

Erratum to: FUGE: A joint meta-heuristic approach to cloud job scheduling algorithm using fuzzy theory and a genetic method

Mohammad Shojafar · Saeed Javanmardi ·
Saeid Abolfazli · Nicola Cordeschi

Published online: 19 March 2015
© Springer Science+Business Media New York 2015

Erratum to: Cluster Comput DOI 10.1007/s10586-014-0420-x

The original version of this article unfortunately contained mistakes which are listed below. The authors apologise for the errors and the inconvenience caused to the readers.

On page 9, the first line of the paragraph above Eq. (3.1) should have read as “We formulate a linearly constraint programming model for” instead of “We formulate a linear programming model for”.

On the same page, in the first line of the last paragraph, the word “concave” should have read as “convex”. On page 10, in the paragraph that starts as “According to” the words “(linear)” and “use maximize instead of minimization and” should not have appeared. The word “concave” should have read as “convex”.

The online version of the original article can be found under doi: [10.1007/s10586-014-0420-x](https://doi.org/10.1007/s10586-014-0420-x).

M. Shojafar (✉) · N. Cordeschi
Department of Information Engineering Electronics and
Telecommunications (DIET), University Sapienza of Rome,
via Eudossiana 18, 00184 Rome, Italy
e-mail: m.shojafar@yahoo.com; shojafar@diet.uniroma1.it
URL: <http://www.mshojafar.com>

N. Cordeschi
e-mail: cordeschi@diet.uniroma1.it

S. Javanmardi
Research and Education center, Nikan network Company,
Shiraz, Fars, Iran
e-mail: info@nikannetwork.com; saeedjavanmardi@gmail.com

S. Abolfazli
Center for Mobile Cloud Computing, University of Malaya,
Kuala Lumpur, Malaysia
e-mail: Abolfazli@ieee.org

Therefore, the paragraph should have read as “According to Eq. (4), f is order one for x and y , so we can easily calculate Hessian matrix for evaluating convexity. Therefore, we have in following:

$$\begin{aligned} f(x, y) &= \frac{C}{x} + \frac{D}{y}, \\ f'_x &= -C/x^2 \leq 0, \quad f'_y = -D/y^2 \leq 0, \\ f''_{xx} &= +2C/x^3, \quad f''_{yy} = +2D/y^3, \\ f''_{xy} &= f''_{yx} = 0, \\ \text{Det.} &= f''_{xx}f''_{yy} - f''_{xy}f''_{yx} = \frac{4CD}{x^3y^3} \geq 0 \end{aligned} \quad (5)$$

where Eq. (5) is the Hessian Determinant for the objective function (4). Therefore, objective function is convex and for the practical implementation with the fuzzy method we chose to maximize the opposite of the f instead of minimization by applying Karush–Kuhn–Tucker (KKT) [6].”