

## A REVIEW OF FI-WI ACCESS NETWORKS

Manjula Girish Emmi<sup>1</sup> & Nagaraju C<sup>2</sup>

<sup>1</sup>Department of Electronics & Communications, RN Shetty Polytechnic, Belagavi, India

<sup>2</sup>Department of Electronics & Communications Engineering, The National Institute of Engineering, Mysuru, India

### ABSTRACT

The explosive growth of information and communication technology necessitates an access solution that can provide customers with faster Internet speeds "anytime, anyplace." Fiber Wireless (Fi-Wi) access technology is one of the available options for meeting consumers' current needs in a cost-effective manner. ONU deployment and energy conservation are two crucial aspects of the Fi-Wi network. The issue of ONU placement has an impact on deployment costs and network performance, while energy conservation is a requirement for green technology. Fi-Wi networks are quickly maturing, and latest effective access network technologies and concepts are emerging. The study begins by reviewing the current state of wireless access optical and optical networks, as well as enabling technologies and future developments, with a major vision on wireless mesh networks and fibre to the base networks. Following a brief overview of several generic EPON and WiMAX network integration approaches, some recently proposed Fi-Wi designs concepts on different Wi-Fi technologies and optical network topologies are detailed. Ultimately, technical hurdles in realising and commercialising future Fi-Wi access networks are identified.

**KEYWORDS:** Fiber Wireless, Networks, Optic, Architecture

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