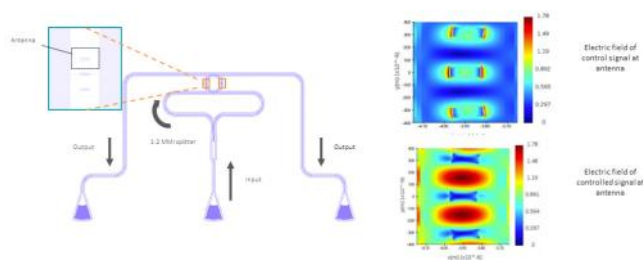


System to control optical signals with optical signals

The invention solves a huge challenge in photonics – how do you control one wavelength of light with another.

Applications: Computing, routing, signal processing



Features	Benefits
Direct control of one optical signal using another optical signal at different wavelength	Reduced overall device footprint and energy consumption; Opens the possibility of fully optical processing; Highly scalable with intrinsically high bandwidth
Standing waves are formed of either or both a controlled signal and the control signal	Creates a spatially well-defined distribution of the optical field which can be controlled for high precision and strong interactions between signals
Antenna formed of absorbing functional materials	Allows for wavelength-selective lossless modulation

Awaiting patent and Available for

- Co-development
- Consulting
- Licensing

To find out more, contact enquiries@innovation.ox.ac.uk and quote the project number.

The above information is provided 'as is' without conditions or warranties. Oxford University Innovation makes no representation and gives no warranty that it is the owner of the intellectual property rights in the technology described. © Oxford University Innovation Ltd 2026, Buxton Court, 3 West Way, Oxford, OX2 0JB.