Karnatak Law Society's

VISHWANATHRAO DESHPANDE
INSTITUTE OF TECHNOLOGY, HALIYAL

(Recognized Under Section 2(f) of UGC Act, 1956)
Approved by AICTE, New Delhi, Affiliated to V. T. U., Belagavi
Udyog Vidyanagar, Dandeli Road, Haliyal - 581 329, Dist: Uttara Kannada, Karnataka
Ph: 08284 - 220861, 221409 Mob: 944945452 Fax: 08284 - 220813 www.klsvdit.edu.in | pricipal@klsvdit.edu.in

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ADD-ON COURSE SYLLABUS

TITLE: INTRODUCTION TO CLOUD COMPUTING

Sem: 7th   Total Hours:30

MODULES
MODULE1: **Cloud Computing Overview:** Definition and essential characteristics, Benefits of Cloud Computing, History and Evolution, Different service providers and services, Types of cloud, Deployment models, centralized versus Distributed Systems, Accessing and Managing Cloud Services.   10 Hours
MODULE2: **Cloud Infrastructure:** Virtualizations, Components of Cloud Infrastructure, Cloud OS Image management, Cloud Computing Architectures, Spine and leaf architecture, HA and redundancy. **Cloud Virtualization:** Benefits, Models of compute virtualization. NFV and VNF's, Virtual Machines, Hypervisors, Containers and Microservices   10 Hours
MODULE3: **Cloud Networking:** Networking Devices, Overlay Network, Cloud traffic flow, SDN, NFV components, Types of cloud storage, Storage Area Networks. **Cloud Security:** Cloud risks and threats, Cloud security features, Cloud Security Components. **Cloud Automation Concepts:** Benefits of Automation, Devops and Netops, APIs.   10 Hours

Text Book:

T1: Dan C. Marinescu, CloudComputingTheoryAndPractice, Elsevier Inc

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ADD-ON COURSE SYLLABUS

TITLE: BASICS OF MACHINE LEARNING

Sem: 5th   Total Hours:30

MODULES
MODULE1: **Introduction:** Objective, scope and validation techniques, Principal components analysis (Eigen values, Eigen vectors, Orthogonality), Distance measures Ÿ Different clustering methods (Distance, Density, Hierarchical) 10 Hours
MODULE2: **PRELIMINARIES OF MACHINE LEARNING:** What is machine learning; varieties of machine learning, learning input/output functions, Sample application. Boolean functions and their classes, CNF, DNF, decision lists. Version spaces for learning, version graphs, learning search of a version space, candidate elimination methods.   10 Hours
MODULE3: **Statistical Learning:** Background and general method, learning belief networks, nearest neighbour. Decision-trees, supervised learning of uni-variance decision trees, network equivalent of decision trees, over fitting and evaluation Inductive Logic Programming, notation and definitions, introducing recursive programs, inductive logic programming versus decision tree induction.   10 Hours

Text Book:

T1: Introduction to Machine learning, Nils J.Nilsson

T2: Machine learning for dummies, IBM Limited ed, by Judith Hurwitz and Daniel Kirsch

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ADD-ON COURSE SYLLABUS

TITLE: ALGORITHMIC APPROACH TO SOLVE COMPLEX PROBLEMS

Sem: 3rd   Total Hours:30

MODULES
MODULE1:   **Problem solving aspect:** Top-down approach, Implementation of Algorithms, Program Verification, Efficiency of Algorithms, Analysis of Algorithms   10 Hours
MODULE2:   **Fundamental Algorithms:** Enhancing the values of two variables, Counting, Summation of set of numbers, Factorial Computation   10 Hours
MODULE3:   **Sorting Techniques:** Sorting by selection, Sorting by exchange, Sorting by insertion methods   10 Hours

Text Book:

T1: "How to solve it by Computer", 1st Edition, R G Droomy

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