



University College Dublin
Ireland's Global University

Project Details:	
Host Institution:	University College Dublin (UCD)
Location:	Belfield, Dublin 4, Ireland
College/Company:	College of Engineering & Architecture
School/Unit:	School of Chemical & Bioprocess Engineering
Website:	https://www.ucd.ie/chembioeng/

Project Lead:	
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Project Title:

Techno-economic Analysis of Biohydrogen Production

Brief Project Description:

Hydrogen is one of the few fuels which has zero carbon emissions at point of use. To ensure that there are no Carbon emissions associated with its use the production of hydrogen must also be carbon neutral or negative.

In collaboration with other students this project will evaluate the potential for hydrogen production from the bioeconomy. Investigating processes such as Dark fermentation, Gasification and hydrolysis, the intern will conduct a literature review on the topic, collect published data on resource requirements, conversion efficiencies and associated costs, to build a techno economic model of Hydrogen production. Following on from this a process model will be developed into investigate the influence of operational parameters on the overall conversion efficiency, at the same time the techno-economic model will be investigated for optimisation.

Project Dates:

From the end of May to August (specific dates and weekly hours can be agreed between the PI and the student directly over a 10-week period).

Candidate Requirements:

Knowledge of Matlab/Python and proficient in use of Excel.