



SDI Review Form 1.6

Journal Name:	<u>British Journal of Applied Science & Technology</u>
Manuscript Number:	2015_BJAST_18348
Title of the Manuscript:	Global Optimisation of Gasoline Pool Blending Using Constraint Partitioning
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (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)
<u>Compulsory</u> REVISION comments	The manuscript presents a hybrid Nonlinear Programming–Simulated Annealing method to be applied to solving the constrained offline gasoline recipe optimisation problem using constraint partitioning. Overall, the work is well written, the motivation and objectives need to be more clear and well defined. Apparently, the objectives initially proposed were successfully achieved.	The motivation of the work is clear (solution times of conventional methods applied to large problems are unreasonable for short to medium term planning) as stated in the latter part of the introduction however, the objectives of the work have been made more elaborate.
<u>Minor</u> REVISION comments	1. In the introduction, the cited works served as the basis for the development of research. 2. The methodology has been described, however, could be added to a figure to better illustrate the problem, and even better detail the mathematical model used. The Figure 4 not was cited in the text and is not readable. 3. The results are well presented, however, to enrich a little more discussion is important that to be cited recent and relevant work related to this manuscript. The Figure 2 and the equations 3, 4, 12 and 13 are not readable. The Figure 7 is incomplete. 4. The conclusion is well supported by the results presented. The references presented were adequate to the basement of the introduction, but were insufficient to enrich the discussion of the results.	2. We believe the mathematical model provided sufficiently describes the problem as the equations provided were the same ones coded into the GAMS solver. Figure 4, now 2 has been made readable and quoted in the text. This now supports the introduction part. 3. Figure 7 is complete. The vertical axis caters for both profit and solution time with the units in the legend. The equations pointed out have been rewritten using MathType since the document template is in .doc format which is not compatible with equation editor in newer docx formats.



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<u>Optional/General</u> comments	1. The “kbbl” unit was not specified; 2. Some Figures and Tables was not cited in the text; 3. The work is not in accordance with the template of the Journal.	1. kbbl has now been defined 2. All figures and tables have now been referred to in the text