

BPI Review Form 070520

Book Name:	Current Approaches in Engineering Research and Technology
Manuscript Number:	Ms_BPR_1554
Title of the Manuscript:	Reactive Power Management through Dispatch Analysis using Evolutionary Algorithms
Type of the Article	Book chapter

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PART 1: Review Comments

	Reviewer's comment	Author's comment (If agreed with the reviewer, correct the manuscript and highlight that part in the manuscript. Authors must write his/her feedback here)
Is the manuscript important for the scientific community? Please write a few sentences explaining your answer	The paper presents the results of applying the Strength Pareto Evolutionary Algorithm and Non-Dominated Sorting Genetic Algorithm-II to optimize the Voltage profile in IEEE bus systems. Perhaps the results themselves have practical significance for users of these systems. Unfortunately, the given description of the model (1)-(11) of the optimized object/process is rather general and incomplete/inconsistent for understanding this object/process and the problem statement. Ideally, the reader should be able to reproduce the solution of the optimization problem using these or other methods. But here I find it difficult to even understand what kind of problem it is, what parameters are optimized, where to get the values of the remaining parameters. The descriptions of the used algorithms SPEA and NSGA-II also lack specifics regarding their implementation in this work: how exactly fitness is assigned to individuals, what decision rules were used, how the variables were encoded?	
Is the title of the article suitable? Do you have any alternative Title in your mind?	yes	
Is the abstract of the article comprehensive? If your answer is No, please provide suggestions	yes	
Do you think the English quality of the article is suitable for scholarly communications? If your answer is No, please provide suggestions	The text should be carefully revised. In particular, attention should be paid to singular/plural.	
Please provide your comments regarding the appropriateness of different sections of the manuscript.	III. Problem formulation. I find it difficult to even understand what kind of problem it is. Is this a dynamic process or a static situation? Is this an optimal control problem? What parameters are optimized? Why are the variables V_{Gi} and T_{ji} in the results called controlled? Are these all variables or just some of them? What about V_s, V_r from (1), Q_{Gi} (8), Q_{Ci} (9), V_{Li} (11)? Where to get the values of the remaining parameters? How and at what moments are the values of the objective functions calculated? Analytically or during simulation modeling? Are the objective functions (1) and (3) independent? Or how are the parameters in these formulas related to each other? Multiobjective problem formulation: several typos. Formulae (1): mismatch in the number of opening and closing parentheses. Formulas (7), (8): change min to max. IV. Proposed methodology What is meant by "classical methods"? How exactly fitness is assigned to individuals, what decision rules were used, how the variables were encoded? V. Result and discussion Fig 4, 5: How the best compromise solution is obtained?	

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	Fig 6 vs Fig 7: Fig. 6 is much more informative than 7. Figures 8-11 seem uninformative and useless. The summary data in Tables 1-3 are sufficient.	
Do you think that the references in the manuscript are proper, recent and sufficient? If you have any suggestions, please write here.	The works in the list of references are all not later than 2010. In addition, all the works are devoted to the application of various optimization methods in the subject area. There are not enough at least a couple of references to the original sources or reviews of the used methods SPEA and NSGA-II. For example, - Eckart Zitzler and Lothar Thiele An Evolutionary Algorithm for Multiobjective Optimization: The Strength Pareto Approach // TIK Report, 1998, No.43. - K. Deb et al. A fast and elitist multiobjective genetic algorithm: NSGA-II // IEEE Transactions on Evolutionary Computation, 2002, Vol. 6, 2, pp. 182-197.	

PART 2:

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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