

# INCEMIC 2018

**Venue: NIMHANS Convention Centre, NIMHANS,  
Hosur Road, Wilson Garden, Bangalore, India**

**Nov 15<sup>th</sup> 2018 (Thursday)**

<b>09:00am-10:30am</b>	<b>Inauguration</b> <b>Chief Guest Speech</b> <b>Keynote Address : “Challenges with managing the expanding Automotive RF uncertainties”</b> <b>Mr. Garth D’Abreu , Director Automotive Solutions, ETS Lindgren, USA</b> <b>Venue: Auditorium – I</b>	
<b>10:30am-10:45am</b>	<b>Exhibition Inauguration</b>	
<b>10:45am-11:00am</b>	<b>High Tea</b>	
<b>11:00am-12:00am</b>	<b>Session 1A: Conducted Emissions and Immunity</b> Venue: Auditorium – II <b>Chair: Dr. Sulabha Ranade, Director General SAMEER, Mumbai</b>	<b>Session 1B: Radiated Emissions and Immunity – Part 1</b> Venue: Auditorium – III <b>Chair: Mr. V R Katti, Ex-ISRO Outstanding Scientist, Bengaluru</b>
	P-1: CM Noise Cancellation in Near Unity Power Factor Converter M. Ashrita and M. L. Sudheer UVCE, Bangalore University, India	P-7: Experimental Approach to Identify Source of Radiation Noise over Si and SiC Power Modules T. Tadakuma, P. Bisht and T. Nagahara Mitsubishi Electric Corporation, Fukuoka, Japan and Gurgaon, India
	P-27: Differential Mode Inductor Self Resonance Compensation for Complying CE102 O. K. Jinan, N.K.Durga Rao and S. R. Sandhyarani Bharat Electronics Limited, Bangalore, India	P-18: Investigating Near Field Emission from Vehicle Parameters Monitoring System S. Jog, I. Deshpande, V. Bhatnagar, O. K. Tarar and S. Dave DYPIT, Pune, India
	P-34: Conducted Interference on electron gun power supplies of DC EB accelerator R.N.Rajan, D.K.Sharma, S.Dewangan, I. Bakhtsingh and A. Sharma BARC, Mumbai, India	P-38: Analysis of Horn Antenna Calibration as per SAE ARP958D Standard and Three Antenna Method Prescribed by ANSI C63.5 Standard G. Vincentraj, S. Dineshmoorthy, G. Thomas and M. G. Madhan SAMEER, Chennai, India and Anna University, Chennai, India
	P-48: Study of effect of Parasitics on CE from Flyback Converter through Simulation L. S. Jagpal Secure Meters Ltd., Udaipur, India	P-42: Modeling, Simulation & Validation of TEM Cell for Short Pulse Sensor Verification A. B. Narendra, B.V.Ramana, M. S. Kumar and B. Subbarao SAMEER, Visakhapatnam, India
<b>12:00am-13:00pm</b>	<b>Session 2A: Signal and Power Integrity</b> Venue: Auditorium – II <b>Chair: Mr. P Radhakrishna, Associate Director, LRDE, Bengaluru</b>	<b>Session 2B: Radiated Emissions and Immunity – Part 2</b> Venue: Auditorium – III <b>Chair: Dr. Abhilasha Mishra, Prof. Maharashtra Institute of Technology, Aurangabad</b>
	P-8: Factors Affecting Near-End Crosstalk (NEXT) in High Speed Serial Links P. Y. Weng, C. H. Chen, C. H. Chen, C. L. Liao, T. L. Wu and B. Mutnury National Taiwan University, Taiwan and DellEMC, Taiwan and USA	P-47: The Near Electric Field Produced by a Wireless Power Transfer System Employing DD Polarized Couplers J. McLean, J. Wooten, A. Medina, S.UdayaBhaskar, G.Kudva, and R. Sutton TDK R&D Corp., Texas, USA
	P-43: Demystifying Via Impedance for High Speed Channels M. Vasa, S. Muthusamy, S. Kumar, V. Kumar and B. Mutnury DELL EMC, Bangalore, India	P-50: Survey on Biological Effects of Mobile Phone Radiation, Measurement Techniques and Radiation Shields R. B. Rani, NIT Puducherry, Karaikal, India
P-53: Signal Integrity and Power Integrity Challenges in Embedded Computing Boards S. S. George, S. Sivanantham, S. Pawar and R. Vikram Bharat Electronics, Bangalore, India	P-61: Impact of Antenna Type on the Radiated Emission Results in CISPR-25 Test Setup V. Makesh Kumar, V.S. Reddy and C. Subramanian Robert Bosch Engineering and Business Solutions Pvt. Ltd., Bangalore, India	
<b>13:00pm-14:00pm</b>	<b>LUNCH BREAK</b>	

<b>14:00pm-14:30pm</b>	<b>PLENARY TALK 1</b> Venue: Auditorium – I <b>Topic: “Advances in the Design of Anechoic Chambers for Modern Military Vehicles”</b> <b>Speaker: Dr. Zhong Chen, Director RF Engineering, ETS-Lindgren, USA</b>	
<b>14:30pm-15:50pm</b>	<b>Session 3A: EMI-EMC Measurements – Part 1</b> Venue: Auditorium – II <b>Chair: Mr. Mike Alferman, M/s Amplifier Research, USA</b> <b>INVITED TALK 1</b> Title: TBD Speaker: TBD P-23: Analysis of a Mechanically Stirred Reverberation Chamber A. Kadri, D. C. Pande and A. Mishra Maharashtra Institute of Technology, Aurangabad, India and DRDO, Bangalore, India P-28: On the suitability of EMC anechoic chambers in the frequency range 9KHz-30MHz with loop antennas M. Wiles, F-W. Trautnitz and A. Kriz Albatross Projects GmbH, Nattheim, Germany and Seibersdorf Laboratories, Austria P-29: Validation of Anechoic Chamber for Radiated Emission Test Manisha and N. Sood TBRL, Chandigarh, India	<b>Session 3B: High Power Electromagnetics</b> Venue: Auditorium – III <b>Chair: DR. Archana Sharma, Outstanding Scientist, BARC, Mumbai</b> P-46: Study on Modeling & Simulation Analysis of Electromagnetic Pulse (EMP) Coupling to Cables S. K. Pukkalla and B. SubbaRao SAMEER, Visakhapatnam, India P-59: Calibration requirements for impulse magnetic field immunity test system as per IEC 61000-4-9 standard G. Mahesh, V. Santhanalakshmi, J. B. Mary and K. J. Thomas SAMEER, Chennai, India P-54: Evaluation of Critical Point-of-entry (POE) protection devices for E1 & E2 pulses as per MIL STD 188-125-1&2 S. K. Pukkalla and B. SubbaRao SAMEER, Visakhapatnam, India
<b>15:50pm-16:20pm</b>	<b>TEA BREAK</b>	
<b>16:20pm-17:20pm</b>	<b>Session 4A: EMI-EMC Measurements – Part 2</b> Venue: Auditorium – II <b>Chair: Prof. Rajesh Kumar, Andhra University College Engg, Vishakhapatnam</b> P-35: Low cost Verification method for PC based Harmonics Power Analyzer P. Sudhakar, G. Mahesh and K. G. Thomas SAMEER, Chennai, India P-41: Technical Competence in Design, Simulation & Validation of India’s Largest Outdoor RS105 Facility B. V. Ramana and B. Subba Rao SAMEER, Visakhapatnam, India P-56: Differences between Standard Deviation and Robust NIQR method during Z-Score evaluation W. B. Khan, G. R. Kiran and C. Dhananjay Honeywell Technology Solutions Lab., Hyderabad, India	<b>Session 4B: Computational Electromagnetics</b> Venue: Auditorium – III <b>Chair: Dr. Jordi Soler, M/s Altair, South Africa</b> P-11: An Equivalent Transmission Line Model for Predicting the Electromagnetic Interference Suppression Characteristics of Ferrite cores M. Chaluvadi and K. G. Thomas SAMEER, Chennai, India P-12: Firefly algorithm based Pseudo-Orthogonal codes for reducing sidelobes and electromagnetic interference K. R. Kumar, P. P. Raj and P. R. Kumar Andhra University, Visakhapatnam, India P-52: Hardware-Simulation Correlation of BCI failures in Capacitive Touch Sensing Application using ICIM A. Devi, S. S. Veluri, B. Nayak and S. Prabhudesai Simyog Technology, Bangalore, India and Cypress Semiconductors, Bangalore, India P-58: A Mixed E–B Finite Element Formulation for the analysis of Periodic Structures V. B. Naidu, D. Gope and S. Kamath MTRDC, Bangalore, India and IISc, Bangalore, India
<b>17:30pm-18:30pm</b>	<b>Session 5: Poster Session</b> <b>Chair: Prof. P Mallikarjun Rao, Andhra University College Engg, Vishakhapatnam</b> P-39: ELECTROSTATIC DISCHARGE TEST ON FUZES AS PER MIL-STD-331C A. Kumari, N. Sood and Manisha TBRL, Chandigarh, India P-3: Wideband Circular Polarized CPW Fed Open Slot Antenna For EMI Measurement M. I. Khan, S. Chejarla and A. Chandra VFSTR, Guntur, India and VIT, Vellore, India P-15: Enhancement of PCB Design for Radiated Immunity Compliance in Analog Signal Measurement	

	A. Viridi, P. Salunkhe, D. Chaudhary and T. Mahadik Anchor by Panasonic, Mumbai, India
	P-19: EMI EMC PROBLEMS-CASE STUDIES R. L. Mini, H. Garg, P. Sowjanya, P. V. N. Murthy, R. Renuka, S. S. Kumar and V. K. Hariharan ISRO, Bangalore, India
	P-21: REDUCTION OF RADIATED EMISSION FROM OFFLINE SWITCH MODE POWER SUPPL Shantala and M. L. Sudheer UVCE, Bangalore, India
	P-57: CPW-fed Octagonal Shaped Patch Antenna with Slits for Dual-band Applications R. Palla, S. S. Rani, K. K. Naik GMRIT, Srikakulam, India, JITS, Warangal, India and K. L. University, Guntur, India
	P-45: Analysis of the Near Field Emission from the PCB of a Car Deck Player S. Jog, I. Deshpande, V. Bhatnagar, A. D. Roshan and S. Gangwal DYPIT, Pune, India
	P-37: Study of feasibility of Enhancement of cable length for surge immunity test D. Dan SAMEER, Kolkata, India
	P-24: DESIGN OF BOUNDED WAVE NEMP (RS105) TEST SIMULATOR N. Sood and Manisha TBRL, Chandigarh, India
	P-30: T-shaped Broadband CPW – fed Folded-Slot Antenna for 5.8 GHz RFID Applications S.Suganthi and P. T. Selvan KRCT, Tiruchirappalli, India and SRM TRP Engg. College, Tiruchirappalli, India
<b>19:00pm-20:15pm</b>	<b>Cultural Program: ABHINAVA Dance Company, Bengaluru</b>
<b>20:15pm-22:00pm</b>	<b>CONFERENCE BANQUETTE</b>

Nov 16<sup>th</sup> 2018 (Friday)

09:00am-10:20am	<b>Session 6A: EMI-EMC Mitigation – Part 1</b> Venue: Auditorium – II <b>Chair: Dr. J McLean, M/s TDK, USA</b>	<b>Session 6B: EMI-EMC for Space Applications</b> Venue: Auditorium – III <b>Chair: Dr. Surendra Pal, DRDO Chair, DG ECS Office, Bengaluru</b>
	<b>INVITED TALK 2</b> Title: Using Filter Insert Technology for the suppression of EMI and Transients in onboard Flight Instrumentation – Military and Commercial Speaker: Bob Ydens, President, EMI Solutions Inc.	P-14: Absolute Charging Estimation of Spacecraft in Severe GEO Plasma Environments A. Pandya, R. Alad, P. Mehta, N. Kothari and S. Chakrabarty D. D. University, Nadiad, India and SAC, Ahmedabad, India
	P-22: MMF Analysis of Polyphase sequences for EMI suppression using Cyclic Algorithm Pruned R. Manda, P. P. Raj and P. R. Kumar AUCE, Visakhapatnam, India	P-16: NASA ISRO Synthetic Aperture RADAR (NISAR) Spacecraft Electromagnetic Field Studies P. Yarlagadda, V. Raghavaiah, PVN Murthy, R. Renuka, S.S. Kumar and V.K.Hariharan ISRO, Bangalore, India
	P-25: Matching Network Design for Wideband Power Amplifier Cascaded with Harmonic Suppression Filter S. Indumathi, P. Sion and L. S. S. Sarma BEL, Bangalore, India	P-40: Magnetic Compatibility Studies of Bus Bar and Magnetic Torquer in GSAT-19 V. A. Kumar, V.Raghavaiah, PVN Murthy, R. Renuka, S. S. Kumar and V.K.Hariharan ISRO, Bangalore, India
	P-13: Performance of Single and Double Layered Wire Mesh Electromagnetic Shield(s) in the Laboratories of Degree Engineering Colleges M. Pramanick, J. Pal, M. Chakraborty, S. M. Rahim and T. K. Dey EPI, Hooghly, India, BSNL, West Bengal, India, Starland School, West Bengal, India, Supreme Knowledge Foundation Group of Institutions, West Bengal, India	
10:30am-11:00am	<b>PLENARY TALK 2</b> Venue: Auditorium – I <b>Title: “Procedure For Mandatory Testing &amp; Certification of Telecommunication Equipment (MT&amp;CTE)”</b> <b>Speaker: Mr. Mahabir Prasad Singhal, Sr. Deputy Director General &amp; Head, Telecommunication Engineering Centre, DoT, MoC, Govt. of India, New Delhi</b>	
11:00am-11:30am	<b>TEA BREAK</b>	
11:30am-12:50pm	<b>Session 7A: EMI-EMC Mitigation – Part 2</b> Venue: Auditorium – II <b>Chair: Dr. Joy Thomas, Associate Professor, IISc, Bengaluru</b>	<b>Session 7B: Antennas</b> Venue: Auditorium – III <b>Chair: Prof. GSN Raju, Ex- Vice Chancellor, Andhara University, Vishakhapatnam</b>
	P-20: Modeling & Simulation Analysis for Evaluation of Electromagnetic Shielding Effectiveness of Conductive Fabrics using Coaxial Transmission line holder as per ASTM D4935-10 Standard G. Swarupa, P. Siva Kumar and G. A. Naidu JNTUK, Vizianagaram, India	P-2: Ultra Wideband Coplanar Waveguide Antenna With Single Frequency Notch M. I. Khan, S. Chejarla and A. Chandra VFSTR, Guntur, India and VIT, Vellore, India
	P-4: A Paper Based Perfect Electromagnetic Wave Absorber Using Conducting Grid Pattern M. M. Tirkey and N. Gupta BITS, Mesra, Ranchi, India	P-26: Design and Development of a 1-18 GHz Double-Ridged Horn Antenna with Improved Patterns S. Chakraborti SAMEER, Kolkata, India
	P-17: Modeling & simulation analysis for evaluation of Shielding Effectiveness of Frequency Selective Fabrics (FSF) in GSM bands A. Pinnamraju, S. K. Pukkalla and R. L. Valluri ANITS, Visakhapatnam, India, SAMEER, Visakhapatnam, India	P-55: In-Situ Measurements and Simulation analysis of HIRA UWB System M. S. Kumar, B. V. Ramana, P. S. Kumar and B Subbarao SAMEER, Visakhapatnam, India
	P-33: Equivalent Circuit Analysis of Complementary FSS for Selective EM Shielding V. K. Krushna and S. Raghavan NIT, Trichy, India	
13:00pm-14:00pm	<b>LUNCH BREAK</b>	
14:00pm-14:30pm	<b>PLENARY TALK 3</b> Venue: Auditorium – I <b>Title: “Pulsed Current Injection to Reproduce Intense Transient Electromagnetic Disturbances”</b>	

	<b>Speaker: Prof. Flavia Grassi, Professor Politecnico di Milano, Milan, Italy</b>	
<b>14:30pm-15:50pm</b>	<b>Session 8A: EMI-EMC Enclosures and Shielding</b> Venue: Auditorium – II <b>Chair: Dr. B Subbarao, Program Director SAMEER Vizag Center, Vishakhapatnam</b>	<b>Session 8B: Design for EMI-EMC</b> Venue: Auditorium – III <b>Chair: Prof. S K Das, Kolkatta</b>
	P-6: Mitigation of Unintentional Radiated Emission Caused by Thermal Glue used in Products with Metal Enclosure N. Hoda and R. R. Parekh Ittiam Systems Pvt. Ltd., Bangalore, India	P-9: EMC Considerations in Designing RF Modules for E/F Band Exciter M. K. Arpana, A.Tomar, C. Vasudha, G. Rambabu and K. Murthy BEL, Bangalore, India
	P-10: Analysis, Simulation and Realization of EM Compatible Rectangular Mobile Enclosure K. Vala, P. Naik and K. Rai DRDO, Pune, India	P-5: Integrating EMC Design into System Engineering Process- A Case Study of Indian LCA-Tejas P. N. A. P Rao Retd. ADA, Bangalore, India
	P-60: Challenges in Development of CMS Military Shelter for Deployment in EMIC Environment M. K. Rajpurohit and S. Venkatesh RCI, Hyderabad, India	P-32: EMC design modifications to solve field failure due to ESD - A case study G. Mahesh, K. G. Thomas and B. Subbarao SAMEER, Visakhapatnam, India
	P-31: Calculation of Shielding Effectiveness of an Enclosure with arbitrary shape of aperture using hybrid approach V. P. Inbavalli, C. Venkatesh and T. R. Suresh Kumar SEC, Tiruchengode, India and VIT, Vellore, India	P-51: Use of simulation in EMC optimization H.Sheshadri, B.Nayak and A. Kamath RBEBLS, Bangalore, India
<b>15:50pm-16:20pm</b>	<b>TEA BREAK</b>	
<b>16:20pm-17:20pm</b>	<b>Panel Discussion</b> <b>Venue: Auditorium – I</b> <b>Topic: EMC Aspects for Electric Vehicles</b> <b>Chair: Ms Janet O' Neil, Secretary IEEE EMC ( 2017-18)</b> <b>Panelists</b> <b>Dr. G.R.M.Rao, , Associate Director, VRDE, Dr. SubbaRao, Program Director SAMEER Vizag, Dr. Madhusudan Joshi , DGM ICAT ,</b> <b>Mr. A.A.Deshpande, Sr. Dy. Director , ARAI , Mr.K .Ganesh Kudva , Director Systems TDK RF Solutions, Dr. Jordi Soler, VP Altair, SA,</b>  <b>Dr. Zhong Chen, Director RF Engineering, ETS-Lindgren, USA</b>	