

DCS – 601 : DOT NET PROGRAMMING

Credits: 04

Semester VI

Module No.	Content	Teaching Hours
I	<p>NET evolution Need and perspective in current scenario, .net framework over view structural diagram</p> <p>.Net Framework Base Classes User and program interfaces, windows forms, web forms, console applications</p> <p>XML An overview of XML, use of XML, integrity of XML with databases, XML as the .NET Meta language</p>	12
II	<p>Visual Studio .NET Common IDE for all languages, the common language specification, all .net languages, management of multiple language, projects.</p> <p>Language Changes Visual basic, C++, C#, overview of C#, C# classes Introduction, Data Types, Identifiers, variables & constants, C# statements, Object Oriented Concept, Object and Classes, Arrays and Strings, System Collections, control flow in C#.</p> <p>Anatomy of .NET Applications Assembly, module, type custom types, metadata and managed data</p>	12
III	<p>ASP.NET:-Features of ASP.NET, Stages in Web Forms Processing, Introduction to Server Controls, HTML Controls, Validation Controls, User control, Data Binding Controls, Configuration, Personalization, Session State, ADO.NET</p> <p>What is new in visual basic .NET ?</p> <p>What is new in visual studio .NET ?</p>	12

Reference Books:

1. Introducing .NET by James Conard, Patrick Rengler, Birn Erancis, Jay Elynn Wron Publications

DCS – 602 : MULTIMEDIA

Credits: 04

Semester VI

Module No.	Content	Teaching Hours
I	Introduction to Multimedia: -What is multimedia, Components of multimedia, Web and Internet multimedia applications, Transition from conventional media to digital media. Computer Fonts and Hypertext: -Usage of text in Multimedia, Families and faces of fonts, outline fonts, bitmap fonts International character sets and hypertext, Digital fonts techniques	12
II	Audio fundamentals and representations: -Digitization of sound, frequency and bandwidth, decibel system, data rate, audio file format, Sound synthesis, MIDI, wavetable, Compression and transmission of audio on Internet, Adding sound to your multimedia project, Audio software and hardware. Image fundamentals and representations: -Colour Science , Colour, Colour Models, Colour palettes, Dithering, 2D Graphics, Image Compression and File Formats :GIF, JPEG, JPEG 2000, PNG, TIFF, EXIF, PS, PDF, Basic Image Processing [Can Use Photoshop], Use of image editing software, White balance correction, Dynamic range correction, Gamma correction, Photo Retouching.	12
III	Video and Animation: -Video Basics , How Video Works, Broadcast Video Standards, Analog video, Digital video, Video Recording and Tape formats, Shooting and Editing Video (Use Adobe Premier for editing), Video Compression and File Formats. Video compression based on motion compensation, MPEG-1, MPEG-2, MPEG-4, MPEG-7, MPEG-21, Animation: Cell Animation, Computer Animation, Morphing. Multimedia Authoring: -Multimedia Authoring Basics, Some Authoring Tools, Macromedia Director & Flash.	12

Reference Books

1. Tay Vaughan, "Multimedia making it work", Tata McGraw-Hill, 2008.
2. Rajneesh Aggarwal & B. B Tiwari, " Multimedia Systems", Excel Publication, New Delhi, 2007.
3. Li & Drew, " Fundamentals of Multimedia" , Pearson Education, 2009.

Text Book

1. Parekh Ranjan, "Principles of Multimedia", Tata McGraw-Hill, 2007
2. Anirban Mukhopadhyay and Arup Chattopadhyay, "Introduction to Computer Graphics and Multimedia", Second Edition, Vikas Publishing House.

DCS – 603: INFORMATION SECURITY

Credits: 04

Semester VI

Module No.	Content	Teaching Hours
I	Introduction and Security trends:- Threats to security:- Viruses and Worms, Intruders, Insiders. Avenues of attack, steps in attack, Types of attack: Denial of service, backdoors and trapdoors, sniffing, spoofing, man in the middle, replay, TCP/IP Hacking, encryption attacks. Malware: Viruses, Logic bombs. Security Basics – Confidentiality, Integrity, Availability, Operational model of Computer Security, Layers of security. Access control : Discretionary, Mandatory, Role based	12
II	Organizational/ Operational security:- Role of people in security : Password selection, Piggybacking, Shoulder surfing, Dumpster diving, Installing unauthorized software / hardware, Access by non employees, Security, awareness, Individual user responsibilities. Security policies, standards, procedures and guidelines. Physical security: Access controls Biometrics : finger prints, hand prints, Retina, patterns, voice, patterns, signature and writing patterns, keystrokes, Physical barriers. Social Engineering	12
III	Cryptography and Public key Infrastructure Encryption algorithm/Cifer, Caesar's cipher, shift cipher, substitution software, Vigenere cipher, Transposition techniques, Steganography Hashing, SHA , Symmetric encryption DES (Data encryption standard). Asymmetric encryption, Digital signatures, Key escrow. Public key infrastructures : basics, digital certificates, certificate authorities, registration authorities, steps for obtaining a digital certificate, steps for verifying authenticity and integrity of a certificate. Centralized or decentralized infrastructure, private key protection.	12

Reference Books

1. Principles of Computer by Dwayne Williams, Mc Graw Hill Technology Education
2. Computer Networks by A.S.Tanenbaum, PHI,ISBN 81-203-2175-8.
3. Data communication and networking by B.A.Farouzan, Tata McGraw Hill

DCS – 604: CLOUD COMPUTING

Credits: 4

Semester-VI

Module No.	Contents	Teaching Hours
	<p>UNIT-1 Introduction :- Evolution of Cloud Computing, Cloud Computing Overview, Characteristics, Applications, Benefits, Challenges.</p> <p>Service and Deployment Models Cloud Computing Service Models: Infrastructure as a Service, Platform as a Service, Software as a Service</p> <p>UNIT-II</p> <p>Cloud Computing Deployment Models: Private Cloud; Public Cloud, Community Cloud, Hybrid Cloud, Major Cloud Service providers</p> <p>Service Level Agreement (SLA) Management Overview of SLA, Types of SLA, SLA Life Cycle, SLA Management Process. 4. Virtualization Concepts (08 Periods) Overview of Virtualization, Types of Virtualization, Benefits of Virtualization, Hypervisors.</p> <p>UNIT-III</p> <p>Cloud Security Infrastructure Security, Data Security & Privacy Issues, Legal Issues in Cloud Computing. Cloud Storage Overview; Storage as a Service, Benefits and Challenges, Storage Area Networks (SANs).</p>	

DME 606: ENTREPRENEURSHIP DEVELOPMENT & MANAGEMENT

Credits: 4

Semester VI

Module No.	Contents	Teaching Hours
Unit - I	Concept and meaning of entrepreneurship. need of entrepreneurship in context of prevailing employment conditions of the country. Successful entrepreneurship and training for its development, entrepreneurship as a desirable and feasible career option- entrepreneur competencies and attributes- characteristics of a successful entrepreneur. Process of entrepreneurship development	12
Unit - II	Nature, Purpose and pattern of Human Activities: Economic and Non-Economic- Entrepreneurial Pursuits and Human Activities- Need for Creativity and innovation in societies -Building enterprising Personality and Society - Entrepreneurship as a Human Resource Development concept	12
Unit - III	Role of Entrepreneur in Indian economy with reference to self-employment development Employment pattern of the educated in India- Entrepreneurial Culture- Importance of nursing Entrepreneurial culture in developing economies Entrepreneurial Values- Entrepreneurial Discipline and Social Responsibilities, Entrepreneurship Support system as like District Industry Centers (DICs), Commercial Banks, state financial corporations,	12

Reference Books:

1. A Hand book of Entrepreneurship, Edited by BS Rathore and JS Saini, Aappa publications, Panchkula Haryana.
2. Entrepreneurship Development By CB Gupta and P Shrinivasan, Sultan chand and sons, New Delhi.
3. Dynamics of Entrepreneurship development and management (ivth) edition by Shri Vsant Desai.
4. Entrepreneurship development by Shri S.S. Khanka.
5. Entrepreneurship by NITTT& R Chennai

DCS – 651 :DotNet LAB

Credits: 02

Semester VI

List Of Practical

Module No.	Content	Teaching Hours
1	Installation of .net	24
2	Study of VB environment with following details :- <ul style="list-style-type: none"> - Form and their types. - Intrinsic components – text box, label, combo, list, heck box, and option button. - Design time properties. - Different windows and their uses. 	
3	Design forms to perform mathematical operations like addition, subtraction, multiplication and division using: <ul style="list-style-type: none"> - Text box, labels. - Options to be selected using option, check box and combo box. 	
4	Design forms to use Date, Time, String, Mathematics functions with help of text box, label, radio button, check box, combo box and command button.	
5	Using image control and scroll bar, design form to change height, width of image, movement to image. Using picture box and image list, flip the image on click of command button.	
6	Design explorer using Directory, drive, file list box and common dialog controls.	
7	Design text editor with menu having copy, cut, paste, select, search, replace the text and load and save the file.	
8	Design stop watch with faculty of start, stop, reset using timer control, option, label, text box.	
9	Practical including Data bound controls like DBgrid, DBcombo, Textbox, Combo, List, MS Flex grid and Database control like ADO, DAO, RDO to perform insertion, deletion, updation, display, Search.	
10	Design MDI form including Menu bar, Toolbar, Status bar.	
11	Design the interface to perform following operation on the file like create, open, read , write , delete , search.	

DCS – 605 : DATA WAREHOUSEING AND DATA MINING

Credits: 4

Semester-VI

Module No.	Contents	Teaching Hours
I	<p>Introduction and Background An introduction to multidisciplinary field of data mining, Discussion on the evolutionary path of database technology that has led to the need for data warehousing and data mining, different kind of data on which data mining applied, classification of data mining system, Major issues in Data mining, Stress on important of its application potential.</p> <p>Data Warehousing and OLAP Concepts of Data warehouse, deference between operational database system and data warehouse, Multidimensional Data Model: data cube, Stars – Snowflakes – Fact schemas for multidimensional database, measures, concept hierarchies, OLAP operation on multidimensional Data Model, Data Warehouse architecture, Types of OLAP servers, Life cycle of data warehouse implementation, Relationship between data warehouse and data mining.</p>	12
II	<p>Data Mining Primitives Data Preprocessing including Data cleaning - Data integration - Data transformation, Discretization and concept Hierarchy generation, Definition and Specification of a generic data mining task, Description of Data mining query language with few example queries.</p> <p>Concept Description: Characterization Introduction to concept description, Data Generalization and Summarization based characterization: Attribute Oriented Induction (AOI) – Efficient implementation of AOI</p> <p>Association Analysis Association rule mining, Mining Single Dimensional Boolean Association rule in truncation database, Mining multilevel association rule.</p>	12
III	<p>Mining Complex Types of Data Data mining issues in object oriented databases, spatial databases and multimedia databases, time series databases, text databases, web mining: web usage mining – web content mining – web log attribute.</p> <p>Application of Data Warehousing and Data Exploration of web sites on data warehousing and data mining application including bibliography databases, Corporate Houses and Research labs. Use of data mining packages and data warehousing packages, e.g. SAS, IBM, excel miner tools.</p>	12

RECOMMENDED BOOKS

1. Data Mining: Concepts and Techniques, Second Edition (The Morgan Kaufmann Series in Data Management Systems) Jiawei Han and Micheline Kamber, ISBN-10:1558609016 ISBN-13: 978-1558609013; 2005

SUPPLEMENTARY READING

1. Arun K Pujari, "Data Mining Techniques" ISBN; 8173713804; ISBN-13: 9788173713804; 978-8173713804; Universities Press.
2. M. Jarke, M. Lenzerni, Y. Vassiliou, and P. Vassiladis, "Fundamentals of Data Warehouses, 1st edition"; Year of Publication: 1999 ISBN:3540653651 Springer-Verlag New York, Inc. Secaucus, NJ, USA.

