

From Nano to Micro Power Electronics And Packaging Workshop November 30th, 2023 Tours, France 14th Edition



TECHNICAL PROGRAM

Technical Committee:

Daniel ALQUIER TOURS University France Co-chairman Laurent BARREAU **ST Microelectronics Tours** Chairman France Lars BOETTCHER **FRAUNHOFER Institute** Germany Cyril BUTTAY **AMPERE Laboratory** France Jean-Luc DIOT **PRIVATE** France Franck DOSSEUL **MODULEUS** France Co-chairman Guo-Quan LU **VIRGINIA TECH** USA Stéphane BELLENGER **ST Microelectronics Grenoble** France Co-chairman

8 h 20 Workshop package and badge distribution

8 h 50 Welcome and workshop program presentation

9 h 05 Keynote: DA5 consortium : approach towards Pb-free solutions in device packaging Thomas Behrens & Andrei Damian – Infineon Technologies & NXP Semiconductors

9 h 55 Session 1: Designs, Applications & Reliability

9 h 55 3D power module through ceramic additive manufacturing – Emmanuel Marcault – CEATech Occitanie, France

10 h 20 Coffee break / Table Top Exhibition and presentation

10 h 50 Session 1: Design, Applications & Reliability con't

- 10 h 50 Comprehensive approach for thin Cu ball bonding with reduced cratering Indrajit Paul ST Microelectronics Munich, Germany
- 11 h 15 Grid connected converter design for intelligent electricity storage in smart homes Ismael Aouichak GREMAN, University of Tours, France
- 11 h 40 Concepts for high-voltage power module by embedding SiC or GaN semiconductors Lars Boettcher – IZM Berlin, Germany
- 12 h 05 Thermal enhancement solutions for smart power stage QFN packages in high-performance computing for AI and machine learning processors Alastair Attard UTAC Thailand

12 h 30 Table Top Exhibition visit and Lunch (Buffet)

13 h 40 Roundtable: Power Semiconductors: how to consolidate Europe as a 'powerhouse'?

Power devices and packaging in the context of the EU Chips Act

Moderator: Jean-Marc Yannou (ASE)

Speakers: experts from European companies and Universities

14 h 45 Session 2 : Materials, Processes and Technologies

14 h 45 Understanding the influence of copper substrate oxidation on silver pressure sintering performance – Thorsten Vehoff - Heraeus, Germany

15 h 10 Coffee break / Table Top Exhibition

15 h 40 Session 2: Materials, Processes and Technologies con't

15 h 40 Plasma dicing of GaN on Si wafers - James Weber - Panasonic Europe, Germany

16 h 05 Reliable assembly for high current / high voltage interconnexion – Christian Bremont – Renault, France

16 h 30 The latest material technology for power module packaging — Tan Tat Hong - Sumitomo Bakelite, Singapore

16 h 55 Processability and reliability of copper sintering for power electronics applications – Thorsten Vehoff – Heraeus, Germany

17 h 20 Closing

17 h 30 End of session

Next to the workshop sessions of Thursday, November 30th, a social event will be organized to close the workshop day for which you need to register if you wish to attend:

- a visit of a wine cellar in Loire Valley. Departure from Greman's institute at 17h45
- a dinner in a gastronomic restaurant in Tours at 20h15



Sponsors:

From Nano to Macro Power Electronics and Packaging **European Workshop**

Thursday, November 30th, 2023

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

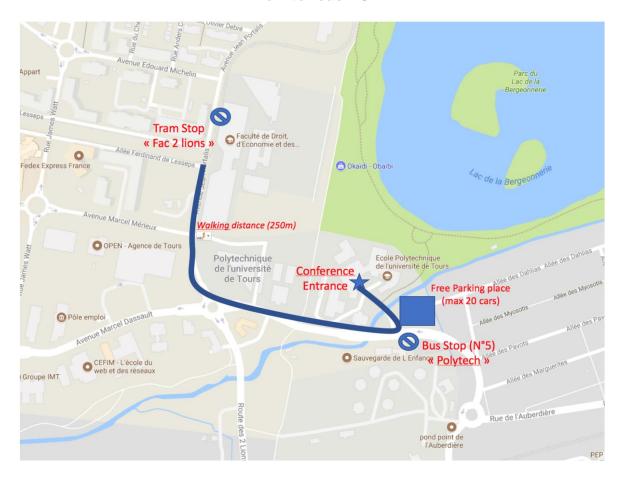
> **Registration Form** Final registration Thursday November 30^h 2023

COMPANY:		
NAME:	FIRSTNAME:	
ADDRESS:		
TEL:	E-MAIL:	
→Send back to IMAPS Fran	ce by E-mail: imaps.france@orange.fr	
FEES (including conferen	nces attendance, table top visit, lunc event and closing dinner)	h, coffee breaks, social
Conferences on free access	s on website www.imapsfrance.org after	the event.
☐ IMAPS MEMBER 220 € H	dT excluding - 264 € TTC	
□ Non IMAPS MEMBER 25	50 € HT – 300.00 € TTC	
□ SPEAKERS/CHAIRS 180) € HT - 216 € TTC	
□ Table Top 300 € HT – 36	0.00 € TTC (1 table, chairs, display panel,	conferences attendance,
Coffee breaks, lunch, socia	al event and closing dinner).	
For foreign companies, V	AT is excluded	
	es if you want to participate to our so specific place (Thursday evening)	ocial event □ yes □ no
- Dinner after the visi	t (Thursday evening)	□ yes □ no
☐ On line Payment and Re	egistration available on www.france.	imapseurope.org
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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".