

ANDREAS OLYMPIOS

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PROFILE

Research Postgraduate at Imperial College London, focusing on clean energy systems. Ranked as best student of the MEng course of the University of Nottingham Department of Mechanical, Materials and Manufacturing Engineering.

EDUCATION

Imperial College London 2018 - present
PhD Candidate - Clean Energy Processes (CEP) Laboratory - Department of Chemical Engineering London, UK

- Prestigious doctoral training program at the Grantham Institute - Climate Change and the Environment.
- Research interests: thermo-economic modelling of heat-pumping technologies; energy system prospects of heat electrification; strategic optimisation of district heating networks; combined heat and power systems; energy storage.
- Currently involved in large research projects, developing tools that contribute to the optimal design of heating technologies for a cost-effective and secure transition to a low-carbon future.
- Collaborated successfully with industrial partners (e.g., Sainsbury's, National Grid), developing: (i) cloud-based optimisation techniques for the real-time control of distributed energy resources; (ii) tools that allow the identification and comparison of alternative energy system decarbonisation pathways.
- Published and presented several papers in high-impact journals and relevant international conferences.

University of Nottingham 2014 - 2018
MEng Mechanical Engineering - First Class - Degree average: 88% Nottingham, UK

- Awarded as Best Student across all programs.
- MEng Individual Project: **85%**, Fourth Year: **88%**, Third year: **87%**, Second year: **90%**, First year: **93%**.
- Core modules: Thermodynamics and Fluid Mechanics (95%,86%), Advanced Dynamics of Machines (97%), Renewable Generation Technologies (88%), Energy Efficiency for Sustainability (97%), Integrated Systems Analysis (96%).

The English School, Nicosia 2006 - 2013

- GCEs: Mathematics **A*** (International Award 600/600), Physics **A***, Economics **A**, Modern Greek **A**
- AS Levels: Geography **A**, Further Mathematics **A**

WORK AND RESEARCH EXPERIENCE

Department of Chemical Engineering, Imperial College London October 2018 - present
Graduate Teaching Assistant London, UK

- Was nominated for a Student Academic Choice Award (SACA), recognising and rewarding excellence among staff.
- Delivered teaching tutorials and seminars to groups of students in "Fluid Mechanics" and "Heat and Mass Transfer" modules of the Department of Chemical Engineering.
- Provided learning and test-taking strategies, as well as mentoring, guidance and feedback to support students in completing their undergraduate studies.

KIOS Research Centre, University of Cyprus June - July 2017, June - July 2016
Undergraduate Researcher Nicosia, Cyprus

- Was selected twice as 1 of the 5 undergraduate researchers to participate in the program from above 100 applications.
- Examined a range of water leakage estimation and water demand forecasting techniques, using statistical analysis tools to determine the water leakage and demand levels in different monitoring areas.
- Prepared detailed reports and delivered presentations to groups of academics and researchers (over 40 people).

Electra Private Institute November 2013 - June 2014
Teaching Assistant Nicosia, Cyprus

- Supported students (groups of 5-10) in solving and understanding A-level Maths and Physics.
- Marked Mathematics and Physics exam practice papers for A-level students.

UNIVERSITY ACHIEVEMENTS

- **Science and Solutions for a Changing Planet Doctoral Training Partnership** - PhD Scholarship, 2018
- **IMechE Institution Best Student Award** – Meritorious performance in MEng Course, 2018
- **IMechE Frederic Barnes Waldron Best Student Award** – Top across all departmental programs, 2018
- **Best Student Award on the MEng Mechanical Engineering Degree** – University Prize, 2018
- BP Scholarship - Academic excellence in conjunction with extracurricular activities, 2016
- High Fliers Awards - Top 5% of the MEng Course, 2015-2018
- Head of Department Awards - Top 10% of the MEng Course, 2015-2018
- University Nominee for the Sir William Siemens Medal Award - Engineering excellence, 2015

OTHER ACHIEVEMENTS

- International Award in A-level Mathematics - full marks (600/600), 2013
- Five medals - Cyprus Mathematical Olympiad (two gold, three silver), 2008-2013
- First prize - Nicosia District Mathematical Competition and National Mathematical Relay of Cyprus, 2008-2009

SELECTED PUBLICATIONS

- Olympios AV, Pantaleo AM, Sapin P, Markides CN. On the value of combined heat and power (CHP) systems and heat pumps in centralised and distributed heating systems: Lessons from multi-fidelity modelling approaches. *Applied Energy* 2020; 274: 115261.
- Olympios AV, Le Brun N, Acha S, Shah N, Markides CN. Stochastic real-time operation control of a combined heat and power (CHP) system under uncertainty. *Energy Conversion and Management* 2020; 216: 112916.

INTERESTS

- Certified reviewer for high-impact international journals, 2019-present
- IMechE Affiliate Member - 2018-present
- Nottingham Advantage Award - Peer Mentoring and Professional Behaviour Development Schemes, 2015-2018
- The University of Nottingham Racing Team member - Formula Student, 2017
- Course Representative in Year 3 - Department of Mechanical Engineering, University of Nottingham, 2016-2017
- Tennis, Football, Music - 1st Prize in the 25th Strovolos Friendship Tennis Tournament, Cyprus 2012

TECHNICAL STRENGTHS

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|---------------------------|----------------------------------|
| Computer Languages | Python, MATLAB, C, R, LabVIEW, |
| Modelling | Solidworks, Creo Parametric |
| Editing tools | LateX, Microsoft Office |
| Languages | English (Fluent), Greek (Native) |

ENGINEERING PROJECTS

- MEng Individual Project** 2017-2018
Economic Model Predictive Control for the optimal operation of microgrids *University of Nottingham*
- Devised an Economic Model Predictive Control (EMPC) approach for the real time cost-effective control of distributed energy resources (DERs), modelling system dynamics and forecasting short-term prices, load and renewable generation.
- Electric Formula Student** 2016-2017
Suspension Engineer *University of Nottingham*
- Designed, optimised and manufactured the suspension system of the first Electric Formula Student Race Car of the University of Nottingham, working in a demanding environment of tight deadlines and a group of more than 40 people.

References available on request