Fellow	Host Institution No.1: City, University of London	Country: United Kingdom
DC8	**Supervisor:** Prof. Abdulnaser Sayma **Co-supervisor:** Dr Jafar Al-Zaili	**WP No:** 2
Title: Control strategies and optimisation of control of sCO2 power generation systems for direct and indirect heating configurations		
Research Objectives: (1) To develop a tool to simulate the performance of the control system of direct and indirect heating systems. (2) To model the performance of the sCO2 systems under different control strategies. (3) To develop an optimisation framework for the control system of the sCO2 power systems. (4) To assess the performance of the optimised control system for critical operation scenarios.		
Applicant - specifications: in addition to the general specifications (eligibility criteria) listed above, the applicant must feature the following requirements: • **Earned degree:** ○ MSc in Mechanical or Electrical Engineering (or related area). Preference will be given to candidates with a major in energy or related areas • **Background (mandatory):** ○ Thermodynamics ○ Turbomachinery design and analysis ○ Optimisation techniques in engineering systems ○ Matlab/Python programming • **Additional background that will be valued in the selection process:** ○ Simulation of thermal systems ○ Electrical control systems ○ Turbomachinery and heat exchanger design and analysis ○ Matlab Simulink ○ Materials science and engineering • **English language:** ○ An IELTS qualification of minimum 6.5		
Scheme: • M1-M36: the applicant is hired by City, University of London		
Locations (place of work): • M1-M36: the applicant will be eomployed by City, University of London: Northampton Square, London EC1V 0HB Google Maps: link		

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No. 101073266

Planned secondments: No planned secondments but will be revised according to career development plan.
How to apply: apply online via the City, University website: https://www.city.ac.uk/about/jobs/apply/details.html?jobId=2831&jobTitle=Marie%20Curie%20Doctoral%20Position%3A%20Control%20of%20sCO2%20Power%20cycles The Application Package is comprised of: • CV • Letter of motivation • Copy of transcripts and of their degree, and a copy of a thesis or any other publication (if available)
Contract: • Start date (estimate): September 2023 • Type: full-time exclusive • Gross salary: £36,386 • An additional (family) allowance is available for candidates who have family obligations (applied from and until this condition applies)
Equal Opportunity Employers: City, University of London is committed to promoting equality, diversity and inclusion in all its activities, processes, and culture, for our whole community, including staff, students, and visitors. We welcome applications regardless of gender, sexual orientation, disability, marital status, race, nationality, ethnic origin, religion or social class. For more information on our approaches to encouraging an inclusive environment, please see our Equality, Diversity and Inclusion Pages.

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