

BSAM PROJECT TRAINING COURSE PROGRAM

“DH: toward efficient heat distribution networks”

DAY 1

25th of March, 2021

Meeting link: <https://liedm.zoom.us/j/93343152895>

Course starts at 8.55 CET time/ 9.55 Lithuanian time

8.55 Welcome

prof. dr. William Hogland - Linnaeus
University (Sweden)

prof. dr. Olga Anne- Klaipėda University
(Lithuania)

INTRODUCTION

9.00 DH from production to customer

Anna Karlsson - Kalmar Energy (Sweden)

PIPELINES

9.30 The main factors affecting different DH
pipelines lifetime. Failures and degradation
mechanisms

Vytautas Dziuve – AB “Vilniaus šilumos
tinklai” (Lithuania)

Ignas Mikalauskas – AB “Klaipėdos energija”
(Lithuania)

10.00 Thermal ageing and mechanical loads.
Effects of mechanical loads on the thermal
ageing of district heating pipes

Alberto Vega - RISE (Sweden)

10.30 Statistics on the real lifetime of DH tubes.
Investigation of pipelines’ material
mechanical properties degradation
depending on operation’s time

Jolanta Januteniene – Klaipėda University
(Lithuania)

Sabina Szmigielska – OPEC (Poland)

11.20 Coffee break (10 minutes)

11.30 Relining of DH pipes, avoiding excavation

Andreas Martsman - PPR AB (Sweden)

12.00 Find weak pipes before rupture and accident **Paavo Persaud - Arne Jensen AB (Sweden)**

12.30 Lunch (40 minutes)

13.10 Experience of usage of plastic tubes in DH networks **Christian Engel - Austroflex (Austria)**

WATER PREPARATION

13.40 The development of DH in relation to the past 20 years of development in building's systems– experiences from more than 12 000 controlled and fixed heating/cooling systems in commercial estates and public buildings **Richard Bremer - QTF (Sweden)**

LEAKAGE DETECTION

14.10 Status assessment **Magnus Ohlsson - Öresundskraft (Sweden)**

14.40 Aerial thermography application in DH **Patrik Stensbo - Termisk Systemteknik (Sweden)**

15.10 New technologies for leak detection – case Espoo, Finland **Maria Kalli -Vexve Oy (Finland)**

CONCLUSIONS

15.40 The main outputs of the 1st day training course **Håkan Knutsson - SweHeat & Cooling (Sweden)**

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DAY 2

26th of March, 2021

Meeting link: <https://litedm.zoom.us/j/94402628756>

Course starts at 9.00 CET time/ 10.00 Lithuanian time

DH DIGITALIZATION

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| 9.00 | Digital solutions for economic optimization of energy production and the forward temperature in heat networks | Moa Dahlman - CFO Energy Opticon AB (Sweden) |
| 9.30 | Value creation through applied AI | Christian Johansson – NODA (Sweden) |
| 10.00 | Metering and Digitalization in DHC | Steen Schelle Jensen - Kamstrup A/S (Denmark) |
| 10.30 | Real-time underground network data – a game changer in optimization | Maria Kalli - Vexve Oy (Finland) |
| 11.00 | Coffee break (10 minutes) | |

DISCUSSION AND CONCLUSIONS

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| 11.10 | Final outputs from the training course | Håkan Knutsson - SweHeat & Cooling (Sweden) |
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CLOSURE

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| 12.00 | The official closure | Prof. dr. William Hogland - Linnaeus University (Sweden) |
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