

Day/Date		Time	Room 1	Room 2	Room 3	Room 4
Monday	AM 1	09:00 – 10:20	WELCOME SESSION-1			
16-Sep	AM 2	10:50 – 12:10	WELCOME SESSION-2			
	PM 1	2:00 – 3:20	TC 01 - 1	SS 02 - 1	TC 07 - 1 (IN MEMORY OF PROFESSOR NITSCH)	TC 10 + TC 11 + TC 15
	PM 2	3:50 – 5:10	TC 01 - 2	SS 02 - 2 + TC 06 - 5	TC 07 - 2 (IN MEMORY OF PROFESSOR NITSCH)	TC 12 + SS 01
Tuesday	AM 1	09:00 – 10:20	TC 01 - 3	TC 06 - 1	TC 07 - 3	TC 13 - 1
17-Sep	AM 2	10:50 – 12:10	TC 01 - 4	TC 06 - 2	TC 07 - 4	TC 13 - 2 + TC 17 - 1
	PM 1	2:00 – 3:20	TC 01 - 5 + SS 05	TC 06 - 3	TC 08 - 1	TC 17 - 2
	PM 2	3:50 – 5:10	TC01 - 6 + TC 14	TC 06 - 4 + TC 03 - 3	TC 08 - 2 + TC 04 + SS 04-2	TC 05 + TC 16
Wednesday	AM 1	08:30 – 10:00	PLENARY SESSION – 1			
18-Sep	AM 2	10:30 – 12:00	PLENARY SESSION – 2			
	PM 1	2:00 – 3:20	POSTER SESSION			
	PM 2	3:50 – 5:30	SS 06	TC 02	TC 16 - 1	SS 04 - 1
			AWARD BANQUET			
Thursday	AM 1	09:00 – 10:20	TC 04 - 1	TC 03 - 1	TC 09	
19-Sep	AM 2	10:50 – 12:10	TC 04 - 2	TC 03 - 2	TC 18	
	PM 1	2:00 – 3:20	TECHNICAL VISIT & INTERACTIVE FORUM WITH INDUSTRY			
	PM 2	3:50 – 5:10				

Monday Sept.16, 2019				
Time	Room 1	Room 2	Room 3	Room 4
2:00 – 3:20 pm	TC 01: Sources, Antennas, Facilities (I)	SS 02: Reliability and Stability of HPEM Test (I)	TC 07: Analytic and Numerical Modeling(I) (IN MEMORY OF PROFESSOR NITSCH)	TC 10: Radar Systems Aspects TC 11 :Target Detection/Imaging TC 15 :Meta Materials for High-Power Applications
2:00-2:20pm	TC01-1 Simulation of an X-band Dual-mode Relativistic Backward Wave Oscillator Operating at Low Magnetic Field (#62)	SS02-1 A 400 kV Gas-insulated Low-jitter Compact Marx Generator (#11)	TC07-1 Modeling the Triggering Requirements of Synchronized Marx Generators (#15)	TC10-1 A FPGA Acceleration for the Singularity Expansion Method (#121)
2:20-2:40pm	TC01-2 High-Power Beam Steering Antenna Using a Slot Waveguide by Adjusting its Wide Side Dimension (#7)	SS02-2 The Self-breakdown Characteristics of the Output Switch for EMP Simulator (#24)	TC07-2 Performance Analysis of Follower Jamming in FH-2FSK Communication (#48)	TC11-1 Enhanced Data Analysis for the Microwave Power Spectroscopy Method (#61)
2:40-3:00pm	TC01-3 An Overmoded RBWO Operating at Ka Band with Low Magnetic Field (#9)	SS02-3 Analysis of the Primary Current Distribution in Tesla-type Pulse Generators (#41)	TC07-3 On the Maximum Voltage induced by a Wideband HPEM Field in Cascaded Lines with Piecewise-Linear Layout (#65)	TC15-1 Study on the Damage Cumulative Effect of the Microwave Pulse on the Pin Limiter (#109)
3:00-3:20pm	TC01-4 Cost231-Hata Model is Modified Based on Memetic Algorithm (#28)	SS02-4 Analysis of Fields of Irradiation Cavities with Different Sizes (#49)	TC07-4 Singularity Expansion Method (Sem) for Open-Circuited Wires Above Ground (#66)	TC15-2 A Multi-Beam Metamaterial High-Power Microwave Source (#129)

Monday Sept.16, 2019				
Time	Room 1	Room 2	Room 3	Room 4
3:50 – 5:10 pm	TC 01: Sources, Antennas, Facilities (II)	SS 02: Reliability and Stability of HPEM Test (generator, gas switch, peaking capacitor, and sensor) (II) + TC 06: Lightning EM Effects/Measurement (V)	TC 07: Analytic and Numerical Modeling (II) (IN MEMORY OF PROFESSOR NITSCH)	TC 12: Explosive Devices - Effects and Protection SS 01: EM interactions with Nonlinear Circuits in Complex Systems, Anlage Steven
3:50-4:10pm	TC01-5 Numerical Study of Asymmetric Modes Competition in Slow Wave Structure Loaded by Conductivity Anisotropic Media (#39)	SS02-5 Development of EMP Survivability Test Equipment for Conductive Gaskets (#67)	TC07-5 Singularity Expansion Method for Thin Wires with the Full-wave Transmission Line Theory (#74)	TC12-1 Effect Research on HPEM to Explosives (#19)
4:10-4:30pm	TC01-6 Optimization of the GTEM Cell Resistive Network (#44)	SS02-6 Process Analysis for the Insulation Failure of a Peaking Capacitor in an EMP Simulator (#69)	TC07-6 Uncertainties Evaluation of Numerical Simulations with a FD-TD Solver-GORF3D (#85)	TC12-2 Study on the Test Method of Induced Current of EED (#33)
4:30-4:50pm	TC01-7 Influence of Foilless Diode Parameters on Radial Beam Oscillation (#51)	TC06-15 Observations of Lightning Discharges to the 356 m High Shenzhen Meteorological Tower (#142)	TC07-7 Modeling of HEMP Conducted Responses Using State-Space System Identification Method (#88)	TC12-3 Safety Analysis of EED in Nuclear Electromagnetic Pulse Radiation (#35)
4:50-5:10pm	TC01-8 Effect of Longitudinal Mode Transition on Power Handling Capacity of TM01 and TM02 in Corrugated Waveguides (#58)		TC07-8 Susceptibility Atmosphere Transmission Characteristics of Repetitive High Power Microwave Pulse (#91)	SS01-1 Research on Microwave Suppression Effects on RF Front-end Device (#104)

Tuesday Sept.17, 2019				
Time	Room 1	Room 2	Room 3	Room 4
09:00 – 10:20	TC 01: Sources, Antennas, Facilities (III)	TC 06: Lightning EM Effects/Measurement (I)	TC 07: Analytic and Numerical Modeling (III)	TC 13: EM Transients in UHV/EHV Trans Lines & Substations (I)
9:00-9:20am	TC01-9 Electrostatic Characteristics of Two Conducting Spheres in a Grounded Cylinder (#1)	TC06-1 Characterization of CG Flashes with Multiple Terminations Using a 3D Lightning Mapping System Falma (#4)	TC07-9 High Frequency Electromagnetic Field Coupling with Transmission Lines of Finite Length in a Rectangular Resonator (#94)	TC13-1 Prediction of Trichel Pulse Amplitude for Smooth Conductors and Stranded Conductors Based on Improved Effective Ionization Integral (#2)
9:20-9:40am	TC01-10 Measurement and Analysis of the Breakdown Strength of Different Liquid Dielectric Materials (#63)	TC06-2 Simulation on Lightning Electromagnetic Environment (#10)	TC07-10 Singularity Expansion Method as Applied to a Linear Antennas in Conducting Media (#107)	TC13-2 Magnetic Flux Density Distribution Analysis of a Reactor Considering Operating Current and Structure Size (#55)
9:40-10:00am	TC01-11 Advances of X-Band Relativistic Triaxial Klystron Amplifier Research at the National University of Defense Technology (#81)	TC06-3 Characteristics of Lightning Faults of 220kV and above Overhead Transmission Lines in Zhejiang Province in Last 15 Years (#12)	TC07-11 HEMP Radiated Environment Distribution Simulation and Statistical Analysis (#110)	SS06 Analysis on Eddy Current Loss and Temperature Distribution for Ultra High Voltage Transformer in No-Load (#126)
10:00-10:20am	TC01-12 Preliminary Test of High Power RF Generation From 6H-SiC Photoconductive Switch (#83)	TC06-4 Multiple Antennas Radiation Continuous Observation System and its Application in Lightning Mapping (#21)	TC07-12 Correlation Between Time and Frequency Domain Shielding Effectiveness of Metallic Enclosures with Apertures (#115)	TC13-4 Effects of Control Algorithms on Electromagnetics Transient Process in UHVDC Transmission System (#92)

Tuesday Sept.17, 2019				
Time	Room 1	Room 2	Room 3	Room 4
10:50 – 12:10	TC 01: Sources, Antennas, Facilities (IV)	TC 06: Lightning EM Effects/Measurement (II)	TC 07: Analytic and Numerical Modeling (IV)	TC 13: EM Transients in UHV/EHV Trans Lines & Substations (II) TC 17: Evaluation of HEMP/IEMI Impacts on Critical infrastructures (I)
10:50-11:10am	TC01-13 A Frequency-agile Relativistic Magnetron with Axial Tuning (#87)	TC06-5 The Effect of Current intensity and Propagation Distance on Risetime (#22)	TC07-13 The Circuit Model of Linear-mode, Vertical SiC PCSS (#119)	TC13-5 A Non-Contact Approach for Lightning Strike and Fault Location of Transmission Lines by Broadband Electro-optic Field Sensors (#105)
11:10-11:30am	TC01-14 A Compact, Low Jitter, High Voltage Pulse Generator Based on Fractional-Turn Ratio Saturable Pulse Transformer (#103)	TC06-6 Two Scenarios of Positive Lightning Leader Channel Branching (#32)	TC07-14 Analysis of Electromagnetic Coupling to a Shielded Line Based on Extended BLT Equation (#125)	TC13-6 Electromagnetic Transient Simulation and Analysis Caused by 500kV Side Switching of Nuclear Power Plant (#116)
11:30-11:50am	TC01-15 Compact Small-Sized Pulsed Power Sources Arc-01/02 and Their Applications (#117)	TC06-7 Assessment of Varistor Withstand Capacity Against CG Generated Transient Voltages (#37)	TC07-15 Modeling of the Non-Vertical Risers at the End of Transmission Lines Using an Equivalent Partial inductance (#132)	TC13-7 Development of VFT Test Platform (#128)
11:50-12:10am	TC01-16 Impact Ionization Front in the Initially Unbiased Layered Silicon Structure (#118)	TC06-8 Probabilistic Assessment on Selected SPD Efficiency (#38)	TC07-16 Two-dimensional Numerical Simulation of Nanosecond Pulsed Discharge in Sulfur Hexafluoride Gas at High Pressure (#144)	TC17-1 Prediction of Radio Frequency in a Large Structure from External Electromagnetic Source (#18)

Tuesday Sept.17, 2019				
Time	Room 1	Room 2	Room 3	Room 4
2:00 – 3:20 pm	TC 01: Sources, Antennas, Facilities (V)	TC 06: Lightning EM Effects/Measurement (III)	TC 08: Bioeffects/Medical Applications of EM (I)	TC 17: Evaluation of HEMP/IEMI Impacts on Critical infrastructures (II)
2:00-2:20pm	TC01-17 High Power Microwave Waveguide Slot Array Antenna with Grooves (#120)	TC06-9 Application of the FDTD Method to the Surge Analysis of a Transmission Line Tower with a Power Cable (#57)	TC08-1 Effects of EMP on the osteogenic differentiation in HUC-MSCs (#5)	TC17-1 Research on HEMP Front-door Coupling Evaluation (#95)
2:20-2:40pm	TC01-18 Investigation of Frequency Selective Surfaces in HPEM Applications (#123)	TC06-10 MARCOS: a VHF Lightning Mapping System and Applications (#70)	TC08-2 A Compact Width-tunable High-voltage Nanosecond Pulse Generator for Nanoelectroablation (#36)	TC17-2 Strong Electromagnetic Pulse Harm and Protection to the Aircraft (#97)
2:40-3:00pm	TC01-19 An UWB Radiation System and its Electromagnetic interference Effect on UAV System (#138)	TC06-11 Technical Paper for Lightning Test Standard of Automobiles from Japanese Automotive Standards Organization (#72)	TC08-3 Simulation and Experiment Study of a High Shielding Effectiveness Suit (#59)	TC17-3 Study on Electromagnetic Coupling Characteristics of Fuselage Cover Cavity Irradiated by HEMP (#98)
3:00-3:20pm	TC01-20(from SS05) Investigation of Power Loss Caused by The Antenna Connected to a Gyromagnetic Nonlinear Transmission Line (#75)	TC06-12 Modeling of Composite Transmission Tower under Direct Lightning Strokes Based on Electromagnetic Field Energy Principle (#101)	TC08-4 Research on the Characteristics of Absorbed Dose in Rats under Radio Frequency (#60)	TC17-4 Aircraft Nuclear Electromagnetic Pulse Effect and Protection Technology (#99)

Tuesday Sept.17, 2019				
Time	Room 1	Room 2	Room 3	Room 4
3:50 – 5:10 pm	TC 01: Sources, Antennas, Facilities (VI)+TC 14: Statistical Methods in HPEM	TC 06: Lightning EM Effects/Measurement (IV)	TC 08: Bioeffects/Medical Applications of EM (II)	TC 05: System Level Protection and Testing
3:50-4:10pm	TC01-21 Investigation on Low Impedance High Voltage Generator Based on UV Preionization Gap Switch (#143)	TC06-13 Some Optimization Techniques of Lightning Field Calculations (#113)	TC08-5 Acute Hepatic Effects of Ka-HPM Pulses Exposure on KM Mouse (#76)	TC05-1 Study of the Electromagnetic Protection of Infrastructures with Alternative Shielding Strategies (#16)
4:10-4:30pm	TC01-22 A 40kV, 500kHz Solid-state Pulsed Power Generator Based on the Drift Step Recovery Diodes (#145)	TC3 Detection and Localization of Lightning Damages in CFRP with Lamb Wave (#17)	TC08-6 Investigation of Gene Expression Alterations in Human Peripheral Blood Cells after Continuous Wave Exposure at 900 MHz (#100)	TC05-2 Medium-voltage Transformers under EMP-Conditions (#93)
4:30-4:50pm	TC14-01 Assessment Method of Sample Size Requirements for High Power Microwave Test (#130)	TC3 Simulation Analysis on Return Conductor Settings for Lightning Indirect Effect of Metal Cabin (#73)	TC08-7 (original from TC4) A Systematic Electromagnetic Protection System Based on Human Immune Mechanism (#137)	TC05-3 Effect of Penetrating Conductors on Shielding Effectiveness of Metallic Enclosures (#131)
4:50-5:10pm		TC06-14 A Time Domain Detection Method for Weak NEMP Signal (#114)	TC08-8 (original from SS04) Improved Model of Deep Transcranial Magnetic Stimulation with Temporal interference (#141)	TC05-4 (original from TC16) Study on Shielding Effectiveness Measurement Method of Concrete for RF Shield (#84)

Wednesday Sept.18, 2019				
Time	Room 1	Room 2	Room 3	Room 4
3:50 – 5:10 pm	SS 06: Influence of Geomagnetic Disturbance on infrastructures	TC 02: Coupling/Structures/Cables	TC 16: Design of Protective Devices and Test Methods	SS 04: Toward Deep Transcranial Magnetic Stimulation
3:50-4:10pm	SS06-1 Effects of GIC on Winding Currents of Single Phase UHV Autotransformer with Load (#34)	TC02-1 Research on Interference and Damage of Mesoband EMP Irradiation in System-Level UAV (#23)	TC16-1 How to Test a Microcontroller for Immunity to HPEMP influence? (#6)	SS04-1 Optimizing the Positioning of the Coil for Deeper Transcranial Magnetic Stimulation (#30)
4:10-4:30pm	SS06-2 Study on the Influence of Earth Current “Pipeline Effect” on PSP of Pipelines (#108)	TC02-2 Coupling Characteristics Analysis of Low-altitude Targets over Half Space under HPEM Environments (#31)	TC16-2 EMP Protection Method for Communication RF Front-end (#20)	SS04-2 Deep Transcranial Magnetic Stimulation Using Different Coil Configurations (#86)
4:30-4:50pm	SS06-3 Unified Mechanism of Geo-magnetic Storm and Sub-storm (#112)	TC02-3 Circuit Modeling of Capacitive and Inductive Couplers of Pulsed Current Injection Tests (#42)	TC16-3 Analysis of Active Surge Protection Gap Impulse Breakdown Voltage (#40)	SS04-3 Achieving Deep Transcranial Magnetic Stimulation by Activating a White Matter Fiber Tract (#133)
4:50-5:10pm	SS06-4 (FROM TC13-3) Geomagnetic Storms and Electric Power Grid Issues (#78)	TC02-4 Simulation Study on Lightning Indirect Effect of Metal Cylinder (#45)	TC16-4 Refining HEMP Filter Design to Meet Changing PCI Requirements (#68)	SS04-4 The Computational Model of Deep Transcranial Magnetic Stimulation and induced Electric Field Optimization (#139)
5:10-5:30pm	SS06-5 Steady-state Security Region of Power System Based on Hyper-plane under the Influence of Geomagnetic Storms (#134)	TC02-5 Simulation Evaluation of the Coupling Effect of Cables Crossing Cabins in Frequency Domain (#96)	TC16-5 HF Radio E1 HEMP Protection Using Gas Discharge Tube Surge Protectors (#77)	SS04-5 Modeling Subject-Specific Head Model: Application to Calculation of Induce Electric Fields by Transcranial Magnetic Stimulation (#140)

Thursday Sept.19, 2019			
Time	Room 1	Room 2	Room 3
09:00 – 10:20	TC 04: IEMI Threats/Effects/Protection	TC 03: Meas. Techniques (I)	TC 09: Antenna Design/Radiation (I)
9:00-9:20am	TC04-1 Analysis of Destruction Characteristic of Bipolar Junction Transistor by Repetitive Pulse Injection (#80)	TC03-1 Short-pulse HPM Measurements Using a Resistive Sensor (#54)	TC09-1 A TEM Horn Array fed by UWB Power Divider (#13)
9:20-9:40am	TC04-2 EM Failures Analysis of Analogue and Digital Sensors from a Safety and Security perspective (#135)	TC03-2 A Measure System for Detonation-Generated Plasma Density (#43)	TC09-2 A Wide-band Rotationally Symmetric Antenna for Use in Reverberation Chambers (#14)
9:40-10:00am	TC04-3 Coupling Path Visualization for Automotive Intentional Electromagnetic Interference (#29)	TC03-3 Optimization of Double-Frequency Test Technique for Nonlinear Characteristics (#46)	TC09-3 Comparison of Radiated Emissions in Offshore and Offshore Wind Turbine Towers (#124)
10:00-10:20am	TC04-4 Effect of Ground on Wide-band High Power Microwave Testing (#52)	TC03-4 PCI Test on Power Line Filter against HEMP (#47)	TC09-4 Compact Design of Novel Combined Antenna Array for the UWB Pulse Radiation (#127)

Thursday Sept.19, 2019			
Time	Room 1	Room 2	Room 3
10:50 – 12:10	TC 04: IEMI Threats/Effects/Protection (II)	TC 03: Meas. Techniques (II)	TC 18: Standards for HPEM Protection
10:50-11:10am	TC04-5 Review of High intensity Radiated Field Simulation Methods (#50)	TC03-5 Frequency-domain Calibration Method for D-dot Sensor (#8)	TC18-1 Study on the Characterization of Shielding Effectiveness under Narrow Band High Power Microwave (#25)
11:10-11:30am	TC04-6 The Threat of Electromagnetic Pulse and Countermeasures (#82)	TC03-6 Accumulative Effects of Multiple Pulse on Microcontroller (#64)	TC18-2 HPEM Regulatory Standard (KinAC/RS-020) for IEMI Protection of Nuclear Facilities in ROK (#53)
11:30-11:50am	TC04-7 Analysis and Mitigation of Variable Frequency Drive Power Quality Problems (#122)	TC03-7 Study on the δ-Domain Model of Electromagnetic Pulse Test (#56)	TC18-3 Development of Antenna Waveforms for Updating IEC 61000-2-10 (#89)
11:50-12:10am	TC04-8 Covert information Embedding in Remote Targets with HPEM (#71)	TC03-8 Design and Test Verification of a Test Fixture for Field-to-line Coupling (#27)	TC18-4 Design and Simulation of a 300kV Pulse Generator for a Bounded-wave Simulator (#90)