



*From Nano to Micro Power Electronics
And Packaging Workshop
November the 25th, 2021
Tours, France
12th Edition*



TECHNICAL PROGRAMME

Technical Committee:

Daniel ALQUIER	TOURS University	France	
Laurent BARREAU	ST Microelectronics-Tours	France	Co-chairman
Lars BOETTCHER	FRAUNHOFER Institute	Germany	
Cyril BUTTAY	AMPERE Laboratory	France	
Guillaume CALLERANT	SONCEBOZ	Switzerland	
Jean-Luc DIOT	PRIVATE	France	
Franck DOSSEUL	MODULEUS	France	Co-chairman
Sébastien JACQUES	GREMAN Laboratory	France	Co-chairman
Guo-Quan LU	VIRGINIA TECH	USA	
Jürgen SCHUDERER	ABB Corporate Research	Switzerland	
Stéphane BELLENGER	ST Microelectronics Grenoble	France	Chairman

8 h 30 Workshop package and badge distribution

9 h 00 Welcome and full day workshop program presentation

9 h 15 Keynotes: Power application needs and trend, technology roadmap and packaging solution for the next decade – Jonathan Abela – UTAC Group European General Manager

10 h 05 Coffee break / Table Top Exhibition and presentation

10 h 35 Session 1: Design & Applications

10 h 35 Modelling of carrier lifetime for Platinum-doped ultrafast power diodes - Imen Abdennabi – Greman Institute, Tours University, France

11 h 00 Full SiC Phase-leg Power Module for Airborne Applications - Thomas Guillemet - Thales TMI, Etrelles, France

11 h 25 Increased breakdown voltage & robustness of embedded power module - Loïc Théolier - IMS Laboratory (With Vedecom), Talence, France

11 h 50 1st usage of naked dies MOSFET & associated packaging & connection solutions to build-up a 3-phases PMSM inverter, Pro & Cons - Guillaume Callerant - Sonceboz, Switzerland

12 h 15 Table Top Exhibition visit and Lunch (Buffet)

13 h 30 Session 1 con't : Design & Applications

13 h 30 Understanding the reverse transport characteristics of vertical GaN Schottky diode and its numerical simulation - Maurya Vishwajeet - CEA-Leti, Grenoble, France

13 h 55 Copper layer design for embedded die PCB package of GaN devices: characterization and test - Johan Delaine - CEA-Leti, Grenoble, France

14 h 20 Session 2: Materials, Processes and Technologies

14 h 20 Fabrication & Characterization of Embedded Inductors for Integrated Voltage Regulators - Prahalad Murali - Georgia Institute of Technology, Atlanta, USA

14 h 45 Ultra-thin base materials take PCB miniaturization to the next level - Daniel Schulze - Dyconex, Bassersdorf, Germany

15 h 10 Coffee break / Table Top Exhibition

15 h 35 Session 2: Materials, Processes and Technologies

15 h 35 Introduction of latest material technology of epoxy molding compound & die attach sintering paste for power module, and new concept of next generation e-Axle - Inukai Toru - Sumitomo Bakelite, Fukuoka, Japan

16 h 00 Multiphysics characterizations of vertical GaN Schottky diodes - Atse Julien Eric N'Dohi - INSA Lyon with Ampere Laboratory, Lyon, France

16 h 25 Copper wire bonding with optimized consumables for high volume applications – Sebastian Holtkämper - Hesse Mechatronics, Paderborn, Germany

16 h 50 New potting resin for power electronics application with low CTE and improved resistance to high temperature - Simon Malandain - Protavic, Levallois-Perret, France

17 h 15 End of session

Next to the workshop sessions of Thursday, November the 25th, an exceptional event will be organized to close the workshop day for which you need to register if you wish to attend:

- ***A visit of a specific Touraine place. Departure from Greman's institute at 17h40***
- ***A dinner in a gastronomic restaurant around 20h00***

On Friday, November the 26th, a specific GREMAN lab tour is organized, starting at 9:00am

Sponsors:



From Nano to Macro Power Electronics and Packaging European Workshop

Thursday, November the 25th, 2021

GREMAN (ECOLE D'INGENIEURS POLYTECH TOURS)
Amphithéâtre du département électronique et énergie 7 avenue Marcel Dassault Tours

Registration Form Final registration Thursday November the 25th 2021

COMPANY:

NAME:

FIRSTNAME:

ADDRESS:

TEL:

E-MAIL:

→Send back to IMAPS France by E-mail: imaps.france@orange.fr

FEES (including conferences attendance, table top visit, lunch, coffee breaks, social event and closing dinner)

Conferences on free access on website www.imapsfrance.org after the event.

- IMAPS MEMBER 220 € HT excluding - 264 € TTC
- Non IMAPS MEMBER 250 € HT – 300.00 € TTC
- SPEAKERS/CHAIRS 180 € HT - 216 € TTC
- Table Top 300 € HT – 360.00 € TTC (1 table, chairs, display panel, conferences attendance, Coffee breaks, lunch, social event and closing dinner).

For foreign companies, VAT is excluded

Do not forget to tick boxes if you want to participate to our social event

- Visit of a Touraine specific place (Thursday evening) yes no
- Dinner after the visit (Thursday evening) yes no

- On line Payment and Registration available on www.france.imapseurope.org

PAYMENT BANK REFERENCES

Credit card accepted, as well as payment by cheque, cash or wire transfer.
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How to reach GREMAN



Access by car from the A10 motorway

In the Paris-Bordeaux direction,

Take the exit n ° 22 Saint-Avertin, then follow the direction of the 2 Lions.

In the Bordeaux-Paris direction,

Take the exit n ° 23, follow the direction Tours-Center then the 2 Lions direction

Access by train and tram or bus

You can either go to the Tours train station which is in the city center or to the Saint Pierre des Corps railway station which is on the outskirts and which has both rail shuttles to Tours and buses to different points of the city. More info on the website of Fil Bleu.

Access to Polytech Tours by tram stop "Fac 2 Lions" or by bus by line 5 stop "Polytech".