Invitation and Agenda

Seminar: Verification and Validation of Models and Analyses

3 – 4 November 2014
Copenhagen, Denmark

Engineering simulation plays an increasing role in industry’s search for competitiveness and technology based innovation at every stage of the design, qualification and certification of products. Key decisions and product qualification/certification increasingly rely on virtual tests and digital simulation, creating a major paradigm shift in which the objective of physical tests is progressively moving to a reference for analysis validation. This situation creates new responsibility for the engineer to guarantee the required confidence level.

This new approach requires secured processes for the verification and validation of models and analyses bringing evidence of their predictive capability. In particular, programme managers now require formal evidence on “simulation fit for purpose” on which they can build confidence and take decisions. In addition, the increasing situation for extended enterprise creates new constraints to guarantee safe and robust analysis processes.

At the same time, and due to the economic pressure, verification and validation activities are frequently seen as an additional cost that can easily be reduced or even fully cut, thus underestimating the induced risks. In addition, verification and validation is not easy to implement because of the diversity of involved persons: managers, simulation experts, test specialists, software developers and quality controllers, software vendors.

This conference will give a unique opportunity to interact between engineers and scientists from different industry sectors, research institutions and solution providers from different simulation domains to discuss and exchange best practices in verification and validation.

The conference/seminar will be organized by the NAFEMS NORDIC Steering Committee

Information and online registration:
www.nafems.org/nordic-vandv-conference

Please send this invitation & agenda also to interested colleagues.
Monday, 3 November 2014

13:30
Welcome and NAFEMS Introduction
G. Horrigmoe (Sweco); T. Morris (NAFEMS)

14:00
A General Purpose Framework for Verification, Validation and Model Updating of Finite Element Models for Structural Analysis
E. Dascotte (Dynamic Design Solutions (DDS) NV)

14:30
On the Characterization of ESTL Spiral Orbit Tribometer by Means of Multibody Simulation Tools
D. Bruno (Politecnico di Torino); M. Tosso (European Space Agency (ATG-Europe), ESTEC); E. Troncone (Siemens-LMS Aerospace), M. Buttery (ESR Technology / ESTL)

15:00
Validation of a Method to Predict Turbine Rotor Synchronous Responses by Stator Cascade Wake Passage Forcing
P. Ekedahl (GKN Aerospace Sweden AB)

15.30 - Coffee Break

16:15
Validation of Optimized Truck Seat Plate Made of Thermoplastic GF/PP Composite
K. Kalnins, E. Labans, E. Skukis, G. Japins (Riga Technical University); P. Lefort (Volvo Group Trucks Technology)

16:45
Finite Element Method in Car Compatibility Phenomena
M. Lisiecki (Warsaw University of Technology)

17:15
Challenges for Input Parameter Uncertainty Quantification in Computational Fluid Dynamics (CFD) - Application to External Safety
P. Shoebi-Omrani, A. Twerda (TNO Netherlands Organization for Applied Scientific Research)

17:45
Beverages & Snacks in the Exhibition
Tuesday, 4 November 2014

08:45
Keynote Presentation:
Virtual Testing and Certification: A Key Challenge for Simulation V&V
J.-F. Imbert (SIMconcept Consulting)

09:30
Predictive Design Analysis Process Model
M. Eriksson (Lund University)

10:00
Verification of Drop Test Simulations using a Pendulum Setup
G. Siau (Philips Innovation Services)

10:30 - Coffee Break

10:45
From Accurate to Robust Simulation; The Benefits of V&V
P. Pasquet (Consultant)

11:15
Strain Gauge Design for Compliant Materials
L. Mikkelsen, J. Gili (Technical University of Denmark)

11:45
FEM Model of Embedded Fibre Bragg Grating Sensor Response:
Crack Growing Detection
G. Pereira, L. Mikkelsen, M. McGugan (Technical University of Denmark)

12:15 - Lunch Break

13:00
Discussion Session:
Simulation V&V: Industrial Implementation and Future Challenges
J.-F. Imbert (SIMconcept Consulting); P. Pasquet (Consultant)

14:00 - 14:15
Wrap-up and farewell
G. Horrigmoe (Sweco)
**Location & Hotel Accommodation**

Park Inn by Radisson Copenhagen Airport
Engvej 171, 2300 Copenhagen S, Denmark
Tel. +45 32 87 02 02, Fax +45 32 87 02 20
www.parkinn.com/hotel-copenhagen

Close to the metro and train stations, this hotel’s home near Copenhagen Airport places guests within easy access of both the airport and the city centre: Metro station Femøren (two stops to airport and six to city centre) - beside hotel / Copenhagen airport - 3 km (5 min by metro). A limited number of reduced-price rooms have been reserved for course delegates. Please book your hotel room by using the keyword “NAFEMS”.

**Hardware and Software Exhibition**

Please request further information.

**Conference Language**

English

**More Informationen**

www.nafems.org/nordic-vandv-conference

---

**REGISTRATION**

- I register as participant at the NAFEMS seminar: „Verification and Validation of Models and Analyses“, 3 - 4 November 2014 in Copenhagen, Denmark.
  - My company/institute is NAFEMS member. I will use three „NAFEMS seminar credits“: Free of charge.
  - My company/institute is NAFEMS member without available „NAFEMS seminar credits“: 3,100 DKK / 415 EUR.
  - My company/institute is not NAFEMS member: 4,100 DKK / 550 EUR

- I register as exhibitor:
  - Infopoint: 1 table + own poster or pop-up display: 3,700 DKK / 500 EUR.
  - Booth space: 3 x 2 m, incl. 1 table, chairs: 5,600 DKK / 750 EUR *

- Please send me sponsorship information.

**Sender**

Company / University _________________________________________________________________

Dept./Inst.: __________________________________________________________________________

Title: _________________________________________________________________________________

First name and last name: __________________________________________________________________

Street: ________________________________________________________________________________

ZIP-code city: __________________________________________________________________________

Tel. / Fax: ______________________________________________________________________________

E-mail: _________________________________________________________________________________

Date / Signature: _________________________________________________________________________

Please complete and fax to +49 - 80 51 – 96 74 3 37, e-mail to roger.oswald@nafems.org or mail to NAFEMS GmbH, Osterham 23, D-83233 Bernau am Chiemsee, Germany.

---

**Registration Fees**

- Staff working for companies which are NAFEMS members: FREE attendance*
  *Staff of NAFEMS member companies can apply seminar credits towards free attendance. This event requires three seminar credits per delegate.
- Staff working for companies which are NAFEMS members, but no seminar credits are available: 3,100 DKK / 415 EUR
- Staff working for companies which are not NAFEMS members: 4,100 DKK / 550 EUR

Note: These fees include attendance at the seminar, one copy of the proceedings, lunch on one day, break refreshments, and beverages & snacks in the evening of the first day. Hotel accommodation is not included. All costs plus local VAT if applicable.

**Organisation**

NAFEMS GmbH
Osterham 23, D-83233 Bernau, Germany
Tel. +49 (0)8051-9659349
e-mail: nordic@nafems.org