## **Session Program**

5-9 Jul 2016



# 2016 IEEE Power Modulator and High Voltage Conference

# Poster 2-A

<a href=http://www.sfpalace.com/>Palace Hotel San Francisco</a> 2 New Montgomery St. San Francisco, CA 94105United States

## Thursday 7 July

### 13:30

### Poster 2-A

**Poster Session** | **Location:** Palace Hotel San Francisco, Twin Peaks

### High-Current Arc Discharge (HCAD) Test System for Aeronautic Power

#### Speaker

Clay Nunnally

#### Research on 10kV cascade pulse power supply for discharge applications

Speakers

Tao Shao, chengyan ren

# Experimental Study on Variations of Rabbit Tissue Impedance during Irreversible Electroporation Ablation

**Speakers** Mr chenguo yao, shoulong dong, Mr yajun zhao

### Picosecond Pulse Delivery to Biological Tissue by a Dielectric Rod Antenna

Speaker Mr Ross Petrella

# Pulsed power as the main tool of energy-efficient non-thermal microbiological decontamination

# Research of Muscle Contraction and the Effects of Tissue Ablation in Vivo Exposed to High-Frequency Electric Fields

**Speakers** Mr chenguo yao, shoulong dong

# Auto-Tuning Oscillator for the Generation of Nonthermal Plasma as a Therapeutic Treatment for Melanoma

**Speaker** Kyle Thompson

# Study of Effects of Nanosecond Pulsed Electric Fields on Cancer Cell by using in Vivo and ex vivo Assay.

**Speaker** Shun Ogura

### **Observation of Discharges in NOx Treatment Reactor Using Nanosecond Pulsed Powers and the Reactor Improvement**

**Speaker** Mr Kouji Omatsu

#### Fast Medium Voltage DC Solid-State Circuit Breaker

**Speaker** Mr Michael Kempkes

### Analysis of Fault Characteristics of Converter in VSC-HVDC

### On the Circulating Current Control of a LCL Converter for Tokamak

#### Speaker

Mr Huarong Li

# Basic design and results of Regulated high voltage power supplies utilized for heating systems at IPR for SST-1

#### Speakers

Mr C.B. Sumod Sumod, Mr Dipal Thakkar Dipal, Mr L.N. Gupta Laxminarayan, Mr Pareshkumar Pareshkumar, Mr U.K.Baruah Ujjwal

# Multi-Parameter Analysis in Single-cell Electroporation Based on the Finite Element Model

#### Speakers

Dr Chenguo Yao, Ms Hongmei Liu

### Impact of Pulsed Power Loads on Advanced Aircraft Electric Power Systems with Hybrid Fuel-Cell/Battery APU

**Speaker** Mr Hassan El-Kishky

### A ZCS AC/DC Converter with LCL

Speaker Prof. GE LI

### A Comparison of Piezoelectric Transformer Technologies for HVDC Converter Applications

Speaker Peter Norgard

# Thermal and Efficiency Study of a solid-state dual Marx generator combined a pulse transformer

Speaker

Prof. Kefu Liu

# Experimental Study on Reverse Recovery Characteristics of High Power Thyristors in HVDC converter valve

**Speaker** Ms Ke Yue

# CHARGE-TRANSFER BASED SENSORLESS VOLTAGE FEEDBACK IN HV CAPACITOR CHARGERS

#### Speakers

Mr Argenis Bilbao, Dr Michael Giesselmann

### Investigation of Harmonic Distortion in Multi-Pulse Rectifiers for Large Capacitive Charging Applications

**Speaker** Mr David Dodson

Fuzzy Logic Control of a Hybrid Energy Storage Module for Naval Pulsed Power Applications Using a Hardware-in-the-Loop Testbed Speaker

Mr Isaac Cohen

# Experimental study of a helical coil operating mechanism for future switchgear applications

Speaker

Paul Gregor Nikolic

#### Nano-Grids: Future Power Grids - Concept and Review Paper

Speaker

Adel El Shahat

# Optimized Small Scale Hydropower Generator Electrical System Design & Modeling Based on Real-Measurements

Speaker

Dr Adel El Shahat

### Research on Calibration Method for Single High Pulse Voltage for Semiconductor Devices Test Instruments

Speaker Prof. CHONG LIU

### CONTINUOUS SWITCHING OF ULTRA-HIGH VOLTAGE SILICON CARBIDE MOSFETS

### Effects of Algae on the Flashover Performance of Insulators Covered with RTV-Coating

**Speaker** Dr Yawei Li

### **Electric Pulse Modification of Mammalian Cell Suspension Conductivity**

# Effect of brine and temperature in sterilization using nanosecond pulsed electric field for packaged fresh foods

**Speaker** Mr Koki Saito

# Effect of the Number of Inner Wire Electrodes on Surfactant Treatment Using Nanosecond Pulsed Powers

**Speaker** Mr Mitsuru Morimoto

# Development of high power burst pulse generator based on magnetic switch for bioelectrics application

**Speaker** Keita Yasu

### Molecular Dynamics Based Assessment of Electric Pulse Enhancements of Cell Membrane Poration by Pressure Waves

**Speaker** Ze Zhang

### **Electric Pulse Manipulation of Stem Cell Proliferation and Differentiation**

Electric Pulse Parameter Exploration for Lipid Extraction from Microalgae

**Speaker** Allen Garner

### A Uniform Electric Field Producing Microfluidic Chip for Study and Analysis of Irreversible Electroporation

Speaker

Mr Lingyu Gong

# Down Hole Pulse Generator Must Survive 300 C at 9 km Depth: Low-cost Access to Ubiquitous Geothermal Heat Worldwide

Speaker

Mr William Leighty

### Treatment of Aqueous Pollutant by a Discharge Plasma Reactor Using a Porous Membrane

Speaker

Mr Tomohiro Mori

#### **Review and Recent Developments in DC Arc Fault Detection**

**Speaker** Dr Xiu Yao

### **Evaluation of Rotational and Vibrational Temperature of Nanosecond Pulsed Surface Discharge on Water**

**Speaker** Mr Takahiro Sadamatsu

#### 15-Stage Compact Marx Generator Using 2N5551 Avalanche Transistors

**Speaker** Dr Tom Huiskamp

#### A Control System for an Isolated LLC Resonant DC-DC Converter

Speaker

Prof. Claudio Motta

# Impact of Wind on Pollution Accumulation Rate on Outdoor Insulators Near Shoreline

Speaker

Muhammad Majid Hussain

Study on inducing apoptosis and stimulating the irreversible electroporation effect for tumor treatment based on high frequency nanosecond pulsed electric field

Special Purpose Power Electronics Converters for Nano-Grids & Smart Homes Applications

**Speaker** Dr Adel El Shahat

#### Energy Storage Modeling Library (ESML) for DC NANO- GRID

Speaker Adel El Shahat

# Closed Transition Transfer Switch based on Multi-mode Photovoltaic Inverter for Preventing Power Outage

**Speaker** Sewan Heo

Tokamak Vertical Stability Coil Power Supply based on Modular Multilevel Converter

#### Speaker

Mr Inhwan Lee

15:00