

### COURSE INSTRUCTION

The training will be conducted by Thermo Fisher personnel and selected industry experts.

### TRAINING LOCATION

Thermo Fisher Scientific Messtechnik GmbH  
Frauenauracher Strasse 96  
D-91056 Erlangen, Germany

### HOTEL INFORMATION

A block of rooms has been held at the "Novotel hotel", Erlangen, at the below rates in Euro/night. Breakfast is included.

Monday to Thursday            140 Euro

Shuttle service between "Novotel" and "Thermo Fisher" included.

**Please contact Mr. Stefan Freudhöfer directly to make your reservation for the course and hotel.**

Accommodation has to be paid directly to the hotel on site. Last date for no charge cancellation is September 27, 2020. After this date full charges apply.

### COURSE FEE

990 € per person.

Also included:

- Daily lunch
- Group dinner on Wednesday night

We reserve the right to cancel the course if a minimum attendance cannot be achieved.

You are requested to make your payment via bank transfer only after the receipt of an invoice.

The provision of our invoice expresses that the course will be held.

### REGISTRATION FORM

Please mail or fax the following information by September 10, 2020:

Name	
Title	
Nationality	
Organization	
Address	
City	Country
Phone	Fax
Email	
Arrival Date and Time	
Departure date and Time	

### Invoice address

Organization	
Address	
City	Country

Please let us know if you have any further requirements.  
For registration and further information please contact directly:

### Mr. Stefan Freudhöfer

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Frauenauracher Strasse 96  
91056 Erlangen, Germany

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# Invitation

Dosimetry Training Course  
The Harshaw Personnel TLD Program

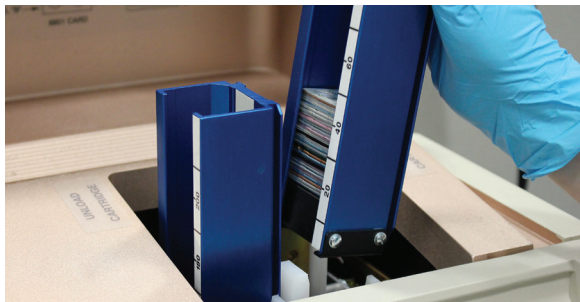
October 20 - 22, 2020  
Erlangen, Germany

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## COURSE DESCRIPTION

This course provides comprehensive training on the Thermo Scientific™ Harshaw Personnel TLD system. In addition, participants will learn how to identify weak points in existing TLD system configurations and operating procedures, and learn how to complete evaluations of unknown exposures.



This course provides content through lectures and practical training.

### Lectures:

Introductory lectures cover the fundamentals of thermoluminescence and basic system operation, including an overview of system components, set up and basic maintenance.

Advanced lectures cover system calibration using in-house SSDL, and include content on selecting appropriate calibration dosimeters.

### Practical Training:

During the practical training, course participants will have the hands-on opportunity to practice setting up, operating, calibrating and maintaining a complete Harshaw TLD system.

After completing this course, participants will be able to determine the required components of a complete Harshaw TLD system, will understand how the system operates, and will know how to perform basic system maintenance.

This course is highly interactive and we are looking forward to welcoming you to a productive and enjoyable training!

## PRELIMINARY SCHEDULE

### Tuesday, October 20 2020 Basics

9:00 am	Basics of Thermoluminescence
10:30 am	Coffee Break
11:00 am	Dosimeter configurations and Applications (whole body, extremity, environmental)
12:00	Lunch
1:00 pm	TLD workstation components and setup
1:30 pm - 5:00 pm	WinREMS walkthrough, System calibration

### Wednesday, October 21, 2020 Hands-on in small groups

9:00 am - 5:00 pm	Practical Training Linearity as well as Combined Energy and Angular Response Data are crucial to provide meaningful and reliable dosimetry to your employees and customers. You are provided with useful guidelines how to assess and interpret these data. Which conclusions should be drawn for your daily routine work?
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### Group Dinner in the evening.

### Thursday, October 22, 2020 Data Analysis, Q&A, Discussions

9:00 am	Discussion of Results
9:30 am	Irregular Glow Curves
10:30 am	Coffee Break
11:00 am	Questions & Answers on selected topics such as: <ul style="list-style-type: none"><li>• Quality Control Procedures Why and How?</li><li>• Data Handling and Backup Procedures</li><li>• Absolute System Calibration by using remote Irradiation Laboratories</li></ul>
11:30 am	Performance review
12:30 pm	Lunch
1:30 pm	Reader internals, preventive maintenance
3:30 pm	Wrap-Up, issue of certificates