B.L.D.E. Association's

S.B.ARTS & K.C.P SCIENCE COLLEGE
VIJAYAPUR

M.Sc. Computer Science

A REPORT ON

Bridge Course

Entitled

"Technical, Theoretic and Practical approaches in Higher Education"

For
M.Sc (CS)-I Sem Students

2022-2023

Resource Person

Prof.(Smt) R.D.Joshi
Dr. D.A. Mulimani
Prof. Pavankumar Mahindrakar

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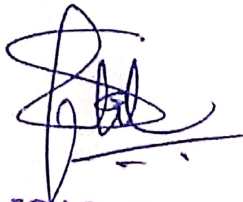
M.Sc(CS) Programme

NOTICE

It is here by informed to all the M.Sc(CS) I Semester students that there will be Bridge Course from 17/1/2023-20/1/2023 .So all of you should attend and get the benefit.
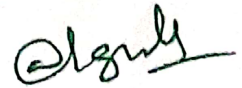
R.D.Joh
16/1/2023
Co-ordinator
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M.Sc(CS) Programme

About Bridge Course

The Bridge Course is aimed to act as a buffer for the new entrants, with an objective to provide adequate time for the transition to hard-core engineering courses. During this interaction of bridge course week with the faculty and their classmates, the students will be equipped with the knowledge and the confidence needed to take on bigger challenges as future engineers of this country.

Objectives: **To act as a buffer for the new entrants.**

- To provide adequate time for the transition to hard-core engineering courses.

- Focus on fostering a strong sense of ethical judgment and moral fortitude.

- Applications based self-learning and intermingling of a large cross section of students from vastly varying backgrounds.

- A breather, to prepare themselves before courses for first year engineering commence.

- The students will be equipped with the knowledge and the confidence needed to take on bigger challenges.

- Nurture a deeper understanding of the local and global world and our place in at as concerned citizens of the world.

- Interactive and Active Learning by Doing have been weaved into the Bridge Course.

- Active learning with the help of other students.

Syllabus For Bridge Course 2022-23

Subject 1: Introduction of Operating System and its services   2Hour

UNIT 1: Overview: Definition of Operating System, Functions of an Operating System.
UNIT 2: Types of Operating System: Batch operating system Time-sharing operating systems, Distributed operating System , Network operating System and Real Time operating System
UNIT 3: Services: Services , Batch Processing. Processes : Process, Program, Process Life Cycle.
UNIT 4: Linux : Components of Linux System, Basic Features , Architecture and Basic Commands.

Subject 2: Basic computer organization and design   2 Hour

UNIT I: Instruction & Instruction Codes, Input-Output instruction, Instruction Set Completeness Arithmetic, logical and shift instructions A set of instructions for moving information to and from memory and processor registers.

- Instructions which controls the program together with instructions that check status conditions.
- Input and Output instructions

Instruction Cycle, Input-Output Configuration, Design of a Basic Computer

UNIT II: Linux, *Components of Linux System,* Kernel - System Library – System Utility *Basic Features,* Linux Operating System. Security – Linux provides user security using authentication features like password protection/ controlled access to specific files/ encryption of data. *LINUX Architecture*

Subject 3. Introduction to Data and How to manage Data   2 Hour

Unit 1: Introduction to Data and Its management, Data base software's, DBMS characteristics, Applications and Development tools.
Unit 2: DBMS system Relational Data Model: their key terms: Entity, Attributes, types of attributes, ER diagram on various data base structure: Bank DB, Hospital DB, Student College DB etc [Activities: assignments given on ER models, To give presentation on each Data base and their Structure]
Unit 3: External Users of DB, End users their role, DB administrators, Designers and many others.
Unit 4: Moving towards advances of DBMS in the higher level of Studies. Syllabus Discussion and their preparation. Role of Back end in the various application Models.

Subject 4: Data Structure   2 Hour

Unit 1: Data, Definition, Data types, Built-in Data Type, Derived Data Type, Basic types of Data Structures, Algorithm, Complexity
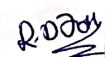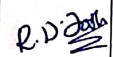Unit 2: **Basic** Operations, Classification Data Structures,ArraysLinked List
Unit 3: Stack
Unit 4: Queue, Trees, Heap, Dictionary, Graph
Unit 5: Real life applications of data structures
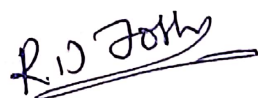
Schedule For Bridge Course 2022-23

Date/ Time	Time	Faculty	Subject	No.of Students	Staff Sign
17/1/2023	10-11.00 am	Prof.R.D.Joshi	Introduction of Operating System and its services UnitI and II	11	R.D.Joshi
	11.00-12.00 pm	Dr.D.A.Mulimani	Introduction to Data and How to manage Data Unit I -II		
18/1/2023	10-11.00 am	Prof. Pavankumar M.	Data Structure Basic Concepts Unit I - II	11	
	11.00-12.00 pm	Prof.R.D.Joshi	Introduction of Operating System and its services Unit IIIand IV		R.D.Joshi
19/1/2023	10-11.00 am	Dr.D.A.Mulimani	Introduction to Data and How to manage Data Unit III -IV	11	
	11.00-12.00 pm	Prof.Pavankumar M.	Data Structure Basic Concepts Unit III - IV		
20/1/2023	10.00 – 12.00pm	Prof.R. D. Joshi	Basic computer organization and design Unit I and II And Overall Conclusion	11	R.D.Joshi

Semester: I

S No	Roll No	Name of the Students	17/01/2023	18/01/2023	19/01/2023	20/01/2023
1	P15KM22S038001	SAVITA MADAR				
2	P15KM22S038002	PRAJWAL DHAREPPA YALAGUDRI				
3	P15KM22S038003	ANUSHA A KULKARNI				
4	P15KM22S038004	GURURAJ PARAPPA JATTI				
5	P15KM22S038005	DUNDAYYA GANGAYYA PUJERI				
6	P15KM22S038006	SAHANA JALAWADI				
7	P15KM22S038007	PALLAVI HADIMURNAVAR				
8	P15KM22S038008	AISHWARAYYA ANANTPUR				
9	P15KM22S038009	BHAGYASHREE SAVALAGI				
10	P15KM22S038010	BHIMASHANKAR HUNNUR				
11	P15KM22S038011	SUSHMITA BASAVARAJ TADASALUR				

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Campus, Vijayapura, Karnataka 586103, India
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