

OCTOBER 26th

09:00 – 09:30 REGISTRATION

09:30 – 11:30 LECTURES (*breaks in between*)

11:30 – 12:30 LUNCH

12:30 – 16:30 LECTURES (*breaks in between*)

19:00 DINNER

TOPICS OF THE DAY:

The basic idea of an open, interoperable communication standard for building automation

The BACnet committee with ISO/CEN servicing contract: ASHRAE SSPC 135

Introduction of the world standard EN ISO 16484-5

BACnet world-wide: interest groups and their web pages: BACnet Interest Group Europe, BI, BTL

Trade fairs with BACnet communal booths, reference projects, literature, journals

BACnet DATA Link Layer (Whereby is communicated?)

BACnet in the ISO/OSI reference model

The standardized data communication methods

Representation of the network topologies, gateways, router

Explanation of a BACnet network example

The three most important data-link-layers: BACnet/IP, MS/TP and BACnet/SC

The BACnet language” and its components (How does BACnet work?)

Introduction to standardized object types

Presentation on communication services with access functions and groups

Special functions like value-discrete transmission (COV – Change of VALUE) based on threshold values

BACnet incident and alarm management, object-internal and rule-based messages (Intrinsic and Algorithmic

Change Reporting), message classification

BACnet procedures for command prioritization

Calendar and time-schedule functions with BACnet

Data recording with the help of the BACnet trendlog /trendlog-multiple objects

The (automatic) data flow control in the network

Referencing BACnet objects

Discovering devices on the network

The application of object names, using key names

BACnet project management and “offline” configuration

Using the EDE-file

Project overview using B-PAT file

OCTOBER 27th

08:30 – 15:30 LECTURES (breaks in between)

11:30 – 12:30 LUNCH

12:30 – 15:30 LECTURES (breaks in between)

TOPICS OF THE DAY:

Specifying BACnet in tenders

BACnet is not Building Automation!

Building Automation as the basis for interoperable communication

Why it is important to specify BACnet as detailed as possible

Documents to support project-designers specifying tenders (NIST-IR 6392, AMEV, KBOB)

Comparing devices: Manufacturer's declaration "PICS" and "Epics"

The role of certification, BTL-mark and the ongoing BACnet update process

Conformance testing, what does a certificate cover, what does it not cover?

Working with the "BIBBs" BACnet Interoperability Building Blocks

Presentation on the device profiles

Responsibilities in multi-vendor projects

Network Security in building automation systems

Why network security matters

Don't do's when connecting BACnet network through the internet

BACnet Secure Connect how does it work, how to specify network security

Troubleshooting, Analyzing BACnet networks

Using Wireshark and other tools to detect BACnet problems

Using BACnet in an IT-network, explaining the IT what we do in their networks

Other BACnet tools

Questions and Answers