

## proBIOGAS International

**Biogas engineering and operating training with field trips**

**September 5-14, 2022**

**Venue:** SHMT – Steinbeis House for Management and Technology  
Filderhauptstr. 142, 70599 Stuttgart

### Monday, September 5<sup>th</sup> – Practical Plant Engineering

08:30	<b>Registration</b>
09:00	<b>Welcome to the seminar</b>
09:30	<b>Overview of the national and int. Biogas industry and its future development</b>
10:30	Coffee break
10:45	<b>Introduction into plant technology</b>
12:15	Lunch
13:30	<b>Decision criteria for a biogas plant</b>
15:00	Coffee break
15:15	<b>Planning and designing of stirring and mixing technology for digesters, mixing pits and storages</b>
16:45	Discussion
17:00	End of the day

### Tuesday, September 6<sup>th</sup> – Practical Plant Engineering

09:00	<b>Pretreatment and pre-storage technology</b>
10:30	Coffee break
10:45	<b>Biogas specific building materials</b>
12:15	Lunch

13:30	<b>Process and external heat and gas engineering</b>
15:00	Coffee break
15:15	<b>Building a bio-waste and food waste plant</b>
16:45	Discussion
17:00	End of the day

### Wednesday, September 7<sup>th</sup> – Visits

08:15	<b>Visit of an agricultural biogas plant using irrigation mixing and using solid manure and chicken manure</b>
13:00	Lunch
14:30	<b>Biogas to Biomethane upgrading</b> <ul style="list-style-type: none"> <li>• Bioogas Filling Station</li> <li>• Separation of plastic particles</li> </ul>
18:15	End of the day

### Thursday, September 8<sup>th</sup> – Study Tours

08:15	<b>Visit of a biogas plant with:</b> - digestate upgrading and marketing - into single nutrients - manure digestion
12:30	Lunch
14:30	<b>Dry fermentation plant with a connected composting facility</b>
18:15	End of the day

## Friday, September 9<sup>th</sup> – Practical Digester Biology

09:00	<b>Digester Biology – an introduction</b>
10:30	Coffee break
10:45	<b>Crucial substrate parameters and their impact on plant performance</b>
12:15	Lunch
13:30	<b>Meet the challenge: How to digest fibrous and N-rich feedstocks</b>
15:00	Coffee break
15:15	<b>Safety features of biogas plants and equipment</b>
16:45	Discussion
17:00	End of the day

## Monday, September 12<sup>th</sup> – Practical Plant Operation

09:00	<b>Process control and process optimization</b>
10:30	Coffee break
10:45	<b>Pumps and pump technology</b>
12:15	Lunch
13:30	<b>Interactive group and field session – Necessary on site tests and practical interpretation of operating modes on a biogas plant</b>
17:00	End of the day

## Tuesday September 13<sup>th</sup> – Practical Plant Operation

09:00	<b>Proper usage of digestate as organic fertilizer in agriculture</b>
10:30	Coffee break

10:45	<b>Calculation exercises for feasibility and process control</b>
12:15	Lunch
13:30	<b>Measurement and data recording for optimization, stabilization and enhancement of the biogas process</b>
14:30	Coffee break
14:45	<b>Different research activities at the laboratories of the University of Hohenheim</b>
15:45	Discussion

### Wednesday September 14<sup>th</sup> –Green Gas, Bio-LNG & Biomethane Mobility

09:00	<b>Green Gas and Bio-LNG</b>
10:30	Coffee break
10:45	<b>Maintenance of biogas upgrading units for sustainable plant operation</b>
12:15	Lunch
13:30	<b>CNG and LNG Mobility</b>
15:00	Handout of the certificates and end of the event. Optional Drive to Straubing

### Thursday September 15<sup>th</sup> – Option Biogas Fair Straubing

	<b>4. Bayerischer Biogas Branchentreff in Straubing</b>
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Program is subject to change