IMAPS-UK Workshop

Semiconductor Packaging Reliability – Explained!

CSA Catapult Newport, South Wales – Tuesday 9 April 2024

Highlights:

- *Insight into capabilities of 3D ceramic and metal printing for future electronics*
- *Introduction to Advanced Packaging Opportunities*
- *Reliability and Qualification of Packaged Semiconductors in Medical and Automotive Sectors*
- *Opportunity for Q&A*

Registration:

	Delegates
Attendees at MicroTech 2024	*0*
IMAPS Members and Students	*25*
Non Member	*50*

Prices - £ exclude VAT, including lunch and refreshments

Register Here

Workshop on Semiconductor Packaging Reliability

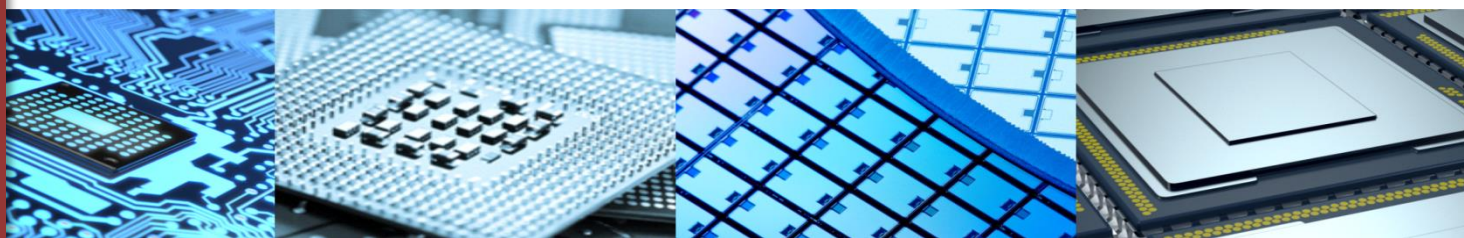
IMAPS-UK is organising a **Training Workshop** to provide an understanding of Semiconductor Packaging Reliability and how it can be applied in advanced medical and automotive electronics. This workshop follows on from the opening of the **Advanced Packaging Facility** at the **CSA Catapult** featuring ceramic and metal 3D printing capability and metrology equipment.

Semiconductor Packaging covers a broad spectrum of packaging solutions that include Flip Chip, Fan Out Wafer Level Packaging, Hybrid Packaging, System in Package, 2.5D/3D and many sub-categories with higher interconnection densities than traditional wire bonding. Challenges include power delivery signal integrity, multi-physics impacts, IP block interface standards, chiplet manufacturing considerations, warpage and many others. The traditional 2D mindset for device integration in packaging is rapidly changing and a 3D or vertical mindset is becoming a key driver for High Performance Computing, AI, Mobile Products and Power Electronics.

This workshop will focus on the fundamentals of **Semiconductor Packaging Reliability**, initially exploring the opportunities for **Advanced Packaging**, then followed by examining the reliability and qualification aspects of packaged semiconductors in medical and automotive applications.

The workshop will address the training needs of students and researchers within Colleges and Universities and personnel within Industrial companies to assist in the upskilling and reskilling of people for the design, manufacture and testing of electronics modules. Attendees can request a Certificate of Attendance that can be used as proof of Continuous Professional Development.

The workshop is **free** to attend for **Registered Attendees** at the MicroTech 2024 on Wednesday 10th April 2024 at Bristol Aerospace Museum.



Course Agenda:

Tuesday 9 April 2024

11:00 – Welcome and Introductions

11:15 – Overview of Advanced Packaging Prototype Facility at CSA Catapult

11:30 – Opening and Tour of Advanced Packaging Prototype Packaging Facility

12:30 – Lunch and Networking

13:15 – Introduction to SPRE Workshop

13:30 – Introduction to Advanced Packaging Opportunities

14:15 - Reliability and Qualification of Packaged Semiconductors for Automotive Applications

15:00 – Refreshment Break

15:15 – Reliability of Active Implantable Devices

16:00 – Q&A and Discussion

16:15 – Close and Depart

Register Here

The Venue

CSA Catapult Innovation Centre
Celtic Way
Imperial Park
Newport
NP10 8BE

https://www.csa.catapult.org.uk

For further details, contact the IMAPS-UK Office:
M: 07854 946 660
E-mail: office@imaps.org.uk

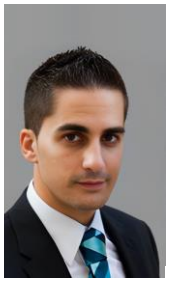
Who should attend:

- Engineers and Technicians involved in Electronics Design, Manufacture and Test
- Undergraduates and Post-graduates interested in Electronics Research and Development
- Engineers and Technicians seeking to become involved in advanced electronics assembly and test
- QC/Reliability Personnel and Managers wanting to gain an appreciation of electronics reliability requirements

Access to Course Presentations:

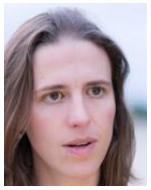
Attendance includes downloadable access to the presentations after the Workshop.

Your Workshop Presenters:



Presenter 1: Jonathan Abdilla, BESI - Opportunities for Advanced Packaging

Presenter 2: Professor Layi Alatise, University of Warwick - Reliability and Qualification of Packaged Semiconductors for Automotive Applications



Presenter 3: Professor Anne Vanhoestenberghe, King's College London – Reliability of Active Implantable Devices

CATAPULT
Compound Semiconductor Applications

Compound Semiconductor Applications (CSA) Catapult is focused on bringing compound semiconductor applications to life in three key areas: the road to Net Zero, future telecoms and intelligent sensing. CSA Catapult is a Not for Profit organisation headquartered in South Wales. It is focused on three technology areas: Power Electronics, RF & Microwave and Photonics. As well as the three technology areas, CSA Catapult is also working in Advanced Packaging for these high-power innovations. The next wave of emerging applications will have an enormous impact on our lives. Compound semiconductors will enable a host of new and exciting applications in the electrification of transport, clean energy, defence and security and digital communications markets. CSA Catapult exists to help the UK compound semiconductor industry grow and collaborates across the UK and internationally.