## Course Curricula: M.Sc. (Applied Statistics and Informatics)

### FIRST YEAR

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Name</th>
<th>L</th>
<th>T</th>
<th>P</th>
<th>C</th>
<th>Course No.</th>
<th>Name</th>
<th>L</th>
<th>T</th>
<th>P</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS101</td>
<td>Computer Programming &amp; Utilization</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>SI 402</td>
<td>Statistical Inference</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>SI 423</td>
<td>Linear Algebra and Applications</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>8</td>
<td>SI 404</td>
<td>Applied Stochastic Processes</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>SI 417</td>
<td>Introduction to Probability Theory</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>8</td>
<td>SI 416</td>
<td>Optimization</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>SI 419</td>
<td>Combinatorics</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>6</td>
<td>SI 418</td>
<td>Advanced Programming &amp; Unix Environment</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SI 425</td>
<td>Basic Real Analysis</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>8</td>
<td>SI 422</td>
<td>Regression Analysis</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>SI 408</td>
<td>Data Structures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SI 509</td>
<td>Time Series Analysis</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>SI 509</td>
<td>Time Series Analysis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SI 526</td>
<td>Experimental Designs</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>SI 503</td>
<td>Categorical Data Analysis</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>8</td>
<td>Elective I</td>
<td>Elective IV</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>SI 503</td>
<td>Categorical Data Analysis</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>8</td>
<td>Elective I</td>
<td>Elective IV</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>SI 518</td>
<td>Elective II</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>6</td>
<td>SI 598</td>
<td>Project II/Dept. Elective/Istitute Elective</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>SI 593</td>
<td>Project I (Optional)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SI 509</td>
<td>Time Series Analysis</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>13</td>
<td>4</td>
<td>2</td>
<td>36</td>
<td>Total Credits</td>
<td></td>
<td>13</td>
<td>4</td>
<td>5</td>
<td>39</td>
</tr>
</tbody>
</table>

### SECOND YEAR

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Name</th>
<th>L</th>
<th>T</th>
<th>P</th>
<th>C</th>
<th>Course No.</th>
<th>Name</th>
<th>L</th>
<th>T</th>
<th>P</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES 200/</td>
<td>Environmental Studies</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>SI 509</td>
<td>Time Series Analysis</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>HS 200</td>
<td>Dept. Elective/Institute Elective</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SI 526</td>
<td>Experimental Designs</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>SI 505</td>
<td>Multivariate Analysis</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>8</td>
<td>Elective III</td>
<td></td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>SI 503</td>
<td>Categorical Data Analysis</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>8</td>
<td>Elective IV</td>
<td></td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Elective I</td>
<td>Elective V</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>6</td>
<td>SI 598</td>
<td>Project II/Dept. Elective/Istitute Elective</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>SI 593</td>
<td>Project I (Optional)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SI 509</td>
<td>Time Series Analysis</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>15</td>
<td>4</td>
<td>0</td>
<td>36</td>
<td>Total Credits</td>
<td></td>
<td>11</td>
<td>5</td>
<td>0</td>
<td>38</td>
</tr>
</tbody>
</table>

### Electives – Semester III

<table>
<thead>
<tr>
<th>Elective I</th>
<th>Elective III</th>
<th>Elective IV</th>
<th>Elective V</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA 419</td>
<td>SI 512</td>
<td>SI 514</td>
<td>SI 514</td>
</tr>
<tr>
<td>SI 529</td>
<td>SI 534</td>
<td>SI 513</td>
<td>SI 513</td>
</tr>
<tr>
<td>MA 417</td>
<td>SI 513</td>
<td>SI 532</td>
<td>SI 532</td>
</tr>
<tr>
<td>SI 507</td>
<td>SI 532</td>
<td>SI 542</td>
<td>SI 542</td>
</tr>
<tr>
<td>MA 533</td>
<td>SI 536</td>
<td>SI 536</td>
<td>SI 536</td>
</tr>
</tbody>
</table>

### Electives – Semester IV

<table>
<thead>
<tr>
<th>Elective II</th>
<th>Elective IV</th>
<th>Elective V</th>
</tr>
</thead>
<tbody>
<tr>
<td>SI 525</td>
<td>SI 514</td>
<td>SI 514</td>
</tr>
<tr>
<td>SI 528</td>
<td>SI 527</td>
<td>SI 527</td>
</tr>
<tr>
<td>SI 511</td>
<td>SI 530</td>
<td>SI 530</td>
</tr>
<tr>
<td>SI 515</td>
<td>SI 542</td>
<td>SI 542</td>
</tr>
<tr>
<td>SI 536</td>
<td>SI 536</td>
<td>SI 536</td>
</tr>
</tbody>
</table>
COURSE CONTENTS

CS 101 Computer Programming And Utilization 2026

This course provides an introduction to problem solving with computers using a modern language such as Java or C/C++. Topics covered will include: Utilization: Developer fundamentals such as editor, integrated programming environment, Unix shell, modules, libraries. Programming features: Machine representation, primitive types, arrays and records, objects, expressions, control statements, iteration, procedures, functions, and basic i/o. Applications: Sample problems in engineering, science, text processing, and numerical methods.


Texts / References


ES 200 Environmental Studies 3003

Multidisciplinary nature of environmental problems; Ecosystems, Biodiversity and its conservation; Indicators of environmental pollution; Environment and human health; Utilization of natural resources and environmental degradation. Sustainable development; Environmental policy and law; Environmental impact assessment; Pollution of lakes, rivers and groundwater. Principles of water and wastewater treatment; Solid and hazardous waste management. Air Pollution: sources and effects, Atmospheric transport of pollutants; Noise pollution; Global issues and climate change: Global warming, Acid rain, Ozone layer depletion.

Texts / References


Supplementary Reading Materials (Selected Book Chapters and Papers)

HS 200 Environmental Studies 3003

Social Issues and the environment, Public awareness and Human rights, Indicators of sustainability, Governance of Natural Resources - Common pool resources: issues and management.

Environmental ethics, Religion and environment, Wilderness and Developing Trends, Environmental movements and Activism, Social Ecology and Bioregionalism, Environmental justice.

Environmental economics, Trade and environment, Economics of environmental regulation, Natural resource accounting, Green GDP.
Environment and development, Resettlement and rehabilitation of people, Impacts of climate change on economy and society, Vulnerability and adaptation to climate change.

**Texts / References**


**MA 417 Ordinary Differential Equations**

Review of solution methods for first order as well as second order equations, Power Series methods with properties of Bessel functions and Legendre polynomials.

Existence and Uniqueness of Initial Value Problems: Picard’s and Peano’s Theorems, Gronwall’s inequality, continuation of solutions and maximal interval of existence, continuous dependence.


Two Dimensional Autonomous Systems and Phase Space Analysis: critical points, proper and improper nodes, spiral points, and saddle points.


Boundary Value Problems for Second Order Equations: Green's function, Sturm comparison theorems and oscillations, eigenvalue problems.

**Texts / References**


**MA 419 Basic Algebra**

Review of basics: Equivalence relations and partitions, Division algorithm for integers, primes, unique factorization, congruences, Chinese Remainder Theorem, Euler $\phi$-function.

Permutations, sign of a permutation, inversions, cycles and transpositions. Rudiments of rings and fields, elementary properties, polynomials in one and several variables, divisibility, irreducible polynomials, Division algorithm, Remainder
Theorem, Factor Theorem, Rational Zeros Theorem, Relation between the roots and coefficients, Newton's Theorem on symmetric functions, Newton's identities, Fundamental Theorem of Algebra, (statement only), Special cases: equations of degree 4, cyclic equations.

Cyclotomic polynomials, Rational functions, partial fraction decomposition, unique factorization of polynomials in several variables, Resultants and discriminants.

Groups, subgroups and factor groups, Lagrange's Theorem, homomorphisms, normal subgroups. Quotients of groups. Basic examples of groups (including symmetric groups, matrix groups, group of rigid motions of the plane and finite groups of motions).

Cyclic groups, generators and relations, Cayley's Theorem, group actions, Sylow Theorems.

Direct products, Structure Theorem for finite abelian groups.

Texts / References


Probability measure, probability space, construction of Lebesgue measure, extension theorems, limit of events, Borel-Cantelli lemma.

Random variables, Random vectors, distributions, multidimensional distributions, independence.

Expectation, change of variable theorem, convergence theorems.

Sequence of random variables, modes of convergence. Moment generating function and characteristics functions, inversion and uniqueness theorems, continuity theorems, Weak and strong laws of large number, central limit theorem.

Radon Nikodym theorem, definition and properties of conditional expectation, conditional distributions and expectations.

Texts / References


SI 402 Statistical Inference 3 1 0 8

Prerequisites : MA 411
MA 438 (Exposure)


Sequential Estimation, Sequential Probability, Ratio Test.

Texts / References


Applications to queuing models and reliability theory.


Texts / References


SI 408 Data Structures

Tools for Analysis of Algorithms (Asymptotics, Recurrence Relations).

Algorithms on arrays and matrices. Data Structures (Linked Lists and their variants, Stacks, Queues, Trees, Heaps and some variants) and applications. Sorting, Searching and Selection (Binary Search, Insertion Sort, Merge Sort, Quick Sort, Radix Sort, Counting Sort, Heap Sort etc.). Median finding using Quick-Select, Median of Medians. Basic Graph Algorithms (BFS, DFS, strong components etc.). Dijkstra's Shortest Paths algorithm, Bellman Ford algorithm, All pairs shortest path problem - Floyd Warshall's algorithm.

Texts / References


Jon Kleinberg and Eva Tardos – Algorithm Design, Addison-Wesley, 2005


SI 417 Introduction to Probability Theory 3108


Expectation, moment generating functions and characteristic functions, Conditional expectation and distribution. Modes of convergence, Weak and strong laws of large numbers, Central limit theorem.

Texts / References


SI 418 Advanced Programming and Unix Environment 0033

UNIX programming environment (file system and directory structure, and processes). Unix tools (shell scripting, grep, tar, compress, sed, find, sort etc). Graphical User Interface Programming using Java. Multithreaded programming in Java. Socket programming in Java.

Texts / References

Eckel, Thinking In Java, http://www.bruceeeckel.com/javabook.html


SI 419 Combinatorics 2106

Prerequisites : MA 401, MA 402

Basic Combinatorial Objects: Sets, multisets, partitions of sets, partitions of numbers, finite vector spaces, permutations, graphs etc.

Basic Counting Coefficients: The twelve fold way, binomial, q-binomial and the Stirling coefficients, permutation statistics, etc.

Sieve Methods: Principle of inclusion-exclusion, permutations with restricted positions, Sign-reversing involutions, determinants etc.

Introduction to combinatorial reciprocity. Introduction to symmetric functions.

Texts / References


SI 422 Regression Analysis 3 0 2 8

Prerequisites: SI 417 Introduction to Probability Theory


Texts / References


SI 423 Linear Algebra and Applications 3 1 0 8

Linear independence of vectors in Euclidean space. Subspace and dimension. Inner product and Gram-Schmidt orthonormalization.

Matrices: Null space. Row space and column space. Rank-Nullity theorem.


Special matrices: orthogonal, unitary, hermitian, symmetric, skew-symmetric, Hadamard, Projection matrices.

Diagonalization and the spectral theorem for symmetric matrices.

Least squares problem.

Finite dimensional vector spaces over fields (with emphasis on R and C). Bases, Linear Transformations, and their matrix representation.

Linear, bilinear and quadratic forms.

Inverses, generalized inverse and Moore Penrose inverse.

Partitioned matrices and applications. Kronecker products.

Books/References:


SI 425 Basic Real Analysis 3 1 0 8

Review of sequences and series of real numbers. Tests for convergence of Series. Limit superior and limit inferior. Cauchy sequences and completeness of R.
Basic notions of Metric Spaces with emphasis on \( \mathbb{R}^n \). Connectedness, Compactness, and Heine Borel Theorem.

Continuity and Uniform continuity. Monotone functions and functions of bounded variation.

Derivatives. Mean Value Theorem and applications.


Sequences and series of functions. Uniform convergence (proofs should be omitted).

Functions of several variables: Directional derivative, partial derivative, total derivative, Mean Value Theorem, Taylor's Theorem and applications to Maxima/Minima and convexity. Double and triple integrals. Statement of Fubini’s Theorem and change of variable formula (without proofs) with illustrations.

**Texts/References:**


**SI 503 Categorical Data Analysis 3 1 0 8**


Regression: Simple, multiple, non-linear regression, likelihood ratio test, confidence intervals and hypotheses tests, tests for distributional assumptions Collinearity, outliers, analysis of residuals. Model building, Principal component and ridge regression. Lab component: Relevant real life problems to be done using statistical Software Packages such as SAS etc.

**Texts / References**


A.A. Sen and M. Srivastava, Regression Analysis – Theory, Methods and Applications, Springer-Verlag, 1990

**SI 505 Multivariate Analysis 3 1 0 8**

Prerequisites : SI 402 statistical Inference

Distribution theory associated with the analysis.

Texts / References


SI 507 Numerical Analysis 3 1 0 8

Principles of floating point computations and rounding errors.

Systems of Linear Equations: factorization methods, pivoting and scaling, residual error correction method.

Iterative methods: Jacobi, Gauss-Seidel methods with convergence analysis, conjugate gradient methods.

Eigenvalue problems: only implementation issues.

Nonlinear systems: Newton and Newton like methods and unconstrained optimization.

Interpolation: review of Lagrange interpolation techniques, piecewise linear and cubic splines, error estimates.

Approximation: uniform approximation by polynomials, data fitting and least squares approximation.

Numerical Integration: integration by interpolation, adaptive quadratures and Gauss methods


Two Point Boundary Value Problems: finite difference methods with convergence results.

Lab. Component: Implementation of algorithms and exposure to public domain packages like LINPACK and ODEPACK.

Texts / References


SI 509 Time Series Analysis 3 1 0 8

Prerequisites: SI 402 Statistical Inference

Stationary processes – strong and weak, linear processes, estimation of mean and covariance functions. Wald decomposition Theorem.

Modeling using ARMA processes, estimation of parameters testing model adequacy, Order estimation.

Prediction in stationery processes, with special reference to ARMA processes.

Frequency domain analysis – spectral density and its estimation, transfer functions.

ARMAX, ARIMAX models and introduction to ARCH models.

Multivariate Time Series, State Space Models.
Texts / References


SI 511 Computer-Aided Geometric Design 2 1 0 6


Texts / References


SI 512 Finite Difference Methods for Partial Differential Equations 2 1 0 6

Pre-requisite:

Description: Review of 2nd order PDEs : Classification, separation of variables and fourier transform techniques. Automatic mesh generation techniques : Structure mesh (transfinite interpolation), unstructured grids (triangulation for polygonal and non-polygonal domains).Finite difference Methods : Elliptic equations ( SOR and conjugate gradient methods, ADI schemes), parabolic equations (explicit, back-ward Euler and Crank - Nicolson method, LOD), hyperbolic equations ( Law - Wendroff scheme, Leapfrog method, CFL conditions), Stability, consistency and convergence results. Lab Component : Implementation of Algorithms developed in this course and exposure to software packages : ODEPACK and MATLAB.

Texts / References


SI 513 Theory of Sampling 2 1 0 6

Simple random sampling. Sampling for proportions and percentages.

A brief introduction to randomized response techniques and small area estimation

Texts / References


SI 514 Statistical Modeling 2 1 0 6

Prerequisites: SI 402 Statistical Inference

Nonlinear regression, Nonparametric regression, generalized additive models,

Bootstrap methods, kernel methods, neural network, Artificial Intelligence, a few topics from machine learning.

Texts / References


SI 515 Statistical Techniques in Data Mining 2 1 0 6

Pre-requisite: SI 402 Statistical Inference.

Introduction to Data Mining and its Virtuous Cycle.


Dimension Reduction and Visualization Techniques: Multidimensional scaling, Principal Component Analysis, Chernoff faces, Sun-ray charts.

Algorithms for data-mining using multiple nonlinear and nonparametric regression.


Discussion of Case Studies.

Texts / References


SI 525 Testing of Hypothesis 2 1 0 6

Prerequisites: SI 402 Statistical Inference

Statistical hypotheses, Neyman-Pearsaon fundmental lemma, Monotone likelihood
ratio, confidence bounds, generalization of fundamental lemma, two-sided hypotheses.

Unbiased tests, UMP unbiased tests, applications to standard distributions, similarity and completion, Permutation tests; most powerful permutation tests.

Symmetry and invariance, most powerful invariant tests, unbiased and invariance.

Tests with guaranteed power, maxi-min tests and invariance. Likelihood ratio tests and its properties.

Texts / References


SI 526 Experimental Designs 2106

Prerequisites: SI 402 Statistical Inference

Linear Models and Estimators, Estimability of linear parametric functions. Gauss-Markoff Theorem. One-way classification and two-way classification models and their analyses. Standard designs such as CRD, RBD, LSD, BIBD. Analysis using the missing plot technique.


A brief introduction to Random Effects models and their analyses.

A brief introduction to special designs such as split-plot, strip-plot, cross-over designs.

Response surface methodology.

Applications using SAS software.

Texts / References

A.M. Kshirsagar, A First Course in Linear Models, Marcel Dekker, 1983.


SI 527 Introduction to Derivative Pricing 2106

Introduction to options and markets: types of options, interest rates and present value.


Finite Difference Methods: explicit and implicit methods with stability and convergence analysis, methods for American option-constrained matrix problem, projected SOR, time stepping algorithms with convergence and numerical examples.

Lab Component: Implementation of the option pricing algorithms and Evaluation for Indian companies.

Texts / References


Pre-requisite: SI 402 Statistical Inference

Introduction to clinical trials and other types of clinical research, bias and random error in clinical studies, overview of Phase I-IV trials, multi-center trials; randomized, controlled clinical trials; concept of blinding/masking in clinical trials.

Design of Phase 1-3 clinical trials: parallel vs. cross-over designs, cross-sectional vs. longitudinal designs, review of factorial designs, objectives and endpoints of clinical trials, formulation of appropriate hypotheses (equivalence, non-inferiority, etc.); sample size calculation; design for bioequivalence/bioavailability trials, sequential stopping in clinical trials.

Analysis of Phase 1-3 trials: Use of generalized linear models; analysis of categorical outcomes, Bayesian and non-parametric methods; analysis of survival data from clinical trials.

Epidemiological studies: case-control and cohort designs; odds ratio and relative risk; logistic and multiple regression models.

Texts / References


Algorithm Design Paradigms:

Divide and Conquer,

Greedy Algorithms (for example, some greedy scheduling algorithms, Kruskal's Minimum Spanning Tree Algorithm).

Dynamic Programming (for example, dynamic programming algorithms for optimal polygon triangulation, optimal binary search tree, longest common subsequence, matrix chain multiplication, all pairs shortest paths).

Selection of some of the following topics:
- Randomized algorithms-Monte Carlo and Las Vegas algorithms, Role of Markov and Chebyscheff's inequalities, Chernoff bounds in randomized algorithms, applications of probabilistic method,
- Approximation Algorithms for NP Hard problems,
- Semi definite programming based algorithms
- Exact Exponential time algorithms for NP-hard problems (such as better than brute-force algorithms for Chromatic number, Independent Set, Satisfiability, etc.)

Texts / References


Total quality control in an industry. Quality planning, quality conformance, quality adherence. Quality assurance and quality management functions.


**Texts / References**


**SI 532 Statistical Decision Theory**  
Prerequisite : MA 577

Decision functions, Risk functions, utility and subjective probability, Randomization, Optimal decision rules. Admissibility and completeness, Existence of Bayes Decision Rules, Existence of a Minimal complete class, Essential completeness of the class of non-randomized rules. The minimax theorem.

Invariant statistical decision problems. Multiple decision problems.

Sequential decision problems.

**Texts / References**


S.S. Gupta and D. Huang, Multiple Statistical Decision Theory, Springer-Verlag, New York, 1981.

**SI 534 Nonparametric Statistics**  
Prerequisite: SI 402, Statistical Inference

Kolmogorov-Smirnov Goodness-of – Fit Test.

The empirical distribution and its basic properties. Order Statistics. Inferences concerning Location parameter based on one-sample and two-sample problems. Inferences concerning Scale parameters. General Distribution Tests based on Two or More Independent Samples.


Asymptotic Relative Efficiency of Tests. Confidence Intervals and Bounds

**Texts / References**


J.D. Gibbons, Nonparametric Statistical Inference Marcel Dekker, New York, 1985


SI 536 Analysis of Multi-Type and Big Data 3 0 0 6

Prerequisites: SI 505, SI515.

Overview of Spatial Data, Structured Data. Structural Equation Modeling.

Introduction to Big Data. Large dimension small size multivariate data analysis; tackling the problems of estimation and inference. Classification of Big Data; Screening and Variable Selection.

Lasso Regression; Projection Methods.

Introduction to Markov Chain Monte Carlo (MCMC) Simulations; MCMC techniques for Bayesian Modeling of Big Data.

Text/Ref:


Lecture Notes based on selected recent papers on Big Data Modeling and Analysis.

SI 542 Mathematical Theory of Reliability 2 1 0 6

Pre-requisites: SI 402 Statistical Inference

Coherent Structures, Reliability of systems of independent components, Bounds of system reliability, shape of the system reliability function, notion of ageing, parametric families of life distributions with monotone failure rate, classes of life distributions based on notions of ageing, classes of distributions in replacement policies. Limit distributions for series and parallel systems. Statistical inferential aspects for (i) standard reliability models, (ii) parametric and non-parametric classes of aging distributions.

Texts / References


S.K. Sinha, Reliability and Life Testing, Wiley Eastern, New Delhi, 1986