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* One Hour Library hour for each course

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<td>Project Work</td>
<td>Dissertation**</td>
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** (Evaluation of the Dissertation shall be made jointly by the Research Supervisor and the External Examiner)

**Project (M.Phil)**

Maximum Marks: 200

- I review 20 Marks
- II review 20 Marks
- Evaluation of project 120 Marks
- Viva voce 40 Marks
Objective:
To impart the basic concepts on sampling theory and reliability which are required for research and to give knowledge on research, thesis writing and research tools.

UNIT I
12 hours

UNIT II
12 hours

UNIT III
12 hours

UNIT IV
12 hours

UNIT V
12 hours

# ....... # self-study portion

Text Books:
   UNIT I Chapters: 1, 2, 3
   UNIT II
   UNIT III
   UNIT IV
   UNIT IV
6. Web site References
   UNIT V

Books for Reference:
Objective:
To impart the knowledge in the advanced concepts of Computer Science.

UNIT I

UNIT II

UNIT III

UNIT IV

UNIT V

Text Books:

UNIT-V
Chapter-1 Section (1.1, 1.3-1.5), Chapter-2 (2.3), Chapter-3 Section (3.2-3.4), Chapter-4 (4.2), Chapter-6 Section (6.3, 6.5), Chapter-7 Section (7.3-7.7), Chapter-8 Section (8.3), Chapter-9 Section (9.2, 9.3), Chapter-10 Section (10.2, 10.3), Chapter-11 Section (11.2, 11.3)

Books for Reference:
Objective:
To impart the knowledge in WSN Routing protocols, TCP protocols, and WSN operating systems.

UNIT I 12 hours

UNIT II 12 hours

UNIT III 12 hours

UNIT IV 12 hours

UNIT V 12 hours

# ....... # self-study portion

Text Book:

Books for Reference:
Course Code : 14MPCS1C3:B  Max. Marks : 100
Hours/Week : 4  Internal Marks : 40
Credit : 4  External Marks : 60

Objective:
To impart the knowledge in Grid computing organization, Anatomy, Road Map, and Grid Services architecture.

UNIT I  12 hours
Introduction: Early Grid Activity, Current Grid Activity, Overview of Grid Business areas, Grid Applications, Grid Infrastructures.

UNIT II  12 hours

UNIT III  12 hours

UNIT IV  12 hours

UNIT V  12 hours
Merging the Grid services Architecture with the Web Services Architecture: Service-Oriented Architecture, Web Service Architecture, XML messages and Enveloping, Service message description Mechanisms, Relationship between Web Services and Grid Services, Web services Interoperability and the role of the WS-I Organization.

# ....... # self-study portion

Text Book:

Books for Reference:
Objective:
To impart the knowledge in data mining functionalities, Frequency pattern, Cluster analysis, and Mining streams.

UNIT I 12 hours
Data Mining Functionalities – Classification of Data Mining Systems – Data Mining Task Primitives – Integration of a Data Mining System with a Database or Data Warehouse System – Major Issues in Data Mining – Data Preprocessing – Descriptive Data Summarization – Data Cleaning – Data Integration and Transformation – Data Reduction – Data Discretization and Concept Hierarchy Generation.

UNIT II 12 hours
Mining Frequent Patterns, Associations, and Correlations – Efficient and Scalable Frequent Itemset Mining Methods – Mining Various Kinds of Association Rules – From Association Mining to Correlation Analysis – Constraint-Based Association Mining.

UNIT III 12 hours
Classification and Prediction – Issues Regarding Classification and Prediction – Classification by Decision Tree Induction – Bayesian Classification – Rule-Based Classification – Classification by Back propagation – Associative Classification – Lazy Learners – Prediction – #Accuracy and Error Measures – Evaluating the Accuracy of a Classifier or Predictor – Model Selection.

UNIT IV 12 hours

UNIT V 12 hours
Mining Data Streams – Social Network Analysis – Spatial Data Mining – Multimedia Data Mining – Text Mining – Mining the World Wide Web – #Applications and Trends in Data Mining#.

# ........ # self-study portion

Text Book:

Books for Reference:
Objective:
To impart the knowledge in Software Engineering, Internal & External product attributes, and Resource measurement.

UNIT I

UNIT II

UNIT III

UNIT IV

UNIT V

# ........ # self-study portion

Text Book:

Books for Reference:
Objective:
To impart the knowledge in image processing systems, techniques, restoration, detection, and standards.

UNIT I
Elements of digital image processing systems, Vidicon and Digital Camera working principles, Elements of visual perception, brightness, contrast, hue, saturation, mach band effect, Color image fundamentals – RGB, HSI models, Image sampling, Quantization, dither, Two-dimensional mathematical preliminaries, 2D transforms – #DFT, DCT, KLT, SVD#.

UNIT II
Histogram equalization and specification techniques, #Noise distributions#, Spatial averaging, Directional Smoothing, Median, Geometric mean, Harmonic mean, Contra harmonic mean filters, Homomorphic filtering, Color image enhancement.

UNIT III

UNIT IV

UNIT V
Need for data compression, Huffman, Run Length Encoding, Shift Course Codes, Arithmetic coding, Vector Quantization, Transform coding, JPEG standard, #MPEG#.

# ........ # self-study portion

Text Books:

Books for Reference:
Objective:
To impart the knowledge in security trends, encryption standards, key management, and e-mail security.

UNIT I
12 hours

UNIT II
12 hours

UNIT III
12 hours

UNIT IV
12 hours

UNIT V
12 hours

# ........ # self-study portion

Text Book:

Books for Reference:
Objective:
To impart the knowledge in database systems, architecture, semantic data control, transaction management, and parallel database systems.

UNIT I 12 hours

UNIT II 12 hours

UNIT III 12 hours

UNIT IV 12 hours

UNIT V 12 hours

# ....... # self-study portion

Text Book:

Books for Reference:
Objective:
To impart the knowledge in network management, broadband and TMN management, services, and management tools.

UNIT I
12 hours

UNIT II
12 hours

UNIT III
12 hours

UNIT IV
12 hours

UNIT V
12 hours

# self-study portion

Text Book:

Books for Reference:
Objective:
To impart the knowledge in cloud computing infrastructure, service, monitoring and management, and applications.

UNIT I

UNIT II

UNIT III

UNIT IV

UNIT V
Applications: Best Practices in Architecting cloud applications in the AWS cloud – Massively multiplayer online Game hosting on cloud Resources – #Building content delivery Networks using clouds# – Resource cloud Mashups.

# ....... # self-study portion

Text Book:

UNIT I
Chapter 1 : Section 1.2 – 1.8
Chapter 2 : Section 2.1 – 2.3
Chapter 3 : Section 3.1,3.7,3.9,3.8

UNIT II
Chapter 5 : Section 5.4,5.5,6.2,6.3
Chapter 6 : Section 6.2,6.3
Chapter 7 : Section 7.3,7.4
Chapter 8 : Section 8.2,8.3

UNIT III
Chapter 9 : Section 9.1,9.2
Chapter 10 : Section 10.4
Chapter 11 : Section 11.5,11.4
Chapter 12 : Section 12.5
Chapter 13 : Section 13.1-13.3

UNIT IV
Chapter 15 : Section 15.1-15.5, Chapter 16 : Section 16.2-16.3,16.6
Chapter 17 : Section 17.1,17.3,17.4

UNIT V
Chapter 18 : Section 18.1-18.6
Chapter 19 : Section 19.1-19.6

Books for Reference:
Objective:
To impart the knowledge in emerging technologies, GPRS, wireless LAN, and Palm OS architecture and applications.

UNIT I
12 hours

UNIT II
12 hours

UNIT III
12 hours

UNIT IV
12 hours

UNIT V
12 hours

# ........ # self-study portion

Text Book:

Books for Reference:
Objective:
To impart the basic concepts on E-Learning, Educational Psychology, Soft Skills, E-Content and Teaching Practices.

UNIT I 12 hours

UNIT II 12 hours

UNIT III 12 hours
Soft Skills: Attitude and Altitude – Lateral Thinking – Time is Money – Are Leaders Born or Made – Team Building – Inter-Personal Skills – Business Communication in English – Presentation Skills – Business Correspondence – Interviews – Group Dynamics – #Internet for Job Seekers#.

UNIT IV 12 hours
Computer Practical Session: Preparation of E-Content – #Lesson Plan Preparation for Teaching#.

UNIT V 12 hours

# ......... # self-study portion

Text Books:

Books for Reference: