Join the TSD Technology Masterclass

8-10 September 2026 at Greenwood Engineering, DK-Copenhagen

Stay ahead of the technology and gain hands-on experience with the complete Traffic Speed Deflectometer (TSD) workflow — from live measurements and data validation to quality assessment and advanced structural pavement analysis

Join a 3-day professional masterclass in Copenhagen focused on Traffic Speed Deflectometer technology and its use in pavement structural assessment.

This masterclass offers a rare opportunity to experience the full TSD workflow in practice - from live measurements with Greenwood Engineering's most advanced TSD technology to data validation, processing, quality assessment and TSD data interpretation.

Participants will take part in measurement preparation, conduct, observe and discuss live TSD operations - review the collected data and explore how measurement conditions, system setup and data quality affect the final TSD results.

The live measurement activities are supported by expert-led sessions on TSD fundamentals, transition from FWD to TSD, inspection and reporting, strain and modulus analysis, viscoelastic backcalculation, local detail analysis and practical cases including concrete roads, airports, joint load transfer assessment, cracking and repeatability.

With a maximum of 12 participants, the masterclass is designed for active discussion, direct access to experienced TSD specialists and practical insight into live TSD measurement, data quality and advanced TSD data analysis.

Dates	September 8-10, 2026
Early bird	EUR 2.500 excl. VAT (Before August 9)
Standard	EUR 3.500 excl. VAT (Before September 1)
Academic / PhD	EUR 2.000 excl. VAT, limited availability

An evening dinner and networking event in Tivoli Gardens, Copenhagen is included.
For registration or more information Email: sales@greenwood.dk

INVITATION

GREENWOOD ENGINEERING

Please find additional information on the next pages

WHO SHOULD ATTEND

The masterclass is designed for professionals working with pavement structural assessment, including:

- TSD operators and future TSD operators
- Pavement engineers and consultants
- Road agencies and infrastructure owners
- Researchers in pavement analysis and material response
- Organisations considering TSD for network-level or project-level assessment

No single background is required, but participants should have some familiarity with pavement engineering, pavement testing, road asset management or measurement systems.

WHAT YOU WILL LEARN

After three days, participants will understand how TSD measurements are acquired, validated, processed and interpreted for structural pavement assessment.

Participants will gain practical insight into:

- The principles of TSD measurement
- Key indices, slopes and structural response concepts
- How TSD compares with FWD
- How to prepare a successful TSD measurement
- How live measurement conditions affect data quality
- How system setup and operational choices influence results
- How to inspect, validate and report TSD measurements
- How TSD data can be used to estimate strains, moduli and structural indicators
- Practical limitations, uncertainties and opportunities in TSD-based analysis

COURSE FORMAT

The course is limited to 12 participants to ensure close interaction, practical discussion and direct access to the instructors.

The format combines:

- Technical lectures
- Live TSD measurement sessions
- Practical review of collected measurement data
- Case-based analysis
- Group discussion
- Expert round table

PRICE

Early bird	EUR 2.500 excl. VAT (Before August 9)
Standard	EUR 3.500 excl. VAT (Before September 1)
Academic / PhD	EUR 2.000 excl. VAT, limited availability

The price includes course material, lunches, refreshments, live TSD measurement sessions, certificate and dinner in Tivoli Gardens. **Travel and accommodation are not included.**

REGISTRATION

To reserve a seat or request more information, please contact:
Email: sales@greenwood.dk

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PROGRAMME

DAY 1 TSD fundamentals, preparing and conducting your first live measurement

Instructor: Magnus Haakonsson, Application Specialist and Academy Lead.
The first day introduces the fundamentals of TSD measurement and explains how operational choices affect data quality and engineering value.

Topics include:
- TSD basics: principles, slopes, key indices and core concepts
- Transitioning from FWD to TSD
- Preparing a TSD measurement: what should be measured, where and why
- Operational considerations, measurement conditions and data quality
- First live measurement session with Greenwood Engineering's flagship TSD technology

DAY 2 Live measurement review, validation and TSD data analysis

Instructors: Magnus Haakonsson and Dr. Helene Pehrsson, R&D Engineer
The second day starts with a follow-up live measurement session in the TSD and continues with inspection, validation and advanced analysis of all the collected TSD data.

Topics include:
- Morning live measurement session and practical review
- Review of collected data from all measurement sessions
- Inspecting, validating and reporting TSD measurements
- Evaluating and analyzing the TSD results
- Looking into deeper pavement layers using TSD data
- Finding strains in the upper and lower parts of the asphalt layer from TSD data
- Calculating moduli and strains with viscoelastic backcalculation
- Practical interpretation of results, uncertainty and measurement-related assumptions

Evening: Dinner and networking in Tivoli Gardens, Copenhagen.

DAY 3 Advanced analysis, special cases and expert discussion

Instructor: Dr. David Malmgren-Hansen, CTO
The final day focuses on advanced analysis, local details and difficult real-world cases.

Topics include:
- Detailed analysis of local effects and 5 cm features, including joints
- Practical cases: concrete roads, airports, load transfer, cracking and repeatability
- What TSD can and cannot tell us in complex pavement structures
- Combining TSD insight with other pavement data sources such as SIS and GPR
- Experts Round Table: participant questions, open cases and future research directions

Participants are encouraged to bring their own questions, challenges or cases for discussion during the Experts Round Table.
Seats are limited to 12 participants.

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LOCATION

The Masterclass will take place at Greenwood Engineering, located in Broendby near Copenhagen.
Address: H. J. Holstvej 3-5 C, 2605 DK-Broendby.

There are several hotels located near Greenwood. If you prefer to stay in central Copenhagen instead, it is easy to travel to Greenwood by train or taxi.

Please contact us if you need any further information. We are happy to help with any practical questions regarding your stay in Copenhagen, including accommodation, transportation, and getting to the venue.

CONTACT

Questions regarding the Masterclass transport or accomodation please contact:
sales@greenwood.dk

ABOUT GREENWOOD ENGINEERING

Greenwood products are built on 30+ years of development and user experience across more than 50 countries. The technology is proven yet flexible, with TSD options such as GPR, SIS, and ROW cameras to collect fully synchronised road data in a single pass.

We are characterized by a dedicated and innovative company spirit, in close collaboration with our customers. We keep a very high level of technical in-house knowledge and talent. The majority of the Greenwood employees are highly skilled engineers and technicians. Some key employees have seniority up to +25 years, some have joined us along the way and some are fresh out of university.

With the combination of a strong sales department and back office, Greenwood Engineering have built up a solid ground and continues to offer outstanding products and new developments for road, airport and railway industri.

Much has happened since the first TSD was launched in 2004, but one thing remains unchanged: The basic premise is to always stay at the leading edge of frontier technology.
In 2026 TSD number 25 was delivered to Australia and the development continues.

ABOUT THE TRAFFIC SPEED DEFLECTOMETER

Visit our webpage: **https://greenwood.dk/road/tsd/**