

Nordcad Conference 2025, Wednesday, March 26th

The full agenda for our upcoming one-day conference in Copenhagen. Below are the two “topic lanes” and the included presentations. All presentations will be in English.

| Tid: | Sigrity / Celsius | Antenne- / RF-design |
|-------|---|---|
| 08:30 | A warm welcome and breakfast. | |
| 09.30 | <p>SI/PI: How to overcome EMI and EMC challenges with Sigrity.</p> <p>Discover how Sigrity PowerSI can help you identify the source of noise in your design and understand how it interacts with your system.</p> | <p>Planar Antennas in AWR – Axiem Simulations with Method of Moments.</p> <p>Learn how to design and optimize planar antennas, such as patches, using AWR’s Planar 3D Method of Moments solvers.</p> <ul style="list-style-type: none">● Parameterize and optimize designs effortlessly.● View 3D radiation patterns directly in the 3D layout.● Explore planar arrays and see real-world examples for each design. |
| 10.15 | 15-minute break. | |

10.30

Future of Electrical Engineering.

Explore the future of electronic design with **integrated analysis and pre-placement tools** in the Cadence environment. This session focuses on initial PCB preparation, analysis, and review, showcasing:

- Floorplanning
- Constraints
- SI/PI and thermal analysis
- PCB reviewing

3D Antennas in AWR

Discover the design of 3D antennas like waveguide horns and dielectric antennas using **AWR's 3D FEM solvers**.

- Easily parameterize and optimize designs.
- View 3D radiation patterns in the 3D layout.
- Address unwanted “antennas” like PCB connector transitions or vias without back drills. Real-world examples will be demonstrated.

11.15

15-minute break.

11.30

Solving Thermal Challenges with Celsius EC

Learn how **a thermal CFD tool** can address thermal challenges early in the design cycle, ensuring smoother product development.

Phased Array Antenna Synthesis and Simulation

Discover phased array antenna design with Cadence AWR tools:

- Use **VSS Phased Array Antenna Synthesis** to create multi-patch arrays.
- Export to **Microwave Office** to add phase control circuitry and beam steering in real-time simulation.
- Demonstrate PCB import for integrated design. Examples will be shown and discussed in detail.

12.30

Lunch break.

13.30

SI/PI: Modeling for EM Extraction

Explore how **stackup and material selection** impact electromagnetic (EM) extraction and SI/PI performance.

Optimizing PCB Antennas for Embedded Systems

Learn to design and optimize a Bluetooth PCB antenna for Industrial IoT:

- Focus on size reduction and removing connectors while maintaining performance.
- Use **AWR and Allegro tools** for a "right-first-time" inverted F planar antenna design.

14.30

15-minute break.

14.45

SI/PI: Measurement vs Simulation

Understand how **EM solver settings** affect the correlation between measurements and simulations.

Advanced Antenna Design with Circuit/EM Co-Simulation

Discover complete antenna design workflows:

- Use **phase array generator** for design, **VSS** for link budget analysis, and **Microwave Office** for active circuit integration.
- Explore how control electronics and PCB layout affect beam performance.
- Detailed project explanations and results included.

16.00

End of the conference and networking.