

ESAI Postgraduate Research of the Year 2020: Seán O'Connor

Seán O'Connor is a PhD Researcher funded by the EU INTERREG VI Renewable Engine Research Programme at the Institute of Technology Sligo. His project is entitled "Meeting Ireland's Sustainability Challenges and Obligations - The role of small-scale waste/energy management as sustainable solutions in the circular economy", under the supervision of Dr John Bartlett, Prof. Suresh C. Pillai, and Dr David Tormey. His educational background includes a BEng (Hons) in Sustainable Energy Engineering from Cork Institute of Technology and an MBS in International Entrepreneurship Management from University of Limerick.

Seán's research seeks to accelerate the development of small-scale anaerobic digestion (SSAD) in Ireland. SSAD is a promising technology with the capacity to transform organic matter into biogas (a mixture, mainly composed of carbon dioxide and methane), making the technology suitable for a variety of applications in energy, agriculture and, potentially, the emerging bio-products and bio-processes sector. Seán's research aims to evaluate the current status of SSAD and to implement relevant improvement strategies and technologies, which will serve to guide researchers, policymakers and plant operators in developing a sustainable indigenous bioenergy industry in Ireland.

Seán has published six papers in high impact journals such as Renewable and Sustainable Energy Reviews (Impact Factor 12.1), Journal of Energies, Journal of Environments, and Springer. Moreover, his research findings have been disseminated at four national and seven international conferences including European Biomass Conference and Exhibition (EUBCE) and the Energy Technology Partnership Annual Conference.