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EBNet Travel Bursary Support  
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(TB202405)



# 18<sup>th</sup> IWA World Conference on Anaerobic Digestion (IWA AD18)

2-6 June 2024, Istanbul

Presentation:

**Enhancing Anaerobic Digesters efficiency through Thermal Pre-Treatment: Impacts on Sludge Composition and Trace Element Bioavailability in full-scale sites**



*Nasreen Nasar presenting at IWA AD18 in Istanbul*

Thanks to EBNet's support in funding the trip to attend the IWA-AD18 conference in Istanbul, I had the pleasure of presenting part of my PhD work on understanding the impacts of thermal hydrolysis pre-treatment on sludge composition and linking them to optimization. Networking with passionate professionals and researchers and learning about each other's research journey has made this experience incredibly enriching, inspiring and humbling at the same time.

A few important takeaways for me personally from this conference were:

1. The AD sector is becoming increasingly relevant considering reducing reliance on fossil fuels and promoting energy independence. Advancements in technology, favourable government policies, and increasing environmental awareness are all actively contributing to this growth.
2. A greater effort made is being made at linking key process dynamics and the complex microbial ecology underlying them to optimizing AD systems and controlling product formation- an exciting push that will close the gap between AD plants and biorefineries.
3. There is an increasing focus on alternative pathways like dark fermentation especially in the context of hydrogen economy and the production of valuable chemicals.
4. The industry is continuously evolving in terms of innovations and technology readiness levels, from the well-established thermal hydrolysis to novel but upcoming bio-electrochemical systems, all aiming towards better efficiencies and resource recovery.

I am excited to apply the insights and knowledge gained from this conference to my work and continue contributing to this vital field.

Video presentation at: <https://youtu.be/rpXhL9Chjg>

