

23rd International Conference & Exhibition,
Monday 12th to Friday 16th June 2023
Technical University of Denmark
Copenhagen, Denmark



Dear Delegates,

We very much look forward to welcoming you to euspen's 23rd International Conference & Exhibition 2023 which will take place from 12th – 16th June 2023 at the Technical University of Denmark (DTU), in Copenhagen.

This event provides a leading forum for industrialists and academics alike to review the best of world-wide industrial innovation, progressive research and technology developments. Delegates will gain an insight into the precision engineering and nanotechnology priorities of Europe's leading industrial nation.

To help you with your planning, we have provided a summary of key information for the conference. For any questions, please contact info@euspen.eu.

Conference Location

Address:

Technical University of Denmark
Anker Engelunds Vej 1,
Building 101A,
2800 Kgs. Lyngby, Denmark



A printable version of the Lyngby Campus map can be found [here](#).

Travel

DTU's main campus 'Lyngby Campus' is located 15km north of Copenhagen near the town of Lyngby.

To assist delegates with travel to the venue on the morning of Tuesday 13th, Wednesday 14th and Thursday 15th June, euspen will be providing coach transport from two hotels, these being **Scandic Copenhagen Hotel** and **Wakeup Copenhagen Hotel**. Hotel details and coach departure times can be found in the table below:

Date	Scandic Copenhagen Hotel, Vester Søgade 6, 1601 Copenhagen V	Wakeup Copenhagen Hotel, Borgergade 9, 1300 Copenhagen K
	Departure Time (CEST)	Departure Time (CEST)
Tuesday 13 th June	07:30	07:30
Wednesday 14 th June	07:30	07:30
Thursday 15 th June	08:00	08:00

Please note: Coaches will depart the hotels on time and transport is provided on a first come first served basis. Return transport will not be provided.

If you are making your own way to the venue, directions and travel information can be found on the venue, travel and webpage [here](#).

You will also find helpful travel information on the 'Visit Copenhagen' public transport webpage: www.visitcopenhagen.com/copenhagen/planning/public-transport

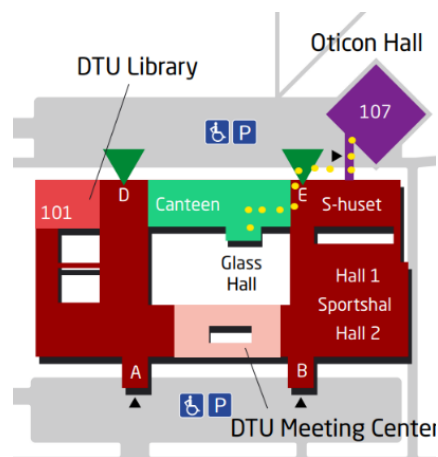
Conference Registration

The registration desk will be situated at building 101 and the registration times are as follows:

Monday 12th June: Between **14:00 - 16:00** (early registration)

Tuesday 13th June: From **08:00** onwards

Delegate badges must be worn at all times during the conference.



Programme

The full conference [programme](#) is available on the event webpage and a summary of the day's events are detailed below. Please note that all times are shown in Central European Summer Time (CEST).

Date	Programme Summary	Time (CEST)
Monday 12th June	<ul style="list-style-type: none"> - Tutorial & Workshops - Welcome Reception 	Information below 19:00 – 21:00
Tuesday 13th June	<p>Conference: Day 1</p> <ul style="list-style-type: none"> - Keynote & Oral Presentations - Industry presentations - euspen Talent Programme 2023 - Student Networking and Recruitment event 	09:00 – 16:55 17:00 – 21:30
Wednesday 14th June	<p>Conference: Day 2</p> <ul style="list-style-type: none"> - Keynote & Oral Presentations - Poster Session - Lifetime Achievement Award - euspen AGM - Football: Denmark vs The Rest of the World - euspen 24th International Conference & Exhibition - HEIDENHAIN Scholarship Awards - Exhibitor Drinks - Networking Dinner 	08:30 – 18:00 18:45 – 22:00 (<u>Coaches depart from DTU at 18:00</u>)
Thursday 15th June	<p>Conference: Day 3</p> <ul style="list-style-type: none"> - Keynote & Oral Presentations - Poster Session 	09:00 – 16:20
Friday 16th June	<ul style="list-style-type: none"> - Company Tours 	Information below

Tutorial and Workshops - Monday 12th June

The one tutorial and three workshops will be held in the Meeting Centre in Building 101, at the Technical University of Denmark.

Tutorial	Room	Time (CEST)
Tutorial 1: FUNdaMENTALs of Precision Design	S06	08:30 – 11:30

Workshop	Room	Time (CEST)
Workshop 1: Digital Manufacturing Technologies for Zero-defect Industry 4.0 Production – DIGIMAN4.0 EU Project Workshop	S01	14:00 – 17:00
Workshop 2: Digitalisation in Precision Engineering	S09	09:00 – 12:00
Workshop 3: The future of Metrology for Advanced Manufacturing	S09	14:00 – 17:00

- Delegates who are participating in Tutorial 1 **and** Workshop 1 or 3 will have the opportunity to purchase lunch at DTU.
- Delegates participating in Workshop 2 and then Workshop 1 or 3, will also have the opportunity to purchase lunch at DTU.

Lunch on **Monday 12th June** will be served at the DTU Faculty Club in building 101, Anker Engelunds Vej 1, 1st floor, from **12:00 until 14:00 and you will be** escorted to the Faculty Club at **12:00** by a member of DTU.

Please note: Lunch on Monday is **not** part of the conference registration fee. Delegates will be required to pay for their lunch by credit card.

Delegates attending an afternoon workshop only should ensure they make their own arrangements before arriving at DTU.

Welcome Reception - Monday 12th June

The welcome reception will be held from **19:00 – 21:00** on **Monday 12th June**. The venue selected for this pre-conference; informal evening is **Copenhagen City Hall**, with the reception being hosted by the City Council of Copenhagen.

Copenhagen City Hall is the headquarters of the municipal council as well as the Lord mayor of the Copenhagen Municipality, Denmark. The building is situated on The City Hall Square in central Copenhagen and was built in the years 1892-1905. The City Hall Square is easy to reach. There is a metro station by the square named "Rådhuspladsen" and it is a 10 min walk from the Main Central Station.



Address:

Copenhagen Town Hall
Rådhuspladsen 1
1550 København

City Hall Square – Main Entrance

Please note: The welcome reception is at full capacity so if you have not registered to attend this social event, please do not arrive at the City Hall as you will not be granted access. Delegates registered to attend this event will receive further information via a separate email.

Travel to the welcome reception is **not** provided. Delegates attending the welcome reception should make their own way to Copenhagen City Hall for **19:00**.

Keynotes

We are delighted to welcome the following four prestigious keynotes who will be presenting at the conference.

Tuesday 13th June 2023



09:20 – 09:50

Prof. Tim McAloone

Technical University of Denmark, DK

Designing for sustainability via science-based decision support: charting a path for engineering designers

09:55 – 10:25

Nigel Edmondson

Manufacturing Academy of Denmark (MADE), DK

Manufacturing Academy of Denmark

Wednesday 14th June 2023



08:30 – 09:00

Prof. Ole Sigmund

Technical University of Denmark, DK

Topology optimization in mechanical design

Thursday 15th June 2023



09:00 – 09:30

Prof. Dame Jane Jiang

University of Huddersfield, UK

Photonic metasurfaces for precision metrology – A perspective

Oral Presentations

A detailed timetable of all oral presentations can be found on the conference [programme](#). Questions will be taken after the last oral presentation in the session during the allocated 'discussion' slot.

Poster Sessions

All posters will be available to view throughout the conference with poster sessions being held on Wednesday 14th & Thursday 15th June.

Don't forget to vote for your best poster – voting forms can be found at the **euspen** registration desk and **euspen** stand. Voting forms should be placed in the voting box by **12:30** on **Thursday 15th June**. Poster numbers can be found [here](#).

Conference Proceedings & Papers

A digital copy of the conference proceedings will be provided on a USB stick to all delegates during registration. Delegates that have ordered a hard copy of the conference proceedings will also be given this at registration.

All papers and an interactive copy of the conference proceedings have been uploaded onto the [euspen Knowledge Base](#) and can be found by selecting 'Copenhagen 2023' under the event dropdown.



The screenshot displays a search interface for conference proceedings. At the top, the word 'Proceedings' is centered over a background image of people in a meeting. Below this, there are several search filters: 'Topic' (set to 'Any'), 'Authors' (text input 'Start typing...'), 'Event' (dropdown menu showing 'Copenhagen 2023 (156)'), and 'Search by Date' (dropdown menu showing 'Any'). Underneath these are 'Organisations' (text input 'Start typing...'), 'Search by Keyword in Title' (text input 'Start typing...'), 'Search by keywords in paper' (text input 'Start typing...'), and 'Resource Type' (checkbox for 'Paper'). At the bottom, there are two buttons: a green 'START SEARCH' button and a red 'RESET SEARCH' button.

Exhibition

We look forward to bringing together foremost industry leaders from across the globe. We encourage delegates to visit our exhibitors to find out more about the latest advancements and technologies. You will find information about each exhibitor on the [exhibitor webpage](#).

Many of the exhibitors will also be presenting during the **Industry presentation sessions** which will be held on **Tuesday 13th June**. Further information can be found on the event [programme](#).

Exhibitors: Aerotech, AMETEK GmbH, BU Precitech, AMETEK GmbH, BU Taylor Hobson, AMETEK GmbH, BU Zygo, attocube systems AG, Dr Johannes Heidenhain GmbH, Eitzenberger, Evident, FIVES, IBS Precision Engineering, JPE, Kern Microtechnik GmbH, Micro-Epsilon, MI-Partners, Moore Nanotech, Physik Instrumente (PI), Polytec GmbH, Productive Machines, Professional Instruments Company, Queensgate (a brand of Prior), SIOS Messtechnik GmbH, SmarAct Metrology.

We are extremely grateful to our exhibitors and conference sponsors who are once again sponsoring this event.

Student Recruitment Networking Event - Tuesday 13th June

The student recruitment and networking event is sponsored by ASML and ZEISS and will take place in the Glassalen (Glass Hall) at the Technical University of Denmark from **17:00 – 21:30**.

The aim of this event is to bring together influential industry leaders with high calibre students who have the potential to be future technical experts in respectful positions in the field of precision engineering and nanotechnology. This recruitment event will provide ample networking opportunities with plenty of food and refreshments for everyone.

Football – Denmark vs Rest of the World - Wednesday 14th June

For the first time the conference football match has been integrated into the programme and will "kick off" before lunch at **12:00 - 13:00** on **Wednesday 14th June**.



Want to show off your hidden professional skills? Join the football team! Email info@euspen.eu to reserve your position on your chosen side.

euspen Council Elections 2022 - Wednesday 14th June

As you may be aware, each year elections take place for a number of seats on euspen Council. This year there are two seats available and on behalf of euspen's Nominating Committee, we are pleased to introduce the two candidates standing for election.

- Dr. Jörg Drescher (DE), DR. JOHANNES HEIDENHAIN GmbH, DE
- Prof. Dominiek Reynaerts (BE), Katholieke Universiteit Leuven, BE

Members are invited to vote using the online voting form which closes at **10:00 (CEST)** on **Wednesday 14th June 2023**. Paper voting forms will also be available for members only at euspen registration desk and euspen booth. Voting forms should be placed in the voting box on the euspen registration desk by **11:00** on **Wednesday 14th June 2023**.

Election results will be announced at the 2023 Annual General Meeting at the Technical University of Denmark, Copenhagen, Denmark at **11:45** on **Wednesday 14th June**.

Conference Networking Dinner - Wednesday 14th June

On Wednesday 14th June at **18:45** there will be our Networking Dinner for conference delegates. The evening will begin with a canal boat trip where you can enjoy the fabulous sights of the city as we make our way to our dinner venue at the Langelinie Pavillonen.

Located on the waterfront with the unrivalled views of The Little Mermaid, the Langelinie Pavillonen contains some of the finest examples of 1950s Danish design, including Poul Henningsen's world-famous cone lamps.

If you have booked to attend the networking dinner, confirmation of your reservation will be detailed on your conference badge and will act as your admission ticket. **Please ensure that you bring your conference badge with you to this dinner.**



Coaches will depart **promptly** from outside the Technical University of Denmark at **18:00**. Return transport to the Scandic Copenhagen Hotel and Wakeup Copenhagen Hotel, will be provided at the end of the networking dinner.

Company Tours – Friday 16th June

Delegates registered to attend a tour should visit the tour [webpage](#) for further information regarding the tour programmes. Coach departure times can be found in the table below:

Tours	Wakeup Copenhagen Hotel, Borgergade 9, 1300 Copenhagen K	Scandic Copenhagen Hotel, Vester Søgade 6, 1601 Copenhagen V
	Departure Time (CEST)	Departure Time (CEST)
Tour 1: DTU Civil and Mechanical Engineering	07:40	08:10
Tour 2: Danish Fundamental Metrology (DFM)	07:30	08:00
Tour 3: Novo Nordisk *	07:30	08:00

Coaches will depart the hotels on time. Return transport to the Scandic Copenhagen Hotel and Wakeup Copenhagen Hotel, will be provided at the end of the company tours.

***Please note: Delegates attending the Novo Nordisk tour should bring an EU recognised ID document as proof of identity. ID will be asked in case of safety or security emergencies.**

On behalf of the euspen team, we wish each of you a pleasant and safe journey and look forward to meeting you in Copenhagen.