

PROJECT / Multicore fibers technologies for high-capacity Optical Networks



MCTechs

Main Objective:

This project aims to develop, optimize and produce innovative passive and tunable core/wavelength selective multicore switches and couplers for Space division multiplexing (SDM) based on multicore fibers (MCF).

SDM over MCF has been proven to be the ideal solution to deal with the demand for higher capacity. However, the cost-effectiveness of these systems will depend on the development of several compatible components; the production of core/wavelength selective multicore (MC) switches and couplers will pave the way to a practical Reconfigurable Optical Add Drop Multiplexer (ROADM) and efficient optical amplifiers.

The MCTechs intend to develop, pump sharing, single mode fiber to MCF and MCF-to-MCF couplers, tunable, core/wavelength selective multicore switches/couplers, all based in the long period grating (LPG) technique.

MCTechs are expected to give a strong contribution to accelerate the development of practical and efficient SDM high-capacity optical networks.

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