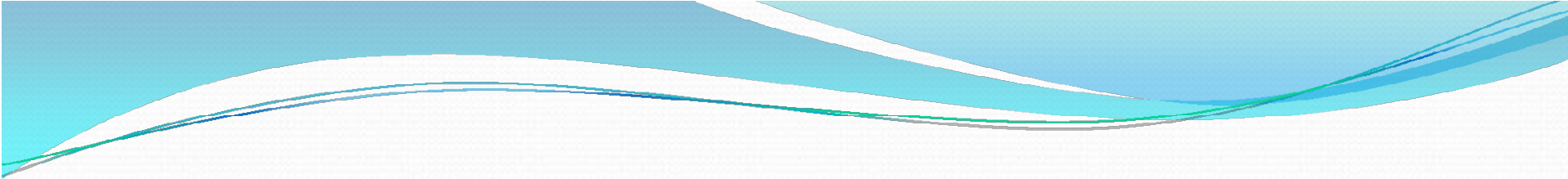


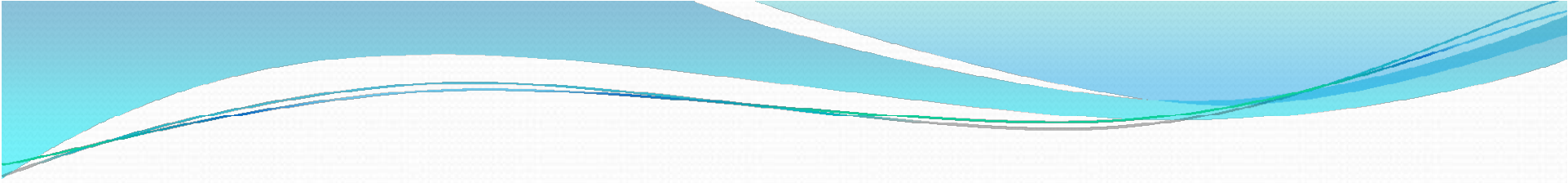
DNA COMPUTING

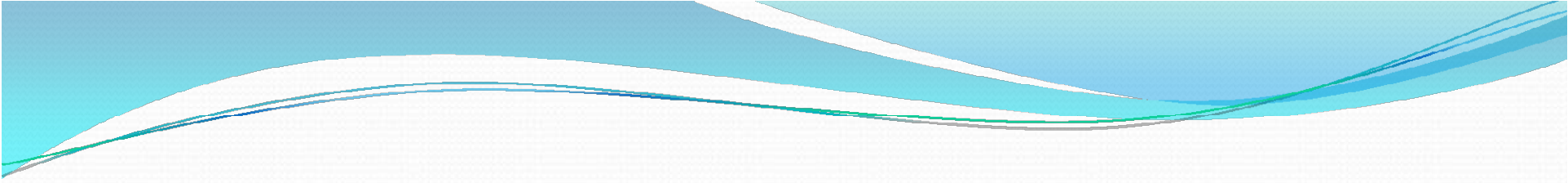
Presented by

Nisha C.D

Asst.Professor , Dept of Computer Science
LF College, Guruvayoor

- 
- The method and nature of computation has changed from manual in stone ages to mechanical and then to electronic in new computer age.
 - Computer consists of integrated circuit mainly constructed using silicon.
 - Chip makers need a new material to produce faster and computing speeds.
 - They used DNA of our genome in creating computer processors and data storage, and with high processing speed.

- 
- DNA computing is a form of computing which uses DNA instead of silicon based technology.
 - Fast developing interdisciplinary area.
 - DNA is a major information storage molecule in living cell.
 - It uses chemical properties instead of electrical impulses.
 - It can do this through manufacture of enzyme, which are biological catalysts that could be called software.

- 
- Basic ability to store information and compute solution through its methodology.
 - Work through DNA based logic gates.
 - Difference in composition of input and output signals.



ADVANTAGES

- Smaller
- Perform million of operation
- Generate complete set of potential solutions and conduct large parallel searches.
- Efficient amount of working memory.
- Inexpensive
- Doesn't produce toxic by products.



DISADVANTAGE

- DNA computers couldn't replace traditional computer.
- Require human assistance.
- Not programmable.
- Require large amount of memory.
- Lots and lots of DNA strands are required.



THANK YOU