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sense and simplicity

Automotive EMC Themamiddag

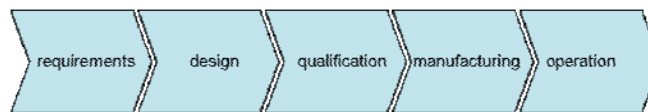
Introduction & overview program

P.A. Beeckman
EMC center, Philips Applied Technologies
Nederlandse EMC-ESD Vereniging
March 15, 2010



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Automotive: EMC aspects differ from home appliances & multimedia products over life cycle



- Different legal requirements & standards
- Other interference scenarios
- Safety & reliability important drivers
- Larger effort for development
- Specific test & measurement methods
- Additional requirements for accreditation of test labs
- Other national authorities dealing with certification & market control
- Impact of repair & maintenance

Toyota runaways due to EMI?



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Lead News

Agency Probes Gas Pedals' Link to EMI

02/03/10 11:42 AM



The National Highway Traffic Safety Administration is investigating whether electromagnetic signals could be interfering with electronic gas-pedal controls in vehicles, including but not limited to Toyotas. The agency plans to meet with Toyota and other manufacturers, suppliers and outside experts to better understand the electronics that control engine throttles and the safeguards to prevent problems when vehicles are exposed to electromagnetic interference.

Read the article at USA Today.

RELATED STORIES

Gas Pedal Problem Forces Toyota to Pull 8 Models

Experts Point to Throttles in Sudden Acceleration Incidents

Toyota Rebuked for 'No Defect' Claim

Toyota "sticking pedals" recall is a smokescreen

Their sudden unintended acceleration problem is caused by electronics either due to EMI, lead-free soldering or software "bugs"

By Eurling Keith Armstrong FIET, C.Eng., ACGI, www.cherryclough.com,
phone/fax: +44 (0)1785 660 247, 13th February 2010

First published by the EMC Journal, www.theemcjournal.com, on 13th February 2010

Some statements from this paper:

- EMI generally leaves no trace for a defect after an incident
- "Latch-up" as a possible cause
- Complex electronics cannot be reliable enough for safety-critical systems
- EMC testing cannot prove EMI immunity for safety-critical systems
- Auto electronics do not employ safety principles that have been commonplace, even mandatory, in many other industries for decades...

Program (before the break)

- 13.30: Introduction & overview program
Pierre Beeckman, Philips EMC center, Eindhoven, Netherlands
- 13.35: Introduction HTAC Helmond
Han van den Bremer, directeur van de High Tech Automotive Campus
- 13.50: Automotive infotainment applications and EMC
Jan van den Elzen, TomTom
- 14.20: Automotive test methods
Konika Banerjee, Philips Applied Technologies
- 14.50: BREAK

Program (after the break)

- 15.15: Accreditation of automotive EMC test laboratories
Dennis van der Vlugt, D.A.R.E!!
- 15.45: Automotive EMC testing at IC-level
Adrien Schoof, NXP Semiconductors Hamburg
- 16.15: Typegoedkeuring: De lusten en lasten
Arjan Schuitman, RDW
- 16.45: Threats in (EMC) homologation of electrically driven vehicles
Frank de Kleuver, Bicon Laboratories BV
- 17.15: Closure & drinks

Automotive House Helmond: centre of the Automotive Ecosystem in NL

DUTCH AUTOMOTIVE INDUSTRY		
Total 42,500 employees		
MANUFACTURING 11,000 employees		
80,000 Trucks 7,900 employees	3,000 Buses 1,600 employees	100,000 Cars 1,500 employees
- DAF - Scania - Terberg - Ginaf	- VDL Bova - VDL Bus - VDL Berkhof - APTS	- NedCar - Spyker - Donkervoort
SUPPLIERS 280 - 300 companies 24,000 employees		
SPECIAL VEHICLES & TRAILERS 4,000 employees		
INSTITUTIONS AND RD&E 3,500 employees		

Source: FIER 2008



Finally

- Presentations (pdf-version) will be available through the website www.emc-esd.nl

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Programma activiteiten EMC-ESD Vereniging 1e halfjaar 2010

- 15 maart: Lezingenmiddag Automotive EMC (Automotive House Helmond)
- 15 april: Lezingenmiddag & Expo EMC & Power Quality (TU/e Eindhoven)
- 28 april: Ledenvergadering (Van Swinden Lab Delft)
- 9 juni: EMC-ESD Praktijkdag (Hogeschool Amsterdam)
- www.emc-esd.nl

