ANNAMALAI UNIVERSITY
ANNAMALAINAGAR

FACULTY OF SCIENCE
DEPARTMENT OF COMPUTER AND INFORMATION SCIENCE
(Syndicate Resolution No. 3 dated 15.12.2015)

M.Sc. INFORMATION TECHNOLOGY
Five Year Integrated Degree Programme
(Credit Based Semester System)

HAND BOOK
2015 – 2016 ONWARDS
Common to all Departments of Studies in the Faculty of Science

Mathematics, Statistics, Physics, Chemistry, Botany, Zoology, Earth Sciences, Biochemistry, Microbiology, Computer and Information Sciences.

Master's Programme

A Master's Programme consists of a number of courses, in M.Sc. A Master's programme consists of a set of compulsory courses and Language Papers.

The entire course carries credit system. The number and distribution of credits for the courses will be decided by the respective faculties.

A Course is divided into two Semesters, Odd Semester and Even Semester.

Credits

The term credit is used to describe the quantum of syllabus for various programmes in terms and hours of study. It indicates differential weightage given according to the contents and duration of the courses in the Curriculum design.

The minimum credit requirement for the award of the Degree of Five Years Master's Programme shall be 225.

Courses

Each course may consist of Lectures/ Tutorials/ Laboratory work/ Seminar/ Project work/ Practical training report/ Viva voce etc.

Normally, in each of the courses, credits will be assigned on the basis of the Lectures/ Tutorials/ Laboratory work and other form of learning in a 18 week scheme schedule.

Eligibility for Admission

Candidates for admission to the first year of the Five Year Integrated M.Sc. Degree Course shall be required to have passed the final examination of the plus 2 Higher Secondary Course or Equivalent thereto with a minimum of 50% aggregate under academic stream with the following
subjects as in Appendix - A, conducted by the Board of Secondary Education, Tamilnadu Government or an examination of any other authority accepted by the Syndicate of this University as equivalent thereto. They shall satisfy the conditions regarding qualifying marks, age and physical fitness as may be prescribed by the Syndicate of the Annamalai University from time to time.

**Grading System**

The term Grading system indicates a 10 point scale of evaluation of the performance of students in terms of marks, grade points, letter grade and class.

**Course Duration**

The duration for completion of a Five Year Integrated M.Sc. Programme in any course is Ten Semesters.

**Student Counselors**

To help the students in planning their course of study and for general advice on the academic programme, the Head of the Department will attach a certain number of students to a member of the faculty who shall function as student counselor for those students throughout their period of study.

**Attendance**

Every teaching faculty handling a course shall be responsible for the maintenance of Attendance Register for candidates who have registered for the course.

The instructor of the course must intimate the Head of the Department at least Seven Calendar days before the last instruction day in the semester about the particulars of all students who have secured an attendance of less than 80%.

A candidate who has attendance less than 80% shall not be permitted to sit for the End-Semester Examination in the course in which the shortage exists.

However, it shall be open to the authorities to grant exemption to a candidate who has failed to obtain the prescribed 80% attendance for valid reasons on payment of a condonation fee and such exemptions should not under any circumstances be granted for attendance below 70%.

**Examination**

There will be two sessional assessments and one End-Semester Examination during each semester.

Sessional Test - I will be held during Sixth Week for the syllabi covered till then.

Sessional Test - I will be combination of a variety of tools such as class test, assignment and paper presentation that would be suitable to the course. This requires an element of openness. The students are to be informed in advance about the nature of assessment and the procedures. However,
the tests are compulsory. Test-I may be for one hour duration. The pattern of question paper will be decided by the respective Faculty. Sessional Test-I will carry 12.5% of marks of the entire course.

Sessional Test - II will be conducted with a variety of assessment tools. It will also have an element of openness. The student are to be informed in advance about nature of assessment and the procedures. However the tests are compulsory. Test II may be for two hours duration. The pattern of question paper will be decided by the respective Faculty. Sessional Test - II will carry 12.5% of marks of the entire course.

There will be one End Semester Examination of 3 hours duration in each course.

The end semester Examination will cover all the syllabus of the course for 75% of marks.

**Evaluation**

Evaluation will be done by a continuous basis. Evaluation may be Objective Type Questions, Quiz, Short Answers, Essays or a combination of these, but at the End Semester it has to be a Written Examination.

The performance of students in each course is evaluated in terms of percentage of marks (PM) with a provision for conversion of Grade point (GP). The sum total performance in each semester will be rated by GPA while the continuous performance from the 2nd Semester onwards will be marked by OGPA.

**Marks and Grading**

A student cannot repeat the assessment of Sessional Test - I and Sessional Test - II. However, if for any compulsive reason the student could not attend the test, the prerogative of arranging a special test lies with the teacher in consultation with the Head of the Department.

A minimum of 50% marks in each course is prescribed for a pass. A student has to secure 50% minimum in the End Semester Examinations.

If a candidate who has not secured a minimum of 50% of marks in a course shall be deemed to have failed in that course.

The student can repeat the End Semester Examination when it is offered next in the subsequent Odd/Even Semesters till the regulations are in force. However, a candidate cannot move to the next odd/even semester if he/she has more than six papers as arrears at any point of time.

A candidate who has secured a minimum of 50% marks in all courses prescribed in the programme and earned a minimum of the credits will be considered to have passed the Master's Programme.
Grading

A ten point rating is used for the evaluation of the performance of the student to provide letter grade for each course and overall grade for the Master's Programme.

<table>
<thead>
<tr>
<th>Marks</th>
<th>Grade point</th>
<th>Letter grade</th>
<th>Class</th>
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<tr>
<td>90+</td>
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<td>85-89</td>
<td>9.0</td>
<td>D++</td>
<td>Distinction</td>
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<td>75-79</td>
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<td>Distinction</td>
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<td>70-74</td>
<td>7.5</td>
<td>A++</td>
<td>First Class</td>
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<td>65-69</td>
<td>7.0</td>
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<td>60-64</td>
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<td>55-59</td>
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<tr>
<td>50-54</td>
<td>5.5</td>
<td>C</td>
<td>Second Class</td>
</tr>
<tr>
<td>49 or Less</td>
<td>F</td>
<td>Fail</td>
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</table>

The Successful candidates in the Core Subjects are classified as follows.

I-Class 60% marks and above in over all percentage of marks (OPM)

II-Class 50-59% marks in over all percentage of marks.

Candidates who obtain 75% and above but below 90% of marks (OPM) shall be deemed to have passed the examination in First Class (Distinction) provided he/she passes all the courses prescribed for the programme at the first appearance.

Candidates who obtain 90% and above (OPM) shall be deemed to have passed the examination in First Class (Exemplary) provided he/she passes all the courses prescribed for the programme at the first appearance.

Candidates who obtain highest marks in all examinations at the first appearance alone considered for ranking.

For the Internal Assessment Evaluation the break up marks shall be as follows:

<table>
<thead>
<tr>
<th>Theory</th>
<th>Marks</th>
<th>Practical</th>
<th>Marks</th>
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<tr>
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<td>Test – I</td>
<td>15</td>
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<tr>
<td>Test – II</td>
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</tr>
<tr>
<td>Assignment</td>
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<td>Record</td>
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</tr>
<tr>
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<td>25</td>
<td>Total</td>
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The Project work will be assessed for 50 marks by a committee consisting of the Head of the Department, the guide and a minimum of two members nominated by the Head of the Department. The Head of the Department will be the chairman. 150 marks are allotted for the project work and viva-voce examination at the end of the semester.
Course-Wise Letter Grades

The percentage of marks obtained by a candidate in a course will be indicated in a letter grade.

A Student is considered to have completed a course successfully and earned the credits if he/she secures over all grades other than F. A letter grade F in any course implies a failure in that course. A course successfully completed cannot be repeated for the purpose of improving the Grade Point.

The F Grade once awarded stays in the grade card of the student and is not deleted even when he/she completes the course successfully later. The grade acquired later by the student will be indicated in the grade sheet of the Odd/Even semester in which the candidate has appeared for clearance of the arrears.

If a student secures F grade in the Project Work/ Field Work/ Practical Work/ Dissertation, either he/she shall improve it and resubmit it if it involves only rewriting incorporating the clarification of the evaluators or he/she can re-register and carry out the same in the subsequent semesters for evaluation.

Transitory Regulations

Wherever there had been change of syllabi, examinations based on the existing syllabus will be conducted for three consecutive times after implementation of the new syllabus in order to enable the students to clear the arrears. Beyond that the students will have to take up their examinations in equivalent subjects, as per the new syllabus, on the recommendations of the Head of the Department concerned.

APPENDIX-A

| M. Sc. Information Technology | : A Pass in H.Sc. (10+2 level) and Equivalent thereto under academic stream with the following subjects viz. Mathematics, Physics, Chemistry and Computer Science. |
# M.Sc. INFORMATION TECHNOLOGY
## FIVE YEAR INTEGRATED DEGREE
### ON–CAMPUS PROGRAMME (CBSS)

## SUBJECTS OF STUDY AND SCHEME OF EXAMINATIONS

### FIRST SEMESTER

<table>
<thead>
<tr>
<th>Code</th>
<th>Subject</th>
<th>L</th>
<th>T</th>
<th>P</th>
<th>Exam Duration in hours</th>
<th>Exam Marks</th>
<th>Sess. Marks</th>
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<th>Credit points</th>
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<th>Credit points</th>
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<td>–</td>
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### THIRD SEMESTER

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<th>Credit points</th>
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<td>English Through Literature III: Drama</td>
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<td>Data Structure - Lab</td>
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<td>हिंदी–IV</td>
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<td>English Through Literature IV: Short Story</td>
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<td>–</td>
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<td>DBMS- Lab</td>
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<th>Exam Duration in hours</th>
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<td>Object Oriented Programming using C++</td>
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<td>IITT 52</td>
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<td>IITT 53</td>
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<td>Visual Programming</td>
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<td>Programming in ‘C++’ - Lab</td>
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<tbody>
<tr>
<td>IITT 61</td>
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<td>–</td>
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<td>75</td>
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<tr>
<td>IITT 62</td>
<td>Computer Graphics</td>
<td>5</td>
<td>–</td>
<td>–</td>
<td>3</td>
<td>75</td>
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<td>IITP 66</td>
<td>Programming in Java - Lab</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>4</td>
<td>3</td>
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<tr>
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### SEVENTH SEMESTER

<table>
<thead>
<tr>
<th>Code</th>
<th>Subject</th>
<th>L</th>
<th>T</th>
<th>P</th>
<th>Exam Duration in hours</th>
<th>Exam Marks</th>
<th>Sess. Marks</th>
<th>Total Marks</th>
<th>Credit points</th>
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<tbody>
<tr>
<td>IITT 71</td>
<td>Object Oriented Analysis and Design</td>
<td>5</td>
<td>–</td>
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<td>3</td>
<td>75</td>
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<tr>
<td>IITT 72</td>
<td>Web Technology</td>
<td>5</td>
<td>–</td>
<td>–</td>
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<td>75</td>
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<td>IITT 73</td>
<td>Soft Skills Development</td>
<td>2</td>
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<td>3</td>
<td>75</td>
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<tr>
<td>IITE 74</td>
<td>Elective-1</td>
<td>5</td>
<td>–</td>
<td>–</td>
<td>3</td>
<td>75</td>
<td>25</td>
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<tr>
<td>IITP 75</td>
<td>Software Design - Lab</td>
<td>–</td>
<td>–</td>
<td>4</td>
<td>3</td>
<td>60</td>
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<tr>
<td>IITP 76</td>
<td>Web Technology - Lab</td>
<td>–</td>
<td>–</td>
<td>4</td>
<td>3</td>
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### EIGHTH SEMESTER

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<tbody>
<tr>
<td>IITT 81</td>
<td>Digital Image Processing</td>
<td>5</td>
<td>–</td>
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<td>3</td>
<td>75</td>
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<tr>
<td>IITT 82</td>
<td>Network Security</td>
<td>5</td>
<td>–</td>
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<td>75</td>
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<tr>
<td>IITT 83</td>
<td>C# and .NET framework</td>
<td>5</td>
<td>–</td>
<td>–</td>
<td>3</td>
<td>75</td>
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<td>100</td>
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<tr>
<td>IITE 84</td>
<td>Elective–II</td>
<td>5</td>
<td>–</td>
<td>–</td>
<td>3</td>
<td>75</td>
<td>25</td>
<td>100</td>
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<tr>
<td>IITP 85</td>
<td>.NET - Lab</td>
<td>–</td>
<td>–</td>
<td>4</td>
<td>3</td>
<td>60</td>
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<tr>
<td>IITP 86</td>
<td>Mini Project</td>
<td>–</td>
<td>–</td>
<td>4</td>
<td>–</td>
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### NINTH SEMESTER

<table>
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<tbody>
<tr>
<td>IITT 91</td>
<td>Principles of Marketing &amp; Management</td>
<td>4</td>
<td>–</td>
<td>–</td>
<td>3</td>
<td>75</td>
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<tr>
<td>IITT 92</td>
<td>Advanced Java (J2EE)</td>
<td>5</td>
<td>–</td>
<td>–</td>
<td>3</td>
<td>75</td>
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<tr>
<td>IITE 93</td>
<td>Big Data Analytics</td>
<td>5</td>
<td>–</td>
<td>–</td>
<td>3</td>
<td>75</td>
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<tr>
<td>IITE 94</td>
<td>Elective–III</td>
<td>5</td>
<td>–</td>
<td>–</td>
<td>3</td>
<td>75</td>
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<tr>
<td>IITP 95</td>
<td>Advanced Java - Lab</td>
<td>–</td>
<td>–</td>
<td>4</td>
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<td>IITP 96</td>
<td>Open Source Software Lab</td>
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<td>–</td>
<td>4</td>
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### TENTH SEMESTER

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<tr>
<td>IITT 101</td>
<td>Project and Viva–voce</td>
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Total 225

L- Lecture; T-Tutorial; P-Practical
ELECTIVES

IITE 74: Elective I

- Unix–Networking
- Optical and Satellite Communication
- Fault Tolerant systems
- Human Computer Interface
- Multimedia Systems
- E–commerce
- Software Quality, Control & Assurance

IITE 84: Elective II

- Client–Server Architecture
- Data warehousing and Mining
- Software Project Management
- Mobile Computing
- Software testing
- Enterprise Resource Planning

IITE 94: Elective III

- Cloud Computing
- Distributed Component Architecture
- Wireless Networking
- Neural Network and Fuzzy systems
- Natural Language Processing
- Global Positioning Systems and Remote Sensing
M.Sc. INFORMATION TECHNOLOGY
FIVE YEAR INTEGRATED DEGREE
ON–CAMPUS PROGRAMME (CBSS)

SYLLABUS
FIRST YEAR : FIRST SEMESTER

ITAC-11 - 3, 6, 16, 18, 24, 28, 32, 37, 40, 54, 57, 60, 69, 74, 77, 83, 85, 93, 97, 99

ITAC-12 - 9, 19, 27, 34, 38, 45, 51, 55, 66, 71, 76, 82, 86, 92, 96

ITAC-13 - 3, 6, 16, 18, 24, 28, 32, 37, 40, 54, 57, 60, 69, 74, 77, 83, 85, 93, 97, 99

ITAC-14 - 9, 19, 27, 34, 38, 45, 51, 55, 66, 71, 76, 82, 86, 92, 96

ITAC-15 - 3, 6, 16, 18, 24, 28, 32, 37, 40, 54, 57, 60, 69, 74, 77, 83, 85, 93, 97, 99
ITAC 11 : HINDI–I (Option)

TEXT BOOK

I. NAVEEN HINDI PATMAALA-I
   First 15 lessons only (Poems omitted)
   Published by Dakshina Bharatha Hindi Prachar Sabha, T. Nagar,
   Chennai-17

II. SARAL HINDI VYAKARAN
IENCE 12: ENGLISH THROUGH LITERATURE I: PROSE

Objective:

To develop the communicative competence of learners in the English Language through training them in the skills of listening, speaking, reading and writing.

Unit I
Bonnie Chamberlain
“The Face of Judas Iscariot”
Swami Vivekananda
“Speech at World Parliament of Religion”

Unit II
Stephen Leacock
“My Financial Career”
Bhimrao Ambedkar
“Speech on 4th November 1948 in the Constituent Assembly”

Unit III
Robert Lynd
“On Forgetting”
Nirad C. Chaudhuri
“Indian Crowds”

Unit IV
A. G. Gardiner
“All about a Dog”
Ruskin Bond
“My Eccentric Guests”

Unit V
Martin Luther King (Jr.)
“I Have a Dream”
Khushwant Singh
“The Portrait of a Lady”

Text Book:
ICEC 13: CIVICS, ENVIRONMENT AND HEALTH SCIENCES

Unit–I

Unit–II
Political System: Union Government: President – Prime Minister – Parliament – Supreme Court – Electoral System
State Government: Governor – Chief Minister – Center State Relations.

Unit–III

Unit–IV

Unit–V
Physical Health – Introduction to health – Food, Meaning of balanced diet, sources, Common Nutritional deficiencies and prevention.
Personal Health – Cleanliness of body, Care of Skin, Nails, Eyes, hair, Oral Health, Clothing, Body posture and good habits such as exercises – Importance of avoiding smoking, alcoholism, drugs etc.,
Population explosion and Family Planning – Importance, Common methods of family planning for Men and Women.
Mothers and Children – Immunization of Children (importance, schedule) care of mothers during Pregnancy and after delivery.
Communicable Diseases – Symptoms and Prevention.

Unit–VI
2. Adolescent Problems.
3. First Aid.
   Environment – Ventilation, Lighting, Simple Methods of purification of water, sanitary latrine, prevention of worm infestation (round worm, hook worm)

Text and Reference Books
IMAC 14: MATHEMATICS–I

Unit–I: Matrices
- Rank of a matrix
- Computation of the inverse of a matrix by elementary transformation
- Characteristic equations
- Eigen values and Eigen vectors
- Inverse of a matrix using Cayley–Hamilton theorem
- Real quadratic forms
- Reduction to canonical form by elementary congruent transformations
- Nature of quadratic forms

Unit–II: Algebra and Trigonometry
- Binomial, exponential and logarithmic series
- Problems on summation of series
- Expansions of $\cos n\theta$ and $\sin n\theta$ in powers of $\sin \theta$ and $\cos \theta$
- Expressing $\cos^n \theta$ and $\sin^n \theta$ in terms of sines and cosines of multiples of $\theta$
- Hyperbolic functions

Unit–III: Differential Calculus
- Curvature
- Radius of curvature
- Centre and circle of curvature
- Evolutes
- Envelopes
- Taylor and Maclaurin series of functions of two variables
- Jacobians
- Maxima and minima of functions of two variables
- Constrained maxima and minima
- Lagrange's method of multipliers

Analytical Geometry of three dimensions:

Unit–IV
- Direction cosines and direction ratios
- Planes
- Equation of plane passing through the line of intersection of two planes
- Straight lines
- Symmetric form
- Planes and straight lines
- Coplanar lines
- Shortest distance between two skew lines

Unit–V
- Spheres
- Planes
- Orthogonal spheres
- Cone
- Equation of cone having its vertex at the origin or at a given point
- Right circular cone

Text Book

Reference Books
IAPC 15: APPLIED PHYSICS

Unit–I : Laser and Fibre Optics

Unit–II : Electrical Properties and Super Conductivity

Unit–III : Semiconducting Materials
Distinction between conductors, semi conductors and insulators on the basis of band theory – Factors affecting resistivity of a conductor, temperature, alloying, pressure, strain, magnetic field and environment – Intrinsic, Extrinsic Semiconductors – Materials preparation: Czochralski method – Zone refining, Hall effect in semiconductor – Applications of Hall effect, IC fabrication (Qualitative)

Unit–IV : Magnetic Properties

Unit–V : Dielectric Properties

Text Books
FIRST YEAR: SECOND SEMESTER

ITAC-21 - بمارشاللک میلیو دیجیتال ایکونولوژی

1. FIRST YEAR: SECOND SEMESTER

ITAC-21 - 2. گرانت کاریکا - 3. سالانه میلیوکرویکول کاریکا

2. ITAC-21 - گرانت کاریکا - 3. سالانه میلیوکرویکول کاریکا

3. ITAC-21 - 2. گرانت کاریکا - 3. سالانه میلیوکرویکول کاریکا

4. ITAC-21 - 2. گرانت کاریکا - 3. سالانه میلیوکرویکول کاریکا
7. சாலினி தியார்திங்கமண்டல், தமிழ் விளம்பராக்கி குடும்பம, பல்லூரியர் பதவிப் பதிப்பு, விளக்கம, 2005.

8. சாலினி, “சிறுமி விளம்பராக்கி குடும்பப் பதவிக் குழு” - தமிழ் வெப்பவைர, விளக்கம.

9. ச. சாலினிப்புரண்டு - சாலினி விளம்பராக்கி, பெருநாட்டு புத்தக திலகம், பதிப்பு (1993)

10. பா.ச. சுலைவாசைகும்பி - சாலினி விளம்பராக்கி விளம்பராக்கி வரியாசியலிலே துறதா, பதிப்பு, பதிப்பு, விளக்கம.


12. சாலினி தியார்திங்கமண்டல் - சாலினி தியார்திங்கமண்டல் துறதா, பல்லூரியர் பதவிப் பதிப்பு - 2005


14. பல்லூரியர். முன்னரசம்பாரர் - பல்லூரியர் விளம்பராக்கி துறதா, பதிப்பு, தேவார்பந்த, விளக்கம.
ITAC 21 : HINDI – II (Option)

TEXT BOOK

I  NAVEEN HINDI PATMAALA-II
   First 10 lessons (including poems) Pub. by DBHP Sabha, Chennai-17

II  MANOHAR KAHANIYAM – PART-II
   First 10 stories only Pub. by DBHP Sabha, Chennai-17
IENC 22: ENGLISH THROUGH LITERATURE II: POETRY

Objective:
To ensure and enhance:
- the ability of the learner to comprehend and appreciate poems in English
- the competence of the learner in using English language, and
- the interest of the learner in human values and perceptions

Unit I
1. William Shakespeare
   “Sonnet 29”
2. William Blake
   “A Poison Tree”
3. Robert Bridges
   “A Red, Red Rose”

Unit II
4. PB Shelley
   “Ozymandias”
5. Alfred Tennyson
   “The Brook”
6. Hillaire Belloc
   “Matilda”

Unit III
7. Robert Frost
   “Stopping by Woods on a Snowy Evening”
8. Walt Whitman
   “O Captain, My Captain”
9. Sylvia Plath
   “Mirror”

Unit IV
10. Toru Dutt
    “The Lotus”
11. A. K. Ramanujan
    “A River”
12. Keki N. Daruwala
    “Pestilence in Nineteenth Century Calcutta”

Unit V
13. Gabriel Okara
    “Once Upon a Time”
14. Maki Kureishi
    “The Kittens”
15. Robert Finch
    “Peacock and Nightingale”

Text Book:
R. English Through Literature: Poetry
IMAC 23: MATHEMATICS–II

Unit–I
Integral Calculus: Methods of integration (Revision) – Integration by parts – properties of definite integrals – Reduction formulae – Evaluation of double and triple integrals – Change of order of integration – Application of multiple integrals for finding areas and volumes – Beta and Gamma functions.

Unit–II

Unit–III
Complete solution in terms of an integral of the corresponding homogeneous equation by inspection – reduction to normal form by removing the first derivative – change of independent variable – method of variation of parameters.

Unit–IV

Unit–V

Text Books

Reference Books
IITT 24 : ANALOG AND DIGITAL ELECTRONICS

Unit–I


Unit–II


Unit–III


Unit–IV
A/D and D/A Convertors: Operational amplifier basics – DACs: weighted and binary ladder types – ADCs: counter, ramp, successive approximation types.

Unit–V
Operational Amplifiers: Definition of terms – inverting and non-inverting amplifiers, summing amplifiers, integrators and differentiators.

Text and Reference books
IITT 25: PROGRAMMING IN ‘C’

Unit–I

Unit–II

Unit–III

Unit–IV

Unit–V
File management and preprocessors: streams, buffering, error handling, opening and closing a file, reading and writing data, selecting the I/O method– random access–macro substitution – conditional substitution–conditional compilation – include facility, line control.

Text Books:
1. R.G.Dromey “ How to Solve it by Computer ” , PHI , 1998

Reference Books:
1. Deitel and Deitel “ C How to Program ”, Addison Wesley , 2001
SECOND YEAR : THIRD SEMESTER

தொழில்-3- ITAC 31 - மாண்டுச்சிப் பாகும

சேதுப்பட்டது: இந்தக் கல்வியாளர் கிராமகல்வையுடன் கூடுதல் கல்வீத் 2-ஆண்டு அம்மரம்
புதினியியல் - 2-ஆண்டு பேருநோக்கு பிரிவித்தனர்

நூற்றற-1

சுருக்கம் நினைக்கும் - குறிப்பிட்டு (ம.க.ம. பரவலாகம்)
சுருக்கம் நினைக்கும் - சுருக்கம் குறியீடு - நூற்றற்பாது - துள்ள
சுருக்கம் - நூற்றற்பாது - சுருக்கம் நினைக்கும்

நூற்றற-2

வரலாற்றுக்கான - சுருக்கம் குறியீடு - குறியீடு - சுருக்கம் நினைக்கும் - குறியீடு

நூற்றற-3

ம.க.ம.பரவலாகம் - (குறிப்பிட்டு - குறியீடு பரவலாகம்)
எனும் பரவலாகம் - எனும் பரவலாகம் குறியீடு - எனும் பரவலாகம் பார்வையாளர்
சுருக்கங்கள் மிக்க குறியீடுகள் - குறியீடு பிரிவின்

நூற்றற-4

சுருக்கம் சுருக்கம் குறியீடு பரவலாகம் - கல்வியாளர் பாதுகாப்பு -
பாதுகாப்பு - குறியீடு குறியீடு பாதுகாப்பு.

நூற்றற-5

சுருக்கம் - சுருக்கம் பாதுகாப்பு (குறிப்பிட்டு - பாதுகாப்பு சுருக்கம்)

பாதுகாப்புத்தான

1. ம.க.ம.பரவலாகம் - சுருக்கம் நினைக்கும்
பாதுகாப்பு துள்ள, புதினியியின்-1971
2. சுருக்கம் பாதுகாப்பு பாதுகாப்பு &
ம.க.ம.பரவலாகம் குறியீடு - குறியீடு பாதுகாப்பு, புதினியியின்-2000
3. பாதுகாப்பு சுருக்கம் - சுருக்கம் குறியீடு,
பாதுகாப்பு குறியீடு புதினியின், நூற்றற்பாது, புதினியின்-2008
c. குறியீடு குறியீடு, குறியீடு குறியீடு பாதுகாப்பு, குறியீடு-92.
ITAC 31 : HINDI – III (Option)

1. अधीन आदेश - ठीककर फर्जाध
2. महाभाषा के एक लोग - भाषाशृंखला अध्याय
3. ।। काफ़ी - सराहनीय दृष्टिकोण समाधान
4. नीतिकों की सुसंधना - विशेष उपरेकार

Reference Books:
1. आदेश नमूने - सराहनीय दृष्टिकोण - तोळूल नेवी श्रीवास्तव
2. नीतिक नृत्य - डॉ. क्रिस्प कॉफ्ट - लिलिया डकेट
3. काफ़ी - सराहनीय दृष्टिकोण समाधान - तोळूल नेवी श्रीवास्तव
4. स्वातंत्र्य संग - हां बी जी - आर्थिक विशेष उपरेकार - अत्याधुनिक पुस्तकाल समाधान
IENC 32: ENGLISH THROUGH LITERATURE III: DRAMA

Objective:
To enhance the conversational competence of the learner by introducing to him to dramas in English

Unit I
Stanley Houghton          “The Dear Departed”
Kenneth Sawyer Goodman    “The Game of Chess”

Unit II
A. A. Milne               “The Princess and the Woodcutter”
Anton Chekhov             “A Marriage Proposal”

Unit III
Arnold Bennett            “The Stepmother”
Arthur Miller             “Grandpa and the Statue”

Unit IV
William Shakespeare       King Lear (Act I, Scene i)
William Shakespeare       Julius Caesar (Act III, Scene ii)

Unit V
Frances Goodrich & Albert Hackett    The Diary of Anne Frank (Act I)
Betty Keller              “Tea Party”

Text Book:
IMAC 33 : MATHEMATICS–III

Unit–I
Laplace Transform: Definition – properties of Laplace transform – Linearity property – shifting property – change of scale property – laplace transform of derivatives and integrals – multiplication by $t^n$ – division by $t$ –

Unit–II

Unit–III

Unit–IV

Unit–V

Text Book

References
HTT 34: PRINCIPLES OF COMMUNICATIONS

Unit–I

Unit–II

Unit–III

Unit–IV

Unit–V


Text Books

References
IITT 35 : DATA STRUCTURES

Unit–I

Unit–II

Unit–III

Unit–IV

Unit–V

Text Books

References
SECOND YEAR : FOURTH SEMESTER

அல்லாம்-1 கொண்டாட்சம், கொண்டாட்சம்

அல்லாம்-2 புரோஷ்பணம்

அல்லாம்-3 கொண்டாட்சம்

அல்லாம்-4 புரோஷ்பணம்

அல்லாம்-5 புரோஷ்பணம்
பாக்கான் புத்தகங்கள் :

1. புரீராஜேஸ்வரன், -தமிழ் தில்லிக்கும் முன்னோட்டம், காசிக்கும் அகாதமி பதிப்பில் 1998.

2. புலோவாசாவன், -தமிழ் தில்லிக்கும் முன்னோட்டம், காசிக்கும் அகாதமி பதிப்பில் 1998.


4. தி. பல்லவபுருஷராமான், -தமிழ் தில்லிக்கும் முன்னோட்டம், மாதிரிக் விளக்கம், நீலநாதா பதிப்பில், 1987

5. சா. அசைக்காக்கனிதி, -தமிழ் தில்லிக்கும் முன்னோட்டம், காசிக்கும் அகாதமி பதிப்பில், 1994.

3)
कबीर — 10 वीं
2)
रुलसी — 10 वीं
3)
शहीम — 10 वीं
4)
केदार — प्रेमसंगृह 20 मघुआ – अवधारक ब्रजसागर
5)
चन्द्र की जगत – भौतिक साइंस 80 हनुमान भी
अध्याय में – हटियांकर परिदर्श
**IENC 42 ENGLISH THROUGH LITERATURE IV: SHORT STORY**

**Objective:**
To develop the communicative competence of learners in the English Language through training them in the skills of listening, speaking, reading and writing

**Unit I**
1. O’ Henry       “After Twenty Years”
2. Ernest Hemingway “A Day’s Wait”

**Unit II**
1. Flora Annie Steel “Valiant Vicky”
2. Oscar Wilde      “The Selfish Giant”

**Unit III**
2. Shashi Deshpande “I Want”

**Unit IV**
1. Leo Tolstoy     “Where Love is God is”
2. Somerset Maugham “The Ant and the Grasshopper”

**Unit V**
1. Chinua Achebe   “Marriage is a Private Affair”
2. Bessie Head     “Heaven is not Closed”

**Text Book:**
AIM: To understand the underlying concepts of linear programming, Classical optimization theory and project scheduling.

Unit-I
Linear programming (LP) LP formulation and graphical solution - the simplex method - revised simplex method.

Unit-II
Duality and networks - definition of the dual problem - primal - Dual relationships - Dual simplex method - transportation and assignment models - transshipment models - network minimization - shortest route problems .

Unit-III
Integer programming - cutting plane algorithms, Branch and bound Algorithm - Multistage (dynamic) programming solution of LP by dynamic programming.

Unit-IV

Unit-V
Project scheduling. network diagram representation - critical path Computation - time charts and resources levelling – PERT Networks

Text Book:

Reference Books:
Unit-I : Introduction
A Generic View of Process – Process Models-The Waterfall Model-Incremental Model-
Evolutionary Model-Specialized Model-The Unified Process–Agile Process – Agile Models –

Unit-II : Requirement Analysis
System Engineering Hierarchy – System Modeling – Requirements Engineering: Tasks- Initiating
The Process-Eliciting Requirements-Developing Use Cases-Negotiating Requirements-
Validating Requirements – Building the Analysis Models: Concepts

Unit-III : Software Design
Design Concepts – Design Models – Pattern Based Design – Architectural Design –
Component Level Design – Component – Class Based And Conventional Components Design –
User Interface – Analysis And Design

Unit-IV : Software Testing
Tactics – Testing Fundamentals-Black Box – While Box – Basis
Path-Control Structure

Unit-V : SCM And Quality Assurance
Software Configuration And Management-Features- SCM Process- Software Quality Concepts

Text Book:

Reference Books:
   Prentice Hall Of India 1991.
UNIT–I

UNIT–II

UNIT–III
Network Data Model: Data Structure Diagrams – DBTG Codasyl Model Retrieval, Update & Set Processing.

UNIT–IV

UNIT–V

TEXT BOOKS

REFERENCES
IITT 46 : MICROPROCESSOR AND ITS APPLICATIONS

Unit–I

Unit–II
Instruction set – Data Transfer instructions: Arithmetic operations – logic and Branch operation – Looping, counting and indexing – 16 bit arithmetic operations related to memory – logic operations – time delays.

Unit–III

Unit–IV
Advanced microprocessors – 80 x 87 architecture – Concepts of arithmetic coprocessor – introduction to 80386, 80486 – memory paging mechanism.

Unit–V
Introduction to the Pentium and Pentium pro microprocessor – Applications – Temperature monitoring and Control – Traffic light Control.

Text Books

References
THIRD YEAR : FIFTH SEMESTER
IITT 51 : OBJECT ORIENTED PROGRAMMING USING C++

UNIT-I
Introduction to OOP: Overview of C++ - classes - structures - union - friend function - friend class - inline function - constructors - static members - scope resolution operator - passing objects to functions - function returning objects.

UNIT-II
Arrays - pointers - this pointer - references - dynamic memory allocation - functions overloading - default arguments - overloading constructors - pointers to functions.

UNIT-III
Operator overloading - member operator function - friend operator function - type conversion - inheritance - types of inheritance - virtual base class - polymorphism - virtual function.

UNIT-IV
Class templates and generic classes - function templates and generic functions -overloading a function templates - power of templates - exception handling - derived class exception - exception handling functions.

UNIT-V
Streams - formatted I/O with its class functions and manipulators - creating own manipulators - file I/O - conversion functions - standard template library.

Text Book

Reference
IIT 52 : OPERATING SYSTEM

Unit-I:

Unit-II:

Unit-III:

Unit-IV:

Unit-V:
Comparative study - DOS, UNIX/LINUX, Windows 9x, Windows NT.

Text Book:

Reference Books:
UNIT-I
Introduction -Assemblers -grammar and parser's -lexical analysis -Symbol Tables –hashing.

UNIT-II
Forward References -chaining -Extending the Example expressions -compilers - Conditional Assembly -Macros -More Macros.

UNIT-III

UNIT-IV

UNIT-V

Text and Reference books
IIT 54: VISUAL PROGRAMMING

Unit–I : Historical Development of Programming
  comparison of different types of Programming.

Unit–II : Windows Programming
  Overview of Windows Programming – Data types – Structure of a windows program – Creating
  windows – Windows support functions – Windows messages – Message Processing Functions –

Unit–III : VISUAL BASIC Programming
  modules – Procedures and functions – Tool box controls – menus – grid controls – Dialog boxes –
  Data base Manager – Data control – Data Access objects.

Unit–IV : VISUAL C++ Programming
  Objects – Classes – MFC Library application framework – App wizard – class wizard –
  resources – Event handling – menus – dialog boxes – Importing VBX Controls – MFC File handling –

Unit–V : Advance Concepts
  Communicating with other applications – OLE concepts – MDI applications – calling

Text Books

References
UNIT I: INTRODUCTION

UNIT II: CLASSES AND ARRAYS

UNIT III: INHERITANCE, INTERFACES AND PACKAGES

UNIT IV: MULTITHREADING, EXCEPTION HANDLING, FILES AND CREATING THREADS

UNIT V: APPLET AND SWING
Difference between Application and Applets – Applet Life cycle – creating an Executable Applet – Designing a Web Page – Adding Applet to HTML File – Passing Parameters to Applets.

TEXT BOOK

REFERENCE
IITT 62 : COMPUTER GRAPHICS

Unit–I : Introduction And Hardware

Unit–II : 2D Graphics

Unit–III : 3D Graphics

Unit–IV : Graphics Modelling

Unit–V : User Interface Design
Interactive Handling Models – Input And Output Handling In Window Systems.

Text Book

References
IIT 63: DESIGN AND ANALYSIS OF ALGORITHMS

Unit - I

Unit - II

Unit - III
Dynamic Programming: Multistage Graphs, 0/1 knapsack and Traveling Salesman Problem. Basic Traversal and Search Techniques: Techniques for Binary Tree, Techniques for Graphs: Depth First Search and Breadth First Search - Connected Components and Spanning Tree - Biconnected Components and DFS.

Unit - IV
Backtracking: 8 Queens Problems, Sum of Subsets, Graph Colouring, Hamiltonian Cycle and Knapsack Problem.

Unit - V
Branch and Bound: Least Cost Search. Bounding: FIFO Branch and Bound and LC Branch and Bound. 0/1 Knapsack Problem, Travelling Salesman Problem.

Text Books and References
IITT 64 : COMPUTER NETWORKS

Unit–I : Introduction
Uses and advantages of Networks – Structure, Topology & Design.

Unit–II: Communications between and among Computers and Terminals
Control & Accountability – Networks – Classification – Simplex, stop & Wait, Sliding window protocols – Protocol performance, specification and verification – Polling selection system – Multiplexing carrier sense system.

Binary synchronous control (BSC) – High level data link control (HDLC) – Synchronous data link control (SDLC).

Unit–III : Local area Networks

Unit–IV : Personal Computer Networks
PC Communication Characteristics – Error handling – PC as server – Linking PC with mainframes – File Transfer – PC and LAN.

Unit–V : Upper Level Protocols

Text Book

References
FOURTH YEAR: SEVENTH SEMESTER
IITT 71 : OBJECT ORIENTED ANALYSIS AND DESIGN

Unit – I:

Unit – II:
Classes and Objects: The Nature of an Object-Relationships among Objects-The Nature of a Class-Relationships among Classes-The Interplay of classes and objects-On building quality classes and objects.

Unit – III:
Classification: The Importance of Proper Classification-Identifying Classes and Objects- Key Abstractions and Mechanisms.

Unit – IV:

Unit – V:
Analysis- Design- Evolution and Maintenance of:
1) Data Acquisition: Weather Monitoring Station.
2) Frameworks: Foundation Class library and
3) Client/Server Computing: Inventory Tracking.

Text Book:


Reference Books:
IITT 72: WEB TECHNOLOGY

Unit – I: Web Environment

Unit – II: HTML and XML
Formatting- tags- links- list- tables- frames- forms- comments in HTML.

Unit – III: Java Script
Introduction- Documents- forms- Statements- Functions- Objects in Java scripts- events and event handling- arrays- FORMS- Buttons- Checkboxes- Text fields and text areas.

Unit – IV: JSP
JSP: JSP overview- JSP language basics- JSP translation and compilation directives- Standard java objects from JSP- JSP configuration and deployment- actions and tags of JSP; Java servlets – Arch- servlet interface- applications of servlets.

Unit – V: VB Script
VBScript in the body of the HTML – Variables - Assignments and expression Procedures and functions-Decisional (conditional/alternative) statements List of VBScript intrinsic functions

Text Books:

Reference Books:
Unit - I - Soft skills and developing positive Attitude - Soft skills: introduction – what are soft skills? - selling your soft skills - attribute regarded as soft skills – soft skills – social- soft skills-thinking – soft skills –Negotiating –exhibiting your soft skills- indentifying your soft skills-improving your soft skills - soft skills training –train yourself-top 60 soft skills - Developing positive attitude: introduction – meaning - features of attitudes- attitude and behavior formation of attitudes– change of attitudes – what can you do to change attitude?-ways of changing attitude in a person – attitude in a workplace – the power of positive attitude-developing positive attitude-example of positive attitude- example of negative attitude-over coming negative attitude- negative attitude and its result.


Unit - III - Body language - Introduction – body talk – voluntary and involuntary body language-forms of body language-parts of body language - origin of body language - uses of body language - body language in building interpersonal relations – body language in building industrial relations-reason to study body language-improving your body language – types of body language-Gender differences-female interest and body language - shaking hands with women - interpreting body language-developing confidence with correct body language.

Unit - IV - Group discussion - Introduction – meaning of GD – why group discussion? - characters tested in a GD – tips on GD – types of GD - skills required in a GD - consequences of GD - behavior of a GD - essential elements of GD - different characters in GD - traits tested in a GD - GD etiquette - areas to be concentrated while preparing for a GD - imitating a GD - techniques to initiate a GD - Non-verbal communication in GD – movement and gestures to be avoided in a GD-topics for GD - Interview skills - Introduction – why an interview?.- types of interview - interview panel-types of questions asked-reason for selecting a candidate –reason for rejecting a candidate – on the day of interview– on the interview table – attending job fair-common mistakes that you would’t want to do-questions the candidate should not ask during the interview –post- interview etiquette-how does one follow up?- telephonic interview –dress code at interview – typical questions asked – interview mistakes –quick tips- how to present well in interview –tips to make a good impression in an interview – job interview-basic tips-how to search for job effectively – interview quotations.

Unit - V - Time management - Introduction- the 80:20 rule- take a good look at the people around you- examine your work-sense of time management – time is money – features of time- three secretes of time management - time management matrix- analysis of time matrix-effective scheduling – grouping of activities – five steps to successful time management –difficulties in time management-evils of not planning - time management is a myth – overcoming procrastination – ways of find free time- time management tips for students – interesting facts about time- ideal way of spending a day-time wasters – time savers – realizing the value of time-time circle planner.

Text Book:
FOURTH YEAR: EIGHTH SEMESTER
IITT 81 DIGITAL IMAGE PROCESSING

AIM: To introduce the basic concept of image processing. To explore the time and frequency Aspects of image processing

Unit-I

Unit-II
Image Enhancement in the Spatial Domain: Gray level transformations- Histogram processing- Arithmetic and logic operations- Spatial filtering: Introduction- Smoothing and sharpening filters
Image Enhancement in the Frequency Domain: Frequency domain filters: Smoothing and Sharpening filters- Homomorphic filtering

Unit-III
Wavelets and Multiresolution Processing: Image pyramids- Subband coding- Haar transform- Series expansion- Scaling functions- Wavelet functions- Discrete wavelet transforms in one dimensions- Fast wavelet transform- Wavelet transforms in two dimensions

Unit-IV

Unit-V
Morphological Image Processing: Introduction-Dilation- Erosion- Opening- Closing- Hit-or-Miss transformation- Morphological algorithm operations on binary images- Morphological algorithm operations on gray-scale images.
Image Segmentation: Detection of discontinuities- Edge linking and Boundary detection- Thresholding- Region based segmentation
Image Representation and Description: Representation schemes- Boundary descriptors- Regional descriptors

Text Books:

Reference Book:
AIM: To study the various issues concerning Network security, Database security and Program security

Unit-I

Unit-II

Unit-III

Unit-IV

Unit-V

Text Books:
IITT 83: C# and .NET FRAMEWORK

AIM: To study about the .NET Framework, C# Basics, Libraries and advanced features of C#.

Unit-I

Unit-II
C# Basics: Introduction- Data types- Identifiers- Variable & constants- C# statements- Object Oriented Concepts- Object and classes- Arrays and Strings- System collections- Delegates and Events- Indexes Attributes- Versioning.

Unit-III

Unit-IV
Advanced Features Using C#: Web Services-Windows services-messaging- Reflection- COM and C#- Localization.

Unit-V
Distributed application in C#- XML and C#- Unsafe Mode- Graphical Device Interface with C#- Case Study (Messenger Application).

Text Books:

Reference Books:
FIFTH YEAR: NINTH SEMESTER
IITT 91 : PRINCIPLES OF MARKETING AND MANAGEMENT

Unit–I : Forms of Business Organizations

Unit–II : Functions of Management

Unit–III : Staffing

Unit–IV : Financial Management
   Short term and long term sources of funds – Financing decision – Investment decision – Introduction to financial statements – Production management – Planning and scheduling purchasing, inventory control.

Unit–V : Marketing Management

Text Book

References
IHTT 92 : ADVANCED JAVA (J2EE)

Unit –I:
JDBC: Introduction to JDBC-JDBC Drivers & Architecture- Joining, Manipulating Databases with JDBC, Prepared Statements, Transaction Processing

Unit-II:

Unit-III:
Java Server Pages (JSP)
Basic JSP Architecture-Life Cycle of JSP -JSP Tags and Expressions-Role of JSP in MVC-2-JSP with Database-JSP Implicit Objects-Tag Libraries-Using Custom Tag-JSP Capabilities-Exception Handling-Session Management-Directives-JSP with Java Bean-Database handling in JSP.

Unit-IV:
RMI: RMI overview-RMI architecture-Example demonstrating RMI- Defining the Remote Interface, Implementing the Remote Interface, Compiling and Executing the Server and the Client

Unit –V:

Text and Reference Books:

1. “Advanced Java 2 Platform HOW TO PROGRAM” by H. M.Deitel, P. J. Deitel, S. E. Santry – Prentice Hall

2. “Beginning Java™ EE 6 Platform with Glass Fish 3 From Novice to Professional” by Antonio Goncalves
IITT 93: BIG DATA ANALYTICS

AIM: To understand the concepts of Big Data Analytics

Unit-I

Unit-II

Unit-III

Unit-IV
Frequent Itemsets and Clustering: Mining Frequent Itemsets - Market Based Model – Apriori Algorithm – Handling Large Data Sets in Main Memory – Limited Pass Algorithm – Counting Frequent Itemsets in a Stream – Clustering Techniques – Hierarchical – K-Means – Clustering High Dimensional Data – CLIQUE And PROCLUS – Frequent Pattern based Clustering Methods – Clustering in Non-Euclidean Space – Clustering for Streams and Parallelism.

Unit-V
Hadoop and R for Visualization: Backgroundd and fundamentals-moving data in and out of Hadoop-data serialization-applying MapReduce patterns to big data- streaming big data-integrating R and Hadoop for statistics and more-predictive analytics with Mahout- Hacking with Hive-Programming pipelines with pig – HBase-MySQL-NoSQL- RHadoop

Text Books:

Reference Books:
ELECTIVES
IITE 74: ELECTIVE I
UNIX NETWORKING

Unit–I

Unit–II : Interprocess Communication

Unit–III : Communication protocols

Unit–IV : Berkeley Sockets

Unit–V : Security
Ping Routines: Introduction – Internet Ping Client – XNS Echo Client.

Text Book
OPTICAL AND SATELLITE COMMUNICATION

Unit–I
Optical Fibers, Structure, Sources and Detector: Optical fiber transmission link, types of fiber, fiber modes and configuration, wave guiding and characteristics, basic optical laws, Numerical Aperture, Fiber materials, fiber fabrication, single mode and multi mode fibers, optical sources, detectors.

Unit–II
Optical Receiver: Probability of error, receiver noises, quantum efficiency, block diagram of an optical receiver, digital receiver performance, Receiver sensitivity, point to point links.

Unit–III
Communication Satellite: Orbits and inclination, earth coverage and slant range, placement of a communication satellite in geo – stationary orbit, station keeping, communication satellite subsystems, up link and down link, TDMA.

Unit–IV
Earth Station: Earth station antenna types, earth station subsystems, pointing loss, G/T ratio, monitoring and control, low noise amplifiers (LNA), up converter & down converter, conversion process, hopping and frequency coordination.

Unit–V
Applications and Services: Satellite packet communications – ALOHA, mobile satellite (MSAT) networks, Very Small Aperture Terminals(VSAT), direct broadcasting satellite, INTELSAT, low orbital satellites, TVRO systems.

Text Books

References
FAULT TOLERANT SYSTEMS

Unit–I

Unit–II

Unit–III

Unit–IV

Unit–V

Text Books
HUMAN COMPUTER INTERFACE

Unit–I

Unit–II

Unit–III

Unit–IV

Unit–V

References
MULTIMEDIA SYSTEMS

Unit–I : Multimedia Introduction

Unit–II : Multimedia Hardware

Unit–III : Media Software

Unit–IV : Multimedia Building Blocks
Text Sound – Images – Animation Video.

Unit–V : Multimedia Applications
Multimedia and Single User Multimedia on Networks.

Text Books
E–COMMERCE

Unit–I
Electronic Commerce Framework, Traditional vs. Electronic business applications.

Unit–II

Unit–III

Unit–IV
Electronic Commerce and world wide web, consumer oriented E – commerce, Electronic payment systems.

Unit–V
Inter organizational Electronic Commerce supply chain management, Electronic commerce catalogs.

Text Book

References
SOFTWARE QUALITY, CONTROL & ASSURANCE

Unit–I


Unit–II


Unit–III

Capability Maturity Model: Structure – Interpretation – Usage – Key process areas for various levels.

Unit–IV
Developing a Test Approach: Addressing Software system business risk – Defining a software system testing strategy – Developing software system testing tactics – testing tools.

Testing a Software Using a Life cycle Methodology: Requirements phase testing – Design phase testing – Program phase testing – Desk debugging and program peer view test tools – Evaluating test results – Installation phase testing – Acceptance testing.

Unit–V


Test Documentation: Reporting test results – Final test reporting – Evaluating test effectiveness – Use of testing metrics – Improving the test process.

Reference Books
Unit–I


Unit–II


Unit–III


Unit–IV


Unit–V


Text Book

References
DATA WAREHOUSING & MINING

Unit–I : Data Mining – Introduction

Unit–II : Knowledge Discovery Process

Unit–III : Dataware House – Architecture

Unit–IV : Hardware and Operational Design

Unit–V : Planning, Tuning and Testing
Capacity planning – Tuning the Data Warehouse – Testing the Data Warehouses – Data Warehouse Features.

References
SOFTWARE PROJECT MANAGEMENT

Unit–I: Introduction
Defining a software development process – identify the software model, Activities, Relationship among Activities – document Information on each Activity, Tailoring, improving the process. Discipline – Need for – Implementing discipline – Attributes of successful leader.
Communicating in Harmony – personality Traits, Management Tools.

Unit–II: Project Schedule Planning

Unit–III: Project Tracking

Unit–IV: Product Requirement and Specifications

Unit–V: Marketing Issues

Text Book

Reference
MOBILE COMPUTING

Unit–I


Unit–II


Unit–III


Unit–IV


Unit–V


Text Book

References
SOFTWARE TESTING

UNIT I

UNIT II

UNIT III

UNIT IV

UNIT V

TEXTBOOK

REFERENCE:
ENTERPRISE RESOURCE PLANNING

Unit–I : Introduction to ERP

Unit–II : Business Modeling for ERP

Unit–III : ERP and the Competitive Advantage

Unit–IV : Commercial ERP Package

Unit–V : Architecture
Basic architecture concepts – The system control Interfaces – Services – Presentation interface – Database interface.

Text Book

References
ITE 94: ELECTIVE III

CLOUD COMPUTING

Unit -I
Introduction: Basics, applications, intranet and cloud, examples: Amazon, Google, Microsoft, IBM–advantages and disadvantages of cloud computing, Google appengine, Microsoft Azure, Amazon(EC2, S3,SQS),open stack, cloud computing services

Unit -II

Unit -III
Software as Service: overview-driving forces-company offerings-industries. Software plus services: Overview-mobile device integration-providers-Microsoft Online.

Unit -IV
Developing Applications: Google-Microsoft-Intuit QuickBase-Cast Iron Cloud-Bungee Connect-Development(Appengine,Azure, openstack etc.)-trouble shooting and application management.

Unit -V
Local clouds and thin clients: Virtualization-server solutions-thin clients. Cloud Migration: cloud services for individuals-enterprise cloud- methods for migration-analyzing cloud services.

Text Book:

Reference Books:
DISTRIBUTED COMPONENT ARCHITECTURE

Unit–I : Introduction
EVOLUTION from OLE to DCOM – Distributed Computing – Component concepts – Benefits – Requirements – COM Background – COM Interfaces – COM Library – Foundation of COM.

Unit–II : COM/DCOM

Unit–III : Programming with COM and DCOM
Type Libraries and language integration – Threads – Active Template Library. COM Programming in Visual Basic and Java.

Unit–IV : CORBA

Unit–V : CORBA and DCOM
Comparison of DCOM and CORBA – Interworking Architectures – Basic Mappings – Integrating DCOM and CORBA – Bridges.

Text Books

References
WIRELESS NETWORKING

Unit–I

Unit–II

Binary synchronous control (BSC) – High level data link control (HDLC) – Synchronous data link control (SDLC).

Local area Networks: characteristics of LAN – LAN standards (IEEE 802, ISDN), LAN Topologies and protocol switching – Routing, congestion.

Unit–III


Unit–IV

Unit–V

Text Book

References
UNIT–I
Introduction – Principles and Promises – Perception – Representation – Linear Separability –
Learning – Training algorithm – Backpropagation Training Algorithm – Applications – Counter
propagation networks – Network structure – Applications.

UNIT–II
Statistical Methods: Boltzmann's Training – Cauchy Training. Hopfield nets – Associative
memory – Applications – Bidirectional Associative Memory(BAM) – Continuous BAM – Adaptive –
Competitive.

UNIT–III
Optical Neural Network – Holographic correlators – Cognition and Neocognition – Structure –
Training.

UNIT–IV: FUZZY SETS
Classical sets to Fuzzy sets – Fuzzy sets versus CRISP sets – operations on Fuzzy sets – Fuzzy
arithmetic and Fuzzy relations – Applications.

UNIT–V
Fuzzy logic – Control – Applications – Fuzzy Systems – Pattern Recognition – Fuzzy databases
and Information Retrieval Systems.

TEXT BOOK

REFERENCES
1. Igor Aleksander and Helen Morton, “An Introduction to Neural Computing”, Chapman and Hall,
   1990.
   (Chapters – 1,2,3, 4,5,8,12,13 & 14).
NATURAL LANGUAGE PROCESSING

Unit–I : Introduction

Unit–II : Grammars and Parsing
Grammars and sentence structures – A top down parser – A bottom up parser – top down chart parsing – Finite state models and morphological analysis and the Lexicon – Grammars and Logic programming – Augmented grammars – A simple grammar with features – Augmented Transition Networks (ATN) – Define clause grammars – Efficient parsers – Shift reduce parsers – A deterministic parsers.

Unit–III : Semantic Interpretation

Unit–IV : Discourse Interpretation
Defining Local Discourse context and Discourse entities – The need for discourse structure – Discourse structure and references – Discourse interpretation – discourse analysis – pragmatics – ambiguity and levels of language processing – semantic and pragmatic roles of noun phrases.

Unit–V : Typical Systems

Text Book

References
GLOBAL POSITIONING SYSTEM & REMOTE SENSING

Unit–I

Unit–II
   GPS data and correction services – GPS standard formats – GPS Integration – GPS applications – other satellite navigation systems.

Unit–III

Unit–IV
   Elements of visual image interpretation – Introduction photogrammetry – multispectral remote sensing – Thermal Infrared remote sensing – Active and passive microwave and LIDAR remote sensing.

Unit–V
   Remote sensing vegetation – Remote sensing the urban landscape – remote sensing water – remote sensing soils, minerals and land forms.

Text Books

References