

Editorial

This first issue of ORiON volume 32 contains three papers. As usual, the papers are from diverse branches in operations research — both in terms of theory and application. In terms of application the papers stems from the military, logistics and finance. I am sure this issue will contain something of interest to most readers.

The first paper, titled “A tri-objective, dynamic weapon assignment model for surface-based air defence”, is authored by Jan van Vuuren and Danie Lötter. In this paper the authors present a decision support system to aid in solving the weapon assignment problem. Three objective are incorporated in the model. The model resembles a vehicle routing problem with time windows (VRPTW). A genetic algorithm for VRPTW is used to solve this model and produce a set of non-dominated solutions. The workability of this modelling approach is illustrated by solving the model in the context of a simulated, surface-based air defence scenario. The model yields plausible results and an acceptable spread of Pareto optimal solutions which achieve satisfactory trade-offs between their objective function values and can thus be applied in practise.

The second paper is authored by Sarma Yadavalli and Kathirvel Jeganathan. The paper is titled “A finite source perishable inventory system with second optional service and server interruptions”. They consider a service inventory system with server interruptions and a finite number of sources. The inventory is replenished according to an (s, S) ordering policy. The authors model this system as a Markov process and present a theoretical solution approach to this inventory system. From the solution method numerous queueing measures, like expected queue length and waiting times, are deduced.

The final paper by Oluwatosin Oladele and Dave Bradfield is titled “Low volatility sector-based portfolios: a South African case”. Portfolios constructed by targeting low risk assets have predominantly outperformed portfolios constructed to have higher risks. This anomaly has led to renewed interest in constructing low volatility portfolios by practitioners. The authors investigate this phenomenon by means of a South African case study. The authors have found that these low risk portfolios show significant promise in the South African setting when they are compared with a market capitalization-weighted benchmark. They also found that blended portfolios have useful features which lead to enhanced performance and therefore can serve as effective portfolio strategies.

My sincerest thanks goes out the anonymous reviewers for their efforts in reviewing these papers. Without this valuable contribution of reviewers, we will not be able produce scholarly journals. In all cases the remarks of reviewers have improved the quality of the papers published in this issue. I also want to thank the authors who submitted their work to ORiON.

I want to thank Martin Kidd for the outstanding job he performs as journal manager of ORiON. My life as editor-in-chief would have been considerably harder without his dedication. A warm welcome to Gavin le Roux who has taken over from Elmien Thom as typesetting assistant. Gavin has already put in numerous hours to edit and typeset the papers for this issue of ORiON in L^AT_EX— my sincerest thanks to Gavin. I also want to

extend a huge thank you to Elmien for the high quality of work she had performed for ORiON.

I would like to urge subscribers and readers of ORiON to submit their research papers to ORiON. Without a steady inflow of papers we would not be able to get ORiON indexed with the major international indexes. Readers are also welcome to contact the editor-in-chief with any recommendations or suggestions regarding the publication of ORiON.

Stephan Visagie

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