

## Optical Multicast over OBS Networks: An Approach Based on Code-Words and Tunable Decoders

**Authors :** Maha Sliti, Walid Abdallah, Nouredine Boudriga

**Abstract :** In the frame of this work, we present an optical multicasting approach based on optical code-words. Our approach associates, in the edge node, an optical code-word to a group multicast address. In the core node, a set of tunable decoders are used to send a traffic data to multiple destinations based on the received code-word. The use of code-words, which correspond to the combination of an input port and a set of output ports, allows the implementation of an optical switching matrix. At the reception of a burst, it will be delayed in an optical memory. And, the received optical code-word is split to a set of tunable optical decoders. When it matches a configured code-word, the delayed burst is switched to a set of output ports.

**Keywords :** optical multicast, optical burst switching networks, optical code-words, tunable decoder, virtual optical memory

**Conference Title :** ICBCNS 2014 : International Conference on Broadband Communications, Networks, and Systems

**Conference Location :** London, United Kingdom

**Conference Dates :** June 29-30, 2014