



Integral System (Co-)Design Approach

- **Focus**, together with your design team, on consistent measures, from concept, development to final installation

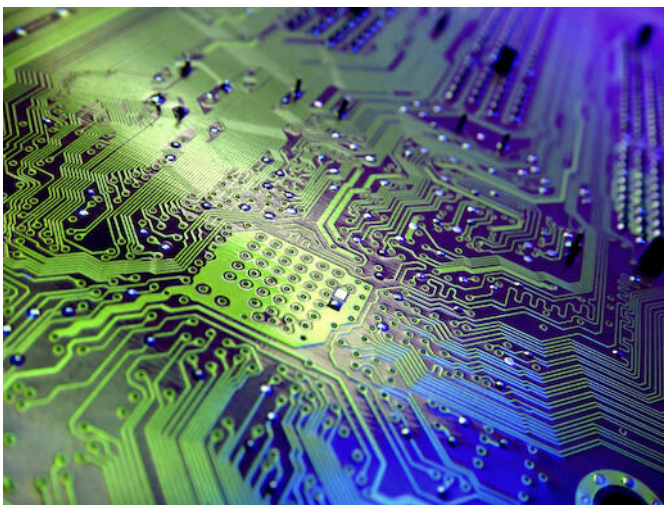
- **In-depth knowledge** of: EMC, ESD, EMF, signal integrity (SI), power integrity (PI), power quality (PQ), wireless, electrical safety, their measurement methods and interdependencies

- **Hands-on training**: training-on-the-job, optimized to product development or design reviews from product development to realization, direct or via PAO, HTI (DSPE) & Mikrocentrum

- **Broad-oriented** in all electronic designs, from: IC design, PCB design to large systems and installations; from pW to MW

- **Benchmark** and sample qualification of (EMC) active ICs, passive components, cables, etc. including application optimization

- **(pre-)Compliance EMC, SI, PI, PQ & Wireless** measurement support is offered with state of the art equipment in time and frequency domain from DC to 26 GHz complemented by electrical safety testing. With these results (TCF) a **Declaration of Conformity** (DoC) for most of the electrical and electronic products can be issued which allows access to the European market without any restrictions.



- **Active standardization involvement** in national and international standardization: IEEE, ESDA, NEN, IEC, ISO, and CENELEC. Has been rewarded **IEC 1906** in 2006.

- **Measurement setups and accessories**: customer specific coupling and decoupling networks (CDNs). Measurement setups for injection of LF disturbances onto mains, mains disturbance and impedance analysis. NFC qualification test setup, TLP test systems as well as other sensor systems..

- **Author** of many international technical papers and national contributions e.g. Elektronica. Other recent publications can be found in proceedings or on websites ITEM 2016, EMC-Compo 2015, APEMC 2016, IEC and ESDA standardisation, EMC Europe 2018, DSPE and IEW 2018 contributions, etc. International collaboration in H2020 project.

- **Patents**:
'resonant-free PDN decoupling' (2014)
microwave filament filtering in aviation applications (2019)
Multi-filair common-mode voltage suppression filter for PWM drive systems

- **Books**:
"ElectroMagnetic Compatibility" by M.J. Coenen and J.J. Goedbloed, MyBusinessMedia (2010).
Contributed to:
"ElectroMagnetic Compatibility of Integrated Circuits" by Ben Dhia, Springer Verlag,
"Analog Circuit Design" by Arthur van Roermund, Springer Verlag and the Dutch translation of
"EMC in productontwikkeling" by Tim Williams, Elektuur.

The aim of **EMCMCC** is to support and co-develop your products by integral functional and compulsory improvements to the application areas foreseen:

- first-time-right, 24/7 reliability, shortened time-to-market, less cost of non-quality, further cost reduction measures e.g. by creating concepts which are suited for further product or system integration, by using state-of-the-art test and measurement equipment

A broad customer base of successes is available. More info can be found on www.emcmcc.nl or LinkedIn.