



HAL
open science

Conference Report-2024 IEEE-DEIS 5th International Conference on Dielectrics (IEEE ICD 2024)

Gilbert Teyssedre

► **To cite this version:**

Gilbert Teyssedre. Conference Report-2024 IEEE-DEIS 5th International Conference on Dielectrics (IEEE ICD 2024). IEEE Electrical Insulation Magazine, 2024, 40 (6), pp.42-45. 10.1109/MEI.2024.10721377 . hal-04785780

HAL Id: hal-04785780

<https://hal.science/hal-04785780v1>

Submitted on 15 Nov 2024

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

IEEE

November / December 2024 ♦ Volume 40, Number 6 ♦ ISSN 0883-7554

Electrical Insulation Magazine

A Publication of the Dielectrics & Electrical Insulation Society



In this issue

- Transformer retrofilling: A review of testing of mineral oil and ester oil combinations for transformers.



Bulletin Board

Conference Report—2024 IEEE-DEIS 5th International Conference on Dielectrics (IEEE ICD 2024)

From June 30 to July 5, 2024, the 5th International Conference on Dielectrics (ICD) took place in Toulouse, France. The conference communications were presented in the main auditorium of the Toulouse III Paul Sabatier University. This conference series has a special relation with Toulouse, which is its birth town; it was first created in Toulouse in 1983 under the name of the International Conference on Conduction and Breakdown in Solid Dielectrics, and an edition returned to Toulouse in 2004, on the occasion of its 20th anniversary. Twenty years later, we were back in Toulouse.

ICD is fully sponsored by the IEEE Dielectrics and Electrical Insulation Society (DEIS). It covers research in the field of insulating materials and dielectric phenomena, and behavior and properties of the electrical insulation in devices, under operational stresses. Topics of power devices as well as all systems involving insulations and dielectrics are covered. Solid, liquid,

and gaseous dielectrics communities meet, bridging the link with interfaces, whether these are physical interfaces and related processes or between scientific disciplines.

This fifth ICD followed after two editions during the age of the COVID-19 pandemic, which required a lot of adjustment and improvisation (Valencia 2020 and Palermo 2022). This edition was back to fully in-person attendance and was, for some of the participants, the first opportunity to travel abroad since the pandemic. The conference was very successful with over 340 registered participants representing 26 countries, over 400 submitted abstracts, nearly 300 accepted papers listed in the program, and 284 papers in the final proceedings. About 20 colleagues could not attend the conference, mainly because of Visa issues or declination by their institution.

ICD featured a rich program with 8 oral sessions covering 41 regular oral communications and 4 poster sessions. The first



Group photo of the International Conference on Dielectrics (ICD) 2024 taken outside the main hall.



Christian Frank during his E. O. Forster Memorial Lecture.



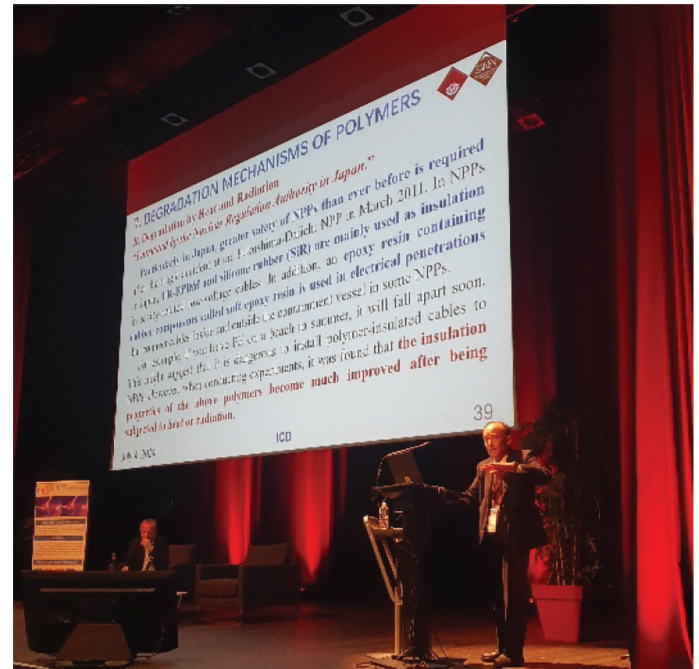
A view of the Marthe Condat Auditorium.



Jean Rivenc giving his invited lecture.

day of the conference included two workshops, with 3 invited speakers and an attendance of about 25 persons in each, dealing with “Atomic Force Microscopy for characterization of dielectrics at nanoscale” and “Eco-friendly materials in electrical insulation.” The conference was followed by the third edition of a tutorial, organized by Naohiro Hozumi and Peter Morshuis, dedicated to “Assembly of space charge equipment for cables,” which was limited to 15 participants.

The E. O. Förster Memorial Lecture is an honorary lecture associated with this conference. The lecture was given this year by Dr. Christian Frank, who is full professor at ETH Zürich, Switzerland. His current main research interests include gaseous insulation and switching arcs, with focus on SF₆-alternatives, and solid insulation systems, with emphasis on their resilience to HVDC and mixed electrical stresses, as well as overhead powerline corona. The title of his presentation was “Green developments in gaseous insulation systems.”



Yoshimichi Ohki during his lecture.

Every two years, the IEEE Dielectrics and Electrical Insulation Society selects a researcher to recognize outstanding, technical contributions through the Thomas W. Dakin Award. For 2024, the award was given to Prof. Yoshimichi Ohki, from Waseda University, Japan, who chose ICD 2024 for giving his lecture titled “Attracted to dielectric materials research.”

Toulouse is a major European city in the field of aeronautics and space, with Airbus headquarters. A special session was organized during the conference, dealing with dielectrics in the aeronautics domain, with an inaugural talk given by Dr. Jean Rivenc, from Airbus company, on “Physical phenomena and challenges in electrical insulation for airborne applications.”

As an innovative action within ICD, the Executive Committee of ICD 2024 along with the Women in Engineering



Roman Kochetov asking one of the first questions in the conference.



Reception cocktail in the conference hall.



The group at the Young Professionals event, led by Sneha Hedge, Tariq Nazir, and Zhikang Yuan.



Florence Sèdes was acknowledged for her action for Women in Engineering, shown with Virginie Griseri and Gilbert Teysedre.

(WiE) group in DEIS wished to reward a person who has taken significant action to promote the involvement of women in engineering. The recognition mark was awarded to Prof. Florence Sèdes, from Toulouse III Paul Sabatier University, who is co-founder and president of the IEEE French Chapter of Women in Engineering.

This edition of ICD was the first in which a Young Researchers Contest was organized, with three prizes being distributed to stimulate the participation of the younger generation in the conference. A jury was settled, chaired by Prof. Davide Fabiani, to identify the awardees among the 98 candidates. The best oral presentation was awarded to Zakhar R. Kudrynskiy, from the University of Nottingham, UK; the best poster presentation to Patrik Ratheiser, from Graz University of Technology, Austria; and finally, the best paper to Baptiste Robbiani, from Toulouse III Paul Sabatier University, France. The prizes were distributed during the closing ceremony.

The social events of the conference offered a choice among four excursions, including the Aeroscopia Museum in Blagnac, an exhibition of legendary aircraft from all eras tracing the his-

tory of aeronautics, and Espace EDF Bazacle, a cultural site retracing the history of the Garonne river and a hydroelectric plant still in operation. A welcome cocktail was organized the first day at the conference hall; the conference was held at Espace Vanel, a first-class reception area in the heart of Toulouse with a panoramic patio providing an exceptional view over the pink rooftops of Toulouse.

ICD is running now on really strong grounds and identified domain, with attendees mainly coming from Europe and still strong representation outside Europe, notably from Asia. The conference is greatly appreciated by the community and has representation both from academy and industry, driven by important development in the field of power engineering, with lots of contribution dealing with materials development and processing, transport electrification, HVDC, and diagnosis. Thanks are due to the many people contributing to ICD, the International Advisory Committee, the Technical Program



Attendees of the Workshop on AFM Characterization, with Nadine Lahoud and Christina Villeneuve-Faure as speakers.



The speakers of the Workshop on Eco-Friendly Materials: Detlef Wald, Jean-Pierre Habas, and Baptiste Robiani.



The banquet at Espace Vanel.

Committee, the Executive Committee, the WiE Group at DEIS, the authors, and the reviewers.

The sixth IEEE ICD will be held in July 2026, at Leonardo Royal Southampton Grand Harbour, Southampton, UK, chaired by Dr. Istebreq Saeedi from the University of Southampton.

Gilbert Teyssède
General Chair of ICD 2024



During the Tutorial on PEA Cables organized by P. Morshuis and N. Hozumi.