

Patron

Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit



# **Professional Competition 2018**

4<sup>th</sup> Open German Championship in Wastewater Technology

### 14<sup>th</sup> – 18<sup>th</sup> May 2018, IFAT Munich







### Foreword

After what is now more than seven years of successful commitment in the colourful world of professional competitions, we can describe the professional competition for wastewater engineering technicians, which has been held at the IFAT in Munich since 2010, as established.

But that doesn't mean that we are resting now. On the contrary: Last year, the new brand Water Skills was created, so that from 2018, the professional competition is to take place at the IFAT in Munich under the new name World Water Skills, and the trainees will be able to put their knowledge and abilities to the test at the Water Skills Germany.

With the starting shot at the IFAT India in Mumbai in September 2016, the DWA also started to put their competitions on international platforms, thus promoting the profession of the wastewater engineering technician worldwide.

So there is now a small water skills family around the world!

What's more, in October 2017, we presented the demonstration skill "Water Technology" at the world championships of the professions, the "WorldSkills" in Abu Dhabi.

After an exciting competition with 7 nations, 4 more countries have already committed for 2019 in Kazan!

The foundation for the German participation in the World Championships in Kazan will already be laid in Munich, because the best six participants in the Water Skills Germany who also meet the age limit of the WorldSkills, qualify for the assessment centre to participate in Kazan.

Our efforts to make the important profession of the wastewater engineering technician more popular in Germany and the world is therefore bearing fruit and we look forward to a great deal of fun and excitement at the competitions in Munich at the IFAT 2018!

I thank the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMUB) for taking on the patronage. Thanks also to the supporting companies and all jury members and active participants. Our sector needs qualified operating staff. That's what the DWA stands for.

Michael Dörr Representative Sub-committee BIZ 13

#### 2018 - Register now

#### 4th Open German championship in wastewater technology

Trainees compete for the title on Monday and Tuesday at the Water Skills Germany, 14th/15th May 2018 at the trade fair. There are four competitions to be mastered: "Occupational health and safety", "Repair and maintenance", "Measuring, controlling, regulating and operational monitoring" and "Process control".

Sewer professionals and wastewater treatment plant professionals compete for the title under the new competition name World Water Skills on Wednesday and Thursday (16th/17th May 2018). Sewer professionals master "Occupational health and safety" and "Repair and maintenance". The wastewater treatment plant professionals solve tasks in the field of "Measuring, controlling, regulating and operational monitoring" and "Process control".

Each team consists of two people.

The regulations can be viewed at www.dwa.de/berufswettbewerb.

# Brief description of the competition and the disciplines

The participants are all wastewater engineering technicians or from related professions. The engineers work in the field of drainage networks and wastewater and sewage sludge treatment in municipal and industrial wastewater treatment plants. They carry out their work independently on the basis of technical documents and rules and legal bases. They obtain information, plan and coordinate their work. They document their achievements and take measures for quality assurance, occupational safety and health protection, as well as for environmental protection at work.

#### Required competencies and scope of work

The competitions serve to present and assess the competencies that are applied in the everyday work. They are composed of practical tasks and include four competition stations. The group of trainees and young professionals demonstrate their abilities at all four stations. The "sewer professionals" complete stations 1 and 2, the "wastewater treatment plant professionals" stations 3 and 4.

#### Station 1: Occupational health and safety

The participants carry out tasks which, due to the legal requirements, are defined as "hazardous work". This requires knowledge and skills pertaining to the relevant occupational safety regulations. The work process of the safe entering is checked and evaluated.





#### Station 2: Repair and maintenance

At this station, it'll all revolve around agitators. A fault is detected on an agitator. After proper and safe deinstallation, the agitator is to be repaired, reinstalled and put correctly into operation.

At the IFAT 2018 in Munich, among others, the company KSB will support this station.



### Station 3: Measuring, controlling, regulating and operational monitoring

#### 1. Installation and commissioning of a testing plant

The participants build a testing plant and put it into operation. The testing plant is set up by the participants, the sensors are mounted, put into operation, adjusted and the measured values documented. In addition, various body and area calculations can be queried.

#### 2. Operational monitoring of a wastewater treatment plant

The participant has to be able to measure an unknown disturbance variable from a water or wastewater sample and be able to assess this. The analysis is carried out by means of cuvette test and photometer. In addition, he must be able to exercise a carried dilution, whereby he has to



#### Station 4: Process control

Here, the participants demonstrate their knowledge of wastewater treatment plants. A specific wastewater treatment plant is depicted by the magnetic cards. Process flow diagram and measurement setups are described. Operational disruption situations are queried and the sampling is visualised. Through this task, the participants show their competencies in process engineering. They can depict the technical procedures, recognise and solve problems and master difficult situations. Alongside the wastewater treatment, sewage sludge disposal is also handled. Energetic questions and questions on state monitoring values and their compliance are also part of the task.

The task is to be processed with within a fixed time limit and then assessed by the jury. The participants are also given tips on how to improve.

For this, the DWA's training box Wastewater Technology is used.



#### Conclusion

The teams that have registered all receive a detailed description of the tasks at the same time two months before the competition. These tasks are changed by approx. 20% for the competition. In this way, we enable the teams to prepare well for the tasks to be accomplished, whilst nevertheless maintaining the competitive character.

We are happy to advise foreign teams individually in advance. The task description will also be available in English.

#### Register with us and become an active team.

Information: Ann-Kathrin Bräunig · Tel.: +49 (0)2242 872-240 · Fax: +49 (0) 2242 872-135 · E-Mail: braeunig@dwa.de

IFAT



### IFAT Munich 14<sup>th</sup> – 18<sup>th</sup> May 2018





### All about the wastewater treatment plant Support for education and training

### Looking for junior staff?

#### Banner wastewater engineering technicians

Printed PVC sheet (500g/m²) with eyelets	Schöne Aussichten – wir bilden aus!	
200 x 100 cm	€ 67,00	
300 x 100 cm	€ 79,00 <b>Example 1</b>	
400 x 100 cm	€ 91,00 <b>14 10 11 10 10</b>	
340 x 173 cm (hoarding format)	€ 99,00	

#### Short profile video "Environment meets technology" on wastewater engineering technicians

The film is freely accessible on YouTube at www.youtube.com/user/DWAKanal.

Flyer "Environment meets technology"	Net prices:	
2017, 6 pages, 15 x 15 cm	per pc	0.25 €/pc.
Vastewater engineering technicians	from 100 pc.	0.20 €/pc.
Specialist for pipe, sewer and industrial service	from 250 pc.	0.15 €/pc.
	from 500 pc.	0.10 €/pc.
	from 1,000 pc.	on inquiry

All advertising materials can be individualised, i.e. your own logo and address are inserted. There is a one-off fee for this. Ask us for the conditions at info@dwa.de

### Ready for the training?

#### Handbuch zur Betriebsanalytik auf Kläranlagen (Manual for operational analysis at wastewater treatment plants) € 45,00/€ 45,00\* Barbara Cybutski, Gert Schwentner 3<sup>rd</sup> edition 2017, 106 pages, A5, spiral binding, ISBN 978-3-88721-487-6, F. Hirthammer at the DWA

**Formelheft Umwelttechnik (Formula book environmental technology) € 19,00/€ 15,20\*** Kerschensteinerschule Stuttgart, DWA Regional Group Baden-Württemberg 5<sup>th</sup> edition March 2017, 110 pages, spiral binding, A4, ISBN 978-3-88721-340-4

#### Handbuch für Umwelttechnische Berufe (Manual for environmental occupations)

The indispensable reference works

F. Hirthammer at the DWA

- Volume 1: Grundlagen für alle Berufe (Foundations for all professions), 8<sup>th</sup> edition 2012, 581 pages, A5, ISBN 978-3-88721-188-2 € 68.00/€ 68.00\*
- Volume 2: Fachkraft für Wasserversorgungstechnik (Water supply engineering technician), 4<sup>th</sup> edition 2016, 578 pages, A5, ISBN 978-3-88721-373-2 € 72.00/€ 72.00\*
- Volume 3: Fachkraft für Abwassertechnik (Wastewater engineering technician), 10<sup>th</sup> edition 2015, 780 pages, A5, ISBN 978-3-88721-251-3
- Volume 4: Kreislauf- und Abfallwirtschaft (Recycling and waste management), 6<sup>th</sup> edition 2013, 927 pages, A5, ISBN 978-3-88721-191-2 € **78.00/€ 79.00\***



# Sponsors sought!

### About the WORLD WATER SKILLS & WATER SKILLS GERMANY

Since 2010, the DWA has organised the professional competition for the waste water industry at the IFAT in Munich.

The aim is not only to offer the qualified professionals a change from their daily work and new challenges, but also to provide information on the environmental/technical professions.

In this way, the DWA aims to promote the profession of wastewater engineering technician among young people.

### The professional competition is now WATER SKILLS

The established concept of the professional competition has been extended, and since the autumn of 2016 it has been held under the new name, also at the international level.

Under the new brand WATER SKILLS, the DWA also wants to bring its competitions to international platforms and promote the wastewater industry and its professions worldwide. Here, the DWA is actively supported by the international IFAT trade fairs.

#### Sponsoring of the WORLD WATER SKILLS & WA-TER SKILLS GERMANY - your advantages

- Placement of your name/logo at one of the most frequented places at the IFAT
- Placement in a serious environment close to a young target group: draw the attention of the next generation to yourself today as a potential employer of tomorrow
- Support the development for the profession of wastewater engineering technician
- The right sponsorship package for every budget

#### Get involved!

| Your product is demonstrated live at the fair





#### Information:

Ann-Kathrin Bräunig

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## Registration



I hereby bindingly register for the **professional competition for trainees and young professionals, sewer professionals and/** or wastewater treatment plant professionals at the IFAT 2018 – trade fair in Munich.

Registration confirmation required 🗌 per mail 🗌 per post

#### Registration

- ☐ Trainee "Occupational health and safety, repair and maintenance, measuring, controlling, regulating and operational monitoring, process control" on 14<sup>th</sup>/18<sup>th</sup> May 2018
- Sewer professional "Occupational health and safety, repair and maintenance" on 16<sup>th</sup>/17<sup>th</sup> May 2018
- Wastewater treatment plant professionals "Measuring, controlling, regulating and operational monitoring, process control" on 16<sup>th</sup>/17<sup>th</sup> May 2018

#### **Contact partner**

Deutsche Vereinigung für Wasserwirtschaft, Abwasser und Abfall e.V. (DWA) Ann-Kathrin Bräunig: Tel.: +49 (0)2242 872-240 · Fax: +49 (0)2242 872-135 E-Mail: braeunig@dwa.de

#### **Terms and conditions**

The general terms and conditions of the DWA are available at www.dwa.de/veranstaltungen/agb If required, we can send you the terms and conditions.

	Name/personal email address	Plant/employer/address	Training year/ age(only for trainees)	
Participant 1				
Participant 2				
Your team name:				

By signing the registration form, I declare my consent to the DWA using and publishing photos taken of me in the context of the event for its press and public relations work, in particular in brochures, Internet offers and press releases. This use is free of charge and without any limitation in terms of time, place or content. I agree that my name may be mentioned in connection with the picture. I receive no remuneration for the use of the photo. I confirm that I have no further rights to additional compensation or settlement, and that I will not assert any further claims against the DWA.

Contact person	Supervisor on site
Date	Tel.
Signature	E-mail

Subject to changes, valid: 02/2018