, to increase the performance of an indirect injection engine and reduce its emissions

### Education

<b>PhD – Novel Process of Hydrogen Production from Liquids of Waste Bio-mass Origin</b>	University of Leeds	2007 to 2010
<b>PgCHEP –FHEA (Fellow of the Higher Education Academy)</b>	University of Ulster	2011 to 2013
<b>MEng – Chemical Engineering</b>	University of Leeds	1995 to 1999

### Career History

<b>February 2021 to today</b>	<b>University of West Attica</b>	<b>Research Associate</b>
Seminars' development in hydrogen technologies for industry and freelancing engineering professionals, extending them to a programme. Produced study reports and project applications for HORIZON Calls: CL5-2021-D2-01-09: "Methane cracking to usable hydrogen and carbon", EIC-2021-PATHFINDERCHALLENGES-01-04: "Novel routes to green hydrogen production". GREENNER project application coordination of fourteen international partners-participation as an investigator in the HORIZON call CL5-2022-D3-02: "Sustainable, secure and competitive energy supply" with a focus on CCUS and de-risking renewable energy carrier value chains.		
<b>January 2017 to January 2021 (tenured)</b>	<b>University of Bradford</b>	<b>Assistant Professor in Chemical Engineering</b>

Lecturer in Chemical Engineering, School of Engineering & Informatics. Programme leader of the BEng/MEng in Chemical Engineering (2018-2021). Successful accreditation of the Programme by IChemE. Strategy for implementing online delivery of the *Programme*. Module leader and co-ordinator in undergraduate and postgraduate studies; modules: **Reaction Engineering, Engineering & Chemical Thermodynamics, Process Design, Upstream Production and Refinery Operations** (inc. *gPROMs*). Ensuring academic quality in teaching and learning. Additionally responsible for carrying out comprehensive research as appropriate (biodiesel production by innovative nanocatalysis, advanced oxidation processes with nanocatalysis including UV-spectrophotometry in viscous media, emissions reduction).

**March 2010 to December 2016 University of Ulster**

**Lecturer in Hydrogen Safety (tenured)**

Playing a key role as a Lecturer on interdisciplinary courses for undergraduate and postgraduate students, within the CST (Centre for Sustainable Technologies), School of the Built Environment (BEng Construction Engineering and Management, BSc Building Surveying, BEng/MEng Energy and Building Services Engineering, BSc Building Engineering & Materials, BSc Quantity Surveying, as well as the BSc in Energy). Designed and delivered the online module “Hydrogen Powered Vehicles and Infrastructure Safety” for the distant learning MSc in Hydrogen Safety Engineering. Responsible for providing academic advice and guidance, as well as a range of administrative tasks including assessing and validating / revalidating new and existing courses to ensure consistent standards and delivery and preparing / submitting exam documents to the exam course committees. Additionally responsible for carrying out comprehensive research as appropriate (emissions reduction, catalytic combustion, solar heat storage systems materials). Successfully completed the post-graduate level PgCHEP (*Postgraduate Certificate in Higher Education Practice*), leading to the Fellowship of the Higher Education Academy (FHEA). Awarded *Enhancing Academic Practice in the Disciplines and Supporting Learning with Technology* (SEDA- Staff and Educational Development Association).

- 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.
- Acted as principal investigator for studies on performance & emissions.

**January 2007 to January 2010 University of Leeds**

**PhD Candidate (Post-graduate Demonstrator)**

PhD thesis on “Novel hydrogen production from liquids of biomass origin”. Working as a demonstrator on the undergraduate *Process Engineering Systems* and the post-graduate *Renewable Sources of Energy* modules, while undertaking PhD studies and supervising under/postgraduate 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

- Gained comprehensive, detailed understanding of materials characterisation for TGA / TGA-FTIR, SEM, EDX, DSC, TEM, GCMS, GC-FID, XRD

#### Referees

Name	Position/ Address	e-mail address/ Phone
Professor Neil Hewitt	Head of Belfast School of Architecture & the Built Environment Director of the Centre for Sustainable Technologies, Room 04D09, 2-24 York Street, Belfast, BT15 1AP, Northern Ireland, UK	<a href="mailto:nj.hewitt@ulster.ac.uk">nj.hewitt@ulster.ac.uk</a> +44(0) 28 9536 5239
Professor Rajnikant Patel	Professor of Chemical Engineering/ Head of Chemical Engineering Department of Chemical Engineering, University of Bradford, Bradford, West Yorkshire, BD7 1DP, UK	<a href="mailto:r.patel@bradford.ac.uk">r.patel@bradford.ac.uk</a> +44(0) 1274 233690
Professor Ioannis Sarris	Professor in Mechanical Engineering Department of Mechanical Engineering, University of West Attica, 122 43, Athens, Greece	<a href="mailto:sarris@uniwa">sarris@uniwa</a> +30 694 1672950