

Power Electronics Devices and Packaging – Training and Upskilling
University of Nottingham – Monday 3 July 2023

Highlights:

- *Power Device Fundamentals*
- *Modelling and Simulation*
- *Device Reliability*
- *Materials, Processes and Equipment explanation*
- *Drivers for Power Packaging*
- *Packaging Design, Test and Reliability*
- *Opportunity for Q&A*

Registration:

	<i>Delegates</i>
<i>IMAPS Members</i>	100
<i>Students (under and post graduates)</i>	80
<i>Non Member</i>	160
<i>Attendees at CPE 2023 Conference receive a £30 discount</i>	
<i>Prices - £ exclude VAT, including lunch and refreshments</i>	

Register Here

A Training Workshop on the Power Electronics Devices and Packaging

IMAPS-UK and the Centre for Power Electronics are organising a full-day **Power Electronics Devices and Packaging Training Workshop** to provide an introductory understanding of the design, assembly and test of power electronics devices and components and modules that will form the basis of the Electric Revolution.

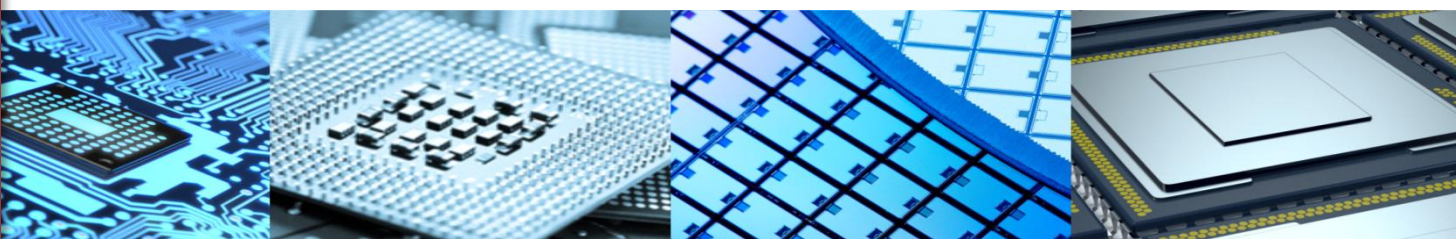
One of the most significant challenges will be the achievement of reliable and fully functional products that can operate at higher currents and voltages, faster frequencies and increased temperatures, which will place increasingly severe demands on the devices, materials and assembly processes.

This workshop will focus on the following aspects of assessing Power Electronics Devices and Packaging, including:

- **Devices – Fundamentals**
- **Devices – Modelling and Simulation**
- **Devices - Reliability**
- **Power Electronics Packaging Introduction**
- **Packaging Design, Test and Reliability**

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 power modules. Attendees can receive a Certificate of Attendance that can be used as proof of Continuous Professional Development.

The setting up of this Workshop has been supported by Innovate UK Project “Power Electronics Packaging – Training and Upskilling” and funded by the Driving the Electric Revolution, an ISCF Challenge delivered by UK Research and Innovation.



Course Agenda:

Monday 3 July 2023

- 09:00 – Welcome, Registration and Networking
- 10:00 – Workshop Introduction and PEPTUS Video
- 10:15 – Power Devices Fundamentals – Peter Gammon, University of Warwick
- 11:00 - Break
- 11:15 – Power Devices – Modelling and Simulation – Neo Lophitis, University of Nottingham
- 12:00 – Power Devices - Reliability – Layi Alatise, University of Warwick
- 12:45 – Q&A and Discussion
- 13:00 - Lunch
- 14:00 – Power Electronics Packaging – Andy Longford, PandA Europe
- 15:15 – Break
- 15:30 – Packaging Design, Testing and Reliability – Steve Riches, Tribus-D Ltd
- 16:45 – Q&A and Discussion
- 17:00 - Close

[Register Here](#)

The Venue

De Vere Jubilee Conference Centre
Triumph Road
Nottingham
NG7 2TU
www.nottinghamvenues.com

Course Module Level

This course is classified as **Basic Level** (see below)

Who should attend:

- Engineers and Technicians involved in Power Electronics Design, Manufacture and Test
- Undergraduates and Post-graduates interested in Power Electronics Research and Development
- Engineers and Technicians seeking to become involved in Driving the Electric Revolution
- QC/Reliability Personnel and Managers wanting to gain an appreciation of power electronics assembly processes

Access to Course Presentations:

Attendance at the Course includes downloadable access to the presentation content.

Your Workshop Tutors:

Professor Peter Gammon, University of Warwick: will cover the essentials of power semiconductor physics and the operation of devices

Assistant Professor Neo Lophitis, University of Nottingham: will examine the design of power electronic devices by means of modelling, and simulation.

Professor Layi Alatise, University of Warwick: will review several aspects of semiconductor reliability

Andy Longford, PandA Europe: He has been working in the Semiconductor Packaging and Assembly industry for over 30 years.

Steve Riches, Tribus-D: and has over 30 years experience in electronics assembly including copper wire bonding, high temperature and power electronics

The PEPTUS Training and Upskilling Project on Power Electronics Packaging

IMAPS-UK has prepared a Power Electronics Packaging Training Course based on **Basic**, **Intermediate** and **Advanced** levels to address the needs from introduction to power electronics packaging for schools/colleges and Universities through to detailed training to assist in upskilling and reskilling personnel for the manufacture and testing of power modules.

Basic: Raising awareness of power electronics explaining the fundamentals and significance of power electronics devices and packaging in the drive towards electrification.

Intermediate: Enabling interested parties to gain understanding of the details of power electronics packaging for those needing re-skilling from adjacent industries or who are already working in the field of power electronics.

Advanced: Assisting participants in the implementation of power electronics packaging in Research and Development, prototyping and manufacturing.

JOIN TODAY AND START SEEING THE BENEFITS!

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visit us www.imaps.org.uk

