Department of Computer Science & Engineering
Tezpur University

Computational Biology & Bioinformatics Lab

Computational Biology &Bioinformatics (CBBI-Lab), Department of Computer Science & Engineering at Tezpur University was set up in the year 2016 with financial support from DBT, Govt. of India funded research project. In collaboration with related domain experts, this multidisciplinary research lab focuses on computational study on evolution at molecular level across organisms including virus, bacteria and human.

(a) Equipment(s)

Sl. No.	Equipment (with specification) and Year of Purchase	Quantity
1	PCs	2
2	Workstation	1
3	Server	1
4	UPS	1

(b) Types of Experiments Conducted

Sl. No.	Experiments Conducted/Performed
1	Measuring codon usage bias in genes
2	Estimating single nucleotide polymorphism in DNA sequence
3	RNA secondary structure prediction
4	Microorganism genome sequence annotations
5	Estimation of selection pressure
6	Molecular Phylogeny
7	Sequence Alignment

(c) Open-source tools/software used

Name of tool/software	Utility
MEGA	Used for conducting automatic and manual sequence alignment, inferring phylogenetic trees
Python	Used for developing own software
R Studio	Used for statistical analysis
Software developed in house	For research/teaching

(d) People working in the Lab.

Research scholars and M.Tech./MCA/B.Tech./M.Sc. students doing projects in Computational Biology & Bioinformaticstopics are working here.