Experience put into practice.

INTERNATIONALLY IN MOTION
AACHEN. AFRICA. ASIA.

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<table>
<thead>
<tr>
<th>CONTENT</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FiW – INTERNATIONALLY IN MOTION</strong></td>
<td>3</td>
</tr>
<tr>
<td>Performance and experience</td>
<td>3</td>
</tr>
<tr>
<td>International references</td>
<td>4</td>
</tr>
<tr>
<td><strong>TRAINING WITH FiW</strong></td>
<td>8</td>
</tr>
<tr>
<td>Our concept to suit your needs</td>
<td>11</td>
</tr>
<tr>
<td>Tailor-made solution</td>
<td>12</td>
</tr>
<tr>
<td>Thematic courses</td>
<td>13</td>
</tr>
<tr>
<td>MME – Management &amp; Engineering in Water</td>
<td>14</td>
</tr>
</tbody>
</table>
The Research Institute for Water and Waste Management at RWTH Aachen (FiW) e. V. was founded in 1979 as a registered association and became an affiliated institute at the RWTH Aachen University. The close connection to the University offers the Institute the best conditions to develop interdisciplinary solutions in the field of water and waste management. Members of FiW are scientific organizations, water boards, planning agencies and the waste management industry. Our goal is to develop forward-looking strategies and innovative methods for water and waste management. As a research institute at RWTH Aachen University we emphasize the value of applied research and of practice-oriented, sustainable solutions.

PERFORMANCE AND EXPERIENCE

KNOWLEDGE TRANSFER
In collaboration with companies, public authorities as well as other research organizations, FiW aims at developing, combining and disseminating knowledge in order to meet practical challenges at all levels of the water cycle and in waste management. By application of knowledge generated through basic research, FiW contributes to establish innovative solutions for public actors as well as industries.

CONSULTING AND CAPACITY BUILDING IN DEVELOPING COUNTRIES
As a key element, FiW offers comprehensive advisory services to establish and strengthen integrated water resources management in developing and emerging countries. The consulting activities cover the entire water cycle from fresh water supply to waste water treatment and strive to ensure sustainable availability and provision of water at high quality standards.
As a worldwide operating research institute, FiW relies on extensive experience regarding specific technical challenges, administrative framework conditions as well as cultural characteristics. Africa and Asia are in the focus of our activities.
**WATER SUPPLY**
- Drinking water management (exploitation, storage, distribution)
- Quantitative and qualitative protection of (drinking) water resources

**WATER REUSE**
- Reducing stress on water resources by recycling used water
- Reuse of water with inadequate quality for agricultural purposes, replenishing surface water or process water

**WASTE WATER**
- Development of waste water treatment concepts and plant designs adapted to regional conditions
- Concept development and support of plant operation management and preventive maintenance

**IWRM**
- Water resource management with regard to ecological sustainability, economic efficiency and social aspects
- Linking water to other vital resources and viewing the whole water cycle together with human interventions

**WATER FOOTPRINT**
- Water efficiency assessment and optimization of production processes
- Creating transparency across the entire value chain of water-intensive industries

**CLIMATE CHANGE**
- Securing fresh water supply in spreading arid zones
- Protection of riversides and coastlines against flooding and erosion
AFRICA
International cooperation with the countries of the MENA region and the Maghreb has been a traditional part of FiW’s work for many years. Worth mentioning in particular is the intensive cooperation with KfW and ONAS in Tunisia in training and further education as well as consultancy services with respect to waste water and sewage sludge treatment and recycling. Further projects were carried out last year on various topics in/for Algeria, Morocco, Ghana, South Africa, Kenya and Tanzania.

ASIA
In addition to the extensive research work in China, FiW is in the process of expanding international cooperation in other Asian countries by building on many years of project experience in Indonesia and Malaysia as well as training and further education programs for Syrian, Saudi Arabian and Sri Lankan experts, among others. The projects FiW currently works on in Pakistan, Thailand and Indonesia on behalf of the BMBF and GIZ are presented in the following chapters.
Environmental protection has gained tremendously in importance in China in recent years. China has a strong interest in intensive cooperation with Germany, valuing German know-how and German environmental technologies. With its many years of experience in international cooperation, FiW is involved in various projects in China (WAYS, SINOWATER, SINO-I, SINO-N) with special focus on improving water quality and resource management in the water and waste sector. Experienced scientific staff carry out a significant part of the project work in China. Especially since the SINOWATER project extended the focus of FiW’s work to the province of Yunnan, the network has expanded considerably. Several Bachelor and Master students and young engineers took the opportunity to work in China for several weeks or months as part of their work at FiW.
Our Blended Learning concept is integrated into all of our trainings in order to create the best possible learning environment for you.

FiW’s e-learning units are your ideal accompanying material for the lectures given by experienced professionals. Complemented with field visits and practical trainings, our courses provide you with exceptional expertise and benefit your professional career.
FACE-TO-FACE CLASSROOM BASED EDUCATION
The traditional way of knowledge transfer remains the best suitable method for teaching theoretical content. It allows direct interaction between teacher and participants, and amongst the group. Social interaction is the most important factor in effectively consolidating the contents learned. FiW’s experienced professionals offer scientific knowledge combined with specific experiences in international project contexts.

PRACTICAL TRAINING ON SEMI-INDUSTRIAL PILOT PLANTS
FiW offers practical training on semi-industrial pilot plants, which allows you to experiment with various operating conditions and to directly experience their impact. The most effective way to understand and to learn is practicing. Hands-on pilot plants give you haptic experiences and thus deepen the knowledge that has been experiences audio-visually before.

VIRTUAL LEARNING ENVIRONMENT
Modern multimedia technologies enable modern learning methods: “e-learning,” “mobile learning” (m-learning), and “distance learning” are terms that indicate the new flexibility offered to the learner. Autonomous and student-centered learning is the result. Regardless of time and place, the learner has the opportunity to develop his or her individual learning pattern. Most of FiW’s courses are now available as interactive e-learning modules. They can be used in pure self-learning, in combination with tutored learning or in live-seminars. Some modules offer game-like learning on virtual construction sites.

FIELD VISITS AND EXCURSIONS
Over 30 years of research and transfer have created FiW’s broad network of professionals at municipal and private level in Germany and around the world. This allows us to realize field visits and excursions to various plants and institutions in order to learn from real examples and to profit from a direct dialogue between German professionals and participants.
OUR CONCEPT TO SUIT YOUR NEEDS

Discover in this brochure how more than 30 years of experience of FiW in the field of training and international cooperation enable us to realize high-quality training:

• for decision makers, engineers, technicians and students,
• in German, English, French, or other languages,
• in Germany or in your home country.

In order to best comply with your individual needs and to provide you with the optimum learning benefit, we have created three different learning schemes:

• The tailor-made solution offers you the opportunity to create your personal learning experience from our broad catalogue of theoretical lessons, practical training, field visits, and e-learning units.

• Our thematic courses focus on one specific topic of your interest.

• The M. Sc. Management and Engineering in Water provides the educational base and professional foundation for water specialists who stand out for their ability to integrate scientific principles, engineering knowledge, and management techniques for innovative problem solving.

TAILOR-MADE

Our extensive offers YOUR CHOICE (1–4 weeks)

THEMATIC COURSES

Our selection of the most attractive combination to best suit your individual needs (1–4 weeks)

MME WATER

The 2-year M. Sc. “Management and Engineering in Water” provides you with the skills to be a specialist in the field and with a qualification recognized around the world
OUR TAILOR-MADE SOLUTION

EXTENSIVE OFFERS – YOUR CHOICE

You choose from a vast range of modules covering all of our fields of expertise. A combination of your choice of theoretical classroom lessons, e-learning units, practical training and field visits guarantees a program tailored to fit your individual wishes and best fulfills your specific demands.

Your success comes along with our learning concept. We combine a variety of different classical and modern learning methods to effectively transfer to you the knowledge from more than 150 years of German experience in the water and environment sector.

Our course program is tailored to best fit your specific needs. Please refer to the next page for an overview of our areas of competences.
OUR **THEMATIC COURSES**

**SELECTION OF THE MOST ATTRACTIVE COMBINATION TO BEST SUIT YOUR INDIVIDUAL NEEDS**

In accordance to your specific needs, FiW composes an individual selection of theoretical and practical learning units for you and thus creates a unique learning environment that guarantees the best possible learning outcome for you.

Over 30 years of research and transfer have created FiW’s broad network of professionals at municipal and private level. This allows you to get insight and profit from a direct dialogue with German water experts.

- Mechanical wastewater treatment
- Biological and physico-chemical wastewater treatment
- Sewage sludge treatment and utilization
- Waste and resource management
- Groundwater and drinking water
- Energy concepts
- Assessing fees and charges
MME – MANAGEMENT & ENGINEERING IN WATER

A PROGRAM WITH SKILLS TO BE A SPECIALIST IN THE FIELD AND WITH A QUALIFICATION RECOGNIZED AROUND THE WORLD

We are proud to offer you the 2-year M.Sc. Management and Engineering in Water in cooperation with RWTH International Academy.

The continued development, operation, and management of water systems requires highly trained experts with knowledge and management techniques for innovative problem solving – YOU.

The specialization in Water Engineering and Management focuses on the behaviour and management of water systems (e.g. rivers and lakes, ground water and coastal and marine areas) and gives an understanding of the physico-chemical and socio-economic aspects of water management.

You will become familiar with a variety of tools for analysing long-term behaviour and for evaluating the impact of human interventions on various functions of different water systems.

For further information please visit academy.rwth-aachen.de/en/