



List of Revised Courses

Department : : Computer Science and Engineering

Program Name : B.Tech.

Academic Year : 2016-17

List of Revised Courses

Sr. No.	Course Code	Name of the Course
01.	CS4201	Data Mining
02.	CS4TPC02	Java Programming



Minutes of Meetings (MoM) of Board of Studies (BoS)

Academic Year : 2016-17

School : School of Studies of Engineering and Technology

Department : : Computer Science and Engineering

Date and Time : July 1, 2016 - 11:30 AM

Venue : E-Class Room

The scheduled meeting of member of Board of Studies (BoS) of Department of Computer Science and Engineering , School of Studies of Engineering and Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur was held to design and discuss the B. Tech. 2nd Year scheme and syllabi.

The following members were present in the meeting:

1. Dr. Dr.Manish Shrivastava (HOD, Assitant Prof., Dept. of CSE.-cum Chairman, BOS)
2. Mr.Vaibhav Kant Singh (Member BoS, Assistant Professor, Dept. of CSE)
3. Dr.Amit Khaskalam (Invited Member)
4. Dr. Sandeep Singh (Invited Member)
5. Mrs.Nishi Yadav (Member BoS, Assistant Professor, Dept. of CSE)
6. Mr. Amit Baghel (Invited Member, Assistant Professor, Dept. of CSE)
7. Mr. Satish Negi (Invited Member, Assistant Professor, Dept. of CSE)
8. Mr. Pushpendra Kumar Chandra (Invited Member, Assistant Professor, Dept. of CSE)

Following points were discussed during the meeting

1. Syllabus revision for B. Tech Final Year for the session 2016-17
2. Modification of the credit and course code of B. Tech 2nd year, 2016-17
3. Implementation of CBCS in 2nd Year.

The committee discussed and approved the scheme and syllabi. The following courses were revised in the of B. Tech. Final year (VII and VIII Semesters) :

- ❖ Data Mining (CS4201)
- ❖ Java Programming (CS4TPC02)

The following new courses were introduced in the of B. Tech. Final year (VII and VIII Semesters):

- ❖ Engineering Economic (CS3THS01)

**विभागाध्यक्ष
Head**
संगणक विज्ञान एवं अभियांत्रिकी
Computer Science & Engg.
अभियांत्रिकी एवं प्रौ. अध्ययन शाला
SOS, Engg. & Technology
गु.घा. विश्वविद्यालय, बिलासपुर (छ.ग.)
G.G.Vishwavidyalaya, Bilaspur (C.G.)

Signature & Seal of HoD



Scheme and Syllabus

SCHEME FOR EXAMINATION B.TECH (FOUR YEAR) DEGREE COURSE FOURTH YEAR, COMPUTER SCIENCE AND ENGINEERING

SEMESTER- VIII

S.N	Code no.	Subject	Periods			Evaluation scheme			Credits
			L	T	P	IA	ESE	TOTAL	
1	CS4201	Data Mining	3	1	-	40	60	100	4
2	CS4202	GUI Programming (using VB.Net)	3	1	-	40	60	100	4
3	CS4203	Artificial Intelligence & Expert Systems	3	1	-	40	60	100	4
4		Professional Elective - II	3	1	-	40	60	100	4
			Practical						
1	CS4204	GUI Programming Net (using VB.Net)	-	-	3	30	20	50	2
2	CS4205	Project	-	-	12	90	60	150	6
		TOTAL	12	4	15			600	24



Sem- IV

S.No	Subject Code	Subjects	Period /week			Evaluation Scheme			Total Credit
			L ¹	T ²	P ³	IA	ESE	TOTAL	
1	CS4TPC01	Data Communication and Networks	3	1	0	40	60	100	4
2	CS4TPC02	Java Programming	3	1	0	40	60	100	4
3	CS4TPC03	Data Structure & Programming Methodology	3	1	0	40	60	100	4
4		Open Elective - I	3	0	0	40	60	100	3
5		Open Elective - II	3	0	0	40	60	100	3
PRACTICAL									
1	CS4LPPC01	Data Communication and Networks Lab	0	0	3	30	20	50	2
2	CS4LPPC02	Java Programming Lab	0	0	3	30	20	50	2
3	CS4LPPC03	Data Structure & Programming Methodology Lab	0	0	3	30	20	50	2
Total Credits								650	24

IA- Internal Assessment , ESE – End Semester Examination

Open Elective Subjects		
S.No.	Subject Code	Subject
01	CS4TOE01	System Software
02	CS4TOE02	Computer Organization & Architecture
03	CS4TOE03	Discrete Mathematics and Fuzzy Techniques
04	CS4TOE04	System Analysis and Design

[Handwritten signatures and marks are present below the table, including names like 'Haseeb', 'Muf', 'Abdullah', 'Singh', and others.]



CS4201 DATA MINING

UNIT-1

Data ware Housing :-

What is a data warehouse ?, definition ,Multidimensional data model, OLAP operation , warehouse schema ,data ware housing architecture, warehouse serve ,metadata , OLAP , engine ,Data warehousing backend process, other features.

Data Mining:- what is data mining ? KDD Vs. data mining ,DBMS Vs DM other related areas , DM techniques , other mining problem , issues & challenges in DM , Dm application areas.

UNIT-II

Association rules:- what is an association rule ? , methods to discover association rules, a priori algorithm ,partition algorithm, pincer -search algorithm , Dynamic Itemset counting algorithm , FP-tree Growth algorithm , Incremental algorithm, Border algorithm , generalized association rules, Association rules with item constraints .

UNIT-III

Clustering Techniques:-

Introduction , clustering paradigms , partitioning algorithms, k-Medoid Algorithm, CLARA ,CLARANS , Hierarchical clustering , DBSCAN , BIRCH, CURE, Categorical clustering algorithms , STIRR, ROCK, CACTUS,

UNIT -IV

Decision Trees: - what is a Decision tree? Tree construction principal , Best split splitting indices, splitting criteria , Decision tree construction algorithm, CART, ID3, C4.5 , CHAID , Decision tree construction with presorting , rainforest, approximate method , CLOUDS, BOAT , pruning technique , integration of pruning & construction .

UNIT-V

What is neural network ? Learning in NN, unsupervised learning , data mining using NN , genetic algorithm ,Rough sets, Support Vector machines.

Web Mining :- Web mining ,web content mining ,web structure mining ,web usage mining ,text mining , unstructured text , Episode rule discovery for texts , Hierarchy of categories , text clustering .

Books & References :-

- Data Mining Techniques – Arun K Pujari Universities Press



Department of Computer Science & Engineering, IT, GGV, Bilaspur (Chhattisgarh) India

Class Bachelor of Technology Fourth Semester Computer Science and Engineering
Subject Name **JAVA Programming**
Subject Code: CS4TPC02

UNIT-I

Object Oriented Paradigm, Basic Concepts of Object-Oriented Programming, Benefits of OOP, Applications of OOP, Java History, Java Features, How Java Differs from C and C++, Java and Internet, Java and World Wide Web, Web Browsers, Hardware and Software Requirements, Java Support Systems, Java Environment, Java Program Structure, Java Tokens, Java Statements, Installing and Configuring Java, Implementing a Java Program, Java Virtual Machine, Command Line Arguments, Programming Style.

Unit-II

Constants, Variables and Data Types, Declaration of Variables, Giving values to variables, Scope of Variables, Symbolic Constants, Type Casting, Getting Values of Variables, Standard Default Values, Java Operators, Arithmetic Expression, Evaluation of Expressions, Precedence of Arithmetic Operators, Operator Precedence and Associativity, Mathematical Function, Control Statements (if statement, switch statement and Conditional operator statement), Decision Making and Looping (while construct, do construct, for construct), Jumps in Loops, Labelled Loops.

Unit-III

Introduction of Class, Defining a Class, Fields Declaration, Creating Objects, Accessing Class Members, Constructors, Methods Overloading, Static Members, Nesting of Methods, Inheritance: Extending a Class, Overriding Methods, Final Variables and Methods, Final Classes, Finalizer Methods, Abstract Methods and Classes, Methods with Variable Length Parameters, Array, Introduction: Array, One Dimensional Array, Creating an array, Two-Dimensional arrays, Strings, Vectors, Wrapper Classes, Enumerated Types, Defining Interfaces, Extending Interfaces, Implementing Interfaces, Accessing Interface Variables, Java API Packages, Using System Packages, Naming Conventions, Creating Packages, Accessing a Package, Using a Package, Adding a Class to a Package, Hiding Classes, Static Import.

Unit-IV

Introduction to Multithreaded Programming, Difference between Multithreading and Multitasking, Creating threads, Extending the thread class, Stopping and Blocking a thread, Life Cycle of a thread, Using thread Methods, Thread Exception, Thread Priority, Synchronization, Implementing the Runnable Interface, Inter-thread Communication, Types of Errors, Exceptions, Syntax of Exception Handling, Code, Multiple Catch Statements, Using Finally Statement, Throwing our own Exceptions.

Unit-V

Introduction of Applet Programming, How Applets Differ from Applications, Preparing to Write Applets, Building Applet Code, Applet Life Cycle, Creating an Executable Applet, Designing a Web Page, Applet Tag, Adding Applet to HTML file, Running the Applet, Attributes of Applet tag, Passing Parameters to Applets, Aligning the Display, Displaying Numeric values, Getting input from the user, Event handling, Introduction of Graphics Programming, Using Graphics class to draw Lines, Rectangles, Circles, Ellipses, Arcs, Polygons, Line Graphs, Bar Charis, Using Control Loops in Applets, Introduction to AWT package, Introduction of Input / Output files in Java, Concept of Streams, Stream



Department of Computer Science & Engineering, IT, GGV, Bilaspur (Chhattisgarh) India

Classes, Byte Stream Classes, Character Stream Classes, Using Streams, Other useful I/O classes, Using the file class, Input-Output exceptions, Creation of Files, Reading/Writing Characters, Reading/Writing Bytes, Handling Primitive Data Types, Concatenating and Buffering Files, Random Access Files, Interactive Input and Output, Other Stream Classes

Text Book:

1. E. Balagurusamy, *Programming with Java A Primer*, Fourth Edition, McGraw Hill, 2010

Other Reference:

1. H. Schildt, *Java™ 2 The Complete Reference*, Fourth Edition, Tata McGraw Hill, 2001
2. K. A. Mughal and R. W. Rasmussen, *A Programmer's Guide to Java™ SCJP Certification A Comprehensive Primer*, Third Edition, Addison Wesley, 2008.