
EXPERT SYSTEMS FOR HUMAN, MATERIALS AND AUTOMATION

Edited by **Petrică Vizureanu**

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Integrated Scheduled Waste Management System in Kuala Lumpur Using Expert System

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1. Introduction

Over the past decade, Malaysia has enjoyed tremendous growth in its economy and population, this resulted in an increase in the amount of waste scheduled generated. Furthermore, scheduled waste management has long been a problem area for local authorities in Kuala Lumpur. Continued illegal dumping by waste generators is being practiced at large scale due to lack of proper guidance and awareness. This paper reviewed discussed and suggested about service provided for scheduled waste management by an authority and international scenario of scheduled waste management. An expert system was developed to integrate scheduled waste management in Kuala Lumpur. The knowledge base was acquired through journals, books, magazines, annual report, experts, authorities and web sites. An object oriented expert system shell, Microsoft Visual Basic 2005 Express Edition was used as the building tools for the prototype development. The overall development of this project has been carried out in several phases which are problem identification, problem statement and literature review, identification of domain experts, prototype development, knowledge acquisition, knowledge representation and prototype development. Scheduled waste expert system is developed based on five types of scheduled waste management which are label requirements, packaging requirements, impact of scheduled wastes, recycling of scheduled wastes, and recommendations. Besides, it contains several sub modules by which the user can obtain a comprehensive background of the domain. The output is to support effective integrated scheduled waste management for KL and world-wide as well.

2. Scheduled wastes

Even though use of information technology plays a major role in application of technology nowadays, application of artificial intelligence (AI) is still in its infancy in Kuala Lumpur. During the last decade AI has grown to be a major of research in computer science. Varieties of AI-based application programs have been developed to address real life problems and have been successfully field-tested (L.C. Jayawardhanaa et al, 2003). As Kuala Lumpur still lacks proper systems of information assimilation, archival and delivery, AI tool can effectively be employed to solve for the management of scheduled waste.