Semester, diploma and master theses at HVL

3D FEM Analysis of VFTO in HVDC GIS [HVL:SA/MA]

Introduction In gas insulated substations (GIS) as well as air insulated substations (AIS) unused...

Construction and testing of a prototype HVDC disconnector [HVL:MA/SA]

Introduction In future gas insulated substations (GIS) for HVDC applications as well as today’s...

Dark Current Measurements at High Electric Fields [HVL:SA/MA]

Introduction In HVDC gas insulation, the main challenge is to control the surface charging of the...

Transient Behavior of HVDC Circuit Breaker arcs [HVL:MA/SA]

Introduction Circuit breakers are a key component in future HVDC-Grids since they enable the...

Experiments of conductor behavior near the tension clamp [HVL:MA/SA]

Introduction The goal of the project is to deliver the necessary know-how that allows the grid...

Obtaining electron collision cross sections using a Boltzmann Solver [HVL:MA/SA]

Introduction New gases for high voltage insulated equipment attract attention by potentially...
Design of a current transformer (CT) for high voltage dielectric spectroscopy [HVL:SA/MA]

Introduction The advent of power electronic converters in energy transmission and distribution...

Temperature-controlled dielectric spectroscopy [HVL:MA/SA]

Introduction The advent of power electronic converters in energy transmission and distribution...

Ultra-Fast Disconnector Switch for HVDC Circuit Breakers [HVL:SA]

Introduction The development of suitable circuit breakers constitutes the key challenge to...

Switching Principles of Hybrid HVDC Circuit Breakers [HVL:MA/SA]

Introduction The development of suitable circuit breakers constitutes the key challenge to...

Design and realization of a weather-proof outdoor measuring devices for AC/DC corona effects [HVL:MA/SA]

Introduction The conversion of existing double circuit AC overhead lines to hybrid AC/DC systems...

Implementation and automation of HVDC corona noise measurement using optical microphones [HVL:MA/SA]

Introduction HVDC transmission systems offer a much higher transmission capacity compared to...

Upgrade of an ion flow code for hybrid corona simulation [HVL:MA/SA]
Introduction The conversion of existing double circuit AC transmission corridors to hybrid AC/DC...

**Impact of HVDC Grid Components on Current Ripple [HVL:MA/SA]**

Introduction In gas insulated substations (GIS) as well as air insulated substations (AIS) unused...

**Investigation and Modelling of HVDC Surface Charging [HVL:MA/SA]**

Introduction Due to the growing demand for long distance transmission and large capacities,...

**Simulations of conductor behavior near the tension clamp [HVL:MA/SA]**

Introduction The goal of the project is to deliver the necessary know-how that allows the grid...

**Gaseous electrical insulation [HVL:MA]**

Introduction Gases can be used as electric insulation media. For instance air is the insulation...

**Discharges in detectors with environmental friendly gas mixtures [HVL:MA]**

Introduction Resistive Plate Chambers (RPCs) are essential gaseous detectors for all experiments...

[Assigned] **Monte Carlo simulation of an electrical discharge [HVL:MA/SA]**

Introduction An electrical discharge in gas-insulated equipment is an undesirable scenario that...

[Assigned] **Surface charging measurement of solid-gas interfaces under HVDC conditions [HVL:MA/SA]**


Introduction

Due to the growing demand for long distance transmission and large capacities,...


Introduction Most forecasts indicate that the load in the high-voltage transmission grid will keep...


Introduction The goal of the project is to deliver the necessary know-how that allows the grid...

[Assigned] X-ray imaging and image processing of OHL-conductor [HVL:SA/MA]

Introduction The goal of the project is to deliver the necessary know-how that allows the grid...


Abstract and description: High-voltage generation setups frequently utilize spark gaps (e.g. ...

[Assigned] Investigation of Converter-Ripple in HVDC GIS [HVL:SA/MA]

Introduction In gas insulated substations (GIS) as well as air insulated substations (AIS) unused...

[Assigned] Conductor behavior near the tension clamp [HVL:MA/SA]

Introduction The goal of the project is to deliver the necessary know-how that allows the grid...
[Assigned] **High Bandwith Voltage Divider for HVDC-CB Experiment**  
[HVL:MA/SA]

Introduction Circuit Breakers are a key component for future HVDC-Grids, since they enable the...

[Assigned] **Hybrid-effect of AC/DC transmission lines on audible noise**  
[HVL:SA/MA]

Introduction For the integration of future offshore wind farms and connection to pumped-storage...

[Assigned] **Rauscharme DC/DC Spannungsquelle [HVL:SA]**

Einleitung In Messschaltungen werden heute häufig A/D-Wandler eingesetzt von 10 und mehr Bit...


Introduction Circuit Breakers are a key component for future HVDC-Grids, since they enable the...

[Assigned] **Evaluation of DC Current Breaking Solutions in HVDC Applications**  
[HVL:MA]

Abstract and description: The development of suitable circuit breakers constitutes the key...

[Assigned] **Slow- and Fast-Acting Disconnector for HVDC GIS [HVL:MA]**

Introduction In future gas insulated substations (GIS) for HVDC applications, current flow through...