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**ASSIGNMENT**

### SIGNAL PROCESSING TECHNIQUE

Measurement system requires frequency to be estimated using digital signal processing techniques. These frequency measurement method are to be implemented using a digital signal processor or a microcontroller. This paper presents a comparison of different frequency measurement methods by signal processing techniques. Simulation results show the accuracy of frequency measurement by various techniques.

### INTERFACING TECHNIQUES

## Meaning of Expert System:

An expert system is the highest form of management computing office automation which allows the communication and manipulation of documents.

Decision support systems aid in problem solving by allowing for manipulation of data and models.

Expert systems go beyond traditional manipulation of this type as they allow experts to 'teach' computers about their fields so that the system may support more of the decision making process for less expert decision makers.

In this sense, an expert system is software that contains a knowledge base of facts and relationships and has the ability to make inferences based on that knowledge base. An expert system is a computer based information system in which knowledge is represented in data, in which the processing of the knowledge is directed primarily by computer programs.

Expert systems represent one of the most advanced facts of information technology. That is, they aid people in some of the most complex and least understood human information handling tasks, i.e., decision making, problem solving, diagnosis and learning. They do this by storing a large amount of factual information on a subject area, together with lines of reasoning employed by human experts in that area.

Most of this material is supplied to the program at the time it is written, but it also has facilities for adding to this base of information as it is applied in new situations. The subject expertise is provided initially by interviews and observations of successful PR actioners of the subject. Expert system is software, which is used by the business executives to solve complex organizational problems. These are the programs, which act both as intelligently and as an expert in some area of knowledge. Modern business managers perform their duties under dynamic environment. Due to the complexity in the way, the business is conducted.

There are number of variables which are involved in decision making. This has made the overall decision making process very complex to analyze the alternatives manually. The role of operation research has been increasingly important in solving managerial problems. Expert systems are the programs, which incorporate all these decision-making technique