NEWSLETTER

EPE'25 PARIS

EPE 25

40 years of EPE conferences
1985 > 2025

cnrs GDR Groupement de recherche
SEEDS Systèmes d'énergie électrique dans leurs dimensions sociétales

NEWSLETTER

June 2024

26TH EUROPEAN CONFERENCE ON POWER ELECTRONICS AND APPLICATIONS
Paris, France | March 31st > April 4th, 2025

Cité des sciences et de l'industrie | 30 Avenue Corentin Cariou, 75019 Paris

Email: epe2025@utc.fr

Websites: https://epe2025.com | http://epe2025-paris.com

Index

EPE Association: Join EPE or renew your membership

- ✓ Be part of a network of recognized experts
- ✓ Online access to EPE (ECCE) Conference Proceedings
- ✓ Online access to EPE-PEMC Conference Proceedings
- ✓ Reduced registration fees for EPE Conferences
- ✓ Online access to EPE Journal articles
- ✓ EPE Secretariat service
- ✓ And much more ...

Join EPE Association

EPE'25 Conference

Chairwoman's Message

After the EPE editions Grenoble 1987, Toulouse 2003, Lille 2013 and Lyon 2020, the 26th edition of EPE, Paris 2025, is happy to welcome you back in France!
The Power Electronics community will gather in Paris, from March 31st to April 4th, 2025, to exchange views on research progress and technological developments in the various topics described elsewhere in this newsletter. Several tutorials as well as some interesting technical visits will be planned and organized. In addition, we will celebrate the 40 years of EPE conferences!

The 26th European Conference on Power Electronics and Applications (and Exhibition), EPE '25, is co-sponsored by the EPE Association and the French research CNRS group GDR SEEDS (Electrical Energy Systems in their Societal Dimensions). The conference will take place at the "La Villette Congress Centre", part of the "Cité des sciences et de l'industrie" in the "Parc de la Villette" in Paris, France.

I look forward to seeing and welcoming you ALL to Paris!

Manuela SECHILARIU
EPE'25 Conference Chairwoman

Welcome in Paris

Paris, undoubtably one of the most beautiful cities of Europe, if not of the world…

Paris is the capital of France, located in the Ile-de-France region. It has more than 2,000,000 inhabitants, suburbs not included. In the entire region, the Métropôle du Grand Paris, there are over 10 million inhabitants. Since the 17th century, Paris has been one of the world's major centres of diplomacy, finance, commerce, culture, fashion and gastronomy. For its leading role in the arts and sciences, as well as its extensive and early system of street lighting (in the 19th century), it became known as the "City of Light".

All information about our conference and about Paris can be found on the conference websites:

https://epe2025.com
http://epe2025-paris.com

Highlighted Focus Topics

The EPE'25 conference in Paris will specifically focus on the following challenging topics, not only in dedicated lecture and dialogue sessions of the conference but also in keynotes, the exhibition, panel discussions, tutorials and technical visits. Paper submissions in line with these Focus Topics are highly encouraged.

I Focus Topics:

TOPIC 1: ELECTROMOBILITY – THE POWERFUL FACTOR IN REDUCING CO2

TOPIC 2: SMART GRIDS AND RENEWABLE ENERGY

TOPIC 3: ENERGY STORAGE SYSTEMS

TOPIC 4: DIGITALIZATION: THE POWERFUL FUSION OF AI AND IOT FOR SUSTAINABILITY

TOPIC 5: SUSTAINABLE AND AFFORDABLE POWER ELECTRONICS

TOPIC 6: ENERGY TRANSITION AND SOCIETAL CHANGE

II Power Electronics Components and Converters

TOPIC 7: SEMICONDUCTOR DEVICES AND PACKAGING

TOPIC 8: COMPONENTS LINKED TO POWER ELECTRONICS

TOPIC 9: POWER CONVERTER TOPOLOGIES

TOPIC 10: CONVERTER MODELLING, DESIGN AND LOW-LEVEL CONTROL

TOPIC 11: MEASUREMENT, SUPERVISION AND CONTROL FOR POWER CONVERTERS

III Power Electronics Applications

TOPIC 12: ELECTRICAL MACHINES AND DRIVE SYSTEMS

TOPIC 13: POWER SUPPLIES AND INDUSTRY-SPECIFIC POWER ELECTRONICS

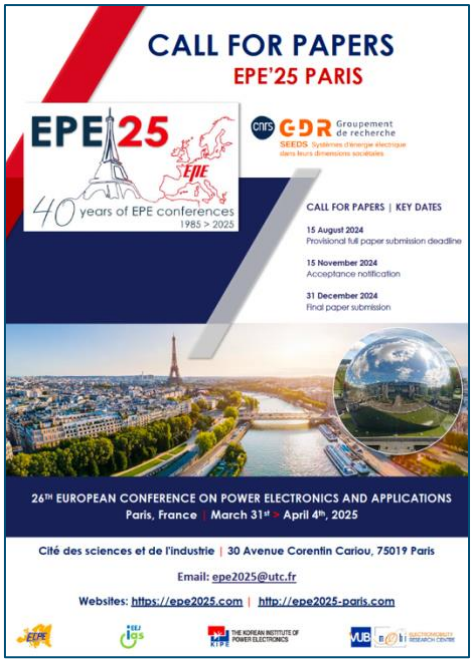
The complete list of conference topics and subtopics is published on our websites:

https://epe2025.com
http://epe2025-paris.com

Mirror Website

We experienced some compatibility issues on our official https://epe2025.com/ website. Should your browser not be working properly, you will find a lightened version on http://epe2025-paris.com/.
The organizing committee will ensure that the contents will always be kept aligned.

Call for Papers



Organization and Venue

The Power Electronics community will gather in Paris, France, from 31 March to 4 April 2025, to exchange views on research progress and technological developments in the various topics described hereunder. On Monday 31 March a number of tutorials will be organised, and on Friday 4 April several technical visits are planned.
The 26th European Conference on Power Electronics and Applications (and Exhibition), EPE'25, will take place at La Villette Congress Centre, which is part of the Cité des sciences et de l'industrie in Paris, France.

Aims of the Conference

The European Power Electronics and Drives conference is the largest in its field, attracting experts from numerous countries to join in the discussions. With the objective to exchange and meet fellow professionals and academics, the EPE conference brings together researchers, engineers, etc. working at the forefront of power electronics technologies. For this type of event, where the future role of power electronics in this ecological and technological revolution will be explored, the EPE conference is one of the privileged places. EPE'25 in Paris will provide the opportunity to discuss a number of subjects, not only during the lecture and poster sessions of the conference but also at the exhibition, the industrial forums, and the tutorials

Topics

Empowering the Energy Transition and Ensure Access to Affordable, Reliable, Sustainable and Modern Energy for All

The main challenge of the major transitions in our society is massive, cleaner and more sustainable electrification. The United Nations' 7th Sustainable Development Goal (SDG) calls for commitments to enable a clean electrification future while maintaining reliability and affordability. The EPE'25 conference in Paris will focus on the energy transition as well as on the SDG 7 demonstrating how research can empower and accelerate it.

Electricity was established first as a major qualitative energy vector and then, together with power electronics, as a quasi-exclusive vector of information and communication systems whose massive digitalization is underway. Nowadays, limiting global warming involves a future sustainable decarbonized energy mix based mainly on renewable sources whose natural variability requires the implementation of new means of managing the supply/demand balance involving flexibilities and storage systems. With regard to mobility, the electrification of future aircraft, ship, and road vehicles has intensified over the past 10 to 15 years, with the "more electric transport". Furthermore, work is being carried out on batteries and in particular on new thermal management and aging prevention systems up to recycling, improving fuel cell efficiency, and the use of multi-source systems where the design of energy management becomes central. The increasing use of electricity, assuming that it is produced in a green manner, with processes with a low environmental footprint over their entire life cycle, contributes to the decarbonization of energy and therefore has a beneficial impact on the environment. Across all the domains cited, there are many scientific challenges and often at the interfaces of several sciences: electrical, mechanical, thermalenergy, fluidic, physics and chemistry, digital, automatic, computer science, etc. Research will have to focus on understanding multi-scale phenomena (spatial and/or temporal), moving from upstream concepts developed under laboratory conditions to industrial level, combining experimental, theoretical and numerical approaches, introducing multiparametric studies requiring diagnostic approaches, statistical tools and those derived from artificial intelligence. All the above challenges require rethinking the technological options available to us in order to reconcile needs, sobriety and reduction of environmental impact. With the user at the heart of these questions, the humanities and social sciences have a major role to play. Therefore, current research integrates new challenges at the crossroads of electric energy and related sectors in hard sciences but also humanities, economic sciences, and environmental sciences.

The EPE'25 conference in Paris will specifically focus on the following challenging topics, not only in dedicated lecture and dialogue sessions of the conference but also in keynotes, the exhibition, panel discussions, tutorials, and technical visits. Paper submissions in line with these Focus Topics are highly encouraged.

Topic 1: Electromobility – the powerful factor in reducing CO_2
Topic 2: Smart grids and renewable energy
Topic 3: Energy storage systems
Topic 4: Digitalization: the powerful fusion of ai and IoT for sustainability
Topic 5: Sustainable and affordable power electronics
Topic 6: Energy transition and societal change

The conference topics are as follows:

I Focus Topics:

TOPIC 1: ELECTROMOBILITY – THE POWERFUL FACTOR IN REDUCING CO2

1.a) Electric Road Vehicles (Light- and Heavy-Duty and their Drivetrain Components)
1.b) Electric Rail Vehicles (incl. Battery and Hydrogen Green Traction)
1.c) Electric Aircraft, Aerospace and Drones (incl. Drivetrain Components)
1.d) Electric Ships (Inland, Sea, Ferries)
1.e) Electric Off-Road and Non-Conventional Vehicles
1.f) Power-Electronic Devices and Integration for Electromobility

TOPIC 2: SMART GRIDS AND RENEWABLE ENERGY

2.a) Smart Grids, DC Networks and Components, Hybrid AC/DC Networks
2.b) Renewable and New Energy Sources
2.c) Power Electronics and Devices for Grid Applications
2.d) Railway Network Systems
2.e) Green Hydrogen and "X": Electrolyzers and Plants
2.f) Multi-Vector Power Grids: Electricity, Gas, Heat, etc.

TOPIC 3: ENERGY STORAGE SYSTEMS

3.a) Energy Storage and Management Systems
3.b) Battery Aging, Reliability, and Safety
3.c) Smart Charging, V2G, V2H, Charging Infrastructure and Grid Integration for Electromobility
3.d) Energy Storage for Grid Applications including Industrial Solutions
3.e) Fuel Cells and Stacks, Electrolyzer Cells and Stacks and Associated Power Electronics
3.f) Hybridization of Energy-Storage Units for Energy-Transition Applications

TOPIC 4: DIGITALIZATION: THE POWERFUL FUSION OF AI AND IoT FOR SUSTAINABILITY

4.a) Digital Twins and Real-Time Simulation
4.b) Use of AI in Power-Electronics Applications
4.c) Cyber-Physical Security
4.d) Data-Driven and Physics-Based Techniques
4.e) Machine Learning
4.f) Evolution of Power Electronics with the Introduction of AI

TOPIC 5: SUSTAINABLE AND AFFORDABLE POWER ELECTRONICS

5.a) Design of Sustainable and/or Frugal Power Converters
5.b) Dynamic Life Cycle Analysis and Assessment
5.c) Recycling: Challenges and Methodologies
5.d) Circular Economy
5.e) State of Health: Online Monitoring, Failure Diagnosis and Prognosis, Remaining Useful Life Prediction

TOPIC 6: ENERGY TRANSITION AND SOCIETAL CHANGE

6.a) Smart Electromobility and Sustainable Development (Government Policies and Incentives related to EMobility Adoption)
6.b) Energy Efficiency, Environmental Impact and Acceptability of Energy Sobriety
6.c) Policy Instruments and Institutional Regimes for the Complete Decarbonization of Energy Systems
6.d) Energy Transition Economy and Social Sustainability of the Energy Transition
6.e) New Paradigms in the Use of Electrical Energy (New Consumers)
6.f) Sustainable Power Electronics Engineering Education

II Power Electronics Components and Converters

Topic 7: Semiconductor Devices and Packaging

7.a) Active Devices and Components
7.b) Integration and Packaging
7.c) Cooling Circuits and Thermal Management
7.d) Reliability and Life-Cycle Assessment

Topic 8: Components linked to Power Electronics

8.a) Magnetic Components – Inductors and Transformers
8.b) Dielectric and Interconnecting Components – Capacitors, Insulators, Cables, PCBs, Bus Bars
8.c) Electrochemical Components – Batteries
8.d) To- and from X Components – Fuel Cells/Stacks, Electrolyzer Cells/Stacks and Solar Cells
8.e) Shielding Components
8.f) Other Components – Resistors, Fuses, Contactors

Topic 9: Power Converter Topologies

9.a) AC/DC and DC/AC Converter Topologies
9.b) AC/AC Converter Topologies
9.c) DC/DC Converter Topologies
9.d) AC-Grid Connected Converter Topologies

Topic 10: Converter Modelling, Design and Low-level Control

10.a) Converter Design and Optimisation
10.b) Converter Modelling and Low-level Control, including Gate-Drives
10.c) EMI/EMC in Power Electronics including HF Phenomena
10.d) Thermal Optimization and Reliability Considerations

Topic 11: Measurement, Supervision and Control for Power Converters

11.a) Modulation and Control Methods
11.b) Estimation, Identification and Optimisation Methods
11.c) Measurement Techniques, Sensors and State Observers
11.d) Algorithms and Methods for Condition Monitoring and Life-Time Prediction

III Power Electronics Applications

Topic 12: Electrical Machines and Drive Systems

12.a) Electrical Machines and Actuators
12.b) System Design and Optimization of Adjustable-Speed Drives
12.c) Control of Electric Drives
12.d) Algorithms and Methods for Condition Monitoring and Life-Time Prediction

Topic 13: Power Supplies and Industry-specific Power Electronics
13.a) Power Supplies and UPS
13.b) Lighting: Solid-State Lighting and Electronic Ballasts
13.c) Contactless (Wireless) Power Supply
13.d) Industry-Specific Applications (Cement, Steel, Paper, Textile, Mining, etc.)
13.e) Applications in Physics Research and Related Areas

Guidelines to submit a Provisional Full Paper

The guidelines to write and submit a Provisional Full Paper for EPE'25 Conference can be found HERE

The submission website is OPEN, please click HERE

Deadline for Submission: Thursday, the 15th of August 2024

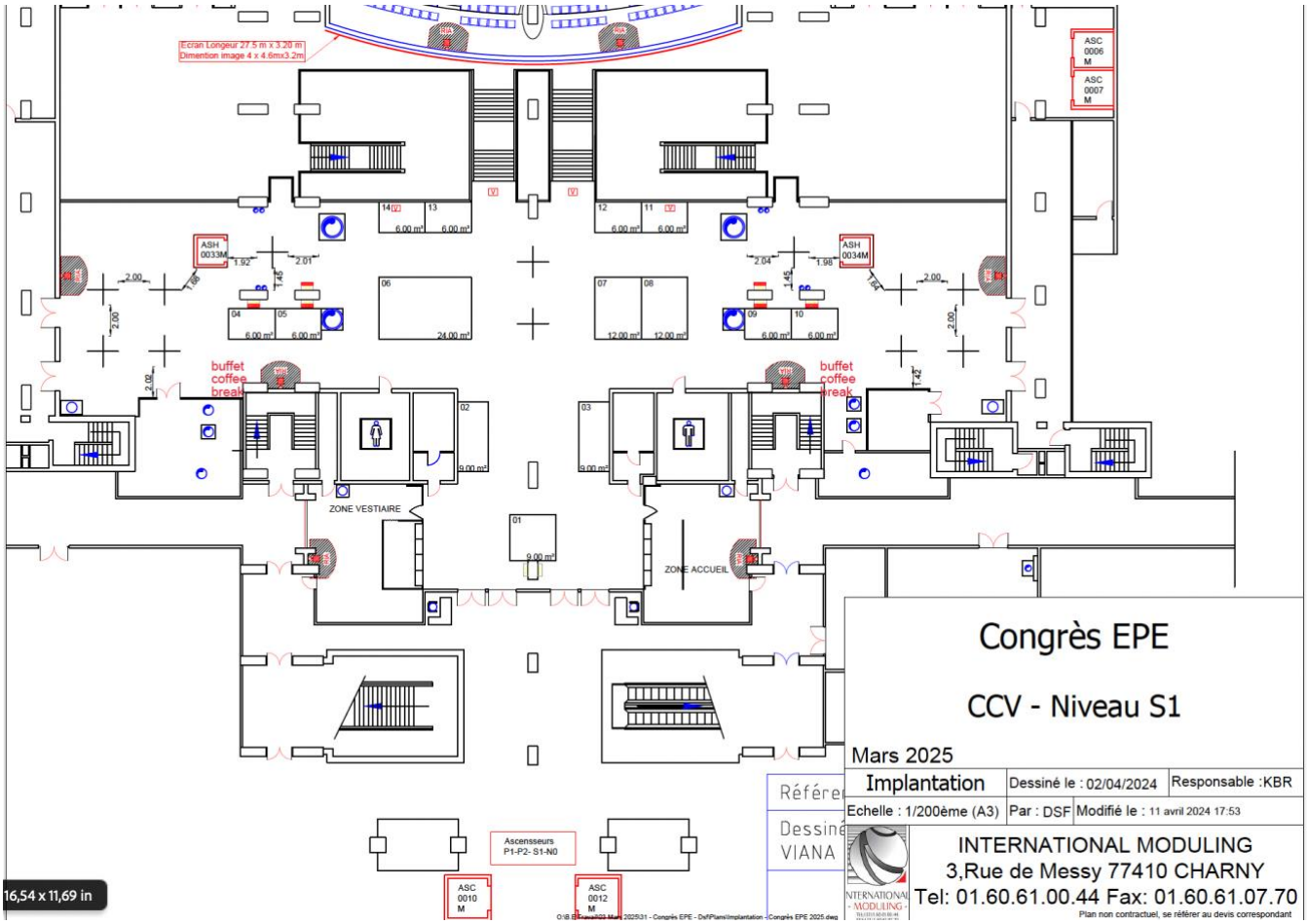
Sponsorship and Exhibition

The EPE'25 Conference will take place at the "La Villette Congress Centre", part of the "Cité des sciences et de l'industrie" in the "Parc de la Villette" in Paris, France from 31 March to 4 April 2025. The exhibition area in the congress centre has a surface of more than 2000 m^2. Coffee breaks, welcome reception and the dialogue sessions will take place in the exhibition area. The exhibition will take place on the 3 levels of the Congress Centre.
The Sponsorship & Exhibition Opportunities document will be sent out soon, but don't hesitate to contact us if you are interested or if you already want to put an option on one of the booths.

Sponsorship & Exhibition contact: Nancy.Langsberg@vub.be

Please find the provisional exhibition maps hereunder.

Level S1



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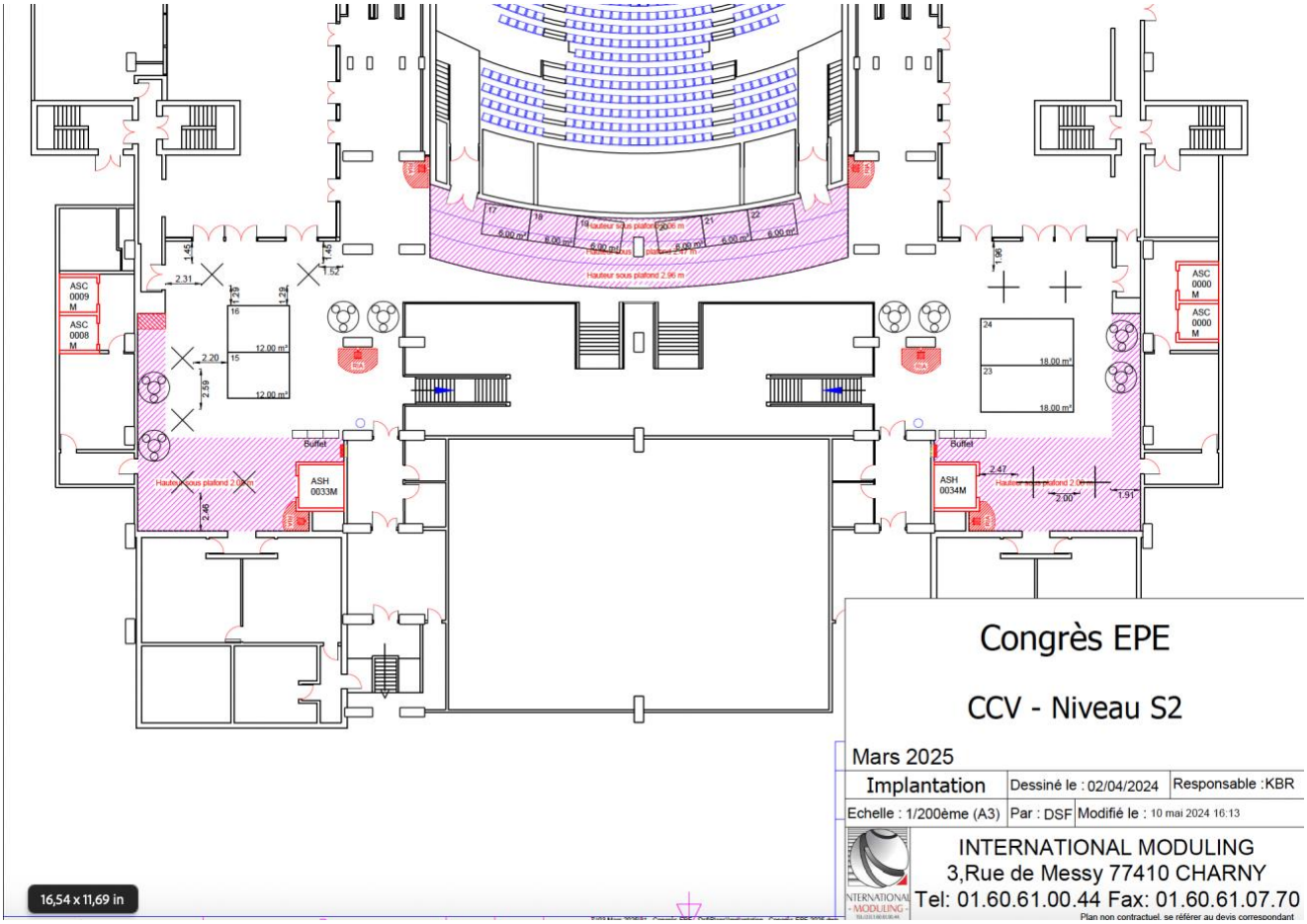
Congrès EPE
CCV - Niveau S2
Mars 2025
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Dessiné le : 02/04/2024
Responsable :KBR
Echelle : 1/200ème (A3)
Par : DSF
Modifié le : 10 mai 2024 16:13
INTERNATIONAL MODULING
3,Rue de Messy 77410 CHARNY
Tel: 01.60.61.00.44 Fax: 01.60.61.07.70
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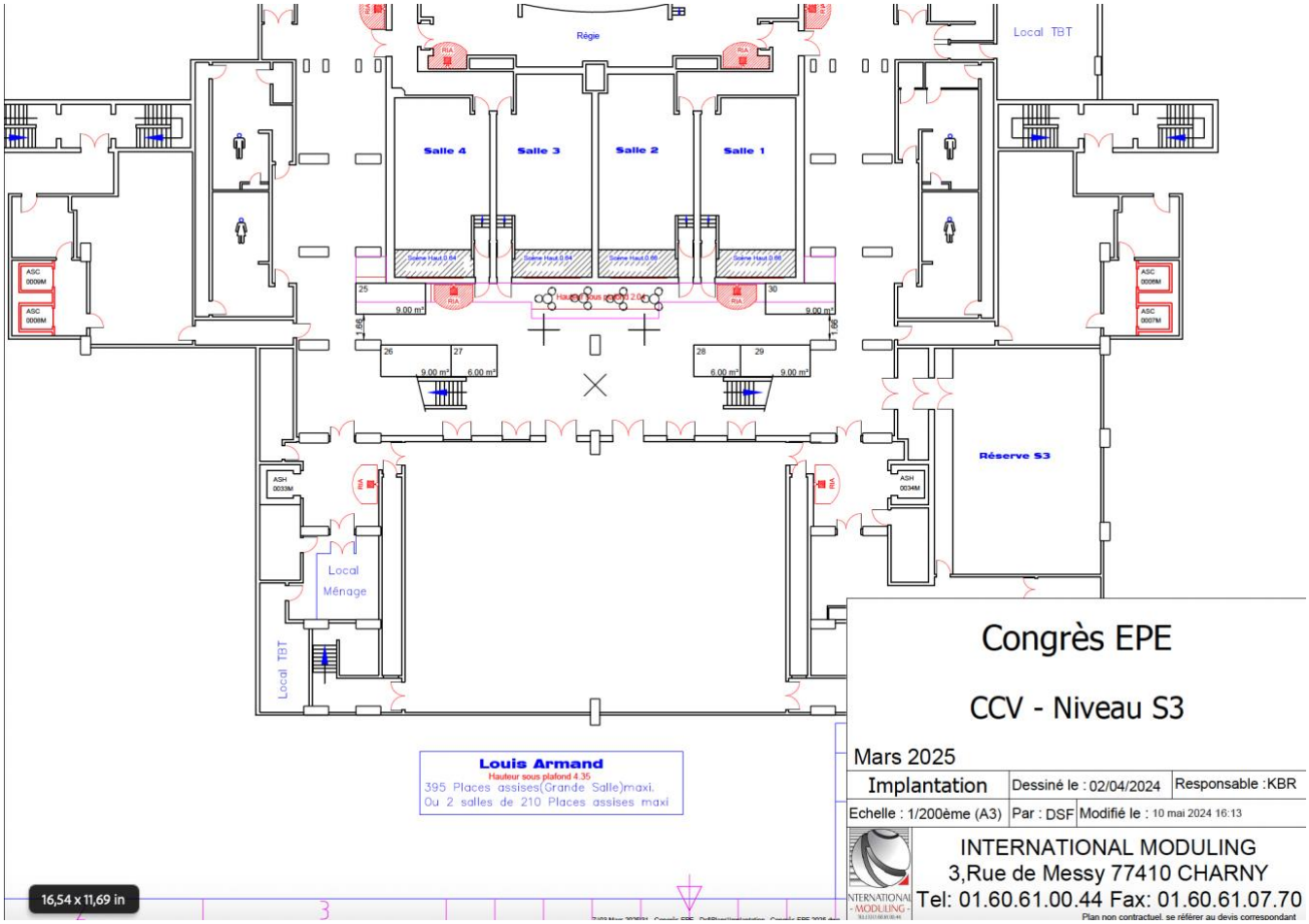
Régie
Local TBT
Salle 4
Salle 3
Salle 2
Salle 1
Réserve S3
Local Ménage
Local TBT
Louis Armand
Hauteur sous plafond 4.35
395 Places assises(Grande Salle)maxi.
Ou 2 salles de 210 Places assises maxi
16,54 x 11,69 in
Congrès EPE
CCV - Niveau S3
Mars 2025
Implantation
Dessiné le : 02/04/2024
Responsable :KBR
Echelle : 1/200ème (A3)
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3,Rue de Messy 77410 CHARNY
Tel: 01.60.61.00.44 Fax: 01.60.61.07.70
Plan non contractuel, se référer au devis correspondant

Summer Schools and Events

Summer Schools

Summer School in Delft on DC Systems and EV Charing

From July 1–5 at TU Delft

Take the lead by:

- Mastering the fundamentals of DC Systems and EV Charging.
- Learning from industry experts at TU Delft and top institutions.
- Networking with fellow researchers and engineers.
- Earning a certificate upon successful completion.

This intensive program offers:

- 23 insightful lectures by leading experts.
- Hands-on experience to solidify your knowledge.
- Industry tours to ABB and Shell's Energy Transition Campus.
- Networking events and a cultural cruise in Amsterdam.
- Deep dive into:
    1. DC Energy Systems
    2. EV Charging
    3. Energy Transition
    4. Power Electronics

You can find all the information on:
https://www.tudelft.nl/evenementen/2024/ewi/ese/dces/summer-school-on-dc-systems-and-ev-charging

PhD Summer School Mont-Soleil

"Field based insights into the implementation of renewable energies".
Dates:12-17.08.2024

The event ends with a unique opportunity on the top of the Jungfraujoch , with a visit of the High Altitude Research Station (3500 mA.S.L.)
Please inform your students.

You can find all information on:
https://www.bfh.ch/en/news/events/summer-school-mont-soleil-2024/

ECPE: Calendar of Events 2024

Date	Topic	Location
20 - 21 June	EMC Optimised Design (Parasitics in Power Electronics)	Berlin, Germany **FULLY BOOKED**
24 - 25 June	Corrosion in Power Electronics	Lyngby Denmark
27 - 28 June	Condition & Health Monitoring in Power Electronics	Bilbao, Spain
2 - 3 July	Thermal Engineering of Power Electronic Systems – Part 1 (Thermal Design and Verification)	Erlangen, Germany
8 - 9 July	Model Predictive Control for Power Electronics, Drives and Power Grid Applications	Pilsen, Czech Republic
2 Sept.	Sustainability Energy Supply to Reach Net-Zero CO2 Emissions by 2050	Darmstadt, Germany
2 - 6 Sept.	ECCE Europe 2024 - Energy Conversion Congress & Expo	Darmstadt, Germany
10 Sept.	Use and Assessment of Power Device Models in Power Electronics Simulation	Nuremberg, Germany
17 - 18 Sept.	Insulation Polymers for Power Electronics: Failure Mechanisms, Preventive Measures, Testing Strategies	Valencia, Spain
18 - 19 Sept.	Introduction to Power Electronics	Barcelona, Spain
24 - 25 Sept.	Sinter Technology in Power Electronics	Baar-Ebenhausen, Germany
24 - 25 Sept.	Power Electronics Packaging	Online
9 - 10 Oct.	Materials Innovations for Advanced Power Packaging – Substrate, Interconnection and Encapsulation	Hanau, Germany
23 - 24 Oct.	Wide Bandgap User Training - SiC-based Power Electronics	Catania, Italy
6 - 7 Nov.	Thermal Engineering of Power Electronic Systems - Part 2 (Thermal Management and Reliability)	Erlangen, Germany
19 - 20 Nov.	Wide Bandgap User Training - GaN-based Power Electronics	Cambridge, United Kingdom
20 - 21 Nov.	Testing Automotive Power Modules according to the ECPE Guideline AQG 324	Vienna, Austria
26 - 27 Nov.	Eco-Design Approaches in Power Electronics	Grenoble, France

See you at

EPE'25
40 years of EPE conferences
1985 > 2025

in Paris