Computer aided patient evaluation in the low back pain pathology

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Book Group Author(s): IEEE

2015 IEEE 10TH JUBILEE INTERNATIONAL SYMPOSIUM ON APPLIED COMPUTATIONAL INTELLIGENCE AND INFORMATICS (SACI)

Pages: 27-30

Published: 2015

Conference

Conference: 10th Jubilee IEEE International Symposium on Applied Computational Intelligence and Informatics

Location: Timisora, ROMANIA

Date: MAY 21-23, 2015

Abstract

The aim of the paper is to implement an artificially intelligent assessment system that is based on a modified fuzzy inference system. This system reduces the rate of patient complications. This inference system, consisting of 246 rules, avoids the defuzzification process and offers the final result in natural language form. 51 of the rules indicate that appropriate action must be of a lumbar spine surgery, 163 of the rules indicate that the patient should continue medical rehabilitation and 32 of the rules indicate that the patient is medically healthy. Early diagnosis and rapid establishment of a targeted treatment are decisive factors for therapeutic success. The results of this study showed that patients from first lot had better results than patients of the second lot.

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Publisher

IEEE, 345 E 47TH ST, NEW YORK, NY 10017 USA

Categories / Classification

Research Areas: Computer Science; Engineering

Web of Science Categories: Computer Science, Artificial Intelligence; Computer Science, Theory & Methods; Engineering, Electrical & Electronic

Document Information

Document Type: Proceedings Paper

Language: English

Accession Number: WOS:000380397800006

ISBN: 978-1-4799-9911-8

Citation Network

Other Information

IDS Number: BF1HP

Cited References in Web of Science Core Collection: 13

Times Cited in Web of Science Core Collection: 0