Expert systems (ES) are one of the prominent research domains of AI. It is introduced by the researchers at Stanford University, Computer Science Department.

What are Expert Systems?

The expert systems are the computer applications developed to solve complex problems in a particular domain, at the level of extra-ordinary human intelligence and expertise.

Characteristics of Expert Systems

* High performance
* Understandable
* Reliable
* Highly responsive

Capabilities of Expert Systems

The expert systems are capable of −

* Advising
* Instructing and assisting human in decision making
* Demonstrating
* Deriving a solution
* Diagnosing
* Explaining
* Interpreting input
* Predicting results
* Justifying the conclusion
* Suggesting alternative options to a problem

They are incapable of −

* Substituting human decision makers
* Possessing human capabilities
* Producing accurate output for inadequate knowledge base
* Refining their own knowledge

Components of Expert Systems

The components of ES include −

* Knowledge Base
* Interface Engine
* User Interface