

Since launching in December 2018, The Centre for Photonics Expertise (CPE) has been supporting businesses within the West Wales & Valleys region through the application of developed photonics capabilities held within four Welsh universities.

Funded by the European Regional Development Fund through the Welsh Government, the CPE Programme is led by Wrexham Glyndŵr University from its OpTIC Centre in St Asaph, in partnership with Aberystwyth University, Bangor University and University of South Wales.

Meet the CPE Business Development Managers...



Carole Eccles

CPE Business Development Manager (North and West Wales)

Carole recently joined CPE as our North Wales-based Business Development Manager. Throughout her career, Carole has undertaken a variety of directorial and managerial roles across the mechanical engineering, electronics, and TV broadcasting sectors, as well as possessing a wide range of experience within business support, development, and growth.

Hazel Hung

CPE Business Development Manager (South and West Wales)

Hazel is CPE's Business Development Manager and engages with Welsh businesses located in the South Wales regions. She has 10 years experience working in the photonics industry in R&D, product development and project management. Throughout her career, she has maintained close academic links through Industry-University collaborative projects that have played a key role in company growth.



CPE Academic Partner Leads



Dr. John Mitchell



Dr. James Wang
Dr. Liyang Yue



Prof. Andrew Evans
Dr. Rachel Cross



Prof. Nigel Copner
Prof. Hefin Rowlands

CPE will support your business today, to develop your products for tomorrow...

- **CPE will enable Welsh businesses to access the expertise and facilities developed within the partner universities without delay or lengthy process.**
- **Our Business Development Managers will visit you and establish who and how we can help with your business and process needs.**

Did you know...

- **CPE have worked / are working on collaborative projects with 26 industrial enterprises.**
- **Despite the recent COVID-19 lockdown situation, 6 different collaborative projects were signed up during this period.**
- **13 different projects have been completed so far, with many more potential projects waiting to follow.**

CPE Case Study



“Bangor University CPE team have invested significant time and resources into solving this problem by successfully implementing photonics and bespoke programming. Welsh Slate are looking forward to advancing the project further with Bangor University, with the aims of improving accuracy and implementing pattern recognition, ensuring the system will be able to run successfully in the production environment”
“Dylan Evans (Project Engineer, Welsh Slate)”

Welsh Slate is the world’s leading manufacturer and supplier of high-quality slate for a peerless range of exterior and interior design applications. Uniquely 500 million years old, the material is widely recognized as the finest natural slate in the world. Operating in four locations in the UK, today, Welsh Slate continues to producing roofing slate, architectural products and aggregates while its export markets continue to grow.

The company has been interested in using photonics technology to improve and optimize their existing manufacturing processes, thus increasing productivity and reducing costs. This project aims to develop an demonstration prototype of **Automated-Slate-Counting System (ASCS)** for the company. This will be used to replace existing manual counting system, which is time-consuming, costly and prone to error. It is expected further project will continue after this project to explore the improvement and implementation of ASCS in the manufacturing line of Welsh Slate.

The slates being produced follow a rather complex packaging and manual counting which is tedious and time consuming task for hundreds of slates. Through CPE, a project was initiated by collaboration of Bangor University (BU) and Welsh Slate to develop a feasible solution for a quick and accurate counting of the slates. Initial research at BU led to the development of an automated counting program with capability of accurate counting of a packaging in few seconds only compared to several minutes in the previous practice.

To read more detailed case studies on other collaborative projects between CPE and enterprise partners, visit our website:
www.cpe-wales.org

Thin Film Vacuum Coating Facility

CPE are excited to announce that work is currently under way for the installation of our brand new vacuum coating research facility.

The state of the art high vacuum thin film coating plant has been installed in the newly purpose built laboratories, and will be undergoing final acceptance tests before becoming available for research and development projects with key industrial partners.

The facility will be the first of its kind in Wales and will be available to companies within the West Wales and Valleys region to develop new processes or products based on thin film technology and applications leading to the next generation of photonics devices.

For more information on how to gain access to this facility, get in touch via the contact details below.



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