

放 電 開閉保護 合同研究会 高 電 圧

〔委員 長〕湯本雅恵（武蔵工大）
 〔副委員長〕長尾雅行（豊橋技科大）
 〔幹 事〕中野俊樹（防衛大），匹田政幸（九州工大）
 〔幹事補佐〕栃久保文嘉（都立大），村田隆昭（東 芝）
 〔委員 長〕松村年郎（名古屋大）
 〔幹 事〕大下陽一（日 立），河野広道（東 芝）
 〔幹事補佐〕杉山修一（富士電機総研），望月哲夫（三菱電機）
 〔委員 長〕横山 茂（電中研・九州大）
 〔幹 事〕青野一朗（三菱電機），井上 保（東 芝）
 〔幹事補佐〕五島 久司（電中研）

日 時 平成15年1月23日（木）9：00～16：30
 平成15年1月24日（金）9：00～17：30

場 所 九州大学国際研究交流プラザ（福岡市早良区西新 2-16，地下鉄空港線 西新駅下車 徒歩
 10分，Tel：092-831-8104）

議 題 テーマ「雷・高電圧一般（高電圧技術，開閉保護機器技術）」

January 23 (Thu.) AM (9：20～12：50)

Session 1 (Room A) Arc, Plasma

- ED-03-12 Examination of Arc Parameters of Mayr Equation in the Interception Model
 SP-03-01 Syougyou Sou, Kunihiko Mizumoto, Satoaki Arai(Tokyo Denki Univ.)
 HV-03-01
- ED-03-13 Transient Nature of Argon and Molecular Gas-Seeded Argon Inductive Thermal Plasmas in
 SP-03-02 Pulse Amplitude Modulation Approach
 HV-03-02 M.M.Hossain, Y.Tanaka, M.Katayama
 T.Sakuta (Kanazawa Univ.)
- ED-03-14 Anode-fall Voltages of Air Arcs between Electrodes of Cu, Ag and W at Currents up to 1500 A
 SP-03-03 Rei Hemmi, Yasunobu Yokomizu
 HV-03-03 Toshiro Matsumura (Nagoya Univ.)
- ED-03-15 Glass Tube Capillary Arcs in Copper Vapor
 SP-03-04 Eruzada, Maira, Satoaki Arai(Tokyo Denki Univ.)
 HV-03-04
- ED-03-16 Conductance of hot gas on Occurrence of arcing phenomenon under different electrode-shape
 SP-03-05 conditions
 HV-03-05 Yasunobu Yokomizu, Seiji Arisawa, Toshiro Matsumura (Nagoya Univ.)
- ED-03-17 Power transportation by using torch plasma between objects forced with high-speed cross wind
 SP-03-06 Takuya Beppu, Sachie I. Tanaka (Chuo Univ.)
 HV-03-06 Toru Iwao (JSPS Research Fellow)
 Tsuginori Inaba (Chuo Univ.)

ED-03-18 Modeling of Ar Induction Thermal Plasma with an Injection of PTFE Powder
 SP-03-07 C. Wang, T.Miwa, Y.Tanaka
 HV-03-07 T.Sakuta (Kanazawa Univ.)

ED-03-19 Systematic Study of Small Plasma Focus Device
 SP-03-08 M.A.Eissa, W.Sharkawy, A.H.Saudy
 HV-03-08 (AL- Azhar Univ.)

January 23 (Thu.) AM (9 : 20 ~ 12 : 50)

Session 2 (Room B) Lightning 1: Lightning Characteristics

ED-03-20 Lightning Occurrence Data Observed with Lightning Location Systems of Electric Utilities in
 SP-03-09 Japan : 1992-2001
 HV-03-09

Tomotaka Suda, Takatoshi Shindo, Shigeru Yokoyama
 Seietsu Tomita, Atsushi Wada (CRIEPI)
 Noriyasu Honma (Tohoku Electric Power)
 Sakae Taniguchi (Tokyo Electric Power)
 Masahito Shimizu (Chbu Electric Power)
 Naoki Itamoto (Hokuriku Electric Power)
 Yasuo Sono (Kansai Electric Power)
 Shinji Kawamoto (Chugoku Electric Power)
 Masatoshi Komori (Shikoku Research Institute)
 Kenshi Ikesue (Kyushu Electric Power)
 Katsuyuki Toda (Electric Power Development)

ED-03-21 Correlation between Lightning Strokes and the Layout of the Land in Miyakonojo area
 SP-03-10 N. Satou, S. Wakasugi, M. Otsubo C. Honda, (Miyazaki Univ.)
 HV-03-10 O. Takenouchi (Civil Aviation Coll.)
 H. Kishida (Kyushu Electric Power)

ED-03-22 Investigation of Lightning Protection Design for Transmission Lines Considering Lightning
 SP-03-11 Characteristics in Shikoku Island
 HV-03-11 Yoshiyuki Ueno, Hideki Motoyama (CRIEPI)
 Michihiko Sugimoto (Shikoku Electric Power)

ED-03-23 Simultaneous Measurements of Electromagnetic Field Waveforms on South Kyushu Island
 SP-03-12 Kenshi Ikesue, Yasunari Morooka (Kyushu Electric Power)
 HV-03-12 Koji Michishita (Shizuoka Univ.)

ED-03-24 Comparison of Lightning Return Stroke Models in Submicrosecond Range
 SP-03-13 Satoru Miyazaki, Masaru Ishii (Univ. of Tokyo)
 HV-03-13

ED-03-25 A Study of Shielding Models
 SP-03-14 Takatoshi Shindo, Yoshinori Aihara (CRIEPI)
 HV-03-14 Koudai Yamada (Shonan Institute of Technology)

ED-03-26 Economic Loss Suffered from Lightning Accidents and Costs for Lightning Protection
 SP-03-15
 HV-03-15 Chikashi Okabayashi (SANKOSHA)

January 23 (Thu.) PM (14 : 00 ~ 16 : 30)

Session 3 (Room A) PD, GIS

ED-03-27 Study of the Quantitative Estimation Method of V-t Characteristics for Nonstandard Lightning
 SP-03-16 Impulse in High-pressure SF₆ under Quasi-Uniform Field Gap - Application of the Equal Area
 HV-03-16 Criterion by the Square Impulse -

Hiroyuki Shinkai, Hisashi Goshima
 Masafumi Yashima, Hideo Fujinami (CRIEPI)

- ED-03-28 Wire Particle Motion Behavior and Breakdown Characteristics around Different Shaped
 SP-03-17 Spacers within Diverging Air Gap
 HV-03-17 Yasin Khan, Akihito Oda (Kyushu Univ.)
 Shigemitsu Okabe (Tokyo Electric Power .)
 Junya Suehiro, Masanori Hara (Kyushu Univ.)
- ED-03-29 Partial Discharge Characteristics of CO₂ Gas Mixtures including PFC Gas during a Positive
 SP-03-18 Half Cycle of Applied ac Voltage
 HV-03-18 Kazuhisa Eguchi, Shinya Ohtsuka, Mengu Cho (Kyushu Institute of Tech)
 Sadayuki Yuasa, Shigemitsu Okabe (Tokyo Electric Power)
 Masayuki Hikita (Kyushu Institute of Tech)
- ED-03-30 Influence of Sensor Location on PD Electromagnetic Wave Signal Measured by Internal
 SP-03-19 Sensors in GIS
 HV-03-19 Yoshitaka Kunitake, Michio Onomoto, Shinya Ohtsuka (Kyushu Institute of Tech.)
 Sadayuki Yuasa, Shigemitsu Okabe (Tokyo Electric Power)
 Masayuki Hikita (Kyushu Institute of Tech)
- ED-03-31 On-line Partial Discharge Measurement of Hydrogenerator Stator Windings using Acoustic
 SP-03-20 Emission Detection Techniques
 HV-03-20 Tadamitsu Kaneko (Miyazaki Municipal University), Akito Takemura (Miyazaki Univ.)
 Osamu Takenouchi (Civil Aviation Coll.)
 You-Moon Sung, Masahisa Otsubo, Chikahisa Honda (Miyazaki Univ.)
 Yoshio Tsuruta (Kodensya), Kazuhiro Tanaka (Kyushu Electric Power)
- ED-03-32 Partial Discharge Characteristics in an Artificial Air-filled Void under Superimposed
 SP-03-21 Sinusoidal Voltages at LN₂ Temperature
 HV-03-21 Takashi Kurihara, Takanori Nishioka, Junya Suehiro
 Masanori Hara (Kyushu Univ)

January 23 (Thu.) PM (14 : 00 ~ 16 : 30)

Session 4 (Room B) Surge Analysis

- ED-03-33 Characteristics of Lightning -Induced Surges on 500kV Transmission Line
 SP-03-22 Ramesh K. Pokharel, Masaru Ishii (Univ. of Tokyo)
 HV-03-22
- ED-03-34 Surge Analysis on Wind Power Generation with Grid-Interactive Inverter
 SP-03-23 Yoh Yasuda, Takehisa Hara (Kansai Univ.)
 HV-03-23 Toshihisa Funabashi (Meidensha)
- ED-03-35 Surge Simulation in Transformer Model by Numerical Electromagnetic Filed Computation
 SP-03-24 Akira Fujita, Shohei Kato (Toyo Univ.)
 HV-03-24 Takao Hirai, Shigemitsu Okabe (Tokyo Electric Power)
- ED-03-36 Analysis of High Frequency Transients in Transformer Winding
 SP-03-25 Tomoaki Totsuka, Yasuhiro Matsuda, Takuto Matsumoto
 HV-03-25 Shigeki Uchimura, Yoshikazu Shibuya (Shibaura Institute of Tech.)
- ED-03-37 Numerical Analysis of Wave Propagation Characteristics on a Buried Horizontal Conductor by
 SP-03-26 an FDTD Method
 HV-03-26 Yoshihiro Baba, Mohamed Nayel, Naoto Nagaoka, Akihiro Ametani (Doshisha Univ.)
 Shozo Sekioka (Kansai Tech)
- ED-03-38 Measurement of Magnetic Field Distribution inside 3-D Structure Due to Lightning Current
 SP-03-27 and Its FDTD Simulation
 HV-03-27 Rikido Yonezawa (TUAT)
 Kiyotomi Miyajima, Taku Noda, Shigeru Yokoyama (CRIEPI)
 Yuzo Takahashi (TUAT)

January 23 (Thu.) PM (18 : 00 ~ 20 : 30)

懇親会

January 24(Fri.) AM (9 : 15 ~ 12 : 45)**Session 5 (Room A) Substation, Cable, Corona Noise**

- ED-03-39 A Study on LIWV Reduction and Compaction of Substation
 SP-03-28 Masamichi Kitaoka, Takafumi Kiyohara, Yoshikazu Shibuya
 HV-03-28 (Shibaura Institute of Tech)
- ED-03-40 Surge Voltages Induced in Secondary Circuits of 275kV Full GIS
 SP-03-29 Ryosuke Hatano, Toshiaki Ueda (Chubu Electric Power)
 HV-03-29 Kenichi Nojima (Toshiba)
 Hideki Motoyama (CRIEPI)
- ED-03-41 Induced Surge Characteristics from a Counterpoise to an Overhead Loop Circuit
 SP-03-30 Toshio Sonoda, Yasuo Takeuchi (Kansai Electric Power)
 HV-03-30 Shozo Sekioka (Kansai Tech) , Naoto Nagaoka, Akihiro Ametani (Doshisha Univ.)
- ED-03-42 An Experimental Investigation of Transient Voltages in an Intelligent Building due to
 SP-03-31 Lightning with Special Reference to Grounding
 HV-03-31 Y. Tsuchiya (Ohbayashi Constructor)
 M. Nayel, A. Ametani (Doshisha Univ.)
 S. Sekioka, Y. Miyamoto (Kansai Tech)
 T. Kosumi (Wakayama Prefectural Gov.)
- ED-03-43 Electrode Shape Design at the Power Cable Joint by Using ($\mu+\lambda$) -ES Multi-Objective
 SP-03-32 Evaluation
 HV-03-32 Daigo Yonetsu, Takehisa Hara (Kansai Univ.)
 Shigeki Shimada, Mikio Kaji (Sumitomo Electric Industries)
- ED-03-44 A New Environmentally Friendly Design Program, TLCALC 2001 for High Voltage AC
 SP-03-33 Transmission Lines
 HV-03-33 Kwang-Ho Yang, Mun-No Ju, Sung-Ho Myung (KERI)
 Koo-Yong Shin (KEPRI)
- ED-03-45 The Design and Applications of a Gap Noise Generator for Simulating Corona Discharge from
 SP-03-34 Test Line
 HV-03-34 Mun-No Ju, Kwang-Ho Yang, Sung-Ho Myung(KERI)
 Dong-Il Lee (KEPRI)

January 24(Fri.) AM (9 : 15 ~ 12 : 45)**Session 6 (Room B) Circuit Breaker, Arres**

- ED-03-46 Gas Flow in Tube and Pressure in the Pressure Chamber of the Switch Model
 SP-03-35 Kunihiro Mizumoto, So Syougyou, Satoaki Arai (Tokyo Denki Univ.)
 HV-03-35 Masayosi Taniguchi (Toko Electric)
- ED-03-47 Investigation on the Extinction Characteristics of LBS by Numerical Analysis
 SP-03-36 Yerzan Eshaf, Masanori Matsuoka (Toko Electric)
 HV-03-36
- ED-03-48 Influence of Slight Current of Long Time Continuous Lightning Surge on Operation of Earth
 SP-03-37 Leakage Circuit Breaker
 HV-03-37 Nobuhiro Watanabe (Polytechnic Univ.)
- ED-03-49 Development of Tube-Arresters
 SP-03-38 Kiyonori Watanabe (Nishi Nippon Electric Wire and Cable)
 HV-03-38 Yasunari Morooka, Fumihiro Kinoshita, Maki Sakae (Kyushu Electric Power)

- ED-03-50 Development of Polymer Insulator with built-in ZnO Elements for 22kV Distribution Lines
 SP-03-39 Yosuke Hashimoto, Koji Miura (Kyushu Electric Power)
 HV-03-39 Yasuhisa Sonoda (Koyo Denki Kogyo)
- ED-03-51 Artificial Pollution Tests for Polymer-Housed Metal-Oxide Surge Arresters
 SP-03-40 Hiroyuki Kado, Hiroya Homma, Kunikazu Izumi (CRIEPI)
 HV-03-40 Jyunichirou Miyake, Shingo Shirakawa (HITACHI)
 Seisuke Nishimura (Yokohama National Univ.)
- ED-03-52 Seismic Characteristics of Polymer Housings Type Surge Arresters For 66kV-275kV Power
 SP-03-41 Systems
 HV-03-41 S. Shirakawa, J. Miyake, S Watahiki (HITACHI)
- ED-03-53 Characterized Discharge Current Waveforms of Metal-Oxide Lightning Arresters on 77kV
 SP-03-42 Power Systems
 HV-03-42 Iwao Miyachi, Masayuki Yoda (Aichi Institute of Tech.)
 Toshiaki Ueda, Kazuto Kanehara (Chubu Electric Power)

January 24 (Fri.) PM (13 : 30 ~ 17 : 00)

Session 7 (Room A) Discharge, Measurement)

- ED-03-54 Resolution of surface charge density measurement with surface potential probe
 SP-03-43 Akiko Kumada, Shigemitsu Okabe (Tokyo Electric Power)
 HV-03-43 Kunihiko Hidaka (Univ. of Tokyo)
- ED-03-55 Application of a Nonlinear Optical Frequency Conversion Technique for Electrical Field
 SP-03-44 Measurements
 HV-03-44 Nilesh J. Vasa, Kazunori Kuriaki, Shigeru Yokoyama , Mitsuo Maeda (Kyushu Univ.)
 Hirohito Takeshita, (Kyushu Electric Power)
- ED-03-56 Application of Laser Wavefront Sensing to Diagnostics of High Voltage Impulse Discharges in
 SP-03-45 Air
 HV-03-45 Tetsuo Fukuchi, Koshichi Nemoto (CRIEPI)
 Koji Matsumoto (Kanagawa Univ.)
 Kiichiro Uchino (Kyushu Univ.)
- ED-03-57 Discharge Phenomena in Narrow Gap between Insulating Materials: Computer Simulation
 SP-03-46 Approach
 HV-03-46 Kumi Nitta, Masakuni Chiba, Shigeyasu Matsuoka, Kunihiko Hidaka
 (Univ. of Tokyo)
- ED-03-58 Ion Current Component in the Ionization Current Multiplication Factor
 SP-03-47 Kanji Tsurugida (Miyakonojo National Coll. of Tech.)
 HV-03-47 Masahisa Otsubo, Chikahisa Honda (Miyazaki Univ.)
 Nobuaki Ikuta (Chiba Institute of Tech.)
- ED-03-59 Observation of Discharge using High Speed Camera in Salt Fog Test
 SP-03-48 Naoya Anami, Kenichi Hirose, Masahisa Otsubo, Chikahisa Honda
 HV-03-48 (Miyazaki Univ.)
 Osamu Takenouchi (Civil Aviation Coll.)
 Yosuke Hashimoto (Kyushu Electric Power)
- ED-03-60 Change of polymer Materials Exposed to Corona Discharge and Behavior of Water Droplets on
 SP-03-49 the Polymer Surface
 HV-03-49 Yong Zhu, Seiji Yamashita, Naoya Anami, Masahisa Otsubo
 Chikahisa Honda (Miyazaki Univ.)
 Osamu Takenouchi (Civil Aviation College), Yosuke Hashimoto (Kyushu Electric Power)
- ED-03-61 Study on a Corona Streamer Observed in a Laser-Triggered Lightning Simulator
 SP-03-50 Michihiro Uchiumi, Kiyotaka Ueda (CRIEPI)
 HV-03-50 Fumihiro Kinoshita (Kyushu Electric Power)
 Katsunori Muraoka, Masanori Akazaki (Kyushu Univ.)

January 24 (Fri.) PM (13 : 30 ~ 17 : 00)

Session 8 (Room B) Lightning 2: Distribution System

- ED-03-62 Experimental Study of Lightning Protection Design for Low Voltage Equipments
 SP-03-51 Akira Asakawa, Yoshinobu Asaoka, Kyouichi Murakami, Hideki Honda (CRIEPI)
 HV-03-51 Takeshi Hosokawa
 Yasuhiro Miyama (Shoden), Takahiro Otsuka (Toko Electric)
 Hidetoshi Ito (Sancosha), Shoichi Kuramoto (NTT EAST)
 Shigeru Yokoyama (Kyushu Univ.)
- ED-03-63 Factors Influencing Lightning Failure Rate of Power distribution line by Indirect Lightning Hit
 SP-03-52 Yasuji Hongo (Tohoku Electric Power)
 HV-03-52 Koji Michishita (Shizuoka Univ.)
 Masaru Ishii (Univ. of Tokyo)
- ED-03-64 Simplified Calculation of Lightning Induced Surge on Distribution Line Considering
 SP-03-53 Horizontal Electric Field due to Ground Conductivity
 HV-03-53 Junichi Sugimoto, Kazuhiro Watanabe, Ichiro Matsubara (Osaka Univ.)
 Shozo Sekioka (Kansai Tech)
 Kenji Yamamoto (Suzuka National Coll. of Tech.)
- ED-03-65 Effect of Lightning Protective Devices Attached to Pole Transformers on Reduction of
 SP-03-54 Overvoltage on Distribution Lines
 HV-03-54 Yoshinobu Asaoka, Akira Asakawa (CRIEPI)
 Kazuo Nakada, Hitoshi Sugimoto (Hokuriku Electric Power)
- ED-03-66 Equivalent Circuit of Pole-Mounted Distribution Transformer for Analysis of Lightning
 SP-03-55 Overvoltages
 HV-03-55 Koji Michishita, Kazuhiro Iga (Shizuoka Univ.)
 Yasuji Hongo (Tohoku Electric Power)
- ED-03-67 Measurement of Lightning Overvoltages on Low-Voltage Power Distribution Lines
 SP-03-56 Kiyotomi Miyajima (CRIEPI)
 HV-03-56 Shigeru Yokoyama (Kyushu Univ.)
- ED-03-68 Experimental Study on Surge Propagation Characteristics of Rail and Lightning Overvoltages
 SP-03-57 on Level Crossing System
 HV-03-57 Hideki Arai, Hiroji Matsubara, Shigeru Yokoyama (CRIEPI)
 Kazutoshi Sato (RTRI)
- ED-03-69 Analysis of the lightning surge propagating through a pole transformer on a real scale
 SP-03-58 distribution line
 HV-03-58 Hideki Honda, Akira Asakawa, Takatoshi Shindo(CRIEPI)
 Shigeru Yokoyama(CRIEPI/Kyushu Univ.)

***1月23日(木) 研究会終了後、18:00より「三四郎」(福岡市西区愛宕3-1-5(092-881-3001))にて、懇親会を開催いたしますので奮ってご参加ください(会費:5000円)。なお、会議費は無料、資料他は別途徴収いたします。**