

# Second Announcement | China-Germany Workshop on Modern

# **Membrane Structures**

# October 20th-21st, 2018 Shanghai, China

### **Theme: Membrane Structures: Innovation and Practice**

China-Germany Workshop on Modern Membrane Structures will take place in Shanghai, China on October 20th-21st, 2018. Jointly initiated by Professor Wagner of Karlsruhe Institution of Technology and Professor Wujun Chen of Shanghai Jiao Tong University, this workshop is not only for academic field, but also for engineering field. The topic of this workshop is the innovation and practice of membrane structures.

## Goals

This is an amazing opportunity for the participants from different research institutions and engineering technology company in both Germany and China to exchange the achievements of materials, building production, technologies and applications and promote the innovation and development of membrane structures. We are sure this workshop will be a marvelous open door for the researchers and engineers in Germany and China to express their thoughts and add a typical vision for future research and prompts collaboration among researchers taking an interest.

## **Objectives**

With a combination of flexibility, high strength-weight ratio, recyclability and economic efficiency, membrane structures have represented an attractive option for many large-span buildings in recent decades. Greatly facilitated by modern technology, sorts of novel materials related to building membrane are developed to satisfy the requirements of reducing energy consumption in architecture industry, including ETFE, flexible thin film photovoltaics, durable fabric film, aerogel thermal film, corrosion resistant film, etc. Innovation of membrane materials boosts the promotion of new type of membrane structures, which in turn results in new theories and technical problems.

Therefore, the principle objectives of this workshop are to identify the prior directions for research and development in the field of membrane structure and then explore new solution to promote upgrade of architecture industry in Germany and China, as well as enhancing the technology and cultural communications.

## About hosting organization and sponsors

#### Hosting organization:

Shanghai Jiao Tong University & Karlsruhe Institute of Technology **Primary sponsors:** 

Vector Foiltec GmbH Broadwell (Shenzhen) Technology Co., Ltd. Serge Ferrari Shanghai Co., Ltd. Technet Gmbh

#### Sub-sponsors:

Shanghai Taiyo Kogyo Co. Ltd Shanghai Highbird Fabric Structures Co. Ltd

### **Major sessions**

Our Workshop will provide a perfect platform addressing:

- 1) Innovation and development of membrane materials
- 2) Innovation and development of membrane buildings
- 3) Innovation and development of membrane structures

To make all potential participants have a rough understanding of the theme of this workshop, we attach the all the presentation topics of invited speakers from Germany and third countries here as reference.

### List of Presentation Topics of Invited speakers from Germany and Third Countries

| No. | Title      | Name                | Presentation Topics                           |
|-----|------------|---------------------|-----------------------------------------------|
| 1   | Prof/Ph.D. | Rosemarie Wagner    | Recent development and challenge of PV/T      |
|     |            |                     | integrated tensioned structures               |
| 2   | Prof/Ph.D. | Lotar Gruendig      | Computational analysis method of hybrid       |
|     |            |                     | membrane structures                           |
| 3   | Prof/Ph.D. | Kai-Uwe Bletzinger  | Fluid-structure-control interaction of large  |
|     |            |                     | inflated membrane structures                  |
| 4   | Prof/Ph.D. | Natalie Stranghöner | Recent development of experimental method     |
|     |            |                     | and mechanical model of architecture membrane |
| 5   | Prof/Ph.D. | Thomas Stegmaier    | New membrane material development and its     |
|     |            |                     | application                                   |
| 6   | Prof/Ph.D. | Jan Cremers         | Environmental issues of ETFE membrane         |
|     |            |                     | structure and recent innovative solution      |

| 7  | Prof/Ph.D. | Heidrun Bögner-Balz  | Innovative experimental technique of ETFE film<br>and its mechanical investigations                |
|----|------------|----------------------|----------------------------------------------------------------------------------------------------|
| 8  | Prof/Ph.D. | Bernd-Helmut Kröplin | Energy management and innovative thermal<br>storage of solar thermal active membrane<br>structures |
| 9  | Prof/Ph.D. | Christoph Gengnagel  | Physical and digital prototyping of new<br>structural and material systems: Membrane<br>structure  |
| 10 | Ph.D.      | Francoise Fournire   | Innovative fabric technology and new application in architectural building                         |
| 11 | Prof/Ph.D. | Ken'ichi Kawaguchi   | Research & Development and application of fabric mesh ceiling and structures                       |
| 12 | Ph.D.      | Dieter Strobel       | Advanced integrated computational method for membrane structural design                            |
| 13 | Prof/Ph.D. | Peter Gosling        | Recent development of advanced design and analysis of tensile membrane structures                  |

# **Venue & Accommodations**

The workshop will be held at the Ruth Mulan Chu chao Building, located on the **Minhang campus of Shanghai Jiao Tong University** (Address:800 Dongchuan Road, Minhang, 200240 Shanghai, China).and 40-minutes from Shanghai Hongqiao International Airport.

Accommodations will be arranged at Huhua International Hotel (Address: 368 Jianchuan Road, Minhang, 200240 Shanghai, China) and shuttle buses will take the participants directly to the venue in the morning and back in the evening.



### **Important dates**

On spot registration: 19 October,2018 Workshop: 20 October-21 October,2018 Technical visit: 22 October,2018

### Registration

Note that Online registration is not available for this workshop, please fill in and submit the registration form to Email: sjtussl@gmail.com before **8 October 2018**. You will receive a confirmation within a few days of your registration. If we receive more applications than there is conference capacity, we may have to limit participation. Upon confirmation of your registration, we advise you to contact the **Huhua International Hotel (86 021-6450 8999)** and to book your room as soon as possible, due to high demand in Shanghai during this time.

Academic registration: EU320 Student registration: EU180 (Please show student certificate when register)

On spot registration will be opening on October 19, 2018 (9:00-20:00) at Huhua International Hotel. You can pay the registration fee by cash or credit card (Visa or Mastercard).

### Mail us to know more!

More information about the workshop will be released gradually in next few months, so stay tuned for further updates and announcements. Please contact us in time if you want to know more about this workshop. Drop us query with details and we shall contact you right away.

E-mail: sjtussl@gmail.com