

News story: The Long View – a lifetime of work in optronics is recognised in annual award

Richard Hollins Senior Fellow, Cyber & Information Systems Department at the Defence Science and Technology Laboratory (Dstl), has been recognised for his outstanding contribution to optronics.

At a special award ceremony earlier this month, Dr Hollins was presented with the lifetime achievement award from OPTRO – the international symposium on optronics for defence and security – which recognises a significant contribution in the field of optronics.

Optronics covers all the technologies that use light for information and processing – it includes lasers, detectors, cameras, sensors, optical communications.

Richard brought new insights to the search for protection measures against lasers of any wavelength – a requirement which becomes ever more important as the variety of available laser wavelengths continues to increase. Some of his work has contributed to the revision of international laser safety standards, which control the use of lasers in laboratories around the world.

It was the senior fellow's work in this and other areas which have contributed to innovation in optronics over several decades. Optronics provides what the eye can't see; imagery at a longer range than the eye can master, thermal images, infrared, radar, even camera images from low level light like star light – all vital for gathering information about an area or accurately identifying a target.

Richard said:

I'm very pleased to have the recognition of my career – I certainly didn't expect to get it – I expect I'll be retiring soon and I don't know how many more chances I'd have for an award like that. I've been fortunate to work with many colleagues at Dstl, in industry and academia, and in foreign government organisations, and I'm grateful for all their contributions to the work.

Things have changed a huge amount – in the days when I started, lasers were inefficient, we were trying to develop them into things that we could use, but they've needed to change considerably to the efficient compact devices we know today. I used to have to build 50,000 volt power supplies and today's devices use 10 volts or less.

Lasers have found their way into many much smaller devices. Cameras

themselves have also become much better and smaller – I have recollections of when you saw a TV camera or a thermal imager, it was a big thing with scanning optics that had to be wheeled around, and today all that complexity has been replaced by a small hand-held camera, and costs have come down.

The future of optronics continues to evolve – as a communications channel, optics is starting to offer secure directional communications with much higher bandwidth to open up new possibilities. It's always been difficult communicating with submarines as most electromagnetic wavelengths don't go through sea water – but lasers are now sufficiently good that progress is being made in this direction.

Richard is still actively involved in physics at Dstl.

He said:

I don't get into the lab much these days but I still inspire people as a mentor and help to work out how we should address new challenges. I take a lot of interest from understanding new scientific challenges through simple calculations. I produce simple theoretical models that are written on a few pieces of paper, and which relate the inputs to the outputs via the underpinning physics – and to me that's a really powerful way of understanding. More complex computer-based models can be useful too, but everybody should try my simple approach first.

Dstl provides opportunities for a career with plenty of challenge: providing the science and technology required for our security and defence. We can't do all the work internally, but we select and work with the best partners. Our own work must be of the highest standard in order to understand the problem, to define the requirement and identify solutions, to manage the work as it proceeds, and to evaluate the products. My own career has enabled me to find ways to harness new developments in electro-optic technology to meet new military challenges.

My award demonstrates the respect with which Dstl science is viewed within the scientific community.

Boris Johnson shouldn't be allowed out

Boris Johnson has made a bizarre appearance on the Today programme where he showed flagrant disregard for history and international affairs by comparing the Northern Ireland border with the Congestion Charge.

[Go to Source](#)

Author:

Press release: Planting the seeds for a flood resilient future

A Sunderland school is more prepared for flooding after a rain garden planter was installed and the school's pupils created a flood plan as part of the Environment Agency's 'Flood Weeks'.

Community Engagement Officer Taryn Al-Mashgari helped the youngsters at Springwell Village Primary School develop a flood plan and 'grab bag' so they are prepared in the event of a flood.

And partners at Northumbrian Water installed a rain planter – which captures and stores rainfall from the school's roof – as part of its Rainwise initiative.

Youngsters at the school helped put flowers into the planter in an event on Friday 23 February and then 'tagged' the school with a flood warden logo designed by a pupil from Hetton Lyons Primary School.

This was done using Rainworks – an invisible spray which will only show the logo when it rains. It will remind pupils during key times to be aware of their flood resilience learning.

Initiative helps schools be prepared for flooding

A workshop held by the Environment Agency, Northumbrian Water and Northern Powergrid then also took place for parents and local councillors to see what the children have been learning and to see them demonstrate their newly-created flood plan.

It's part of an Environment Agency initiative to help schools across the North East be better prepared for flooding. Taryn works with children in all year groups to help them understand different types of flooding and how it happens.

They learn what to do before and during a flood, and what the flood warning symbols used by the Environment Agency mean. Taryn said:

It's important that younger people understand what flooding is, how it happens and what the different organisations that deal with flooding do.

We also teach them how to prepare for and what to do during a flood

in a series of interactive sessions where they design their own flood protection and describe how they would keep their favourite possessions safe.

It's absolutely devastating to be flooded and that's why we are working with schools and our partners to educate our future generations about what they can do to keep themselves and their valuables safe.



Spreading the word about managing rainfall

Northumbrian Water's Rainwise initiative aims to spread the word about how managing rainfall better can help increase capacity in the sewer network and encourages residents to make small changes around their homes and gardens.

Rain garden planters help reduce the risk of flooding by reducing the amount of water directly entering the sewer network, as well as slowing the amount of water that does.

Northumbrian Water's Project Manager, Chris Bond, said:

The Environment Agency's flood week gave us a real opportunity to work with the school to raise awareness of our Rainwise initiative and how it's important for families to manage rainfall better around their home to help reduce flood risk.

The planter captures rainwater from the roof of the school, which is then absorbed by the soil and plants and helps to take some of the pressure off our sewer network. It's been great working with the children to put in these plants, which builds their knowledge of flooding and creating new natural habitats.

For more information on Rainwise, visit [Northumbrian Water's website](#)

The Environment Agency is urging people to 'Prepare, Act, Survive' by visiting the [Floods Destroy website](#) and do three things to prepare for flooding.

- check your postcode and find out if you are at risk of flooding
- sign-up for free flood warnings if you are at risk
- view and save the 3-point flood plan so you know how to 'Prepare, Act, Survive' in a flood

Dundee Fair Trade Forum event tomorrow

UPDATE : 28th February – this event has had to be postponed due to adverse weather conditions



Dundee Fair Trade Forum invites you to

"Come On in to Fairtrade"

On

Wednesday 28th February

5.30 pm – 7.00pm

Dalhousie Building, Old Hawkhill

Want to know more about the business benefits of Fairtrade?

Malawian Fairtrade producers of the **Mzuzu Coffee Planter Cooperative Union** and Scottish based coffee suppliers talk about how the Fairtrade system is a 'win, win' situation for all!



Free Fairtrade Refreshments and Opportunity to Shop
from Fairtrade Market Stalls

To book a place please email –
admin@dundeeairtradeforum.com

The UK will rejoin the high table of global influence

Out of the EU the UK will have more influence in the world

The UK has often been a force for good

We have faced down genocides and warmongering dictators

We have often with our US ally stood for freedom, self determination and democracy

We stood up for the values of freedom and self determination when we helped liberate Kuwait

Freed the Falkland islanders

And defeated the Axis powers in 1945

Some say if we leave the EU we will become isolated and less powerful

That is selling us short and misunderstanding the realities

Out of the EU the UK will regain her voice and vote in international bodies where the EU has displaced us

We have not given up our seat on the UN Security Council

Let us take the WTO as an example

We were an influential founding member

In recent years we have had neither voice nor vote, as the EU has spoken for us

Out of the EU we will once again be a strong voice for free trade worldwide

Far from being isolated we will have new allies

Under WTO rules the EU cannot impose on us any barriers they do not impose on all the other WTO members

So if some in the EU have in mind retreating behind some stockade of tariffs and regulations

They will be picking a fight with the USA, China and the rest at the same time

Out of the EU we will be able to regain our voice and vote in various worldwide standards making bodies, whose work often requires the EU to implement the results