

# **Abstract**

**Moustafa Hussein Aly**

## **Apodized Distributed Feedback Fiber Laser as an Optical Filter**

The potential was investigated of using distributed feedback fiber lasers (DFB-FLs) with different apodizations for C-band optical filtering. Design optimizations were carried out, to mainly target ultra-dense wavelength division multiplexing (UDWDM) filtering specifications. Optimization led to choice of the positive-tanh apodization profile as being the most suitable for UDWDM filtering specifications.