

5-day course

Reverbs

All
you need
to know
about

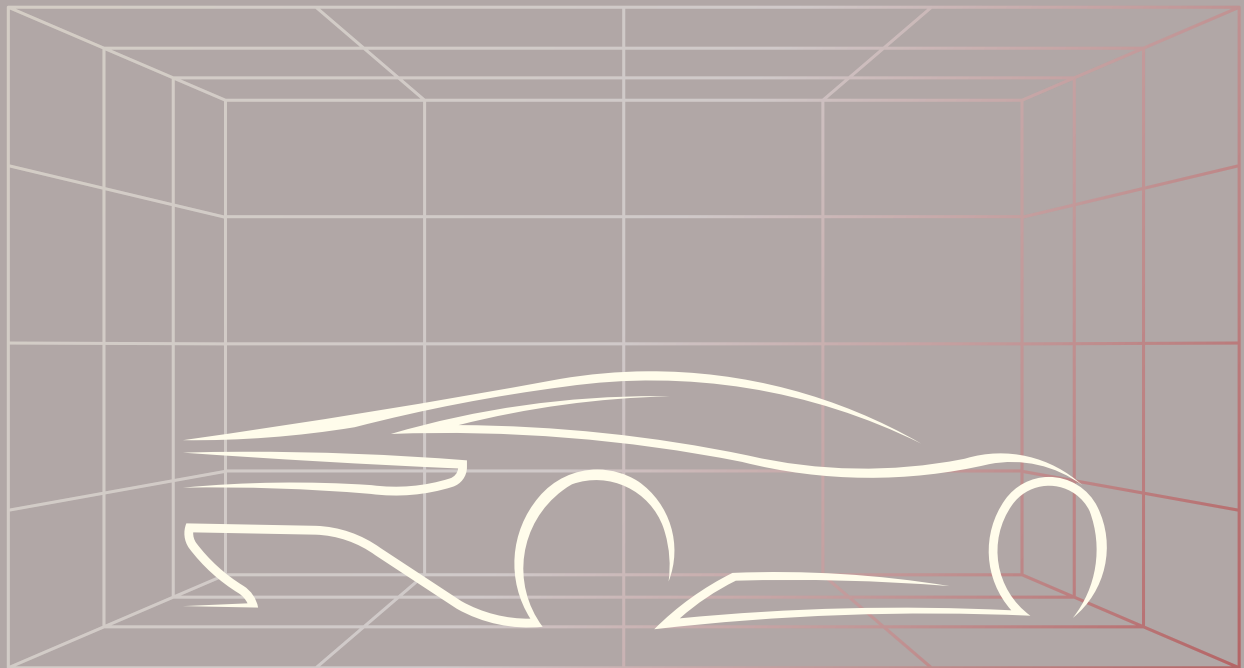
Provided by experts from
industry and academia



Monday RC fundamentals

EMC Test methods, RC history and use, details on conventional test methods, similarities and differences between the test methods, resonant environments, plane wave and diffuse environments, reverberation chambers: applications

Focused on
ISO 11451-5
IEC 61000-4-21
AECTP 501
MIL-STD 461



Tuesday Design and optimize your RC

Design: dimensions, trade-offs, field strength, stirrer size and shape, mode variation, mechanical mode stirring and tuning, electronic mode stirring, moving walls, comparison of test sites, tunable intrinsic reverberation chamber

Wednesday RC applications

ISO 11451-5, IEC 61000-4-21, AECTP 501, MIL-STD 461E, RTCA-DO160E

Procedures, calibration, emission measurements, immunity measurements, shielding effectiveness measurements, test setups, test procedures, analysis of measurement data, comparison test results in various environments, EUT behavior in reverberation chambers, in-situ measurements

More about the course Join to

Learn how an RC can be used for emission, immunity EMC testing and measuring shielding effectiveness. An RC can be also used to simulate the impact of enclosed environments on throughput of modern communication systems. The course covers the use and operation of reverberation chambers with a focus on most relevant standards and testing procedures, as well as the theoretical electromagnetic and statistical foundations

Teachers

prof. dr. Frank Leferink
dr. Robert Vogt-Ardatjew
dr. Zaher Mahfouz
dr. Karol Niewiadomski

When

15 - 19 September 2025

Where

University of Twente
Enschede, the Netherlands

Contact

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Thursday Experiments in RC

Frequency domain: quality factor, correlation, loading, uniformity, analysis of data, error in measurements; time domain: stirring ratio, correlation, rice and chi distribution, mode stirring and tuning, uniformity/spatial distribution



Friday Statistics

Central limit theorem, normal distribution, chi-square distribution, rice distribution for biased chambers,, comparison of chambers via CDF and PDF, correlation, modal behavior in resonant structures, impact of dimensions of chamber on modal behaviour, uniformity and spatial distribution, quality factor, bandwidth and impact loading

**From theory to
hands-on
experiments**

**The popularity
of RCs is ever
increasing**