

Access provided by:  
**University of Zilina**  
 Sign Out

BROWSE

MY SETTINGS

GET HELP

WHAT CAN I ACCESS?

Browse Conference Publications &gt; Cybernetics (CYBCONF), 2015 I ...

| Back to Results |

## Linguistic variable elimination for a heart failure dataset

 Full Text as PDF

 Full Text in HTML

3

Author(s)

Bohacik, J. ; Dept. of Inf., Univ. of Zilina, Zilina, Slovakia ; Matiasko, K. ; Benedikovic, M.

Abstract

Authors

References

Cited By

Keywords

Metrics

Similar

Patients with heart failure often suffer disabling symptoms. In addition to these symptoms, half of all patients diagnosed with heart failure die within four years. The prevalence of heart failure is currently about 2%-3% of the adult population and it is expected to grow. It is interesting to predict if a patient with heart failure dies soon so that life-threatening situations and costs are minimized. In this paper, a data mining method for discovering fuzzy rules with different truth level thresholds in linguistic variable elimination for prediction of death on the basis of data available in hospitals is presented. Cognitive uncertainties are taken into consideration through the use of fuzzy sets, membership functions and membership degrees. The accuracy of the prediction of the death for a patient with heart failure and the interpretability of fuzzy rules are discussed. Our study shows, in comparison to other data mining methods, that it is useful for this type of prediction.

**Published in:**

Cybernetics (CYBCONF), 2015 IEEE 2nd International Conference on

**Date of Conference:**

24-26 June 2015

**Page(s):**

196 - 200

**Print ISBN:**

978-1-4799-8320-9

**INSPEC Accession Number:**

15347453

**Conference Location :**

Gdynia

**DOI:**

10.1109/CYBConf.2015.7175931

**Publisher:**

IEEE

Personal Sign In | Create Account

**IEEE Account**

- » Change Username/Password
- » Update Address

**Purchase Details**

- » Payment Options
- » Order History
- » View Purchased Documents

**Profile Information**

- » Communications Preferences
- » Profession and Education
- » Technical Interests

**Need Help?**

- » **US & Canada:** +1 800 678 4333
- » **Worldwide:** +1 732 981 0060
- » Contact & Support

About IEEE Xplore | Contact Us | Help | Terms of Use | Nondiscrimination Policy | Sitemap | Privacy & Opting Out of Cookies

A not-for-profit organization, IEEE is the world's largest professional association for the advancement of technology.  
 © Copyright 2015 IEEE - All rights reserved. Use of this web site signifies your agreement to the terms and conditions.