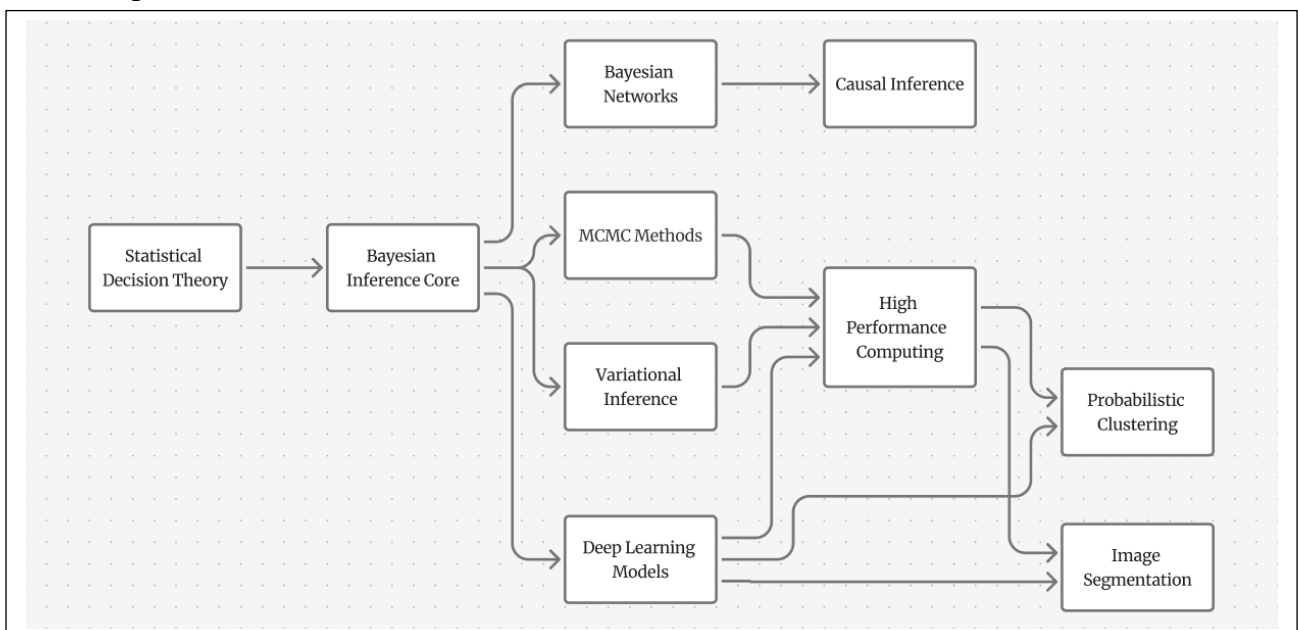# Advanced Statistical Learning (ASL) Lab

- **Name of Principal Investigator**: Dr. Pushkal Kumar
- **Name of Co-Principal Investigators**: Dr. Ashkamini and Dr. Suman Mahapatra

- **Research Theme**: ASL lab focuses on the intersection of theoretical statistics and machine learning to provide data-driven solutions for the cutting-edge real-world problems.

- **Broad Area of Research and Scope:**
  - Statistical Decision Theory
  - Variational Inference and MCMC Methods
  - Bayesian Network and Causal Inference
  - Generative Deep Modelling
  - High Performance Bayesian Computing
  - Image Segmentation
  - Probabilistic Clustering

Schematic Representation of Broad Area of Research:

Industry/Academia Collaborations:

- Prof. Manas Ranjan Tripathy, NIT Rourkela
- Prof. Somesh Kumar, IIT Kharagpur
- Dr. Habiba Khatun, IIT Kanpur
- Prof. Pradipta Maji, ISI Kolkata
- Prof. Satyanshu K Upadhyay, B.H.U., Varanasi
- Dr Reema Sharma, B.H.U., Varanasi

Targeted Application Area:

- AI in Healthcare
- Computational Biology and Genomics
- Financial Forecasting and Risk Modelling
- Social Networks and Societal Analytics

Visions :
- Organizing Workshop and Conferences
- Publishing High Impact Research Articles
- Patent Publications
- Acquiring Research Grants from Academia and Industry
- Furnishing PhDs

Group Members :

Dr. Pushkal Kumar

Dr. Ashkamini

Dr. Suman Mahapatra

Adrija Ray Dakua
(Research Scholar)

Prerna Singh
(Research Scholar)

Prity Suman
(Research Scholar)