

Vivekanand Education Society's Institute of Technology

Department of Computer Engineering

Academic Year 2019-20 (Even Sem)

Program/Branch Name: R2016/COMPUTER Engineering

Div:A/B/C

SUBJECT	Subject Teacher	SYLLABUS	Remark approved or not?
Distributed Computing	Dr Nupur Giri ,Dr Anjali Yeole, Sunita Sahu,	<p>Module 1: Introduction to Distributed Systems</p> <p>1.1 Characterization of Distributed Systems: Issues, Goals, and Types of distributed systems, Distributed System Models, Hardware concepts, Software Concept.</p> <p>1.2 Middleware: Models of Middleware, Services offered by middleware, Client Server model</p> <p>Module 2: Communication</p> <p>2.1 Layered Protocols, Interprocess communication (IPC): MPI, Remote Procedure Call (RPC), Remote Object Invocation, Remote Method Invocation (RMI)</p> <p>2.2 Message Oriented Communication, Stream Oriented Communication, Group Communication</p> <p>Module 3: Synchronization</p> <p>3.1 Clock Synchronization, Logical Clocks, Election Algorithms, Mutual Exclusion, Distributed Mutual Exclusion-Classification of mutual Exclusion Algorithm, Requirements of Mutual Exclusion Algorithms, Performance measure.</p> <p>3.2 Non Token based Algorithms: Lamport Algorithm, Ricart-Agrawala's Algorithm, Maekawa's Algorithm</p> <p>3.3 Token Based Algorithms: Suzuki-Kasami's Broadcast Algorithms, Singhal's Heuristic Algorithm, Raymond's Tree based Algorithm, Comparative Performance Analysis</p> <p>Note:Final question paper will be based on Complete module 1,2 and 3 of syllabus</p>	Approved

Human Machine Interaction	Dr. Gresha Bhatia, Sujata Khedkar, Lifna C S	<p>Module - 1 : FOUNDATIONS OF HMI The Human: History of User Interface Designing, I/O channels, Hardware, Software and Operating environments, The Psychopathology of Everyday Things, Psychology of everyday actions, Reasoning and problem solving . The computer: Devices, Memory, processing and networks. Interaction: Models, frameworks, Ergonomics, styles, elements, interactivity, Paradigms.</p> <p>Module - 2 : DESIGN & SOFTWARE PROCESS Mistakes performed while designing a computer system, Human interaction with computers, importance of human characteristics human consideration, Human interaction speeds Interactive Design basics, process, scenarios, navigation, Iteration and prototyping. HMI in software process: software life cycle, usability engineering, Prototyping in practice, design rationale. Design rules: principles, standards, guidelines, rules. Recognize the goals, Goal directed design process. Evaluation Techniques: Universal Design.</p> <p>Module - 3 : GRAPHICAL USER INTERFACE The graphical User Interface: Popularity of graphics, the concept of direct manipulation, graphical systems, Characteristics. Web user Interface: Interface popularity, characteristics. The merging of graphical Business systems and the Web. Principles of user interface design.</p> <p>Module - 4 : SCREEN DESIGNING Design goals , Screen planning and purpose, organizing screen elements, ordering of screen data and content , screen navigation and flow, Visually</p>	Approved

		pleasing composition, amount of information, focus and emphasis, presentation information simply and meaningfully, information retrieval on the web, statistical graphics, Technological consideration in interface design.	
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SUBJECT	Subject Teacher	SYLLABUS	
Natural Language Processing (D Elective)	Priya R. L. Vidya Zope Sujata Khedkar	<p>Introduction</p> <p>1.1 History of NLP, Generic NLP system, levels of NLP</p> <p>1.2 Knowledge in language processing , Ambiguity in Natural language</p> <p>1.3 Stages in NLP, challenges of NLP ,Applications of NLP</p> <p>2. Word Level Analysis</p> <p>2.1 Morphology analysis - Survey of English Morphology, Inflectional and Derivational morphology</p> <p>2.2 Lemmatization, Regular expression, finite state automata, finite state transducers (FST), Morphological parsing with FST, Lexicon Free FST Porter stemmer</p> <p>2.3 N-Grams : N-Gram language model, N-gram for spelling correction. Applications</p> <p>3. Syntax analysis</p> <p>3.1 Part-Of-Speech tagging (POS)- Tag set for English (Penn Treebank) , Rule based POS tagging</p> <p>3.2 Stochastic POS tagging Issues - Multiple tags and words, unknown words</p> <p>3.3 Introduction to CFG, Sequence labeling: Hidden Markov Model (HMM), Maximum Entropy and Conditional Random Field (CRF)</p>	Approved
ILOC Entrepreneurship	Prashant Kanade	<p>First Four Modules of The syllabus</p> <p>1) Overview Of Entrepreneurship: Definitions, Roles and Functions/Values of Entrepreneurship, History of Entrepreneurship</p>	Approved

Development and Management	And A Naganda	<p>Development, Role of Entrepreneurship in the National Economy, Functions of an Entrepreneur, Entrepreneurship and Forms of Business Ownership Role of Money and Capital Markets in Entrepreneurial Development: Contribution of Government Agencies in Sourcing information for Entrepreneurship</p> <p>2) Business Plans And Importance Of Capital To Entrepreneurship: Preliminary and Marketing Plans, Management and Personnel, Start-up Costs and Financing as well as Projected Financial Statements, Legal Section, Insurance, Suppliers and Risks, Assumptions and Conclusion, Capital and its Importance to the Entrepreneur Entrepreneurship And Business Development: Starting a New Business, Buying an Existing Business, New Product Development, Business Growth and the Entrepreneur Law and its Relevance to Business Operations.</p> <p>3) Women’s Entrepreneurship Development, Social entrepreneurship-role and need, EDP cell, role of sustainability and sustainable development for SMEs, case studies, Exercise.</p> <p>4) Indian Environment for Entrepreneurship: key regulations and legal aspects , MSMED Act 2006 and its implications, schemes and policies of the Ministry of MSME, role and responsibilities of various government organisations, departments, banks etc., Role of State governments in terms of infrastructure developments and support etc., Public private partnerships, National Skill development Mission, Credit Guarantee Fund, PMEGP, discussions, group exercises etc</p>	
ILOC Research Methodology	Nilima Warke	<p>(Module 1, 2 and 3 from syllabus of research methodology subject)</p> <p>Module 1:Introduction and Basic Research Concepts: Research – Definition; Concept of Construct, Postulate, Proposition, Thesis, Hypothesis, Law, Principle. Research methods vs Methodology, Need of Research in Business and Social Sciences , Objectives of Research, Issues and Problems in Research, Characteristics of Research: Systematic, Valid, Verifiable, Empirical and Critical</p>	Approved

		<p>Module 2:Types of Research: Basic Research, Applied Research, Descriptive Research, Analytical Research, Empirical Research, Qualitative and Quantitative Approaches</p> <p>Module 3:Research Design and Sample Design : Research Design - Meaning, types and significance, (components. Need, features. Variables and measurement scales, Principles of experimental research design Types : Informal and formal) Sample Design - Meaning and Significance ,Principles of sampling, Essentials of a good sampling Stages in sample design,Sampling methods/techniques, Sampling Errors</p>	
ILOC Project Management	Asma Parveen / Abha Tewari	<p>Module 1, 2 and 3</p> <p>Module 1: Project Management Foundation: Definition of a project, Project Vs Operations, Necessity of project management, Triple constraints, Project life cycles (typical & atypical) Project phases and stage gate process. Role of project manager, Negotiations and resolving conflicts, Project management in various organization structures, PM knowledge areas as per Project Management Institute (PMI)</p> <p>Module 2: Initiating Projects: How to get a project started, Selecting project strategically, Project selection models (Numeric /Scoring Models and Non-numeric models), Project portfolio process, Project sponsor and creating charter; Project proposal. Effective project team, Stages of team development & growth (forming, storming, norming & performing), team dynamics.</p> <p>Module 3:Project Planning and Scheduling: Work Breakdown structure (WBS) and linear responsibility chart, Interface Coordination and concurrent engineering Project cost estimation and budgeting, Top down and bottoms up budgeting, Networking and Scheduling techniques. PERT, CPM, GANTT chart. Introduction to Project Management</p>	Approved

		Information System (PMIS).	
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