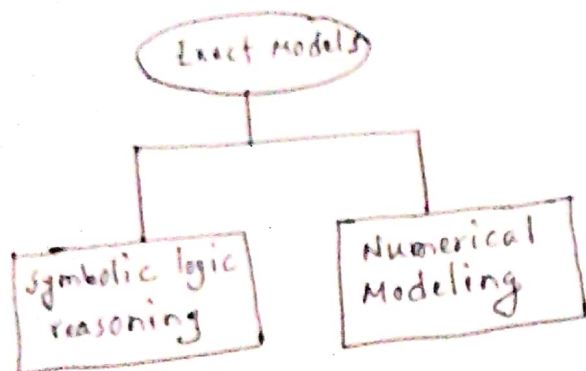


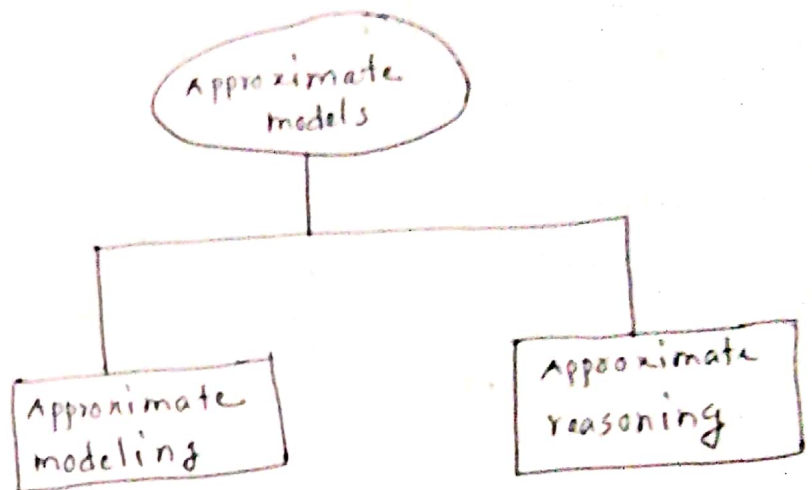
Hard Computing:

- Conventional computing
- Systematic model
- A moderate computation time
- Crisp System (zeros, ones)
- characteristic of precision and category
- Input real data, output valued answers



Soft Computing

- Liberal of imprecision, unreliability, partial truth and approximation
- Based on Fuzzy Logic computing, Neural Nets and probabilistic reasoning
- High Machine Intelligence / Lower cost
- Noisy input data/output approximate answers



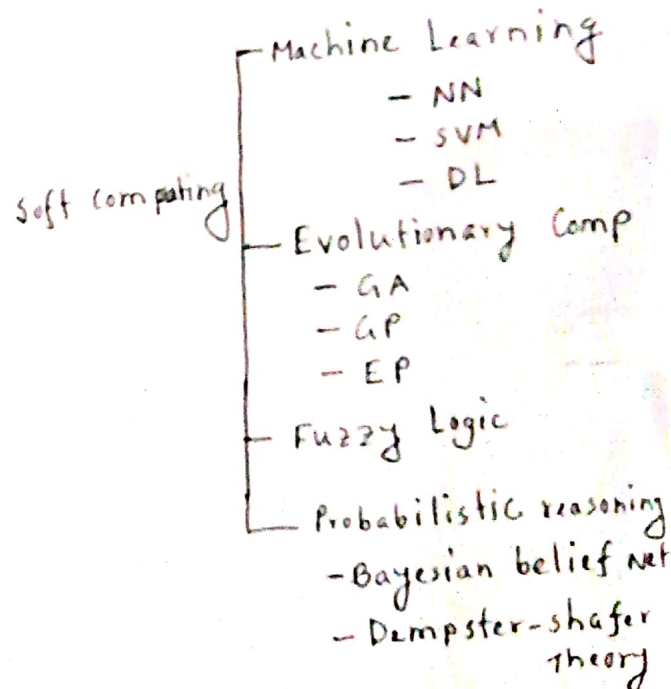
Soft Computing:

Emerging approach

- Parallel the remarkable ability of the human
- Learn in an environment of uncertainty and imprecision
- Principle component includes
 - Neural Network
 - Fuzzy logic
 - Genetic Algorithm

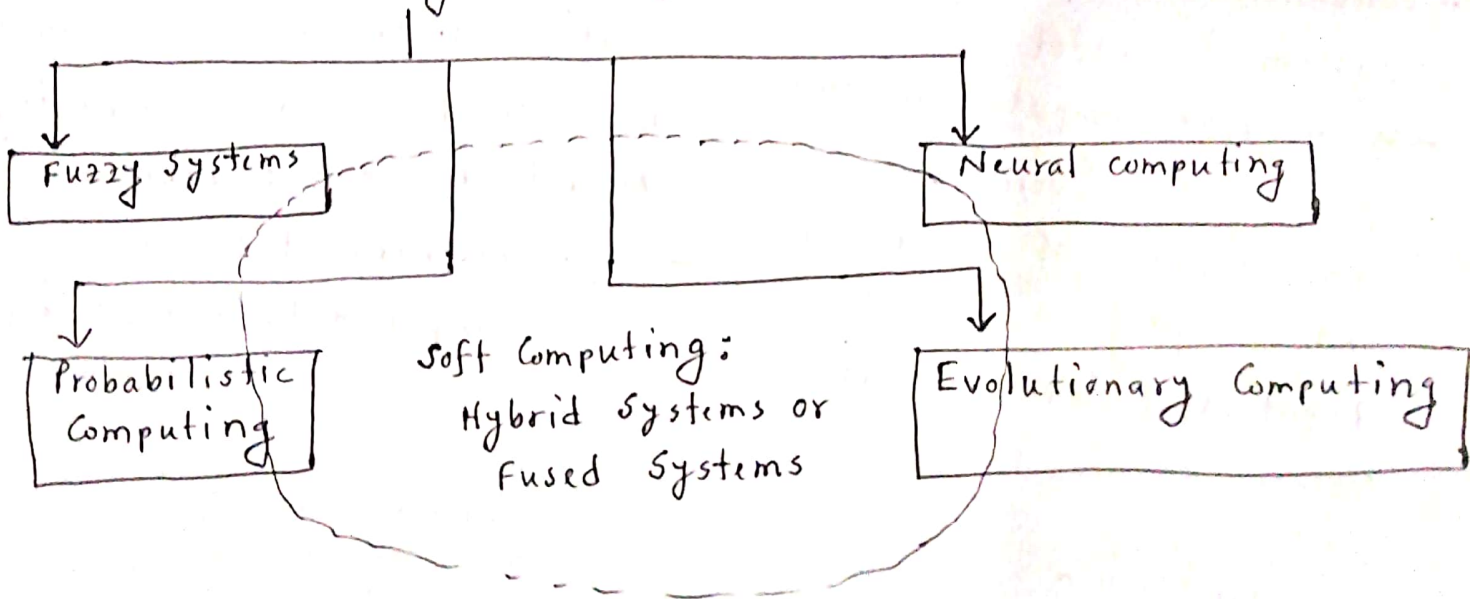
Application:

- Handwriting recognition
- Image processing
- Decision-support systems
- Neurofuzzy systems
- Fuzzy logic control



Structure of soft computings:

computing Methodologies



Topic Cover

- Ant colony optimization
- Swarm intelligence optimization
- Metaheuristics