

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



TECHNICAL PROGRAM

Technical Committee: Daniel ALQUIER Laurent BARREAU Lars BOETTCHER Cyril BUTTAY Jean-Luc DIOT Franck DOSSEUL Guo-Quan LU Stéphane BELLENGER

TOURS University ST Microelectronics Tours FRAUNHOFER Institute AMPERE Laboratory PRIVATE MODULEUS VIRGINIA TECH ST Microelectronics Grenoble

France Co-chairman France Chairman Germany France France France Co-chairman USA France Co-chairman

08 h 20 Workshop package and badge distribution

- 08 h 50 Welcome and workshop program presentation
- 09 h 05 Keynote: DA5 consortium: Approach towards Pb-free solutions in device packaging Thomas Behrens - Infineon Technologies Andrei Damian - NXP Semiconductors
- 09 h 55 Session 1: Designs, Applications & Reliability
- 09 h 55 3D power module through ceramic additive manufacturing Emmanuel Marcault – CEA-Tech 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 Michael Choi – UTAC, Thailand

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

13 h 40 Round table: 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 Tamira Stegmann - 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 interconnection 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 Susanne Duch – 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 20h30

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 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 200 € HT (VAT excluding) 240 € TTC
- □ Non IMAPS MEMBER 250 € HT (VAT excluding) 300 € TTC
- □ SPEAKERS/CHAIRS 150 € HT (VAT excluding)- 180 € TTC
- □ EXHIBITOR(S) 500 € HT (VAT excluding) 600 € TTC (for 2 persons max)

(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 |

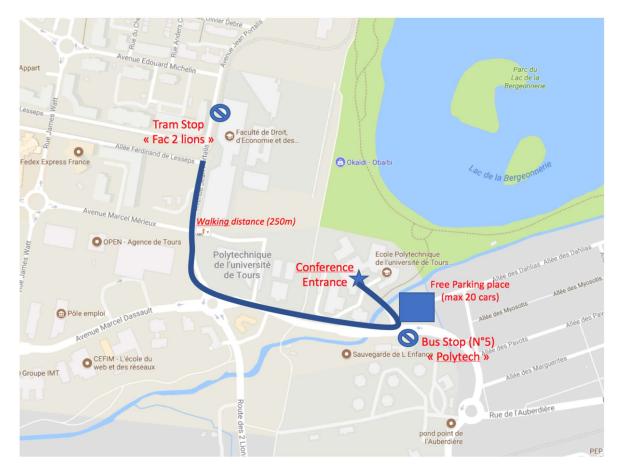
□ On line Payment and Registration available on <u>www.france.imapseurope.org</u>

PAYMENT BANK REFERENCES

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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".