

NEM Modularization Certificate Program

2024 - 2025



LEARN FROM THE BEST



LEARN FROM OTHERS



REFLECT AND APPLY



DEMONSTRATE YOUR SUCCESS

NEM Modularization Certificate Program

2024 – 2025 program overview (prel dates)



Intro meeting

August 29, 2024

Module 1

4 weeks

Sep. 5 – Sep. 26, 2024

Module 2

5 weeks

Oct. 24 – Nov. 21, 2024

Module 3

5 weeks

Jan. 30 – Feb. 27, 2025

Program format

- 3 modules – 14 weeks - 28 sessions
- 100% virtual participation via Microsoft Teams
- Weekly course days on Thursdays at 14:00 - 16:30 (session 1) and 19:00 - 21:30* (session 2) (CEST/CET)

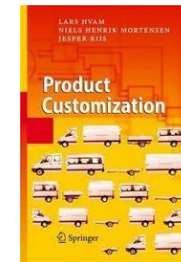
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Module I overview



	W1 – Sep	W2 – Sep.	W3 – Sep.	W4 – Sep.
14.00 – 16.30	NEM: Introduction to NEM + module I The main idea and vision of modular architectures Terminology	Product/ manufacturing as-is architectures Assignment on product architectures	Introduction to product configuration, CTO and ETO processes Assignment on scope and business case for configurator	Software for implementing configurators. Product configuration Complexity management
19.00 – 21.00	Market strategy Case introduction Assignment on market clarification	Product and manufacturing to- be architectures Assignment on to- be architectures Case presentation	How to model products for a configurator Assignment: Modelling products for a configurator	Presentation and evaluation of models and configurators. Module I wrap-up

Based on Nordic academia



Main lecturer



Prof. Niels Henrik Mortensen,
DTU

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Module 2 overview



	W1 – Oct.	W2 – Nov.	W3 – Nov.	W4 – Nov.	W5 – Nov.
14.00 – 16.30	Introduction to module 2	Platform strategy	Design structure Matrix and interfaces	Platform metrics	Managing platforms
19.00 – 21.30	Competitive advantage	Platform financials: calculation	Designing product platforms	Organizing for platforms Introduction to assignment	Module 2 wrap-up Test

Based on US industry cases



Main lecturer



Dr. Bruce Cameron,
TSP

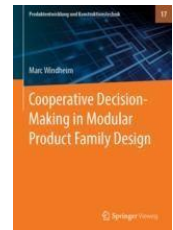
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Module 3 overview [preliminary content structure]



	W1 – Jan.	W2 – Feb.	W3 – Feb.	W4 – Feb.	5 – Feb.
14.00 – 16.30	Introduction to module 3 Modularization in SMEs: NEM CfM	Development of modular product families (TUHH)	Modularization in SMEs: Simplimize approach	Industry case: Modular Matrix in the automotive industry pt. 1	Execution models in modularization: Solutions from NEM companies
19.00 – 21.30	Modular Manufacturing	Decision making and impact model for modularization (TUHH)	Modularization and circular economy	Industry case: Modular Matrix in the automotive industry pt. 2	Cert. program wrap-up and 'graduation' celebration

Based on experience and expertise from NEM and our partners



Featured lecturers



Dr. Ulrich Hackenberg,
NEM advisory board & HAC



Prof. Dieter Krause, TUHH

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Practicalities [1/3]



General rules for participation

- Please let us know if you are unable to attend a session.
- Please turn off your microphones but leave your cameras on during the presentations (if possible).
- Please keep an eye on the clock during group discussions in the breakout rooms and return to the main meeting rooms at the agreed time.
- Due to **contractual agreements** with our lecturers, we unfortunately cannot offer recordings of the sessions.
- Material for Module 2 will be available on Google Drive (Cameron)

[LINK TO MS TEAMS FORUM](#)

Microsoft Teams forum

Our forum on MS Teams is called **NEM Cert. 2024 – 2025**. Here you will be able to:

- See and access the scheduled sessions
- Access the breakout rooms for group work
- Access the list of participants and groups
- Access the course materials and occasional updates from lecturers and other participants.

Please check your inbox for an invitation/link to the forum. It is your responsibility to let us know if you have trouble getting access – we are happy to help you out!

Note from Module 1 lecturers:
Please check the Teams forum before September for info on (optional) preparation for the sessions

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Practicalities [2/3]



Breakout rooms

- Are used for discussions in smaller groups with participants from different organizations.
- Each breakout group will be assigned a group name and a corresponding meeting room where the discussions will take place.
- You will not receive meeting invitations to the breakout rooms but can access them via MS Teams.
- You will receive extra invitations for Module 2 for the breakout rooms
- You have been assigned to one of the following groups:
 - Blue (Breakout group 1)
 - Green (Breakout group 2)
 - Red (Breakout group 3)

Certificate of achievement

- After module 3, eligible participants will receive a personalized certificate of achievement that documents your participation in the program.
- To be eligible for this certificate, you must have at least 80% attendance in sessions and hand-ins.



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Practicalities [3/3]



Surveys

- After module 3 concludes, we will send out a survey, which we encourage you to complete.
- Participant perspectives on the program's structure, themes and materials provides us with valuable insight, which we use to improve future iterations.
- Your answers in the surveys remain anonymous.

Program coordinators

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PC - info

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Reasons to join

The program is **unique**

- The program is the first of its kind to present a multi-dimensional, international, and collaborative approach to modularization training.

The program provides **upskilling**

- The program is carefully structured to give participants the opportunity to learn about modularization from renowned experts - our lecturers - and from the experiences made in other participating companies.
- The program considers diversity in participants' modular knowhow and is suitable as both an in-depth introduction to modularization and for expanding on existing knowledge.
- When multiple employees from one company attend the program, they gain a common understanding of and language for modularization; this is a substantial benefit for the company, which can otherwise be difficult to obtain.

The program aims to be **uplifting**

- The program facilitates a place for modularization enthusiasts across companies and across the world to connect and collaborate with likeminded people.
- We ensure a friendly atmosphere and encourage participants to stay curious and have a good time while learning and exploring modularization.



The 2021-2022 program had participants from 7 European countries.
The 2022 - 2023 program had participants from 8 countries worldwide

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Participant testimonials



“[I enjoyed] the openness in discussion and the underlying premise that there may be difference in solutions applied to problems that appear to be the same in different companies.”

- participant, 2022-2023

“Module 2 demonstrated excellent mastering of remote teaching and how to include class participants. Module 1 and 3 demonstrated great in-depth examples (...).”

- participant, 2022-2023

“Good cases and theory to build up around the case from the external professors.”

- participant, 2022-2023

“In general, I think this is a great course, executed very professionally. The online format turned out to work a lot better than I had imagined.”

- participant, 2021-2022