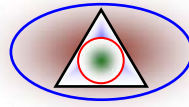


Designing EMC Compliant Systems

(ESD and Surge Mitigation included)

Presented by:



DVT Solutions Inc.

Specialized in End-To-End System Services

April 14-16, 2014

RAMADA PLAZA Calgary Airport Hotel, Calgary, Alberta, CANADA

This seminar will cover practical techniques proven to control noise and interference in order to meet the Commercial, Military, Medical and Avionics standards and regulations. Emphasis is on how to design your product right the first time to comply with these regulations. EMC techniques are cost effective when employed early in the design cycle.

SEMINAR OUTLINE

EMC Design Overview and Challenges

Definitions, System Configurations, EMC Role in Product Development, Crisis vs. Systems Approach, Design Flow, Standards Overview, Key Scenarios.

Technology Choice, Grounding Philosophy, Power Supply Interference, Cable Radiation, Shielding and Filtering, System Layouts

Regulatory Overview

Global Regulatory stage, Standards for US, Canada, Europe, EMC Directive: Scope and Application, TCF, CE Marking and Process, Test Plan, Test Sample, Test setup, Test report, CE Declaration

PCB Design Techniques

PCB technology, Sources of Emissions, Layout considerations, Decoupling, Transmission Lines

EMC of ASIC

ASIC Technology, Packaging, Sources of Radiation, Modeling, Emission Assessment, Heat Sinking, Grounding, Shielding, Mitigation Techniques

Shielding & Grounding

Resonances, Grounding, distributed and lumped concepts, Wave guiding Structures and Corners, Gaskets, Shelf covers, Shielding

ESD and Surge Mitigation

Concepts, ESD at circuit level, PCB level and system level during packaging and handling of components and subsystems., Regulatory standards Mitigation techniques, Material and component choice at system level.

EMC and Lightning concepts Lightning affect on electronics, Lightning protection in system, protecting electronic equipment, non-lightning surges EMP and NEMP and concepts of mitigation.

System Integration Techniques

System Configurations, Growth Models, Layout of Sub-systems, Cabling and Layout, CE and RE sensitivities, System Level Filtering, Cabinets & Gaskets, Grounding

EMC Design Investigations

Pre-compliance, Compliance, Trouble Shooting, Measurement Uncertainty, De-Risk Test Management, Near Field vs. Far Field, Alternate Test Methods

EMC Budgeting

Budget Concepts, Elements of EMC Budget, Modeling Techniques, Budget Validation Tips and Methodology

2 EMC Case Studies

WHO SHOULD ATTEND

This course is intended for Electrical, Electronic, Instrumentation, Control, Mechanical Design Engineers, System Engineers, Regulatory and Compliance Professionals, Technical and Project Managers, Printed Circuit Board Designers, Logic Designers, Signal Integrity Specialists, CAD Managers, EMC Specialists, EMC personnel and technicians and any other who need a working knowledge of EMC design engineering principles of Commercial, Medical, Military and Avionic products.

REGISTRATION:

Registration is LimitedSign up early

Individual Fee CND \$ 1, 645+ 5% GST
Group Fee (for three or more CND \$ 1, 545+ 5% GST each
Participants)

Payment Terms:

Payment is required before the event. Once received your place is automatically reserved. Registration fee includes Breakfast, lunch, refreshments, CD and hardcopies of the training documentation Please make payment in Canadian Dollars to **DVT Solutions Inc.**

Check payments should be mailed to:
Unit 4178-3961 52 Avenue N.E. Calgary, AB CANADA, T3J 0J8

Registration Process

Please complete and fax the registration form enclosed below to DVT Solutions Inc at 403-590-8570 to reserve your place in the course. Your place will be confirmed once the payment is received.

Cancellation Policy

All cancellation of registrations must be confirmed by writing or fax. If you are unable to attend:

- A substitute delegate is welcome at no additional charge.
- Or, your registration fee can be credited to a future event.
- Or, you will receive a full refund less 15% administrative charge if cancellation is received in writing more than 14 days before the event.
- No cancellations will be accepted within 14 days of the event start date. The training documentation will, however, be mailed to the delegate.

ACCOMMODATION:

Details about seminar venue and guest accommodation with preferential rates will be notified to registered seminar participants.

SEMINAR INSTRUCTORS:

ADISESHU NYSHADHAM, Ph. D, is President and the Senior Consultant of DVT Solutions Inc., an EMC Engineering Consulting and EMC Training organization. He has more than 17 years of System Design, Test and Technical Training experience in the areas of EMC, ESD, Antenna, Grounding and Automation and has worked for Nortel Networks, Sanmina Canada and the Radar and Communication Center of IIT in the capacity of Technical Adviser, Technical Manager, Researcher and Faculty.
In 1992 Dr. Nyshadham received the Innovative Inventions Award for his work on the Design of Millimeter Wave Antennas and Systems.

CONTACT INFORMATION:

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REGISTRATION FORM

Designing EMC Compliant Systems
(ESD and Surge Mitigation included)

April 14-16, 2014, RAMADA PLAZA Calgary Airport Hotel, Calgary, Alberta, Canada
Course Fee: CND\$1645.00+5% GST (includes: continental breakfast, lunch, refreshments, Course notes in both hard and softcopy)

NAME: _____ Check¹ P.O.² Credit card

TITLE: _____ Number: _____

COMPANY: _____ Date: _____ Type _____

ADDRESS: _____

(Signature)

CITY: _____ STATE/PROV: _____ ZIP: _____

OFFICE PHONE: _____ FAX: _____ E-MAIL: _____

²Payment Terms: **100% with PO**
¹Make Checks payable to **DVT Solutions Inc.**
and mail to: **unit 4178-3961 52 Avenue N.E., Calgary, Alberta CANADA, T3J 0J8**