

## Seminar: Engineering in School

**Date and time:** April 4th  
2018, 12.00-17.00

**Venue:** Odense Congress  
Center

**Registration:** Send an email  
to Gitte Hejltoft:  
[gh@nyhus.dk](mailto:gh@nyhus.dk). Please indicate  
whether you join us for dinner at 18.30.

**Deadline for registration:** March 22<sup>nd</sup>.

**Participants:** Dr. Christine Cunningham (Engineering is Elementary, Boston Museum of Science), Dr. Gregory Kelly (Pennsylvania State University), Gerd Bergmann and Jan Schoultz (NTA-Sweden), project management, Advisory Board, Focus Group, Steering Group, Didactic Group, Teaching Materials Group, NEUC, Municipal science coordinators from Lyngby-Taarbæk, Vejle, Horsens and Holstebro

**Purpose of the seminar:** Christine Cunningham and Gregory Kelly are both invited to The Big Bang Conference. Christine Cunningham will give a key-note lecture on engineering as a teaching strategy in primary school. Gregory Kelly will give a presentation on "Epistemic practices in engineering". Their presence in Odense is a unique possibility for comments and advice regarding the project Engineering in School. The seminar is also timely with regard to sharing experiences about the development of a didactic model, teaching material, teacher professional development-programme, and engineering events. We would like to share our experiences and results from evaluations with the purpose of discussing future developmental paths.

For the benefit of our foreign guests there is a short presentation of the project "Engineering in School" and an outline of the Danish School system attached to this program.



*Engineering i skolen er et samarbejde mellem Engineer the future, Naturvidenskabernes Hus, VIA University College og Astra. Finansieret af A.P. Møller Fonden, Industriens Fond, Villum Fonden og Lundbeckfonden.*

## Program:

**Moderator:** Keld Nielsen, Aarhus University

**Discussants:**

Dr. Christine Cunningham, Director of Engineering is Elementary, Vice President Boston Museum of Science.

Dr. Gregory J. Kelly, Professor of Science Education, Pennsylvania State University, College of Education.

12.00-13.00 Lunch in restaurant

13.00-13.15:

- Introduction to the seminar - Martin Sillasen, VIA University College
- Introduction to the EiS-project and the overall objectives - Ghita Wolf Andreasen, Engineer the Future

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13.15-16.30: Four thematic presentations with discussions: **Didactical models, Teaching materials, Engineering events** and **Teacher professional development**. Each thematic presentation will be organized as follows:

- Presentation where the presenter will answer the following questions: (15 min.)
  - What have we done in the project?
  - Why have we done it/what is the rationale?
  - What difficulties have we encountered?
- Comments from Christine Cunningham and Gregory Kelly (15 min.)
- Looking forward: What are the potentials and challenges for further development? (5 min.)
- Discussion with the audience (10 min.)

13.15-14.00: **Didactic models.**

Presenter: Martin Sillasen, VIA University College

Comments from C. Cunningham and G. Kelly

Looking forward: Lars Brian Krogh, VIA University College

General Discussion

14.00-14.45: **Teaching material.**

Presenter: Suzie Auener, ASTRA-Science Education Resource Center

Comments from C. Cunningham and G. Kelly

Looking forward: Lars Brian Krogh, VIA University College

General Discussion

14.45-15.00: Coffee break

15.00-15.45: **Engineering events.**

Presenter: Camilla Zacho, Engineer the Future

Comments from C. Cunningham and G. Kelly

Looking forward: Jan Sølberg, Copenhagen University

General Discussion

**15.45-16.30: Teacher professional development program.**

Presenter: Peer Daugbjerg, VIA University College.

Comments from C. Cunningham and G. Kelly

Looking forward: Jan Sølberg, Copenhagen University

General Discussion

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16.30-17.00 Summing up and general discussion: What have we learned from these presentations? Erik Meineche Schmidt, Academy of the Technical Sciences and chairman of the Advisory Board.

18.30-20.30: Dinner in restaurant.

On behalf of the Engineering in School Project,

Martin Sillasen