ABSTRACT

Growth of internet traffic load mounting incisively can be overcome by applying optical network based on Wavelength Division Multiplexing (WDM). One application of the optical networks is by changing Electronic Packet Switch (EPS) with Optical Burst Switch (OBS) [2]. One of problems which emerge in OBS is contention which can be experienced by the Data Burst (DB) at wavelength of data output. This problem can be overcome with the strategy of contention resolution [7, 8, 9, and 13]. But it is result not optimal yet if it is not applied by an effective and correct DB scheduling algorithm at available wavelength output allocation.

Therefore, in this Final Project simulation of wavelength allocation scheduling for the DB is made by using some types of algorithm, then a result is purposed to determine which the algorithm is giving optimal performance in the case of Data Burst Loss Probability (DBLP) and average delay.

After simulation has done and it is result is analyzed, in general the RFAEC gives the best performance with the smallest value of DBLP and average delay, caught up by LAUC-VF and FF-VF. While RFAAC gives the worst performance with the biggest value of DBLP and average delay. But that way, if want the constant performance which gives small value of DBLP and average delay, hence algorithm LAUC-VF can become a major choice among the others algorithms with the value of DBLP and average delay about 6% and 23 μs, if unit delay length 32 Kbytes, the FDL number 8, and load traffic 0. 8.