

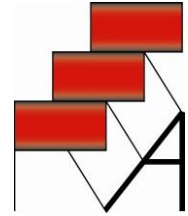
# Seminar / Webinar Schedule 2017

R3&A Limited

*Specialized in Lightning and Surge Protection Solution.*

*To Be Sure – Use DEHN*





## **R3&A Limited – 2017 Webinar Schedule**

R3&A Limited is announcing its 2017 webinar schedule for Lightning and Surge Protection Courses. Advanced training will be offered through application based webinars and will focus on the following key areas:

### General:

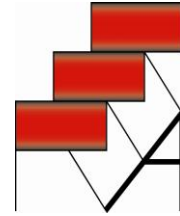
1. Basics of Lightning and Surge Protection

### Applications:

2. Solar Installations
3. Industrial Automation
4. Waste Water Treatment Installations
5. Wind Energy
6. Telecom Systems

### Others:

7. Product Innovations
8. Installation Practices
9. Design Software – DEHNsupport – External Lightning Protection



## COURSE DESCRIPTION

### 1. Basics of Lightning and Surge Protection \*

- a. Lightning, one aspect of Power Quality
- b. Nature and Electrical Characteristics of Lightning
- c. Industry Standards for Lightning and Surge Protection, differentiation between 10/350  $\mu$ s and 8/20  $\mu$ s test wave shapes
- d. Lightning Protection Zone Concept
- e. Basics of External Lightning Protection
- f. Technologies and Characteristics of Lightning and Surge Protection Devices
- g. Examples of Lightning and Surge Protection Devices for AC applications, Instrumentation/Signals
- h. Energy Coordination & Case Studies

#### ***Eastern Standard Time (EST) - English***

|                |                |         |  |                |                     |
|----------------|----------------|---------|--|----------------|---------------------|
| Webinar Part 1 | Code: Basics 1 | March 7 |  | October 3 2017 | 12.00 pm – 01.00 pm |
| Webinar Part 2 | Code: Basics 2 | March 8 |  | October 4 2017 | 12.00 pm – 01.00 pm |
| Webinar Part 3 | Code: Basics 3 | March 9 |  | October 5 2017 | 12.00 pm – 01.00 pm |

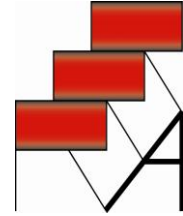
\* The full webinar course is split in 3 parts. Each of approx 1 hour a day, and Free of Charge

### 2. Solar Installations

- a. Risks aspects for a Solar Installation
- b. Causes of Lightning and Surge Currents affecting the Solar Installation
- c. Industry Standards
- d. Internal / External Lightning and Surge Protection based on Lightning Protection Zone Concept
- e. Protection example of a roof top installation
- f. Protection example Solar Farm
- g. Selection of Lightning and Surge Protection Solutions

#### ***Eastern Standard Time (EST) - English***

|         |             |          |  |                 |                     |
|---------|-------------|----------|--|-----------------|---------------------|
| Webinar | Code: Solar | March 22 |  | October 10 2017 | 12.00 pm – 01.00 pm |
|---------|-------------|----------|--|-----------------|---------------------|



### 3. Industrial Automation Systems

- a. Risk and consequences of Lightning and Surges related to Industrial Processes
- b. Causes of Lightning and Surge Currents affecting process applications
- c. Industry Standards
- d. Earthing and Bonding
- e. Internal / External Lightning and Surge Protection based on Lightning Protection Zone Concept for Power Supply and Information Technology Systems
- f. Selection of Lightning and Surge Protection Solutions for different process technology systems such as 'Fieldbus', 'Profibus'

#### ***Eastern Standard Time (EST) - English***

|         |                |          |  |                 |                     |
|---------|----------------|----------|--|-----------------|---------------------|
| Webinar | Code: Ind Auto | March 21 |  | October 17 2017 | 12.00 pm – 01.00 pm |
|---------|----------------|----------|--|-----------------|---------------------|

### 4. Waste Water Treatment Installations

- a. Risk and consequences of Lightning and Surges related to Waste Water Treatment Installations
- b. Causes of Lightning and Surge Currents affecting process applications
- c. Risk Analysis
- d. Industry Standards
- e. Earthing and Bonding
- f. Internal / External Lightning and Surge Protection based on Lightning Protection Zone Concept for Power Supply and Information Technology Systems
- g. Selection of Lightning and Surge Protection Solutions

#### ***Eastern Standard Time (EST) - English***

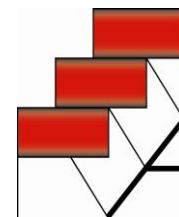
|         |                   |         |  |                 |                     |
|---------|-------------------|---------|--|-----------------|---------------------|
| Webinar | Code: Waste Water | April 4 |  | October 24 2017 | 12.00 pm – 01.00 pm |
|---------|-------------------|---------|--|-----------------|---------------------|

### 5. Wind Energy

- a. Risk and consequences of Lightning and Surges related to Wind Turbines
- b. Causes of Lightning and Surge Currents affecting Wind Turbines
- c. Industry Standards
- d. Earthing and Bonding
- e. Internal / External Lightning and Surge Protection based on Lightning Protection Zone Concept for Power Supply and Information Technology Systems
- f. Selection of Lightning and Surge Protection Solutions

#### ***Eastern Standard Time (EST) - English***

|         |            |          |  |                 |                     |
|---------|------------|----------|--|-----------------|---------------------|
| Webinar | Code: Wind | April 18 |  | October 31 2017 | 12.00 pm – 01.00 pm |
|---------|------------|----------|--|-----------------|---------------------|



## 6. Telecom Systems

- a. Risk and consequences of Lightning and Surges related to Telecom Systems
- b. Causes of Lightning and Surge Currents affecting Telecom Installations such as Cell sites
- c. Industry Standards
- d. Earthing and Bonding
- e. Internal / External Lightning and Surge Protection based on Lightning Protection Zone Concept for Power Supply and Information Technology Systems
- f. Selection of Lightning and Surge Protection Solutions for different Telecom Systems such as DSL, 4-G / LTE

### ***Eastern Standard Time (EST) - English***

|         |               |          |                 |                     |
|---------|---------------|----------|-----------------|---------------------|
| Webinar | Code: Telecom | April 25 | November 7 2017 | 12.00 pm – 01.00 pm |
|---------|---------------|----------|-----------------|---------------------|

## 7. Product Innovations

- a. Learn about new products related to specific industries

### ***Eastern Standard Time (EST) - English***

|         |                  |         |                 |                     |
|---------|------------------|---------|-----------------|---------------------|
| Webinar | Code: Prod Innov | April 5 | October 11 2017 | 12.00 pm – 01.00 pm |
|---------|------------------|---------|-----------------|---------------------|

## 8. Installation Practices

- a. Installation guidelines / instructions for lightning current and surge protective devices
- b. Selection of upstream fuses / breakers
- c. High Voltage Insulated Down Conductor (HVI) preparation and installation

### ***Eastern Standard Time (EST) - English***

|         |                  |          |                 |                     |
|---------|------------------|----------|-----------------|---------------------|
| Webinar | Code: Install Pr | April 19 | October 19 2017 | 12.00 pm – 01.00 pm |
|---------|------------------|----------|-----------------|---------------------|

## 9. Design Software 'DEHNsupport' – External Lightning Protection

- a. This software facilitates many calculations required for the lightning protection system: Risk management, separation distance, length of the air-termination rods and earth electrodes.

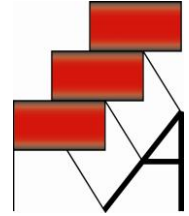
### ***Eastern Standard Time (EST) - English***

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| Webinar | Code: DEHNsupport | October 25 2017 |  | 12:00 pm –01.00 pm |
|---------|-------------------|-----------------|--|--------------------|

## 10. TELETASK Home Automation- The Basics

Find out what you can integrate with the support of The TELETASK system! From lighting, to security, temperature control, audio, even gardening sprinklers all integrated into one control system.

## REGISTRATION FORM FOR WEBINARS



Name: \_\_\_\_\_

E-mail \_\_\_\_\_

Company Name \_\_\_\_\_

Phone \_\_\_\_\_

- Code: Basics 1                      Date(s): \_\_\_\_\_
- Code: Basics 2                      Date(s): \_\_\_\_\_
- Code: Basics 3                      Date(s): \_\_\_\_\_
- Code: Solar                              Date(s): \_\_\_\_\_
- Code: Ind Auto                        Date(s): \_\_\_\_\_
- Code: Waste Water                    Date(s): \_\_\_\_\_
- Code: Wind                              Date(s): \_\_\_\_\_
- Code: Telecom                        Date(s): \_\_\_\_\_
- Code: Prod Innov                      Date(s): \_\_\_\_\_
- Code: Install Pr                        Date(s): \_\_\_\_\_
- Code: DEHNSupport                    Date(s): \_\_\_\_\_

\* The Webinars are Free-of-Charge

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