Web-based E-diagnostic for Digestive System Disorders in Humans using the Demster Shafer Method

Foundation of Computer Science (FCS), NY, USA

Volume 178 - Number 35

Year of Publication: 2019

Authors:
Eka Ayunda Prameswari, Agung Triayudi, Ira Diana Sholihati

10.5120/ijca2019919231

Abstract

Digestive system disorders are dangerous diseases. Lack of awareness of public health is still low, life habits, behavior and mindset that want to live practically, a means of delivering information about diseases that are still lacking, and the lack of medical personnel is a problem, therefore an expert system application is needed to diagnose disease on the web-based digestive system. By providing certainty in the form of a percentage, then using the calculation through symptoms chosen by the user of each symptom has a density value, the density value is obtained from the results of interviews with doctors. Web-based E-Diagnostics for digestive system disorders uses the Dempster Shafer method which is expected to help users by providing information on disease diagnosis and solutions that can be done to help cure it, the Dempster Shafer Method has the ability to provide a high level of accuracy or certainty, which
method this has characteristics that are in accordance with the way an expert thinks. This
web-based expert system application will display symptoms that can be selected by the user to
get the final results in the form of rapid disease diagnoses and suggestions for prevention in
order to find out information in the form of diagnoses of diseases of the digestive system. Based
on the calculation of accuracy that has been done in this study, it can be seen that the
Dempster Shafer Method is the method that has the highest value with 85% confidence
compared to the Certainty Factor Method with a value of 60%.

References

Mamdani's Fuzzy Inference System: Case Study of UPT Education Office Kec. Penengahan
South Lampung.
Application as Efforts to Increase Customer Retention of Micro Small and Medium Enterprises
(MSMEs) in Banten Indonesia.
with Dempster Shafer Method in Melituspolinema Diabetes Diagnosis Expert
Yogyakarta.
Method and Dempster Shafer Method in Rabbit Disease.
Detecting the Risk Level of Coronary Heart Disease with the Dempster-Shafer Method.
Yogyakarta: UGM University.
Web-Based TunaGrahita Child Diagnosis Expert System. Vol.1 No.1 March 2016. Bengkulu:
University of Bengkul
10. Sembiring Br Sari, Nita & Sinaga Dayan, Mikha. Application of the Dempster Shafer
Method to Diagnose Disease from the Effects of Treponema Pallidum Bacteria. CSRID Journal,
Vol.9 No.3 October 2017.
Theory. Kansas State University.
Diagnosing Children DiseaseUsing Php and Mysql. International Journal of Computer Science
& Information Technology, 4 (5), 175.
International Joint Conference on Artificial Intelligence (IJCAI), Vancouver, vol. II, pp. 868-875,
1981.
theory of evidence in maritime-charcteristic applications. Gdynia Maritime University 32 (104) z.
2pp. 141-137
Index Terms

Computer Science                      Artificial Intelligence

Keywords

Expert System, E-Diagnostic, Digestive, Dempster Shafer.