



YHTEISTYÖTÄ  
ELEKTRONIIKAN  
KÄRJESSÄ

# EMC SEMINAR 2025



**EMC SEMINAR 2025**  
**5TH AND 6TH OF FEBRUARY**  
**TAMPERE, VAPRIIKKI**

**WHY TO ATTEND?**

**Cutting-Edge Topics:** Dive deep into the complexities of EMC in moving machinery and understand how changing requirements are shaping the industry.

**Electrification & hybridization focus:** Learn about the latest trends and technologies in electrification and how they impact EMC.

**Insight from testing:** Gain latest knowledge of the EMC testing from the technology and operational point of view.

**World-Class Presenters:** Gain insights from industry leaders and experts who are at the forefront of EMC research and application.

**What you will gain:**

**Practical Knowledge:** Hands-on sessions and real-world case studies to help you apply what you learn immediately.

**Networking Opportunities:** Connect with peers, industry professionals, and thought leaders.

**Future-Proof Skills:** Stay updated with the latest standards and best practices to ensure compliance and innovation.

# KOTEL EMC SEMINAR – Agenda

## Day 1

09:00 Registration

10:00 Opening and welcome – Pasi Välimäki, Danfoss Drives & Jouni Helttula, QFlex (KOTEL)

10:10 EMC reference measurement campaign results and plans – Ville Räikkä, Eurofins (KOTEL, WG7)

10:30 Key differences in radiated automotive and MIL-STD 461G full vehicle EMC testing – P-Olof Karlsson and Cristian Reimer, Rohde & Schwarz

11:15 Amplifiers for automotive radar pulse testing – Jose Arevalo AMETEK CTS

12:00 Lunch

12:45 EMC Testing Challenges and Solutions for EV and E-motors – Ben Hodges, ETS-Lindgren

13:30 Mobile Machines and EMC standards – Ari Honkala, SESKO

14:15 Coffee break

14:30 Effects of NATO membership on EMC requirements management in Defense Forces – Janne Pulkkinen, Finnish Defence Forces

15:15 Who Invented Electricity – Pasi Tamminen, Danfoss Drives

16:00 Day 1 seminar end

16:00-18:00 Visit (free program) to Vapriikki Museums

18:15- Dinner at Vapriikki

## Day 2

09:00 Registration

09:30 EMC Simulation with case example, Vesna Somero, PLM Group

10:15 2 kHz-150 kHz range EMC reqs challenges for frequency converters, Pasi Tamminen, Danfoss

11:00 Short stories about EMI/EMC phenomena, Matti Uusimäki, Radientum

11:45 Lunch

12:30 Presentation #8 – Timo Kallinen, Etteplan

13:15 Presentation #9 – Mikko Hankaniemi, Epec

14:00 Coffee break

14:15 Presentation #10 – Jari Fält, Ioncor

15:00 Seminar closing and wrap-up

15:15 Seminar Ends

# SEMINAR IS SPONSORED BY



# VAPRIIKKI EXHIBITIONS



## MANSE ROCK

9.2.2024 - 31.12.2026

Lower Gallery



## SONGLINES: TRACKING THE SEVEN SISTERS

11.10.2024 - 30.3.2025

Main Gallery and Canal Hall, 1st floor



## POSTAL UNIFORMS THROUGH THE AGES

24.1.2025 - 31.8.2025

Kupla, 2nd floor



## A REVOLUTION IN IMAGERY

17.1.2025 - 31.12.2025

Postal Museum, 1st floor



## THE IMMORTAL GAME - A NEW AGE OF CHESS

14.11.2024 - 18.5.2025

Studio, 2nd floor



## THE TREASURES OF THE VAPRIIKKI PHOTO ARCHIVE

22.10.2024 - 25.5.2025

Conference Corridor, 2nd floor



## RIDING THE RADIO WAVES - FROM CRYSTAL RADIOS TO PODCASTS

1.11.2023 - 31.10.2027

2nd floor



## FINLAYSON 200 - A FACTORY THAT BECAME A BRAND

3rd floor



## THE FINNISH MUSEUM OF GAMES

2nd floor



## THE NATURAL HISTORY MUSEUM

2nd floor



## THE NEW HOCKEY HALL OF FAME FINLAND

3rd floor





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# General Introduction KOTEL 2025

# Purpose

- The purpose of KOTEL is to promote quality, reliability and efficiency of electronic components, equipment, systems and software design, manufacturing, procurement and maintenance in Finland
- To achieve these goals, the organization strives for combining the knowhow of its Finnish members and promoting national and international cooperation. The other means and practical measures for success are training seminars, research projects and working group activities.
- Foundation of Kotel was established 1967

## Kotel 2017



- Our key strategic objectives is to further enhance and expand KOTEL's visibility and obtain new methods for information sharing, collaboration attractiveness with our target groups, audience and members in engineering society.
- We want to wellcome all new members with new ideas and challenges!

# Collaboration

- KOTEL is based on cooperation and collaboration
  - Working groups and Research projects are the essence of cooperation & collaboration between member companies.
  - 25 official members, but more than 50 companies and associates in network electronics industry and engineering, research and educational institutes. Over 100 active members in projects and working groups.
  - Examples of domestic cooperation and collaboration: *Technology Industry of Finland* (*teknologiateollisuus.fi*) and *SESKO, National Electrotechnical Standardization Organization in Finland* (*sesko.fi*), *SKY* (*korroosioyhdistys.fi*), *STAHA* (*staha.fi*)
  - International cooperation is carried out in the Nordic and European level. Within Europe KOTEL cooperates actively with Committee of European Engineering Societies [CEEES](#) (In Finland this cooperation is under the [SEEF-group](#)).
- KOTEL seeks actively and continuously new opportunities for co-operation and collaboration
- *Some 2025 themes: New members and associates, European and Scandinavian collaboration (Estonia, Latvia, Sweden, Denmark), Finnish Corrosion Association membership (SKY) – links to EUROCORR, all new visitors and members introduction and onboarding, CEEES extesions and collaboration with IMEKO*



# Essence in Working Groups

- Working Groups are the backbone of the operation and open for all KOTEL members
  - Working groups function as forums for active and collaborative information sharing – In the working groups, experts from member companies jointly conduct studies, small projects, benchmarks, workshops etc. (which result working group reports), initiate and organize seminars and provide ideas and concepts for research projects. Working groups can also arrange extended working group meetings about a special topics under interest.
  - Over 100 active members in projects and working groups
- Active working groups 2025:
  - WG 5 - [Environmental engineering](#) / WG 6 - [Reliability technology](#)
  - WG 7 - [EMC \(Electromagnetic Compatibility\)](#)
  - WG 19 - [Environment, sustainability and electronics](#)
- 2025 Workgroups chairpersons:
  - WG5/WG6: Ville Hurskainen, Vaisala (ville.hurskainen@vaisala.com)
  - WG7: Jouni Helttula, Q-Flex (jouni.helttula@q-flex.fi)
  - WG19: Tero Tasa, Muutostuuli (tero.tasa@muutostuuli.fi)


# Research Projects

- Research & Development projects typically focus on seeking solutions for the problems of the participating KOTEL member companies
  - Each project is launched on the basis of the members interest
  - Costs are covered by participants and by public funding (e.g. Business Finland)
  - Project steering team is established by project members
  - Board of KOTEL names the responsible leader for the project
  - Results are immediately available for participating companies
  - Final reports are published within 1-2 years in KOTEL report series
  - List of reports & prices at Kotel web-pages: <http://www.kotel.fi/fi/julkaisut>
- Latest finished projects: PORE (Reliability of Polymer Materials), RECO (Reduce cost and maintaining reliability through product lifecycle) and REFLEX (Reliability and lifetime of flexible epoxy polymer capacitor), Study on Aging, Lifetime, Failure Mode and Root Causes for Corrosion Faults (STUCOR)

# Seminars

- Working groups topics and research projects results are presented in open Seminars or in Extended Working Group Meetings
- KOTEL may arrange seminars and webinars for topics under interest of members and associates
  - The seminars are open to all parties interested
  - Working group meetings are open for KOTEL members and for others per invitation
  - Some examples of seminars and extended work group meetings
    - ✓ Extreme testing (Bofors Test Center, Sweden) visit, Reliability and lifecycle cost seminar
    - ✓ SW Reliability seminar, Reliability Centered Maintenance seminar
    - ✓ Reliability of flexible capacitors and life profiles and uncertainties on reliability and verification (KOTEL-CEEES seminar), Reliasoft Alta training, IoT & Digitalization and Failure Analyses seminar and company visits
    - ✓ EMC ja IoT seminar, Reliability of Polymer Materials project seminar
    - ✓ Virtual Power Plants – reliability and risk management webinar
    - ✓ PFAS Webinar (WG19)
    - ✓ Industry Insights: Applied RAM & Asset Management Seminar 2024 (jointly)
    - ✓ EMC Seminar 2025, Tampere Vapriikki
- ✓ Through KOTEL network seminars and events organised by associates and partners are accessible including e.g. CEEES events in Europe, SKY/Eurocorr, Estonian Electronics in collaboration with IPC and many more

Kirjaudu sisäänIn English



Yhteistyötä elektroniikan tutkimuksen kärjessä

EtusivuTapahtumatTietoa KOTEListaJulkaisutTyöryhmätYhteistyöJäsenetYhteystiedot

Tervetuloa

KOTEL ry:n tarkoituksena on edistää laatua, luotettavuutta ja taloudellisuutta elektroniikan komponenttien, laitteiden, järjestelmien ja ohjelmistojen suunnittelussa, valmistuksessa, hankinnassa ja ylläpidossa. Yhdistyksen kotimainen ja kansainvälinen yhteistyö antavat mahdollisuuden osallistua uuden teknologian kehitystyöhön ja käyttöönottoon tiiviisti sekä myös vaikuttaa alalla pitkäjännitteisemmin tutkimuksessa ja standardisoinnissa.

KOTELin tärkein toimintamuoto on työryhmien avulla tapahtuva tiedon ja kokemusten vaihtaminen elektroniikan eri osa-alueisiin liittyvissä teknisluonteisissa asioissa. Työryhmien toiminnan keskeisimpinä osina on laatia ehdotuksia tutkimushankkeista, ajankohtaisista aiheista ja tehdä ryhmätöitä kokoamalla asiantuntijoita vaihtamaan tietoa eri tekniikoista ja ongelmista.

Tällä hetkellä aktiivisia työryhmiä ovat:

- TR5/6 Ympäristötestit ja luotettavuustekniikka
- TR7 Sähkömagneettiset häiriöt
- TR19 Ympäristökysymykset
- SEEF

SEEF on erityisesti eurooppalaista CEEES-yhteistyötä käsittelevä KOTELin sisäinen yhteistyöryhmä.

**Uusi hallitus valittu kaudeksi 2024-2026**

Keväällä pidettiin vuosikokous. Vuosikokous päätti hallituksen kooksi kuusi jäsentä. Hallitukseen valittiin kolme uutta jäsentä. Hallituksen jäseniksi valittiin yksimielisesti seuraavaksi kaksivuotiskaudeksi 2024–2026: Mikko Hankaniemi, Olli Salmela ja Klaus Kangas. Hallituksen puheenjohtajaksi valittiin Pasi Välimäki.

Varajäseniksi hallitukseen valittiin yksivuotiskaudeksi yksimielisesti: 1. varajäsen Jani Rättä, Centria ja 2. varajäsen Markku Juntunen, Eertech.

KOTEL uutiset/news

17.3.2024 CEEES kokoukset ja konferenssi (lisätietoja tulossa)

Etusivu

Tapahtumat

Ajankohtaista

Tapahtuma-arkisto

Tietoa KOTELista

KOTELin historia

Koulutustoiminta

Tutkimushankkeet

Julkaisut

Muut julkaisut

Raportit

Julkaisujen tiivistelmiä

Julkaisuhinnasto

Työryhmät

TR5/6 Ympäristötestit ja luotettavuustekniikka

TR7 Sähkömagneettiset häiriöt

TR19 Ympäristökysymykset

SEEF

Ei-aktiiviset työryhmät

Yhteistyö

Kotimainen yhteistyö

Pohjoismainen yhteistyö

Eurooppalainen yhteistyö

Muu yhteistyö

Jäsenet

KOTELin julkiset dokumentit

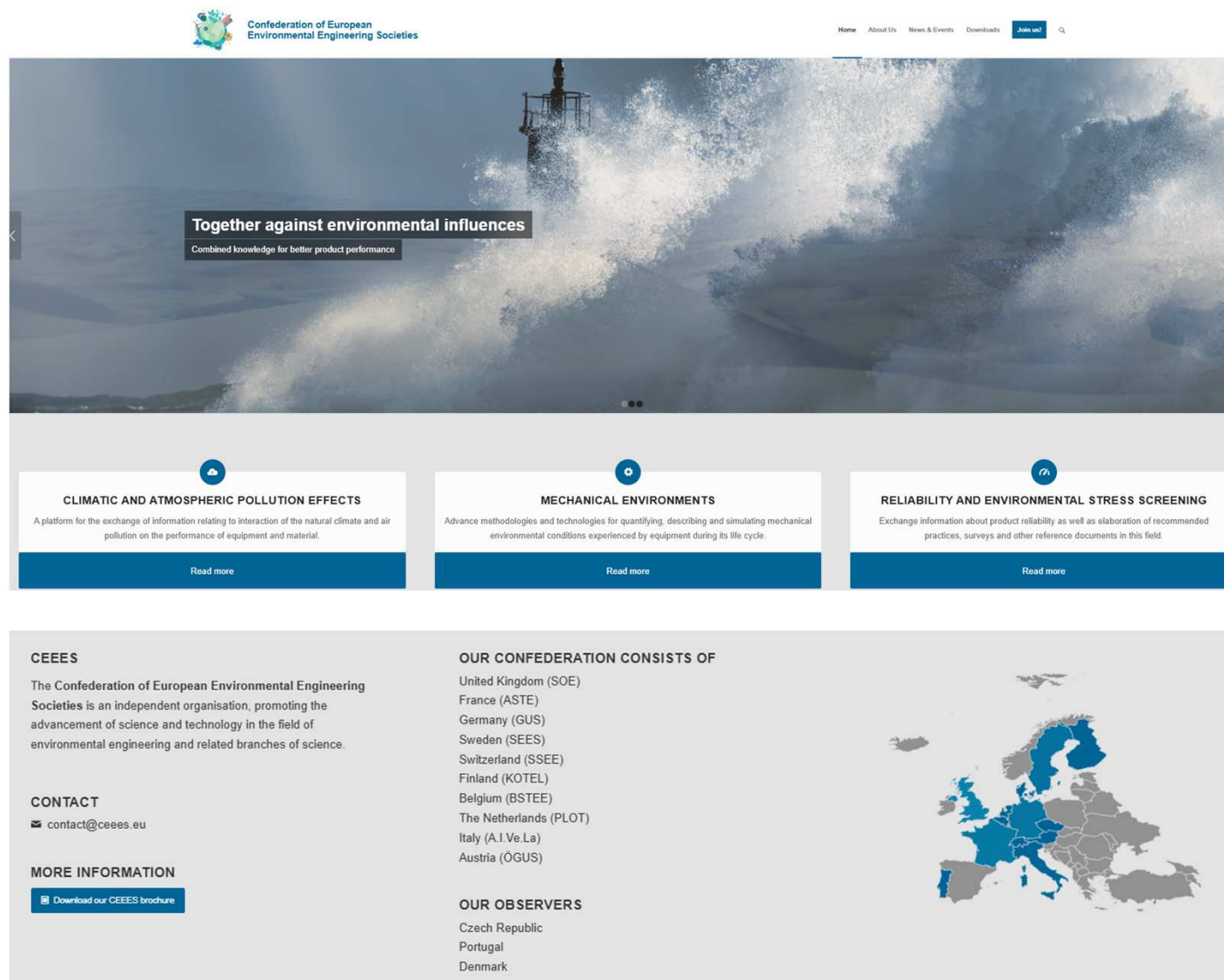
Jäsenhakemus

Yhteystiedot

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February 10, 2025 | Slide 12

# CEEES – Confederation of European Environmental Engineering Societies

<https://www.cee.es.eu/>



The screenshot shows the homepage of the Confederation of European Environmental Engineering Societies (CEEES). The header includes the CEEES logo and navigation links: Home, About Us, News & Events, Downloads, and a 'Join us!' button. The main banner features a large image of a ship's wake with the text 'Together against environmental influences' and 'Combined knowledge for better product performance'. Below the banner are three main sections: 'CLIMATIC AND ATMOSPHERIC POLLUTION EFFECTS', 'MECHANICAL ENVIRONMENTS', and 'RELIABILITY AND ENVIRONMENTAL STRESS SCREENING'. Each section has a brief description and a 'Read more' button. The footer contains information about CEEES, contact details, a link to download the CEEES brochure, a list of member societies (United Kingdom, France, Germany, Sweden, Switzerland, Finland, Belgium, The Netherlands, Italy, Austria), and a list of observers (Czech Republic, Portugal, Denmark). A map of Europe highlights the member countries in blue.

**Confederation of European Environmental Engineering Societies**

Home About Us News & Events Downloads [Join us!](#)

**Together against environmental influences**  
Combined knowledge for better product performance

**CLIMATIC AND ATMOSPHERIC POLLUTION EFFECTS**  
A platform for the exchange of information relating to interaction of the natural climate and air pollution on the performance of equipment and material.  
[Read more](#)

**MECHANICAL ENVIRONMENTS**  
Advance methodologies and technologies for quantifying, describing and simulating mechanical environmental conditions experienced by equipment during its life cycle.  
[Read more](#)

**RELIABILITY AND ENVIRONMENTAL STRESS SCREENING**  
Exchange information about product reliability as well as elaboration of recommended practices, surveys and other reference documents in this field.  
[Read more](#)

**CEEES**  
The Confederation of European Environmental Engineering Societies is an independent organisation, promoting the advancement of science and technology in the field of environmental engineering and related branches of science.

**CONTACT**  
✉ [contact@cee.es.eu](mailto:contact@cee.es.eu)

**MORE INFORMATION**  
[Download our CEEES brochure](#)

**OUR CONFEDERATION CONSISTS OF**  
United Kingdom (SOE)  
France (ASTE)  
Germany (GUS)  
Sweden (SEES)  
Switzerland (SSEE)  
Finland (KOTEL)  
Belgium (BSTEE)  
The Netherlands (PLOT)  
Italy (A.I.Ve.La)  
Austria (ÖGUS)

**OUR OBSERVERS**  
Czech Republic  
Portugal  
Denmark

# Contacts

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