JAYAWANT SHIKSHAN PRASARAK MANDAL's
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(Approved by AICTE New Delhi, DTE Mumbai & Affliated to Savitribai Phule Pune University)
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Principal
Institute Accredited by National Assessment and Accreditation Council (NAAC), Bengaluru
National Board of Accreditation (NBA), New Delhi. Accredited Programs:
Information Technology, Electronics and Telecommunication Engineering, Electrical Engineering

DEPARTMENT OF COMPUTER ENGINEERING

Laboratory Work Plan [Laboratory Practice V] AY 2023-24, Sem-II Class & Div: ***BE(A)***

Name of Faculty : **Prof. Sonawane Vijay D.** SPPU Practical: ***50*** Credit: ***01***

Expt No	*Unit No*	*CO*	*Planned Week*	*Brief Title of Expt*	*Required facility / eqpt / consumable are available*	*Batch*	*Actual Date of Performance*	*Assess Date*	*Student Activity (only 1)*	*Remarks*
1	I,VI	CO1,2	Jan 2nd Week	Design and implement Parallel breadth First Search and Depth First Search based on existing algorithms using OpenMP. Use a Tree or an undirected graph for BFS and DFS .	Operating`1 System recommended :- 64-bit Open source Linux Programming Languages: Object Oriented Languages C++/JAVA/PYTHON/R	A1	11/01/24	15/1/24		
						A2	12/01/24	16/1/24		
						A3	12/01/24	17/1/24		
2	I, II	CO4	Jan 3rd Week	Linear regression by using Deep Neural network: Implement Boston housing price prediction problem by Linear regression using Deep Neural network. Use Boston House price Prediction dataset.		A1	18/01/24	22/1/24		
						A2	19/01/24	23/1/24		
						A3	19/01/24	24/1/24		
3	I, II	CO1,2	Feb 1st Week	Write a program to implement Parallel Bubble Sort and Merge sort using OpenMP. Use existing algorithms and measure the performance of sequential and parallel algorithms.		A1	25/01/25	29/1/24		
						A2	30/01/23	02/2/24		
						A3	31/01/24	02/2/24		

4	III,IV	CO4	Feb 2nd Week	Classification using Deep neural net-work (Any One from the following) 1. Multiclass classification using Deep Neural Networks: Example: Use the OCR letter recognition dataset https://archive.ics.uci.edu/ml/datasets/letter+recognition 2. Binary classify- cation using Deep Neural Networks Example: Classify movie reviews into positive" reviews and "negative" revie-ws, just based on the text content of the reviews. Use IMDB dataset	Programming tools recommended: Front End: Java/Perl/PHP/Python/Ruby/.net, Backend : MongoDB/MYSQL/Oracle, Database Connectivity : ODBC/JDBC	A1	01/02/24	05/2/24		
						A2	06/02/24	09/2/24		
						A3	09/02/24	14/2/24		
5	III	CO2	Feb 3rd Week	Implement Min, Max, Sum and Average operations using Parallel Reduction		A1	08/02/04	12/2/24		
						A2	13/02/24	16/2/24		
						A3	16/02/24	23/2/24		
6	III,IV	CO5	Feb 4th Week	Convolutional neural network (CNN) (Any One from the following) □ Use any dataset of plant disease and design a plant disease detection system using CNN. □ Use MNIST Fashion Dataset and create a classifier to classify fashion clothing into categories.		A1	15/02/24	26/2/24		
						A2	20/02/24	23/2/24		
						A3	28/02/24	01/3/24		

7	V,VI	CO3	Feb 5th Week	Implement HPC application for AI/ML domain.		A1	29/02/24	4/3/24		
						A2	27/02/24	6/3/24		
						A3	06/03/24	13/3/24		
8	I-VI	CO6	March 2nd Week	Mini Project: Human Face Recognition		A1	07/03/24	11/3/24		
				Mini Project: Gender and Age Detection: predict if a person is a male or female and also their age		A2	05/03/24	12/3/24		
				Mini Project: Colorizing Old B&W Images: color old black and white images to colorful images		A3	15/03/15	27/3/24		
9	V,VI	CO6	March 3rd Week	Mini Project: Evaluate performance enhancement of parallel Quicksort Algorithm using MPI		A1	14/03/24	18/3/24		
				Mini Project: Implement Huffman Encoding on GPU		A2	15/03/24	19/3/24		
				Mini Project: Implement Parallelization of Database Query optimization		A3	29/03/24	3/4/24		

Sign of Course Coordinator (Faculty) ***Sign of Module Coordinator*** ***Sign of HOD***

Imp Instructions :

1. All the experiments should be assessed within 15 days from the date of performance of concerned expt.
2. Concerned practical teacher should record all the experiments of the subject and upload on Moodle.