TABLE I
PERFORMANCE COMPARISON OF TOTAL POWER GENERATION FOR DIFFERENT VALUE OF ***b***

b	Mean (MW)	Best (MW)	Worst (MW)	Standard Deviation
1.00	4.7641691656	4.7648415724	4.6976008998	6.7241e+03
0.95	**4.7648415724**	**4.7648415724**	**4.7648415724**	**5.6161e-10**
0.90	4.7630743588	4.7648415724	4.6764808948	1.2433e+04
0.85	4.7641691656	4.7648415724	4.6976008999	6.7241e+03
0.80	4.7648415724	4.7648415724	4.7648415724	4.3903e-10
0.75	4.7648415724	4.7648415724	4.7648415724	3.7441e-10
0.70	4.7648415724	4.7648415724	4.7648415724	3.7441e-10

TABLE II
THE COMPARISON PERFORMANCE OF TOTAL POWER GENERATION (MW) BETWEEN MFO, SDA AND SED BASED APPROACH

Statistical Evaluation	MFO	SDA	SED
Average	**4.7648415724**	4.7648415723	4.7644075485
Highest	**4.7648415724**	4.7648415723	4.7648415242
Lowest	**4.7648415724**	4.7648415723	4.7627457259
Standard Deviation	$\mathbf{5.6161\times10^{-10}}$	1.1039824×10^{-7}	4.513106×10^{2}

IV. CONCLUSION

This paper presents a data-driven method based on moth-flame optimization (MFO) algorithm has been investigated. This study aims to propose a MFO for a power generation of wind plant and compare the findings with SDA and SED based approaches. In this simulation results, the MFO based method exhibits a slightly higher total power generation than the SDA and SED based approaches. This proves the potential of MFO based approach for data driven method of wind plant control. In the future, it is necessary to improve the convergence speed of MFO since it will take longer time if the size of wind plant is large. In this case, one might consider a multi-resolution version of MFO to increase the convergence speed.

ACKNOWLEDGMENT

Universiti Malaysia Pahang Internal Research Grant PGRS1703105 under the Research and Innovation Department, University of Malaysia Pahang (UMP) assisted our study for this project.

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