Abstract

Rankings approaches are a public way of providing information in different fields. In health care domain, the direct impact of the ranking systems is that these hospitals will explore all the paths to improve their rank that reflect on attracting more patients. Current methodologies mainly include subjective indicators in their ranking systems. The purpose of this paper is to develop a new quantitative ranking model based on multi-criteria decision making using fuzzy logic to rank the computed tomography (CT) departments in hospitals. The system is based on factors extracted from both the hospitals and the CT scan devices. The output of the system from 30 different hospitals has been compared with experts' opinions showing an average error of 2.17 ±1.8.

References

- C. Giannoulis and A. Ishizaka, “A Web-based decision support system with ELECTRE III for a personalised ranking of British universities,” Decision Support Systems,
- R. J. Zall, B. J. Kinsella, and L. Proskauer Rose, "Going Private: Navigating State Review of Nonprofit Hospital Conversions.",

Index Terms
Computer Science
Fuzzy Systems

Keywords
Ranking computed tomography(CT) fuzzy logic control