

Accepted Manuscript

Title: Estimation of lactate threshold with machine learning techniques in recreational runners

Author: Urtats Etxegarai Eva Portillo Jon Irazusta Ander Arriandiaga Itziar Cabanes



PII: S1568-4946(17)30699-3
DOI: <https://doi.org/doi:10.1016/j.asoc.2017.11.036>
Reference: ASOC 4580

To appear in: *Applied Soft Computing*

Received date: 22-5-2017
Revised date: 26-10-2017
Accepted date: 20-11-2017

Please cite this article as: Urtats Etxegarai, Eva Portillo, Jon Irazusta, Ander Arriandiaga, Itziar Cabanes, Estimation of lactate threshold with machine learning techniques in recreational runners, *Applied Soft Computing Journal* (2017), <https://doi.org/10.1016/j.asoc.2017.11.036>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

- A machine learning system based on recurrent neural networks is proposed to estimate the lactate threshold in recreational runners
- A standardization of the temporal axis is proposed to train models using different length time-series
- A modification of the stratified sampling is proposed for homogeneous train-test set splitting of time-series
- The system shows good individualization and generalization power
- It has potential as non-invasive, cost efficient and easily accessible alternative to the traditional lactate threshold testing method

Accepted Manuscript

Download English Version:

<https://daneshyari.com/en/article/6904157>

Download Persian Version:

<https://daneshyari.com/article/6904157>

[Daneshyari.com](https://daneshyari.com)