

Workshop on Safety of Industrial Lasers and Systems Use

With the continuous development of the global economic situation, the laser technology stands with its unique advantage in industrial fields which keeps promote each industry grow up, along with it comes a strong focus on the issue of laser safety protection. In order to respond the call of laser developing tend and stimulate the Chinese laser equipment manufacturing sustained and healthy development by widely spreading the laser safety protection knowledge, the Laser Processing Committee of the Chinese Optical Society is organizing a training in the course of LPC 2017 and LASER World of PHOTONICS CHINA on March 15th of 2017 at Shanghai New International Expo Center. The training is mainly about the laser safety protection of industrial laser and system use. We will invite the top experts and scholars to present for the training.

The training is mainly focus on personnel at laser R&D, manufacturing, operation and management. Topics cover potential harm of laser products, protection requirements, the relevant operation standard in China and effective measures for laser safety protection. We appeal to all laser practitioners take action immediately to concern about the laser safety protection in order to be responsible for personal, the society and the customers. The laser technology will play a role with the most powerful force as only as we know about laser systematically and we make use of the laser in the right way.

All the trainees who paid the registration fee will be awarded the training certification issued by Chinese Optical Society – Laser Processing Committee (COS- LPC).

You can receive the training lecture notes at the scene if you sign up before February 28,201.

Time: March 15th, 2017

Venue: Shanghai New International EXPO Center

Webpage: <http://www.chinalaser.org> (COS-LPC official website)

<http://www.photonics-congress-china.cn/en/Workshop2017.html>

Structure

Organizer:

- Chinese Optical Society- Laser Processing Committee (COS-LPC)
- Messe München



Co-organizer:

- TC284/SC1、TC284/SC2
- NERC-LP of Huazhong University of Science and Technology
- Technological Innovation Strategic Alliance of National Laser Processing Industry
- Zhejiang Industry & Trade Vocational College
- Laser Maker Space (The National Level Intelligent Manufacturing Maker Space Of Laser)

Chair: Prof. Xiahui Tang, Huazhong University of Science and Technology

Participants

Target participants:

- Laser product manager
- Quality manager and related
- Laser equipment integrator
- Leader and technical engineering of laser application

Target industries:

- Laser product R&D
- End user of laser
- Scientific research institutions
- Regulatory authorities

The training will be held at the same time as LPC 2017 and LASER World of PHOTONICS CHINA Exhibition. It will build up a professional platform for laser community to get more knowledge of laser safety protection.



Topics:

1、 Basic laser technology and security

Knowledge on operating principle, basic structure, production and usage safety of Laser optical components, solid state laser and CO2 laser.

2、 Laser processing system safety

Safety knowledge of laser cutting, welding, surface processing, texturing, rapid formation and other laser processing system.

3、 General safety knowledge

- (1) Safety protection of laser system and potential personal injury
- (2) Laser system production workshop safety rules。
- (3) Laser system operation safety
- (4) Standard of laser system optical radiation and electrical safety

Partial Speakers



Prof.Xiahui Tang
Huazhong University of Science and Technology



Lu Feixing, Technical Director
HG LASER



Leng Changrong

Chief Engineer , Wuhan Golden Laser Co., Ltd.



Feng Jianguo

Senior Engineer ,HANS LASER



Gao Lei

General Manager of Systems Dept , F ocuslight Technologies Inc



Dr. Liu Xiaoxu

Chief Quality Engineer , Wuhan Raycus Fiber Laser Technologies Co.,Ltd.



Dr. Shi Zimu
Zhejiang Industry & Trade Vocational College



Liu Xiqiang, Senior Manager
TÜV Rheinland (Shanghai) Co.,Ltd



Zhang Lingkai, Laser Product Specialist
Express (China) Co., Ltd. Laser Products Commissioner

Partial training courses:

| Time: March 15, 2017 | | |
|-----------------------------------|---|--|
| Address: SNIECN4-M44 Meeting Room | | |
| Time | Training Content | Reporter |
| 9:00-9:30 | Business Group | Registration |
| 9:30-9:40 | Welcome Speech | China Optical Society Laser Processing Professional Committee |
| 9:40-10:00 | Development Trend of Laser Safety Standard "Thirteenth Five" | National Engineering Research Center for Laser Processing, Huazhong University of Science and Technology Tang Xiahui, Professor |
| 10:00-10:20 | Safety And Quality Assurance of High Power Fiber Laser | Wuhan Ruike Fiber Laser Technology Co., Ltd Liu Xiaoxu, Total Quality Master |
| 10:20-10:40 | The Establishment Of Enterprise Laser Safety System | Rhine Technology Shanghai Co., Ltd Liu Xiqiang, Vice General Manager |
| 10:40-11:00 | Safety And Protection Of Semiconductor Lasers | Xi'an Juguang Technology Co., Ltd Gao Lei, General Manager |
| 11:00-11:20 | Non - metallic Materials Laser Cutting Applications And Safety Protection | Wuhan Jinyun Laser Co., Ltd Leng Changrong, Chief Engineer |
| 11:20-11:40 | Basic Requirements For Safety Protection Of Laser Equipment | Wuhan Chinese Laborers Laser Engineering Limited Liability Company / National Light Radiation Safety And Laser Equipment Standardization Technical Committee Of High Power Laser Application Sub-technical Committee Lu Feixing, Technical Director / Secretary General |

| 11:40-14:00 | Lunch | |
|--|---|---|
| 14:00-14:20 | Inspection Requirements For Laser Radiation In Laser Products | Han's Laser / National Committee For The Standardization Of Radiation Safety And Laser Equipment Laser Technology Processing and Laser Equipment Sub-Technical Committee Feng Jianguo, Engineering / Secretary-General |
| 14:20-14:40 | The Importance Of Laser Safety | Tongkuai (China) Co., Ltd Zhang Lingkai, Laser Product Specialist |
| 14:40-15:00 | Laser Safety and Vocational Education | Zhejiang Industry and Trade Vocational and Technical College Shi Zimu, Chairman |
| (More training schedule to be determined, subject to on-site schedule) | | |

Partial training courses:

| Chapter 1: Light and Laser | Chapter4: Radiation damage to the eyes |
|---|--|
| 1 What is light? | 1 Physiological structure of the eye |
| 2 Light source and spectrum | 2 The dependence between wavelength and laser radiation damage to the eyes |
| 3 The brightness of the light intensity and light | 3 Laser radiation damage on the retina |
| 4 What is laser? | 5 The classification of the laser products |
| 5 Laser beam characteristics | 6 The environmental factors of evaluating the laser products |
| 6 What is laser science and engineering? | 7 The calculation of laser radiation damage parameter |
| Chapter 2: The types of radiation and radiation damage | 8 The calculation of laser products classification |
| 1 Types of radiation | Chapter5: Protection measures of laser products |
| 2 Radiation measurement | 1 Engineering protection measures |
| 3 Radiation damage | 2 Management of protective measures |
| | 3 Personal protective measures |

| Chapter 3: The types of radiation and radiation damage | Chapter 6: Non-optical radiation damage and lab safety |
|--|--|
| 1 thermal effect | 1 Non-optical radiation damage |
| 2 Photochemical effects | 2 Lab safety |
| 3 Plasma-induced ablationa | Chapter 7: Laser safety and protection |
| 4 Photodisruption | 1 Security and protection for laser engraving |
| 5 Nonlinear effect | 2 Security and protection for laser welding |
| 6 Pressure effect | 3 Security and protection for laser cutting |
| 7 Electromagnetic field effect | |

Training agenda:

(Please pay attention to the next notification)

Language: Chinese

Registration information

Please fill out the registration form and feedback to the following email zhangly@chinalaser.org.

Training fee

General attendees: RMB 1,200

Exhibitors of LASER World of PHOTONICS CHINA: RMB 980

Group registrations: RMB 880 (above 3 attendees in the same company)

Account information:

Industrial and Commercial Bank of China (ICBC) Shanghai Branch, No. 2 Business Department

Account name: Messe Muenchen Shanghai Co., Ltd.

Account Number: 1001190709016219311

Swift Code: ICBKCNBJSHI

(Please indicate with the words as "WS training fee and attendee's name". Please contact us via 021-6485 2178 afterwards.)

Notice:

Please kindly do the payment before March 10, 2017

*Onsite registration only accepts cash. Please kindly note that debit card and credit card transfer are NOT available. Sorry for the inconvenience.

Transportation

Shanghai New International Expo Center (2345 Longyang Road, Shanghai, China)

Shanghai New International Expo Center is strategically located in Pudong's key economic development zone. There is a public traffic interchange for bus and metro, one named "Longyang Road Station" about 10-min walk from the station to fairground, and one named "Huamu Road Station" about 1-min walk from the station to fairground.

Accompanying events:

- **12th International Laser Processing and Systems Conference (LPC 2017)**
March 14-15, 2017
Jumeirah Himalayas Hotel Shanghai
Shanghai New International EXPO Center
- **Chinese Laser Market Summit 2017**
March 15, 2017
Jumeirah Himalayas Hotel Shanghai
- **LASER Word of PHOTONICS CHINA**
March 14-16, 2017
Shanghai New International EXPO Center

Contact:

Chinese Optical Society-Laser
Processing Committee (COS-LPC)
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Workshop on Safety of Industrial Lasers and Systems Use Registration Form

| | | | |
|---------------|--|--|-----------|
| Name: | | Gender: | |
| Department: | | Position: | |
| Company: | | | |
| Tel: | | Fax: | |
| Mobile: | | Email: | |
| Address: | | | Zip code: |
| Registration: | <input type="checkbox"/> General attendees <input type="checkbox"/> Exhibitors <input type="checkbox"/> Group registrations | General attendees: RMB 1,200 Exhibitors of LASER World of PHOTONICS CHINA: RMB 980 Group registrations: RMB 880 (above 3 attendees in the same company) | |
| Remarks: | All the trainees who paid the registration fee will be awarded the training certification issued by Chinese Optical Society – Laser Processing Committee (COS- LPC). | | |
| Invoice | Title: Contents: Conference fee Remarks: | | |

Please fill out the form seriously and feedback to the following email zhangly@chinalaser.org

Please note that the form is the certificate of attendance. We will send you the invoice and certification according to the information you provide. Please make sure the information on the form is correct.

Account information:

Industrial and Commercial Bank of China (ICBC) Shanghai Branch, No. 2 Business Department

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