



Retraction Note: An architecture of agent-based multi-layer interactive e-learning and e-testing platform

Muhammad Arif^{1,2} · Manzoor Illahi² · Ahmad Karim¹ · Shahaboddin Shamshirband^{3,4} · Khubaib Amjad Alam¹ · Shahid Farid¹ · Salman Iqbal¹ · Zolkepli Buang⁵ · Valentina Emilia Balas⁶

Published online: 9 November 2019
© Springer Nature B.V. 2019

Retraction Note: Qual Quant (2015) 49:2435–2458 <https://doi.org/10.1007/s11135-014-0121-9>

The Editor-in-Chief has retracted this article (Arif et al. 2015) because validity of the content of this article cannot be verified. This article showed evidence of peer review and authorship manipulation. Authors Muhammad Arif, Ahmad Karim, Shahaboddin Shamshirband, Khubaib Amjad Alam, Shahid Farid, Salman Iqbal do not agree to this retraction. Authors Manzoor Illahi, Zolkepli Buang, Valentina Emilia Balas have not responded to any correspondence from the editor or publisher about this retraction.

Reference

Arif, M., Illahi, M., Karim, A., Shamshirband, S., Alam, K.A., Farid, S., Iqbal, S., Buang, Z., Balas, V.E.: An architecture of agent-based multi-layer interactive e-learning and e-testing platform. *Qual. Quant.* **49**, 2435–2458 (2015). <https://doi.org/10.1007/s11135-014-0121-9>

The original article can be found online at <https://doi.org/10.1007/s11135-014-0121-9>.

✉ Muhammad Arif
arifmuhammad36@siswa.um.edu.my

Shahaboddin Shamshirband
shamshirband1396@gmail.com

¹ Faculty of Computer Science and Information Technology, University of Malaya, 50603 Kuala Lumpur, Malaysia

² Department of Computer Science, COMSATS Institute of Information Technology Islamabad, Islamabad, Pakistan

³ Faculty of Computer Science and Information Technology, Department of Computer System and Technology, University of Malaya, 50603 Kuala Lumpur, Malaysia

⁴ Department of Computer Science, Chalous Branch, Islamic Azad University (IAU), Chalous 46615-397, Mazandaran, Iran

⁵ Universiti Teknikal Malaysia Melaka, Hang Tuah Jaya, 76100 Durian Tunggal, Melaka, Malaysia

⁶ Department of Automation and Applied Informatics, University of Arad, 310130 Arad, Romania

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.