



PROGRAM

BIOGAS INTELLIGENCE+

International Conference + Interactive
Forums + Exhibition & Excursion

7. - 9. October 2025

Conference topics:

- Biogas and artificial intelligence
- Clustering of biogas plants
- Cybersecurity
- Decentralized and regional energy concepts
- Direct sale of electricity and gas
- Intelligent circular economy
- And much more to discover

Venue:

Steinbeis-Haus für Management und Technologie (SHMT)
Stuttgart - Germany





Tuesday 7.10.2025

09:00 - 10:00 Registration + Meet and greet + Exhibition

10:00 - 10:15 Welcome, *Michael Köttner*, IBBK Fachgruppe Biogas

Biogas and Artificial Intelligence

Early detection of digester process disruptions using AI based on process expertise of the digester biology, *Bruna Azevedo & Alexis Cuquel*

10:15 - 12:15

Multi-step modelling of anaerobic digestion processes with transformer-based hybrid models for process control, *Alberto Meola*

Biogas and Artificial Intelligence: Enhancing Data Integrity and Regulatory Compliance, *Thorsten Nascimento Rohling*

Predictive maintenance in biogas plants based on low-cost components, *Prof. Dr. agr. Patrick Ole Noack*

12:15 - 13:30 Lunch

Biogas and Artificial Intelligence

Practical application of AI in anaerobic digestion, *Patrick Harte*

13:30 - 15:00

Hybrid models for the anaerobic digestion process, *Tim Wollschläger*

AI-enhanced biomethane production: the intelligent AI-driven optimisation platform, *Dr. Stephen Nolan*

15:00 - 15:30 Coffee Break + Poster Spotlight & Dialogues + Exhibition

Cybersecurity

Cybersecurity in biogas plants - tools and practical examples, *Christoph Reithmair*

15:30 - 17:30

TBA

Interactive forum - Moderation: TBA

17:30 End of the first day

18:30 Connect & Dine: Evening Networking Event

POSTER

Addressing Medium-Term Electricity Price Forecasting Challenges with Neural Networks for Flexible Biogas Plant Operation, *Isis Paola Núñez Franco*

Impact of metal oxide nanoparticles on biogas production from cow dung: a statistical and kinetic modeling approach, *Takalani Nethavhanani*

Harnessing Artificial Intelligence(AI) and Cyber security for an intelligent Circular Economy: Integrating Biogas Systems with Direct electricity and gas sales as well as Innovative raw gas applications, *Malekhooa Mothibeli*





Wednesday 8.10.2025

Intelligent circular economy

TBA, *Dr. Andreas Lemmer*

BioCO₂, the by-product from Biogas upgrading and its hidden potential,
Volker Wehber

08:30 - 10:30 An ontology for exploring suitable utilization paths of biogenic resources,
Kim Schmidt

BiToP - Process optimisation of a biorefining process for digestate treatment
with the aim of obtaining peat substitutes under practical conditions at
biogas plants, *Sascha Hermus*

10:30 - 11:00 Coffee Break + Poster Spotlight & Dialogues + Exhibition

Direct sale of electricity and gas

Deep learning for profitable biogas production, *Annemarie Kronhardt*

11:00 - 12:15 Towards fully automated, demand-oriented biogas plant operation: aspects
of a model-based monitoring and control architecture, *Simon Hellmann*
TBA

12:15 - 13:30 Lunch

Decentralized and regional energy concept

Decentral concepts for biomethane as a fuel - a chance for existing biogas
plants?, *Ursula Roth*

13:30 - 15:00 *Bright Renewables "Ultra-Low-E" membrane-based biomethane upgrading
system*, *Matthias Trüter Cordeiro*

Transposable decision-making tool for the energy recovery of grasslands
respecting biodiversity using coupled experimental design and gis, *Prof.
Arnaud Dujany*

15:00 - 15:30 Coffee Break + Poster Spotlight & Dialogues + Exhibition

Clustering of biogas plants

Biogas plant cluster: a general concept presentation, *Mark Paterson*

15:30 - 17:30 Clustering of biogas plants - where and how does it pay off?, *Christiane
Zeller*

Decentralized & Clustering - Interactive forum - Moderation: TBA

17:30 End of the second day

As of June 2025 - Subject to change





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Thursday, 9. October 2025

On the third day of the "Biogas Intelligence+" conference, IBBK is organizing an excursion to two innovative plant sites in southern Germany. Participants will gain practical insights into current technologies and applications in the field of biogas utilization.



Registration

Registration and information for the conference and field trip can be found at the following link:

<https://ibbk-biogas.com/schedule/biogas-intelligence-plus/>

Or scan the QR-Code ->



MORE QUESTIONS?

Please do not hesitate to contact us using the details below.

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