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# MiNaPAD Forum 2024

11<sup>th</sup> Micro/Nano-Electronics  
Packaging and Assembly,  
Design and Manufacturing Forum

EXHIBITION & CONFERENCES

June 19<sup>th</sup>-20<sup>th</sup>

GRENOBLE France



Organized by

IMAPS - International Microelectronics Assembly and Packaging Society

17 rue de l'Amiral Hamelin - 75016 Paris - France

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Media Sponsor: YOLE Group

# Wednesday June 19<sup>th</sup>

8h15 Welcome to MiNaPAD – Coffee & Soft drink sponsored by



9h00 Opening by Jean-Marc YANNOU (Auditorium)

9h10 Keynote: Mudasir AHMAD (IEEE – EPS Distinguished lecturer)

**Advanced Packaging for Artificial Intelligence Applications**

## SESSION A: AI Applications (Auditorium)

9h45 Detection and measurement of solder voids in X ray of led assembly with YOLO v8  
(Yasser ALMEHIO, VALEO - France)

10h15 Solder paste development using AI  
(Melanie MATHON, INVENTEC - France)

## SESSION B: Attachment materials (Mont Blanc)

The Application of Low Temperature Self-Assembly Sn Based Glue  
(Glenn LIN, ASE group - Taiwan)

New Bare Copper Compatible Die Attach Developments Improving Reliability and Thermal at Lower Cost  
(Ruud De WIT, HENKEL – The Netherlands)

10h45 – 11h15 Exhibition Opening (Exhibition Hall) / Coffee break sponsored by



## SESSION C: Interconnections (Auditorium)

11h15 Integration of III-V GaN amplifiers of an antenna in package receiver in PCB-based embedding technology  
(Tekfouy LIM, FRAUNHOFER IZM - Germany)

11h45 Alternative approach to Die-to-Wafer bonding utilizing atmospheric plasma cleaning  
(Daniel PASCUAL, ONTOS - USA)

12h15 Clips bonding using re-metallization techniques  
(Wilfrid AKLAMAVO, SERMA Microelectronics - France)

## SESSION D: PCB Substrates (Mont Blanc)

Advanced IC substrates – Challenges in the manufacturing and supply chain  
(Roland STEIM, DYCONEX - Switzerland)

Next Generation Packaging Materials for Challenging AI and Power Electronics Applications  
(Helmut KRONER, RESONAC - Germany)

High Density Organic Substrates fir Chiplet and High Frequency Application  
(Lars BOTTCHE, FRAUNHOFER IZM - Germany)



12h45 – 13h45 Lunch (Exhibition Hall) sponsored by

## SESSION E: Process Optimization 1 (Auditorium)

13h45 An innovative deposition technology for conductive & dielectric materials ; Multimaterials, Multilayers, Contactless High-Resolution High-Speed Deposition  
(Stéphane ETIENNE, I-O-TECH, Israel)

14h15 SWEET (Side Wall Exquisite Enveloping Technology) to protect WLSCP  
(Shih Chieh TANG, ASE group)

14h45 Post plasma dicing clean in Batch spray equipment with sulfuric ozone mixtures  
(Moritz MITTERMAYR, SICCONNEX - Austria)

## SESSION F: Reliability 1 (Mont Blanc)

Robustness and environmental impact of under bump metallization for wafer level balling  
(Arnaud GARNIER, CEA LETI - France)

SACN doped Mn solder balls oxidation study for BGA's reliability performance  
(Stelliane GROLIER LEE, STMicroelectronics - France)

Experimental study of interfacial adhesion of passivation/resin with shear test: first learnings  
(Marie DUGOR DENTONE, STMicroelectronics - France)

15h15 – 15h45 Exhibition / Coffee break sponsored by



**SESSION G: Dicing / Picking  
(Auditorium)**

- 15h45** Plasma Singulation of Single Power Diodes Bonded by Intermetallic Eutectic Technique  
**(Sabrina ROZA-ORTIZ, PLASMATHERM - USA)**
  
- 16h15** Latest approaches of dicing and grinding for semiconductor device manufacturing  
**(Benjamin BERNARD, DISCO - Germany)**
  
- 16h45** Industrial Approach for Plasma Dicing: Advances and Challenges  
**(Lucile BROUSSOUS, STMicroelectronics – France)**
  
- 17h15** Precision plasma dicing of wafers  
**(Leslie LEA, PLASMATHERM - USA)**

**SESSION H: Flip Chip Process  
(Mont Blanc)**

- Development of a dipping process for silver sintered flip chip interconnexion  
**(Céline FEAUTRIER, CEA LETI - France)**
  
- Flux less soldering in activated hydrogen atmosphere  
**(Jeff BLAIR, SIKAMA - USA)**
  
- Displacement mechanisms of polymer adhesives used in the flip chip interconnected structures  
**(Nacer AITMANI, CEA LETI - France)**
  
- Innovative interconnect material for semiconductor assembly and advanced packaging  
**(Sze Pei LIM, INDIUM – United Kingdom)**

17h45 – 18h30 Exhibition Hall

20h00: Dinner – Grenoble downtown

(15 minutes by walk from WTC – 1.4 kms)

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# Thursday June 20<sup>th</sup>

8h30 - Opening exhibition and conferences

9h10 Keynote: Thomas ROMONT (Senior PCB Expert, IFTEC - France)

IPC Designers Council France - What are our common Challenges for Future?

## Session J: Power Management (Auditorium)

## Session K: Characterization (Mont Blanc)

09h45 Understanding Criticality of Thermal Performance in Thermal Interface Material for Automotive Applications  
(Rodrigo AGUILAR, HENKEL – The Netherlands)

Dual blocks QFN warpage characterization  
(Federico LEONE, STMicroelectronics - Italy)

10h15 Packaging and reliability challenges for Innovative Automotive Grade current sensors  
(Alastair ATTARD, UTAC - Switzerland)

Die bending methodology to explore Deep Trench Isolation crack initiation risk in Backside Imager Sensors  
(Caroline MOUTIN, STMicroelectronics - France)

10h45 – 11h15 Exhibition & Coffee break (Exhibition Hall) sponsored by



## Session L: Process Optimization 2 (Auditorium)

## Session M: Sustainability (Mont Blanc)

11h15 In Situ characterization of plasma species for process optimization and improvement  
(Djamila CHOU, STMicroelectronics - France)

Fabrication of low density 3D PCB using piezo-ink jet and 6 axis robots  
(Davide BENNEVENTI, INPG - France)

11h45 Direct silicon wafer bonding outside cleanroom conditions  
(Tobias BUCHMANN, DTU Electro - Denmark)

High Precision Capillary Printing (HPCAP) and its sustainable value in electronics  
(Julien VITIELLO, HUMMINK - France)

12h15 Two steps collective bonding, from dicing-tape to device over 10000 UPH  
(Aurélien GRIFFART, SET - France)

Sustainable and circular PCB using biobased/biodegradable substrates and metals bioleaching  
(Vincent GRENNERAT, INPG CROMA - France)

12h45 – 13h45 Lunch & Exhibition (Exhibition Hall) sponsored by



## Session N: Molding process (Auditorium)

## Session O: Reliability 2 (Mont Blanc)

13h45 Environment-friendly Epoxy Molding Compounds for Semiconductors and Automotive  
(Takahiro WATANABE, Sumitomo Bakelite Co. Ltd - Japan)

Enhanced Board Level Reliability Method for High Performance Automotive BGA Packages  
(Nohora CAICEDO, STMicroelectronics - France)

14h15 Advanced Mold Design Solutions to Counteract Surface Discoloration in Flip Chip Encapsulation  
(Shih Kun LO, ASE group - Taiwan)

The Effects of Voids on Solder Joint Reliability in First Level Interconnect  
(Sze Pei LIM, INDIUM – United Kingdom)

**Session P: Interposer 2.5D TSV 3D  
(Auditorium)**

- 14h55** Design and verification of a 2.5 Heterogeneous Integration Platform  
**(Jeroen SCHELKENS & Dimitrios TSIAKOS, IMEC - Belgium)**
- 15h25** Unlocking the Trends and Challenges in Advanced 3D Heterogeneous Integration Manufacturing  
**(Rayane MAZARI, YOLE Group - France)**
- 15h50** Hermetically sealed glass interposer platform for photonics integrated circuits  
**(Kevin KROEHNERT, FRAUNHOFER IZM - Germany)**
- 16h15** Si Based integrated passive devices for Sub 6G SiP  
**(Mark AZZOPARDI, JCET group - Switzerland)**
- 16h45** Closing MiNaPAD 2024 Conference by Jean-Marc YANNOU (Auditorium)

## List of Exhibitors

<b>Booth number</b>	<b>Company</b>
1	IMAPS - PACK4EU
2	ASE
3	EMPC - IEEE
4	NANOTEC
5	ONTOS
6	CDS - NAMICS
7	MICROLIGHT 3D
8	GS SWISS PCB
9	ELEMCA
10	METRONELEC
11	MICON GLOBAL
12	KYOCERA
13	SET
14	NITERRA
15	ACCELONIX
16	AEMTEC
17	EGIDE
18	MST
19	TAIPRO
20	ISP SYSTEM
21	BT ELECTRONICS
22	TELEDYNE E2V
23	HYBRID
24	FINETECH
25	MICROWORLD
26	SERMA Microelectronics
27	ELECTRON MEC
28	HEF Groupe
29	CEA
30	SYNERGY CAD
31	PROTAVIC
32	DISCO
33	YOLE



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Name: .....Firstname: .....

Company:

Job Title:

Zip:                              City                      Country

Email:

## Individual registration:

By email: [imaps.france@orange.fr](mailto:imaps.france@orange.fr)

By Post: IMAPS, 17 rue de l'Amiral Hamelin, 75016 Paris

By Internet: <https://event.imaps.france.org>

## FEES:

**Students and Teachers (University and Laboratories), retiree:**  **00 Euro** conferences attendance, proceedings, without social event – Registration is mandatory with justification.

### Speakers:

**200 € VAT excl.**

Please confirm your attendance to social event

### Chairs, Technical Committee:

**200 € VAT excl.**

Please confirm your attendance to social event

### IMAPS Member IMAPS 2024 and IEEE 2024 Membership

**390 € VAT excl.**

Please confirm your attendance to social event

### Non IMAPS Member

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✦ Registration and Payment on line <https://event.imapsfrance.org>

✦ Purchase order (PO)

### IMAPS BANK REFERENCES

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