COURSE STRUCTURE
&
DETAILED SYLLABUS

for

II Year B.Tech. II Semester

(Applicable for the batch admitted from 2018-19)

DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING

GURU NANAK INSTITUTIONS
TECHNICAL CAMPUS
(An Autonomous Institution)
Campus: Ibrahimpatnam, R.R. District - 501506 (T.S.).

GURU NANAK INSTITUTIONS TECHNICAL CAMPUS (AUTONOMOUS)
SCHOOL OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

COURSE STRUCTURE
(Applicable for the Batch admitted from 2018-19)

CSE II YEAR II SEM   **IV SEMESTER**

S. No.	Subject Code	Subject	L	T	P	Credit
1	18SS0MB17	Organizational Behaviour	3	0	0	3
2	18PC0CS08	Design & Analysis of Algorithms	3	0	0	3
3	18PC0CS09	Data Base Management Systems	3	0	0	3
4	18PC0CS10	Operating Systems	3	0	0	3
5	18HS0EN04	Effective Technical Communication	3	0	0	3
6	18PC0CS11	Design & Analysis of Algorithms Lab	0	0	4	2
7	18PC0CS12	Data Base Management Systems Lab	0	0	3	1.5
8	18PC0CS13	Operating Systems Lab	0	0	3	1.5
9	18MC0EN02	Gender Sensitization Lab	0	0	2	0
	5 Theory + 3 Lab + 1 MC	**Total Credits**	**15**	**00**	**12**	**20**

GURU NANAK INSTITUTIONS TECHNICAL CAMPUS (AUTONOMOUS)

B.Tech (CSE) II Year II – Sem

L T P C
3 0 0 3

ORGANIZATIONAL BEHAVIOUR (18SS0MB17)

COURSE OBJECTIVE:
To understand the fundamentals of Behavioural aspects of individual and groups in an organization

SYLLABUS:

UNIT – I
Introduction to Organization Behaviour: Introduction to Organization, Organization and managers, Manager roles and skills, Behaviour at work, Introduction to Organization Behaviour, Major Behavioural science disciplines contributing to OB, Challenges and Opportunities managers have in applying OB concepts, OB model (Including motivation Models) and levels of OB model

UNIT – II
Individual Behaviour: Introduction to Individual Behaviour, values, attitudes, Job satisfaction, personality, perception and individual decision making, learning, motivation at work, managing emotions and stress (Meaning-Definition Stress and job performance relationship Approaches to stress management (coping with stress)

UNIT – III
Interpersonal Behaviour: Interpersonal Behaviour, Johari window, Transactional Analysis-ego states, Types of transactions, Life positions, applications of T.A, managerial interpersonal styles

UNIT – IV
Group behaviour: Introduction to group behaviour, foundations of group Behaviour, concept of group and group dynamics, types of groups, formal and informal groups, Theories of group formation, group norms, group cohesiveness, group decision making, intergroup Behaviour, concept of group vs team, types of teams, building and managing effective teams, leadership theories and styles, power and politics, conflict and negotiation

UNIT – V
Organizational behaviour: Foundations of organization structure, Organization design, Organization culture, Organization change, managing across cultures, human resource management policies and practices, diversity at work.

TEXT BOOKS:
1) S.P.Robbins /Judge, T.A/Sanghi,S, Organizational Behaviour, Pearson publication
2) Aswathappa,K., Organizational Behaviour-Text and problem, Himalaya publication
3) Pardeshi,P.C., Organizational Behaviour & Principles & practice of Management, Nirali publication

COURSE OUTCOMES:
Students will be able to understand
CO 1: Organization and managers roles
CO 2: understanding the individual behaviour
CO 3: Interpersonal Behaviour
CO 4: group behaviour
CO 5: organization policies and practices

B.Tech (CSE) II Year II – Sem

L	T	P	C
3	0	0	3

DESIGN & ANALYSIS OF ALGORITHMS (18PC0CS08)

PRE-REQUISITES:
1. A course on "Programming for problem solving"
2. A course on "Data Structures"

COURSE OBJECTIVE:
The objective of the course is to solve problems using algorithm design methods such as the greedy method, divide and conquer, dynamic programming, backtracking and branch and bound

SYLLABUS:
UNIT – I
Introduction: Characteristics of algorithm. Analysis of algorithm: Asymptotic analysis of complexity bounds – best, average and worst-case Behaviour; Performance measurements of Algorithm, Time and space trade-offs, Analysis of recursive algorithms through recurrence relations: Substitution method, Recursion tree method and Masters' theorem.
UNIT – II
Fundamental Algorithmic Strategies: Brute-Force, Greedy, Dynamic Programming, Branch- and-Bound and Backtracking methodologies for the design of algorithms; Illustrations of these techniques for Problem-Solving , Bin Packing, Knap Sack TSP. Heuristics – characteristics and their application domains.
UNIT – III
Graph and Tree Algorithms: Traversal algorithms: Depth First Search (DFS) and Breadth First Search (BFS); Shortest path algorithms, Transitive closure, Minimum Spanning Tree, Topological sorting, Network Flow Algorithm.
UNIT – IV
Tractable and Intractable Problems: Computability of Algorithms, Computability classes – P, NP, NP-complete and NP-hard. Cook's theorem, Standard NP-complete problems and Reduction techniques.
UNIT – V
AdvancedTopics: Approximation algorithms, Randomized algorithms, Class of problems beyond NP – P SPACE

TEXT BOOKS:
1. Introduction to Algorithms, 4TH Edition, Thomas H Cormen, Charles E Lieserson, Ronald L Rivest and Clifford Stein, MIT Press/McGraw-Hill.
2. Fundamentals of Algorithms – E. Horowitz et al.

REFERENCE BOOKS:
1. Algorithm Design, 1ST Edition, Jon Kleinberg and ÉvaTardos, Pearson.
2. Algorithm Design: Foundations, Analysis, and Internet Examples, Second Edition, Michael T Goodrich and Roberto Tamassia, Wiley.
3. Algorithms – A Creative Approach, 3rd Edition, UdiManber, Addison-Wesley, Reading, MA.

COURSE OUTCOMES:
By the end of the course, students will be able to:
CO 1: Describe algorithms dealing with various techniques along with the efficiency of algorithms
CO 2: Select the data structures and algorithm design methods that impacts the performance of programs
CO 3: Identify the various searching and graph traversal techniques
CO 4: Distinguish designing methods for development of algorithms to realistic problems, such as divide and conquer, greedy and etc.
CO 5: Estimate the performance of algorithms

B.Tech (CSE) II Year II – Sem

L	T	P	C
3	0	0	3

DATA BASE MANAGEMENT SYSTEMS (18PC0CS09)

PRE-REQUISITE:
1. A course on "Data Structures"

COURSE OBJECTIVE:
This course is introduced to describe the basic concepts of SQL, build queries using SQL commands and generate applications of database systems

SYLLABUS:

UNIT – I
Database system architecture: Data Abstraction, Data Independence, Data Definition Language (DDL),   Data Manipulation Language (DML).Data models: Entity-relationship model, network model, relational and object oriented data models, integrity constraints, data manipulation operations.

UNIT – II
Relational query languages: Relational algebra, Tuple and domain relational calculus, SQL3, DDL and DML constructs, Open source and Commercial DBMS - MYSQL, ORACLE, DB2, SQL server. Relational database design: Domain   and data dependency, Armstrong's axioms, Normal forms, Dependency preservation, Lossless design. Query processing and optimization: Evaluation of relational algebra expressions, Query equivalence, Join strategies, Query optimization algorithms.

UNIT – III
Storage strategies: Indices, B-trees, hashing. Transaction processing: Concurrency control, ACID property, Serializability of scheduling, Locking and timestamp based schedulers, Multi-version and optimistic Concurrency Control schemes, Database recovery.

UNIT – IV
Database security: Authentication, Authorization   and access control, DAC, MAC and RBAC models, Intrusion detection, SQL injection.

UNIT – V
Advanced topics: Object oriented and object relational databases, Logical databases, Web databases, Distributed databases, Data warehousing and data mining.

TEXT BOOK:

1. "Database System Concepts" , 6th Edition by Abraham Silberschatz, Henry F. Korth, S. Sudarshan, McGraw-Hill.

REFERENCE BOOKS:

1. "Principles of Database and Knowledge – Base Systems", Vol 1 by J. D. Ullman, Computer Science Press.
2. "Fundamentals of Database Systems" , 5th Edition by R. Elmasri and S. Navathe, Pearson Education
3. "Foundations of Databases", Reprint by Serge Abiteboul, Richard Hull, Victor Vianu, Addison-Wesley

COURSE OUTCOMES:

By the end of the course, students will be able to:

CO 1: Describe the basic fundamentals of DBMS, database design and normal forms

CO 2: Identify the appropriate SQL commands for retrieval and management of data

CO 3: Analyze the schema refinement and normal forms

CO 4: Identify data models for relevant problems

CO 5: Model database storage structures and access techniques

B.Tech (CSE) II Year II – Sem

L T P C
3 0 0 3

OPERATING SYSTEMS (18PC0CS10)

PRE-REQUISITES:
1. A course on "Programming for problem solving"
2. A course on "Computer Organization & Architecture"

COURSE OBJECTIVE:
The purpose of this course is to realize the concepts of input- output, storage and file management in Unix/Linux

SYLLABUS:
UNIT – I
Introduction: Concept of Operating Systems, Generations of Operating systems, Types of Operating Systems, OS Services, System Calls, Structure of an OS - Layered, Monolithic, Microkernel Operating Systems, Concept of Virtual Machine. Case study on UNIX and WINDOWS Operating System.
UNIT – II
Processes: Definition, Process Relationship, Different states of a Process, Process State transitions, Process Control Block (PCB), Context switching
Thread: Definition, Various states, Benefits of threads, Types of threads, Concept of multithreads,
Process Scheduling: Foundation and Scheduling objectives, Types of Schedulers, Scheduling criteria: CPU utilization, Throughput, Turnaround Time, Waiting Time, Response Time; Scheduling algorithms: Pre-emptive and Non pre-emptive, FCFS, SJF, RR; Multiprocessor scheduling: Real Time scheduling: RM and EDF.
UNIT – III
Inter-process Communication: Critical Section, Race Conditions, Mutual Exclusion, Hardware Solution, Strict Alternation, Peterson's Solution, The Producer/Consumer Problem, Semaphores, Event Counters, Monitors, Message Passing, Classical IPC Problems: Reader's & Writer Problem, Dinning Philosopher Problem etc.
Deadlocks: Definition, Necessary and sufficient conditions for Deadlock, Deadlock Prevention, Deadlock Avoidance: Banker's algorithm, Deadlock detection and Recovery.
UNIT – IV
Memory Management: Basic concept, Logical and Physical address map, Memory allocation: Contiguous Memory allocation – Fixed and variable partition– Internal and External fragmentation and Compaction; Paging: Principle of operation – Page allocation – Hardware support for paging, Protection and sharing, Disadvantages of paging.

Virtual Memory: Basics of Virtual Memory – Hardware and control structures – Locality of reference, Page fault , Working Set , Dirty page/Dirty bit – Demand paging, Page Replacement algorithms: Optimal, First in First Out (FIFO), Second Chance (SC), Not recently used (NRU) and Least Recently used (LRU).

UNIT – V
I/O Hardware: I/O devices, Device controllers, Direct memory access Principles of I/O Software: Goals of Interrupt handlers, Device drivers, Device independent I/O software, Secondary-Storage Structure: Disk structure, Disk scheduling algorithms.
File Management: Concept of File, Access methods, File types, File operation, Directory structure, File System structure, Allocation methods (contiguous, linked, indexed), Free-space management (bit vector, linked list, grouping), directory implementation (linear list, hash table), efficiency and performance.
Disk Management: Disk structure, Disk scheduling - FCFS, SSTF, SCAN, C-SCAN, Disk reliability, Disk formatting, Boot-block, Bad blocks

TEXT BOOKS:
1. Operating System Concepts Essentials, 9th Edition by AviSilberschatz, Peter Galvin, Greg Gagne, Wiley Asia Student Edition.
2. Operating Systems: Internals and Design Principles, 5th Edition, William Stallings, Prentice Hall of India.

REFERENCE BOOKS:
1. Operating System: A Design-oriented Approach, 1st Edition by Charles Crowley, Irwin Publishing
2. Operating Systems: A Modern Perspective, 2nd Edition by Gary J. Nutt, Addison-Wesley
3. Design of the Unix Operating Systems, 8th Edition by Maurice Bach, Prentice-Hall of India
4. Understanding the Linux Kernel, 3rd Edition, Daniel P. Bovet, Marco Cesati, O'Reilly and Associates

COURSE OUTCOMES:
By the end of the course, students will be able to:
CO 1: Describe the synchronous and asynchronous communication mechanisms in their respective operating systems
CO 2: Discuss the inter process communication in Unix/Linux
CO 3: Apply optimization techniques for the improvement of system performance
CO 4: Analyze turnaround time, waiting time, response time and throughput
CO 5: Compare the different operating system functionalities

B.Tech (CSE) II Year II – Sem

      L   T   P C
      3   0   0 3

EFFECTIVE TECHNICAL COMMUNICATION (18HS0EN04)

PRE-REQUISITES:
1. A course on "English"
2. A course on "English language communication skills lab"

COURSE OBJECTIVE:
The main objective of this course is to impart advance technical communication skills to students in terms of research, writing, editing, and design principles of technical and professional communication. Further, the course prepares students to design effective technical documentation such as Planning, drafting, revising, editing, researching, analyzing, synthesizing and applying information to create technical reports and professional documents through individual and collaborative writing to articulate complex ideas appropriate for target audiences. Moreover, the course inculcates business and professional ethics.

SYLLABUS:
UNIT – I
Information Design and Development- Different kinds of technical documents, Information development life cycle, Organization structures, factors affecting information and document design.
UNIT – II
Technical Writing, Grammar and Editing- Technical writing process, Writing drafts and revising, technical writing style and language. editing strategies to achieve appropriate technical style. Basics of grammar, Introduction to advanced technical communication.
UNIT – III
Self Development and Assessment-Self assessment, Awareness, Perception and Attitudes, Values and belief, Personal goal setting, career planning, Self-esteem. Managing Time; Personal memory, Rapid reading, Taking notes; Complex problem solving; Creativity.
UNIT – IV
Communication and Technical Writing- Public speaking, Oral presentation, Graphic presentation, Presentation aids, Group discussion, Interviews, Personality Development. Writing reports, project proposals, technical articles, manuals, official notes, business letters, memos, minutes of meetings, event report.
UNIT – V
Ethics- Business ethics, Etiquettes in social and office settings, Email etiquettes, Telephone Etiquettes, Engineering ethics, Role and responsibility of engineer, Work culture in jobs**.**

REFERENCE BOOKS:

1. David F. Beer, David McCurry, Guide to writing as an Engineer, John Willey, New York, 2004
2. Diane Hacker, Pocket Style Manual, Bedford Publication, New York, 2003. (ISBN 0312406843)
3. Shiv Khera, You Can Win, Macmillan Books, New York, 2003
4. Raman Sharma, Technical Communications, Oxford Publication, London, 2004.
5. Dale Jungk, Applied Writing for Technicians, McGraw Hill, New York, 2004. (ISBN: 07828357-4)
6. Sharma, R, Mohan, K, Business Correspondence and Report Writing, TMH New Delhi 2002.
7. Xebec, Presentation Book, TMH New Delhi, 2000. (ISBN 0402213)

COURSE OUTCOMES:

By the end of the course, students will be able to:

CO 1: Understand the ethical, international, social, and professional constraints of audience, style, and content for writing situations and communicate effectively
   a) among managers or co-workers and colleagues of an organization
   b) between organizations, or between an organization and the public.

CO 2: Understand professional writing by studying management communication contexts and genres, researching contemporary business topics, analyzing quantifiable data discovered by researching, and constructing finished professional workplace documents.

CO 3: Practice the unique qualities of professional rhetoric and writing style, such as sentence conciseness, clarity, accuracy, honesty, avoiding wordiness or ambiguity, using direct order organization, readability, coherence and transitional devices and to present technical material orally with confidence and poise.

CO 4: Develop employability skills like time management, values and beliefs, self-esteem, perception and attitude, problem-solving skills and creativity.

B.Tech (CSE) II Year II – Sem

	L	T	P	C
	0	0	4	2

DESIGN & ANALYSIS OF ALGORITHMS LAB (18PC0CS11)

CO-REQUISITE:
1. A course on "Design & Analysis of Algorithms"

COURSE OBJECTIVE:
This lab course is introduced to write and execute programs in order to solve problems using algorithm design methods such as the greedy method, divide and conquer, dynamic programming, backtracking and branch and bound

SOFTWARE REQUIREMENTS:
Turbo C / Linux

SYLLABUS:
LIST OF PROGRAMS
1. Write a program to implement and analyze worst case running times based on asymptotic analysis.
2. Write a program to implement to sort a given set of elements using randomized algorithms and determine the expected running time and probability of error
3. Write a program to implement greedy algorithm for job sequence with dead lines
4. Write a program to implement divide-and–conquer for sorting of N-numbers.
5. Write a program to implement 0/1 knapsack problem using Dynamic programming
6. Write a program to implement to find minimum cost spanning tree using DFS and BFS
7. Write a program to obtain the Topological ordering of vertices in a given digraph.
8. Write a program to compute the transitive closure of a given directed graph using Warshall's algorithm.
9. Write a program for a given vertex in a weighted connected graph, find shortest paths to other vertices using Dijkstra's algorithm.
10. Write a program to implement any scheme to find the optimal solution for the Traveling Sales person problem and then solve the same problem instance using any approximation algorithm and determine the error in the approximation.
11. Write a program to implement N Queen's problem using back tracking.
12. Write a program to implement N Queen's problem using branch and bound.

TEXT BOOKS:
1. Introduction to Algorithms, 4TH Edition, Thomas H Cormen, Charles E Lieserson, Ronald L Rivest and Clifford Stein, MIT Press/McGraw-Hill.
2. Fundamentals of Algorithms – E. Horowitz et al.

REFERENCE BOOKS:
1. Algorithm Design, 1ST Edition, Jon Kleinberg and ÉvaTardos, Pearson.
2. Algorithm Design: Foundations, Analysis, and Internet Examples, Second Edition, Michael T Goodrich and Roberto Tamassia, Wiley.
3. Algorithms – A Creative Approach, 3rd Edition, UdiManber, Addison- Wesley, Reading, MA.

COURSE OUTCOMES:
Upon successful completion of this Lab, students will be able to:
CO 1: Describe time complexities of various algorithms based on asymptotic analysis
CO 2: Work with randomized algorithms
CO 3: Develop the feasible and optimal solutions by using Greedy and dynamic programming
CO 4: Implement the various searching and graph traversal techniques
CO 5: Find solutions for the realistic problems using backtracking & branch and bound

B.Tech (CSE) II Year II – Sem

L	T	P	C
0	0	3	1.5

DATA BASE MANAGEMENT SYSTEMS LAB (18PC0CS12)

CO-REQUISITE:
1. A course on "Data Base Management Systems"

COURSE OBJECTIVE:
This lab course is intended to describe the SQL basics for data definition, data manipulation and introduce ER data model, database design and normalization

SOFTWARE REQUIREMENTS:
Oracle / MySql

SYLLABUS:
LIST OF TASKS
1. Concept design with E-R Model
2. Relational Model
3. Normalization
4. Practicing DDL commands
5. Practicing DML commands
6. Querying (using ANY, ALL, IN, Exists, NOT EXISTS, UNION, INTERSECT, Constraints etc.)
7. Queries using Aggregate functions, GROUP BY, HAVING and Creation and dropping of Views.
8. Triggers (Creation of insert trigger, delete trigger, update trigger)
9. Procedures
10. Usage of Cursors

TEXT BOOKS:
1. Database Management Systems, Raghurama Krishnan, Johannes Gehrke, Tata Mc Graw Hill, 3rd Edition
2. Database System Concepts, Silberschatz, Korth, Mc Graw hill, 5th Edition.

REFERENCE BOOKS:
1. Database Systems design, Implementation, and Management, Peter Rob & Carlos Coronel 7th Edition.
2. Fundamentals of Database Systems, Elmasri Navrate Pearson Education
3. Introduction to Database Systems, C.J.Date Pearson Education
4. Oracle for Professionals, The X Team, S.Shah and V. Shah, SPD.
5. Database Systems Using Oracle: A Simplified guide to SQL and PL/SQL,Shah,PHI.
6. Fundamentals of Database Management Systems, M. L. Gillenson, Wiley Student Edition.

COURSE OUTCOMES:
Upon successful completion of this Lab, students will be able to:
CO 1: Define database schema for a given application
CO 2: Discuss skills in using SQL commands for data definition and data manipulation
CO 3: Prepare solutions for database applications using procedures, cursors and triggers
CO 4: Apply normalization techniques for the development of application software to realistic problems
CO 5: Build GUI applications based on end-user requirements

B.Tech (CSE) II Year II − Sem

L	T	P	C
0	0	3	1.5

OPERATING SYSTEMS LAB (18PC0CS13)

CO-REQUISITE:
1. A course on "Operating Systems"

COURSE OBJECTIVE:
This lab course is intended to perform different functionalities in Operating system Unix/Linux using commands

SOFTWARE REQUIREMENTS:
Turbo C / Unix / Linux

SYLLABUS:
LIST OF PROGRAMS
1. Practice the UNIX/LINUX System calls
2. Write a program to implement following process scheduling algorithms for a given specification of CPU utilization, Throughput, Turnaround Time, Waiting Time, Response Time.
   - i. First Come First Serve
   - ii. Shortest Job First
   - iii. Priority
   - iv. Round Robin
3. Write a program to illustrate the following IPC mechanisms:
   - i. Pipes
   - ii. FIFOs
   - iii. Message Queues
   - iv. Shared Memory
4. Write a program to simulate Bankers Algorithm for Deadlock Avoidance and Prevention
5. Write a program to simulate the following memory management techniques:
   - i. Variable Memory technique
   - ii. Fixed Memory Technique
   - iii. Paging
   - iv. Segmentation
6. Write programs using the I/O system calls of UNIX/LINUX operating system:
   (open, read, write, close, fcntl, seek, stat, opendir, readdir)
7. Write a programs to simulate the following file organization Techniques:
   - i. Single level
   - ii. Two level
   - iii. Hierarchical
   - iv. DAG

8. Write a programs to simulate the following file allocation strategies:
  i. Sequential
  ii. Linked
  iii. Indexed
9. Write a programs to simulate the following Page Replacement Techniques:
  i. FIFO
  ii. LRU
  iii. Optimal
10. Write a program to simulate disk scheduling algorithms.

TEXT BOOKS:
1. Operating System Principles- Abraham Silberchatz, Peter B. Galvin, Greg Gagne 7th Edition, John Wiley
2. Advanced programming in the Unix environment, W.R.Stevens, Pearson education.

REFERENCE BOOKS:
1. Operating Systems – Internals and Design Principles Stallings, Fifth Edition–2005, Pearson Education/PHI
2. Operating System A Design Approach-Crowley,TMH.
3. Modern Operating Systems, Andrew S Tanenbaum 2nd edition, Pearson/PHI
4. Unix programming environment, Kernighan and Pike, PHI. / Pearson Education
5. Unix Internals The New Frontiers, U.Vahalia, Pearson Education

COURSE OUTCOMES:
Upon successful completion of this Lab, students will be able to:
CO 1: Describe the operating systems concepts in Unix/Linux
CO 2: Illustrate various concepts in operating systems through implementation
CO 3: Solve the real-time problems like deadlock by providing suitable solutions
CO 4: Analyze the different operating system functionalities
CO 5: Simulate the page replacement algorithms

B.Tech (CSE) II Year II – **Sem**   **L   T   P   C**
                                                                        0   0   2   0

GENDER SENSITIZATION LAB (18MC0EN02)
(An Activity-based Course)

Objectives of the Course:

- To develop students' sensibility with regard to issues of gender in contemporary India.
- To provide a critical perspective on the   socialization of men and women.
- To introduce students to information about some key biological aspects of genders.
- To expose the students to debates on the politics and economics of work.
- To help students reject critically on gender violence.
- To expose students to more egalitarian interactions between men and women.

Unit-I: Understanding Gender
Gender: Why Should We Study It? (*Towards a World of Equals*: Unit -1)
Socialization: Making Women, Making Men (*Towards a World of Equals*: Unit -2)
Introduction. Preparing for Womanhood. Growing up Male. First lessons in Caste. Different Masculinities.
Unit – II: Gender and Biology
Missing Women: Sex Selection and Its Consequences (*Towards a World of Equals*: Unit -4)
 Declining Sex Ratio. Demographic Consequences.
Gender Spectrum: Beyond the Binary (*Towards a World of Equals*: Unit -10)
Two or Many? Struggles with Discrimination.
Unit – III: Gender and Labour
Housework: the Invisible Labour (*Towards a World of Equals*: Unit -3)
"My Mother doesn't Work." "Share the Load."
Women's Work: Its Politics and Economics (*Towards a World of Equals*: Unit -7)
Fact and Fiction. Unrecognized and Unaccounted work. Additional Reading: Wages and Conditions of Work.
Unit – IV: Issues of Violence
Sexual Harassment: Say No! (*Towards a World of Equals*: Unit -6)
 Sexual Harassment, not Eve-teasing- Coping with Everyday Harassment- Further Reading: "*Chupulu".*
Domestic Violence: Speaking Out (*Towards a World of Equals*: Unit -8)
 Is Home a Safe Place? -When Women Unite [Film]. Rebuilding Lives. Additional Reading: New Forums for Justice.
Thinking about Sexual Violence (*Towards a World of Equals*: Unit -11)
 Blaming the Victim-"I Fought for my Life…." - Additional Reading: The Caste Face of Violence.

Unit – V: Gender : Co-Existence

Just Relationships: Being Together as Equals (*Towards a World of Equals*: Unit -12) Mary Kom and Onler. Love and Acid just do not Mix. Love Letters. Mothers and Fathers. Additional Reading: Rosa Parks-The Brave Heart.

Essential Reading: All the Units in the Textbook, "*Towards a World of Equals: A Bilingual Textbook on Gender*" written by A.Suneetha, Uma Bhrugubanda, Duggirala Vasanta, Rama Melkote, Vasudha Nagaraj, Asma Rasheed, Gogu Shyamala, Deepa Sreenivas and Susie Tharu.

Note: Since it is Interdisciplinary Course, Resource Persons can be drawn from the fields of English Literature or Sociology or Political Science or any other qualified faculty who has expertise in this field from engineering departments.

Reference Books:

1. Sen, Amartya. "More than One Million Women are Missing." New York Review of Books 37.20 (20 December 1990). Print. '*We Were Making History…' Life Stories of Women in the Telangana People's Struggle*. New Delhi: Kali for Women, 1989.
2. Tripti Lahiri. "By the Numbers: Where Indian Women Work." *Women's Studies Journal* (14 November 2012) Available online at: http:// blogs.wsj.com/ India real time/2012/11/14/by –the-numbers-where-Indan-women-work/>
3. K. Satyanarayana and Susie Tharu (Ed.) Steel Nibs Are Sprouting: New Dalit Writing From South India, Dossier 2: Telugu And Kannada http://harpercollins.co.in/BookDetail.asp?Book_Code=3732
4. Vimala. "Vantillu (The Kitchen)*". Women Writing in India: 600 BC to the Present. Volume II*: The 20th Century. Ed. Susie Tharu and K. Lalita. Delhi: Oxford University Press, 1995. 599-601.
5. Shatrughna, Veena et al. *Women's Work and its Impact on Child Health and Nutrition*, Hyderabad, National Institute of Nutrition, Indian Council of Medical Research. 1993.
6. Stree Shakti Sanghatana. *"We Were Making History ….' Life Stories of Women in the Telangana People's Struggle*. New Delhi: Kali for Women, 1989.
7. Menon, Nivedita. Seeing like a Feminist. New Delhi: Zubaan-Penguin Books, 2012
8. Jayaprabha, A. "Chupulu (Stares)". *Women Writing in India: 600BC to the Present. Volume II*: The 20th Century Ed. Susie Tharu and K. Lalita. Delhi: Oxford University Press, 1995. 596-597.
9. Javeed, Shayan and Anupam Manuhaar. "Women and Wage Discrimination in India: A Critical Analysis." *International Journal of Humanities and Social Science Invention* 2.4(2013)
10. Gautam, Liela and Gita Ramaswamy. "A 'conversation' between a Daughter and a Mother." *Broadsheet on Contemporary Politics*. Special Issue on *Sexuality and Harassment: Gender Politics on Campus Today*. Ed. Madhumeeta Sinha and Asma Rasheed. Hyderabad: Anveshi Research Center for Women's Studies, 2014.

11. Abdulali Sohaila. "*I Fought For My Life…and Won*."Available online at: http://www.thealternative.in/lifestyle/i-fought-for-my-lifeand-won-sohaila-abdulal/

12. Jeganathan Pradeep, Partha Chatterjee (Ed). "*Community, Gender and Violence Subaltern Studies XI*". Permanent Black and Ravi Dayal Publishers, New Delhi, 2000

13. K. Kapadia. The *Violence of Development: The Politics of Identity, Gender and Social Inequalities in India.* London: Zed Books, 2002

14. S. Benhabib. *Situating the Self: Gender, Community, and Postmodernism in Contemporary Ethics,* London: Routledge, 1992

15. Virginia Woolf. *A Room of One's Own.* Oxford: Black Swan. 1992.

16. T. Banuri and M. Mahmood, Just Development: Beyond Adjustment with a Human Face, Karachi: Oxford University Press, 1997

Learning Outcomes:

- Students will have developed a better understanding of important issues related to gender in contemporary India.
- Students will be sensitized to basic dimensions of the biological, sociological, psychological and legal aspects of gender. This will be achieved through discussion of materials derived from research, facts, everyday life, literature and film.
- Students will attain a finer grasp of how gender discrimination works in our society and how to counter it.
- Students will acquire insight into the gendered division of labour and its relation to politics and economics.
- Men and women students and professional will be better equipped to work and live together as equals.
- Students will develop a sense of appreciation of women in all walks of life.
- Through pro viding accounts of studies and movements as well as the new laws that provide protection and relief to women, the textbook will empower students to understand and respond to gender violence.