A.V.V.M. SRI PUSHPAM COLLEGE (AUTONOMOUS), POONDI

Programme: M. Phil.
Department: Computer Science

Syllabus Revision 2017-2018

S.No.	Courses	Number of courses having changes
1.	Core	01
2.	Elective	02
3.	Optional	-
	TOTAL	03

Total Number of Courses : 05

Total Number of Courses having changes : 03

Percentage of Revision : 60%

Note:

The content of the syllabus which has been revised is highlighted.

M.Phil. COMPUTER SCIENCE (2017 – 2018)

S. No.	Course	Paper Code	Title of the Paper	Maximum Marks			Minimum Marks for Pass			Hours /Week	Credits
				C.I.A.	E.E.	Total	C.I.A.	E.E.	Total		
1.	Course – I (Core)	17MP1CS1	RESEARCH METHODOLOGY	25	75	100	13	37	50	4	6
2.	Course – II (Core)	17MP1CS2	RECENT TRENDS IN COMPUTER SCIENCE	25	75	100	13	37	50	4	6
3.	Course – III (Optional)	17MP1CS3	CONCEPT TO APPLICATIONS LAB	25	75	100	13	37	50	4	6
4.	Course – IV (Elective)	17MP1CS4	GUIDE PAPER	25	75	100	13	37	50	-	6
5.	Course – V (Elective)	17MP1CS5	TEACHING METHODOLOGY	25	75	100	13	37	50	-	6
6.	Dissertation	17MP2CS6	DISSERTATION	40	60	100	20	30	50	-	10

GRADING OF COURSE PERFORMANCE (10 POINT SCALE)

Aggregate Marks	Grade	Grade Point
96 and above	S^{+}	10
91 – 95	S	9.5
86 – 90	D^{++}	9.0
81 – 85	D^{+}	8.5
76 – 80	D	8.0
71 – 75	A^{++}	7.5
66 – 70	A^{+}	7.0
61 – 65	A	6.5
56 – 60	B	6.0
50 – 55	C	5.5
Below 50	F	0

CLASSIFICATION OF SUCCESSFUL CANDIDATES

Grade point	Grade	Classification on Final Result
9.75 – 10.00	S^{+}	First Class – Exemplary
9.25 – 9.74	S	
8.75 – 9.24	D^{++}	First Class – Distinction
8.25 – 8.74	D^{+}	
7.75 – 8.24	D	
7.25 – 7.74	A^{++}	First Class
6.75 – 7.24	A^{+}	
6.25 – 6.74	A	
5.75 – 6.24	B^{+}	Second Class
5.50 – 5.74	C	
Below 5.50	F	Fail

Semester	Subject code	Title of the course	Hours/ Week	Credits
I	**17MP1CS2**	**PAPER- II RECENT TRENDS IN COMPUTER SCIENCE**	**4**	**6**

Objective:

To understand the Recent trends in Computer Science concepts.

Unit-I **Hrs 12**

CLOUD MODELS: **Programming Models for cloud Computing** –Introduction-Extended Programming Models for Cloud - Computing-New Programming Models Proposed for Cloud-**Software Development in Cloud**-Introduction- Different Perspective on SaaS Development-New Challenges-Cloud—Aware Software Development Using PaaS Technology

Text Book: Essentials of CLOUD COMPUTING by K. Chandrasekaran , 2015 , Taylor & Francis Group, CRC Press

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Unit-II **Hrs 12**

REAL TIME SYSTEM: Real time task assignment and scheduling: Introduction - Classical uniprocessor scheduling algorithms - Rate Monotonic Scheduling Algorithm-Premitive Earliest Deadline First Algorithm - Utilization Balancing Algorithm-A Mypopic Offline Scheduling (MOS) Algorithm.

Text Book: Real Time System C.M.Krishna and Kang G.Shin, The Mc Graw- Hill Companies, Inc.

Unit-III **Hrs 12**

COGNITIVE MODELS: Introduction - Goal and Task Hierarchies-Linguistic Models-Challenges at display based system-Physical and device Models-Cognitive Architectures.

Text Book: Alan Dix, Janet Finlay, Gregory D.Abowd and Russell Beabe. Human Computer Ineraction 3rd Edition 2008. Pearson Education.

Unit-IV **Hrs 12**

BIG DATA SCIENCE : **Introduction to Big Data, Hadoop and NoSQL-**

Introduction to Big Data, Big Data characteristics, types of Big Data, Traditional vs. Big Data business approach, Case Study of Big Data Solutions - What is Hadoop? Core Hadoop Components; Hadoop Ecosystem; Physical Architecture; Hadoop limitations - What is NoSQL? NoSQL business drivers - NoSQL case studies - NoSQL data architecture patterns: Key-value stores, Graph stores, Column family (Bigtable) stores, Document stores, Variations of NoSQL architectural patterns - Using NoSQL to manage big data: What is a big data NoSQL solution? - Understanding the types of big data problems - Analyzing big data with a shared-nothing architecture - Choosing distribution models: master-slave versus peer-to-peer - Four ways that NoSQL systems handle big data problems

Text Book: Study Material for "Big Data Analytics" based on Stanford Info-Lab Manual, Compiled by ANURADHA BHATIA, Mumbai University.

Unit-V **Hrs 12**

DEEP LEARNING CONCEPTS: What is a neural network? - Why Deep Learning? - How to choose between deep neural networks? - An old problem: The Vanishing Gradient - Restricted Boltzmann Machines - Deep Belief Networks - Convolutional Networks - Recurrent Nets - Autoencoders - Recursive Neural Tensor Nets - Deep Learning Use Cases Platforms for Deep Learning : What is a Deep Learning Platform? - H2O.ai - Dato GraphLab.

Text Book: Compiled by Department of Computer Science, A.V.V.M Sri Pushpam College.

Semester	Subject code	Title of the course	Hours/ Week	Credits
I	**17MP1CS5**	**PAPER – V** **TEACHING METHODOLOGY**	**4**	**6**

Objective:

To understand the Recent trends in Computer Science concepts.

UNIT 1 **Hrs 12**

Knowing your students: The Reflective Professional in academic practice – A Critical matrix of learning and teaching – **Designing courses and curriculum :** Introduction – Course and curriculum design – Course design and the critical matrix – Learning context – Addressing the impossible.

UNIT 2 **Hrs 12**

Lecturing: Large group teaching:- Designing the lecture – Lecturing preparation and performance – Delivering and managing lecture – **Facilitating: Small group teaching:** Group work –Intellectual dimension – Personal dimension – Social dimension – Practical dimension.

UNIT 3 **Hrs 12**

Supervising projects, dissertation and thesis guidance : Key issues of supervision – Intellectual dimension – Personal dimension – Social dimension – Practical dimension – Assessing research. **Innovation : Teaching with technology:** Conceptual dimension of using technologies – Integrating technology into teaching and learning – Designing flexible courses.

UNIT 4 **Hrs 12**

Students assessment : Definition – Centrality of learning outcomes – Key aspects of assessment – Assessment on all four dimensions – **Teaching and course evaluation :** teaching and course : method of evaluation – Evaluation of academic outcomes and change – Performance study.

UNIT 5 **Hrs 12**

Communication Skills:

1.Situational Dialogues - Railway enquiry, looking for accommodation, At the doctors selling a product, buying a computer.

2.Personlaties skills:welcome speech, introducing the guests, Vote of thanks, Short speech on relevant topical issues, Soft Skill-Goal setting, E-mail,Video Conferencing.

3.Didactic Communication: Face to Face Conversation-asking for permission,reuest, offer, greetings, sympathy, apology,inviting - accepting/Declining, Agreeing, Disagreeing, Complimenting/Congratulating, wishing, Telephonic conversation. Language in advertisemets.

4.Dissertation format,seminars & conferences,evaluating oral presentation.

5.Occcupational skills-resume,group discussion,interview,telephonic interviews.

TEXT BOOK:

1. Gre Light, Roy Cox and Susanna Calkins, Learning and Teaching in Higher Education: A Reflective Professional, Saga Publication Ltd. 2009.

2. Meenakshi Raman and Sangeeta Sharma, Technical communication: Principles and Practice, 2/e, Oxford University Press India. 2011.

REFERENCE:

1. Spoken English for you,level two-G.Radhakrishnan pillai,Chennai,Emerald publishers,2002-RS. 150/-

2. Developing communication skills-Krishna mohan,meera banerji, Chennai, macmilam, 1990-RS.155/-

3. English for effective writing-S.Ravindranathan& s.Nagarajan,Chennai,emerald 2007-RS.80/-