Rajarshi Shahu Mahavidyalaya (Autonomous), Latur

Faculty of Information Technology

Structured Work Plan for Teaching

Academic Year (2018 - 2019)
TERM-I

1. **Details of Classes to be taught**

Sr. No.	Class	Name of Asst. Prof.	Course Title	Course Code	Practical course code	Total teaching hours
1	B.Sc.C.S. TY (V Sem)	Prof. Jyoti V. Mashalkar	Digital Image Processing	U-DIP-590 Total credit: 3	U-LAC-594 Total credit:2	TH-50 PR-15
2	B.Sc.C.S. TY (III Sem)		Operating System	U-OPS-385 Total credit: 3	U-LAC-389 Total credit:2	TH-55 PR-15

2. **Summary of Lesson Plan**

Name of Teacher: Prof. Jyoti V. Mashalkar **Class:** B.Sc.C.S. TY (V Sem)

(2.07.2018 TO 6.10.2018)

Sr. No.	Course Title and Course Code	Unit and Chapter to be covered	Date		No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
			FROM	TO			
1	Digital Image Processing (U-DIP-590)	**UNIT- I** **Introduction to DIP** • What is digital image processing? • Example fields of digital image processing • Fundamental steps in digital image processing • Components of image processing system • Elements of visual perception • Lights and	2/7/2018	19/7/2018	16	Seminar, group discussion	Group discussion

		electromagnetic spectrum • Image sensing and acquisition • Image sampling and quantization • Some basic relationship between pixels					
2		**Unit –II** **Digital image Representation using Matlab** • Digital Image Representation: Coordinate Conventions, Images as Matrices • Reading Images • Displaying Images • Writing Images • Data Classes • Image Types: Intensity Images, Binary Images • Converting between Data Classes and Image Types: Converting between Data Classes • Converting between Image Classes and Types • Array Indexing: Vector Indexing, Matrix Indexing • Selecting Array Dimensions • Some Important Standard Arrays. • Introduction to M-Function Programming: M-Files • Operators • Flow Control	20/7/2018	7/8/2018	**13**	Student Seminars	**Seminar 10/8/2018 to 14/8/2018**

		• Code Optimization • Interactive I/O					
3		**Unit- III** **Intensity transformation using Matlab** • Intensity Transformation Functions: Function imadjust, • Logarithmic and Contrast-Stretching Transformations • Some Utility M-Functions for Intensity Transformations • Histogram Processing and Function Plotting: Generating and Plotting Image Histograms • Histogram Equalization, Histogram Matching (Specification) • Spatial Filtering: Linear Spatial Filtering • Nonlinear Spatial Filtering	16/8/2018	4/9/2018	16	Open book test	**Open book test 13.9.2019**
4		**Unit –IV** **Frequency Domain Processing and Histogram Processing** • Frequency Domain Processing: The 2-D Discrete Fourier Transform • Computing and	5/9/2018	3/10/2018	23		**Revision of Unit IV 1/10/2018 & 3/10/2018**

		Visualizing the 2-D DFT in MATLAB • Filtering in the Frequency Domain: • Fundamental Concepts, Basic Steps in DFT Filtering, • A Model of the Image Degradation/Restoration Process, • Color Image Representation in MATLAB: RGB Images, Indexed Images • IPT Functions for Manipulating RGB and Indexed Images.					

Structured Work Plan for Teaching

Academic Year (2018 - 2019)

(2.07.2018 TO 6.10.2018)

Summary of Lesson Plan

Name of Teacher: Prof. Jyoti V. Mashalkar **Class:** B.Sc.C.S. S.Y. (Semester IV)

Sr. No.	Course Title and Course Code	Unit and Chapter to be covered	Date		No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
			FROM	TO			
	Operating System (U-OPS-385)	**UNIT –I Introduction to Operating System** 1.1 Definition of Operating System 1.2 Functions of Operating System 1.3 Types of Operating System 1.4 Operating System as resource manager 1.5 Hierarchical structure of Operating System	2/7/2018	21/7/2018	15	Class test	Class test based on Unit I
		UNIT –II Memory Management 2.1 Single contiguous allocation 2.2 Partitioned allocation 2.3 Paged memory management 2.4 Introduction to demand paged & segmented memory management	25/7/2018	7/8/2018	14	Seminar	Seminar
		UNIT –III Process Management	16/8/2018	5/9/2018	17	Group discussion, class test	Group discussion

		3.1 What is process? 3.2 Process Control Block 3.3 Process states 3.4 Job Scheduling & Process Scheduling 3.5 Process Synchronization 3.6 Race Condition 3.7 Introduction to Deadlocks					
		UNIT -IV **Device Management** 4.1 Techniques of Device Management 4.2 Dedicated, Shared, Virtual Devices 4.3 Device Characteristics 4.4 Channels & Control Units **File Systems** 5.1 A Simple file system 5.2 General Model of file system 5.3 Symbolic file system	6/9/2018 21/9/2018	19/9/2018 6/10/2018	8 8	Group discussion	Group discussion Revision of Unit-IV 6/10/2018

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Structured Work Plan for Teaching

Academic Year (2018 - 2019)
TERM - II

3. Details of Classes to be taught

Sr. No.	Class	Name of Asst. Prof.	Course Title	Course Code	Practical course code	Teaching hours
1	B.Sc.C.S. TY (VI Sem)	Prof. Jyoti V. Mashalkar	Principles of Compiler Design	U-PCD-687	U-LAC-692	TH-55 PR-15
2	B.Sc.C.S. TY (IV Sem)		C#.Net	U-CNT-483	U-LAC-487	TH-60 PR-15

4. Summary of Lesson Plan

Name of Teacher: Prof. Jyoti V. Mashalkar **Class:**B.Sc.C.S. T.Y. (Semester VI)

(29.11.2018 TO 21.03.2019)

Sr. No.	Course Title and Course Code	Unit and Chapter to be covered	Date		No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
			FROM	TO			
1	Principles of Compiler Design (U-PCD-687)	**UNIT – I Programming Languages and Compilers** • Introduction to Compilers • Compilers and translators • the structure of compiler, • Compiler writing tools, • High level programming languages • :Definitions of programming	29/11/2018	21/12/2018	20	Career guidance lecture	Career guidance lecture

		languages, • A lexical and syntactic structure of a language • Data structures, • Operators • Statements					
2		**UNIT – II** **Lexical Analysis** • Lexical analysis, • Role of a Lexical analyzer, • A simple approach to the design of lexical analyzer, • Regular expressions, • Finite automata, • Minimizing number of states of a DFA, • Implementation of a lexical analyzer	24/12/2018	18/1/2019	21	Group discussion on project development	Group discussion on project development
3		**UNIT – III** **Basic Parsing Techniques and Syntax Directed Translation** • Context free grammars, • Introduction to parsers, • **S**hift reduce parsing, • Top-down parsing, • Operator Precedence	29/1/2019	26/2/2019	23	Class test	Class test based on Unit III

		parsing, • Predictive parsers, • Introduction Syntax Directed Translation, • Syntax directed Schemes, • Implementation of Syntax directed translators • Intermediate code, • Postfix notation and evaluation of postfix expressions, • Parse trees and syntax trees					
4		**UNIT – IV** **Symbol Tables, Errors and Code Optimization** • The contents of a symbol table, • Data structures for a symbol table, • Errors: Lexical phase errors, Syntactic phase errors, Semantic errors • Introduction Code Optimizaton, • Sources of optimization	28/2/2019	19/3/2019	06	Seminar	1. Seminar 2. Revision of Unit IV

Structured Work Plan for Teaching

Academic Year (2020 - 2021)

(29/11/2018 TO 21.03.2019)

Summary of Lesson Plan

Name of Teacher: Prof. Jyoti V. Mashalkar

Sr. No.	Course Title and Course Code	Unit and Chapter to be covered	Date		No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
			FROM	TO			
	C#.Net (U-CNT-483)	**UNIT I Introduction to .net, Arrays and operators** • What is .net?, • .Net Framework, • CLR, • Visual Studio.net • .net Languages, • Integrated Development Environment, • Project types, • C#.net History & design Goals, • How C# differs from C++, • Characteristics of C#.net, • I/O Statement with C#.net • Boxing & Unboxing • Short Circuiting Operators • Array & ArrayList class • Jagged Array	29/11/2018	14/12/2018	14	Class test , guidance lecture on project development, program assignment	1. Guidance lecture on project development 2. Program assignment based on arrays 3. Class test based on Unit –I

		• String Class					
		UNIT II **Properties, Events, Delegates and C# namespaces** • Properties & its type, • Event, • Delegate & Multicast Delegate, • Creating & Starting thread, • Exception handling, • Using keyword, • Creating and using namespaces, • interface, • Method overloading & method overriding, • Partial Class	15/12/2018	19/1/2019	26	Program assignment, group discussion on MCA/MBA entrance examination	1. Program assignment 2.Group discussion on MCA/MBA entrance examination
		UNIT III **Windows Application** • Event Driven Programming, • Building windows application with visual studio, • TextBox, Label & Button Control, • ComboBox, ListBox , • CheckBox & GroupBox Control, • DateTimePicker , • Timer control,	29/1/2019	27/2/2019	21	Program assignment	Program assignment

		• Building Menu, • MDI Form, • PictureBox , ProgressBar Control, • Common Dialog boxes, • Introduction to WPF					
		UNIT IV **Ado.Net and Database Oriented Applications** • How Ado.net differs from Ado, • Advantages of Ado.net, • Connected& Disconnected Architecture, • Dataset, DataReader& DataAdapter, • Managed Data Providers, • DataGridView Control • Developing Ado.net Based Application, • Insert, Update & Delete operation on table, • Filling the Dataset	1/3/2019	20/3/2019	14	Program assignment	Program assignment based on unit IV