

8:00 AM

<p><b>IPMHVC Short Course 1</b> <b>Fundamentals of Dielectric Materials and Testing</b> Nancy Frost Marriott Ballroom A1-Wiley</p>	<p><b>EIC Short Course 2</b> <b>Dissolved Gas Analysis (DGA) for in-depth condition assessments. The scientific perspective</b> Lars Arvidsson Marriott Ballroom A2-Milani</p>
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12:00 PM

1:00 PM

<p><b>EIC Short Course 3</b> <b>Longevity and Reliability of Energy Cable Systems in the Grid</b> Nigel Hampton Marriott Ballroom A1-Wiley</p>	<p><b>NEMA Tutorial: Electrical Insulation Overview</b> Fern/Solomon Marriott Ballroom A2-Milani</p>
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**Registration Opens KCC Cumberland Concourse**

5:00 PM

6:00 PM

**Exhibits Open**  
**Welcome Reception**  
**KCC Ballroom ABD**

8:00 PM

Time		Monday, June 20					
7:00 AM			Breakfast Ballroom AB	Oral Session Authors Breakfast 300AB			
8:00 AM							
8:30 AM			IPMHVC Plenary Lecture KCC Ballroom EF From Multipactor to Ionization Breakdown: Review and Recent Advances J. P. Verboncoeur				
9:30 AM			Coffee Break in Ballroom AB/Cumberland Concourse				
10:00 AM	Registration Open KCC Cumberland Concourse	Exhibits Open KCC Ballroom AB	IPMHVC Multipactor Nick Jordan, University of Michigan Ballroom C	1.4 High Power Multipactor Suppression in S-band Waveguide	2.1 A new topology for DC-DC converter with enhanced current multiplication	3.1 Update on IEEE PES EMC Materials Subcommittee Activities	4.1 Comparison of Different Voltage Waveforms for Partial Discharge Measurement in Medium Voltage Cables
10:20 AM				1.2 Monte Carlo Analysis of Electron Trapping in Nested Cave Structures for Mitigation	2.2 In-depth Analysis of current-fed resonant Full-bridge Converter Application	3.2 Machine Learning for Electric Machine Prognostics with Basic Motor Data	4.2 Effect of Semiconducting Layer on Cable Insulation Damage Detection Using
10:40 AM				1.3 Probing Multipactor in X-band Waveguide Components	2.3 Study of a Medium Voltage AC/DC Testbed Employing Electrochemical Energy	3.3 Comparative Study of Phase Resolved Partial Discharge Patterns obtained	4.3 Dielectric Fluid Based Electrical Insulation System for Electric Transport Applications
11:00 AM				Panel Discussion: High Gradient Multipactor and Breakdown	2.4 Analysis of Resonant Behavior of Voltage Multiplier	3.4 Experiences of FRA measurements on Medium Voltage Rotating Machines	4.4 Silicone Injection of Cables with Poly-isobutylene Based Water-blocked Conductor
11:20 AM					2.5 Compact Magnetron Power Supply for Industrial Heating Applications	3.5 Testing Partial Discharges in Laminated Busbar for Electrified Transportation: an	4.5 Understanding the risks created by dynamic loading and temperature changes in
11:40 AM					2.6 Impulse Generator for Simulating Lightning-Induced Pulse Transients for Airborne Equipment Test	3.6 Megger Insulation	4.6 Condition Assessments of 50 Year Old Low Voltage Power Cables
12:00 PM			Lunch (Exhibits and Registration Desk not open)				
			Young Engineers lunch 300AB				
1:30 PM			Posters in Exhibition Hall D and Henley Concourse				
			<b>IPMHVC (29)</b> 1) HPM and Repetitive Pulsed Power 2) Plasmas 3) Dielectrics 4) Analytical methods		<b>EIC (21)</b> 1) Rotating Machines 2) Cables & Accessories 3) Outdoor Insulation 4) Switchgear 5) New Materials		
3:00 PM			Coffee Break in Ballroom AB/Cumberland Concourse				
3:30 PM	Registration Open KCC Cumberland Concourse	Exhibits Open KCC Ballroom AB	IPMHVC Dielectrics Jennifer Zirnheid, University at Buffalo Ballroom C	5.1 Effect of Humidity on Electrical Characteristics of an Arc in Air at Normal Flight Altitudes	6.1	7.1 A Review of the History of the Development of Partial Discharge Testing	8.1 Experimental Comparative Investigation on Alternative and Commercially Available Wire Insulations Based on
3:50 PM				5.2 A Hydrodynamic Model for Discharge Initiation and Propagation in Air at Low Pressures	6.2	7.2 Effect of Particle Geometry on Electric Field Distribution, Partial Discharge, and Dielectric Strength of Iron-	8.2 Additive Manufactured Dielectrics for Aerospace Electrical Insulation Applications
4:10 PM				5.3 Study of anode-initiated surface flashover in vacuum with spatiotemporally resolved optical emission	6.3	7.3 PD Detection and Monitoring of High Voltage Cabling in an Aerospace Environment Using a UHF	8.3 Process of Material Development for Unique Electrical Applications
4:30 PM				5.4 Electrical diagnostics and nanosecond imaging of vacuum surface flashover	6.4	7.4 Investigation about the effect of the voltage profile on RPDIV and time to failure for insulation materials subjected	8.4 Fabrication and Characterization of Electrical Insulation System Components Using SLA and FDM Based
4:50 PM				M. Mounho	6.5	7.5 Comparison of Partial Discharge activity in Synthetic Ester and Synthetic Ester-based fullerene nanofluid	8.5 Dielectric Failure of Hydrofluoroolefine HFO1234ze in the Presence of Water Impurity
5:10 PM					6.6	7.6 Omicron Infomercial	8.6 Green chemistries for use as electrical insulation
5:30 PM				B. Chambers			
6:00 PM			Social Night Out at Women's Basketball Hall of Fame				
9:00 PM							

Time		Tuesday, June 21				
7:00 AM		Breakfast Ballroom AB	Oral Session Authors Breakfast 300AB			
8:00 AM		IPMHVC Magna Stangene Memorial KCC Ballroom EF 30 minutes				
8:30 AM		2022 IEEE DEIS Dakin Distinguished Technical Contributions Award Plenary Lecture KCC Ballroom EF 60 minutes				
9:30 AM		Coffee Break in Ballroom AB/Cumberland Concourse				
10:00 AM	Registration Open KCC Cumberland Concourse	Exhibits Open KCC Ballroom AB	9.1 Computational study of plasma flow in arcing horns during a voltage surge	10.1 Design and Analysis of a 24 kV PCB-Bus for the Low Impedance Interconnect of a Multi-Phase PCB-based	11.1 Impacts on DER: Transformer and Cable Reliability	12.1 Nondestructive 100 percent electrical strength test method for thermally
10:20 AM			9.2 Numerical simulation of arcing during contact separation in SF6-filled high	10.2 A 30-kV Solid-State Impedance-Matched Marx Generator: Practical	11.2 Vegetable fluids: the reason of the new trend	12.2 Transformer Core-Vibration Analysis: Coupling Paths
10:40 AM			9.3 Electron density of pin to plate discharge plasma at different discharge conditions	10.3 The Stacked Multi-Level Klystron Modulators for the ESS Linac	11.3 Parameters Identification of the Electrical Debye Model for Power Transformers	12.3 Multiple Chopped Wave Test: Experience and Possible Future Test Improvement
11:00 AM			9.4 Pulsed Spark Plasma Cracking Heavy Oil for Hydrogen and Acetylene Production	10.5 Evaluation of Klystron Modulator Performance in Interleaved Pulsing Schemes	11.4 On-line Partial Discharge Monitoring of Substation Power Transformers	12.4 Multilayer Electret Based Electric Field Neutralization under Pulse Width Modulated
11:20 AM			Z. Fan	10.6 Analysis of the Triggering Instants of the Pulsed Power Sources for Achieving Optimal	11.5 PD-localization in spatial distributed HV-windings	12.5 Effect of test parameters and statistical life data analysis of sinusoidal voltage
11:40 AM					11.6 Thermal behavior evaluation of a new solid insulating paper in natural	12.6 Cable Rejuvenation 101 & a Detailed Case Study
12:00 PM						
	Lunch (Exhibits and Registration Desk not open)	Diversity & Inclusion lunch Banquet 100 KCC 300AB				
1:30 PM	Registration Open KCC Cumberland Concourse	Exhibits Open KCC Ballroom AB	Posters in Exhibition Hall D and Henley Concourse			
			IPMHVC (24) 1) Solid State 2) Power Electronics 3) High Voltage 4) Biomedical	EIC (19) 1) Transformers 2) Testing Technologies 3) Nanodielectrics 4) Partial Discharge 5) Failure Analysis		
3:00 PM			Coffee Break in Ballroom AB/Cumberland Concourse			
3:30 PM	Exhibits Open KCC Ballroom AB	IPMHVC Dielectrics II Kevin Burke, University at Buffalo Ballroom C	13.1 Electrostatic Surface Charge Decay of Floating Dielectrics	14.1 High Power Microwave and Pulsed Power Development at the University of Michigan	15.1 Effect of performing DC tests before dielectric frequency response on a MV stator	16.1 Copper: An Element of Interest
3:50 PM			Z. Cardenas	N. M. Jordan	15.2 How does PDIV change during isothermal ageing of magnet wire	16.2 Online Partial Discharge Monitoring and Failure Analysis Case Study of a 275 kV Oil Filled Cable Termination
4:10 PM			13.2 Characterization and Modeling of electrostatic Discharges on floating dielectric Materials	14.3 Modeling Composite Nonlinear Transmission Lines as High-power Microwave Sources	15.3 Stress grading performance of form wound motor coil under initial heat cycle load	16.3 Influence of Transformer Axial-Clamping Loss on the Vibration of Transformers
4:30 PM			M. Saghafi	14.4 System Design Considerations for a Nonlinear Transmission Line Used Simultaneously as a Pulse	15.4 Machine Learning and Uncertainty Quantification for Motor Predictive Maintenance	16.4 Machine Stator Windings On-site Assessment Challenges and Recommendations for Reliability and Condition
4:50 PM			13.3 A Finite Element Analysis Model for Internal Partial Discharges under DC Voltages	14.5 RF Output Power Detection of the RADAN MG-4 Microwave Generator	15.5 PD detection in inverter-fed machines using fiber-optic acoustic emission sensors. A preliminary investigation.	16.5 An Assessment of high failure rate of pole-mounted transformers using Probabilistic Risk Evaluation of Lightning
5:10 PM			K. Nishikawa	N. C. Harrison	15.6 Correction Factor for Insulation Resistance of Salient Poles	16.6 Electrothermal aging of DC cables and insulation electrical properties:
5:30 PM						
6:30 PM	Conference reception in the Exhibit Hall					
7:30 PM	Conference banquet in the KCC Ballroom ABC					
9:00 PM						

Wednesday, June 22

7:00 AM		<b>Breakfast Ballroom AB</b>	Oral Session Authors Breakfast 300AB			
8:00 AM	Registration Open KCC Cumberland Concourse				<b>EIC Panel Discussion Lecture KCC Ballroom EF</b>	<b>Dissection Workshop Nancy Frost 300CD</b>
8:30 AM					<b>Coffee Break in Ballroom AB/Cumberland Concourse</b>	
9:30 AM						
10:00 AM		Exhibits Open KCC Ballroom AB	IPMHVC High Voltage Power Transformers II - Jacob Stephens, Texas Tech University Ballroom C	EIC - Transformer S2 - Diego Robalino Ballroom G		
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11:40 AM		IPMHVC High Voltage Power Transformers II - Jacob Stephens, Texas Tech University Ballroom C	EIC - Transformer S2 - Diego Robalino Ballroom G			
12:00 PM	Lunch on your own (Exhibits and Registration Desk not open)					
1:30 PM		<b>IPMHVC Plenary Dunbar Award Modeling electric-field driven nonequilibrium phenomena for applications to pulsed power, electron beam generation, transport in materials, and electromanipulation for biomedicine R. P. Joshi 60 minutes Ballroom EF</b>	Exhibits Open KCC Ballroom AB	EIC Rotating Machines - S3 Ana Gerasimov Ballroom G	EIC - Switchgear & Outdoor Insulation - S1 Aleksei Nikolaev 301A	IEEE MaSC Working Group Marriott Ballroom B3- Royston
1:50 PM			EIC Rotating Machines - S3 Ana Gerasimov Ballroom G	EIC - Switchgear & Outdoor Insulation - S1 Aleksei Nikolaev 301A		
2:10 PM			EIC Rotating Machines - S3 Ana Gerasimov Ballroom G	EIC - Switchgear & Outdoor Insulation - S1 Aleksei Nikolaev 301A		
2:30 PM			EIC Rotating Machines - S3 Ana Gerasimov Ballroom G	EIC - Switchgear & Outdoor Insulation - S1 Aleksei Nikolaev 301A		
2:50 PM			EIC Rotating Machines - S3 Ana Gerasimov Ballroom G	EIC - Switchgear & Outdoor Insulation - S1 Aleksei Nikolaev 301A		
3:10 PM			EIC Rotating Machines - S3 Ana Gerasimov Ballroom G	EIC - Switchgear & Outdoor Insulation - S1 Aleksei Nikolaev 301A		
3:30 PM			EIC Rotating Machines - S3 Ana Gerasimov Ballroom G	EIC - Switchgear & Outdoor Insulation - S1 Aleksei Nikolaev 301A		
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4:10 PM			EIC Rotating Machines - S3 Ana Gerasimov Ballroom G	EIC - Switchgear & Outdoor Insulation - S1 Aleksei Nikolaev 301A		
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5:10 PM			EIC Rotating Machines - S3 Ana Gerasimov Ballroom G	EIC - Switchgear & Outdoor Insulation - S1 Aleksei Nikolaev 301A		
5:30 PM			EIC Rotating Machines - S3 Ana Gerasimov Ballroom G	EIC - Switchgear & Outdoor Insulation - S1 Aleksei Nikolaev 301A		
6:30 PM	Exhibitor Move-out					
7:30 PM						
9:00 PM						

Time	Thursday, June 23			
8:00 AM	<p><b>IPMHVC Short Course 1</b>  <del>IPMHVC Short Course 1: Solid state pulsed power and commercial applications</del>            Marriott            Ballroom B2-Armstrong            Classroom 30</p>	<p><b>IPMHVC Short Course 2</b>            IPMHVC Short Course 2: Unification of electron emission and breakdown mechanisms: Experiments and theory            Allen Garner            Marriott            Ballroom B1-Fulton            Classroom 30</p>	<p><b>IPMHVC Short Course 3</b>            Circuit and Field Simulations in High Voltage Power Supply (HVPS) Practice            Alex Pokryvailo            Marriott            Ballroom A3-Hope            Classroom 30</p>	<p>IEEE MaSC Working Group            Marriott Ballroom B3-Royston U-Shape 55</p>
12:00 PM				
1:00 PM	<p>Sandia PP Town Hall            Marriott            Ballroom B2-Armstrong            Classroom 30 Pulsed Power S&amp;T development and industry involvement</p>			
2:00 PM				
5:00 PM				
6:00 PM				
7:30 PM				