

Expert Systems in Medical Diagnosis

K.I. Nkuma-Udah¹, G.O. Onwodi², D. Njoku³, G.I.N. Ndubuka¹ and F.B. Osang²

¹Department of Biomedical Technology, Federal University of Technology, Owerri, Nigeria

²Department of Computer Science, National Open University of Nigeria, Lagos, Nigeria

³Department of Computer Science, Imo State Polytechnic, Umuagwo, Imo State, Nigeria

(Received August 22, 2013; Revised October 21, 2013; Accepted October 29, 2013)

Clinicians all over the world use several sources of data through a series of algorithms to make a diagnostic impression. This is aimed at arriving at an appropriate treatment decision. The cost of healthcare globally is high. So bringing intelligent healthcare informatics to bear on the dual problems of reducing healthcare costs and improving quality and outcomes is a challenge even in countries with a reasonably developed technology infrastructure. This research sets out to review expert systems in medical diagnosis, *ESMD*. *ESMD* is usually designed to enable the clinicians to identify diseases and describe methods of treatment to be carried out taking into account the user capability. Many formats use the C Language Integrated Production System (CLIPS) as the tool for use to design the *ESMD*. In the system, a number of patient cases is selected as prototypes and stored in a separate database. The knowledge is acquired from literature review and human experts of the specific domain and is used as a base for analysis, diagnosis and recommendations.

Key words: Developing, Affordability, Appropriateness, Expert System, Medical Diagnosis, Developing Countries, Artificial Intelligence