ALMANAC for the Academic year 2020-2021

B.E.(All Branches) I & II – Semesters (*AICTE Model Curriculum*)

~~(First Year)~~

(For all Engineering Colleges Affiliated to Osmania University)

	I-Semester	
1	Induction Programme (2 Weeks) in Online	02.12.2020 to 11.12.2020
2	Commencement of Class work in offline	14.12.2020
3	CIE (Internal Test) - 1	08.02.2021 to 10.02.2021
4	Display of CIE-1 Marks	01.03.2021
5	CIE (Internal Test) - II	25.03.2021 to 27.03.2021
6	Last Date of Instruction	03.04.2021
7	Display of Total Sessional Marks	12.04.2021
8	Submission of Sessional Marks & Attendance to O.U Exam Branch	13.04.2021
9	Preparation and Practical Examinations	05.04.2021 to 17.04.2021
10	Commencement of Theory Examinations (SEE)	19.04.2021
	II-Semester	
1	Summer vacation for Faculty & Commencement of Instruction in Online (Theory)	10.05.2021 to 19.06.2021
2	Class work for Practicals in offline	21.06.2021 to 03.07.2021
3	CIE (Internal Test) -1	07.07.2021 to 09.07.2021
4	Display of CIE-1 Marks on or before	21.07.2021
5	CIE (Internal Test) - II	23.08.2021 to 25.08.2021
6	Last Date of Instruction	28.08.2021
7	Display of Total Sessional Marks	06.09.2021
8	Submission of Sessional Marks & Attendance to O.U Exam Branch	07.09.2021
9	Preparation and Practical Examinations	06.09.2021 to 18.09.2021
10	Commencement of Theory Examinations	20.09.2021
11	Commencement of Next Academic Year 2021-2022	04. 10.2021

ote: (1) Principals of Affiliated Colleges may accord permission to Teaching Staff to avail Summer Vacation & may have to attend examinations related work during vacation. Moreover, they will have to conduct Online classes during vacation.

(2) In case of any public holiday / unscheduled holiday on the day of class test, Principals may reschedule the same immediately on the next working day after intimation to Dean's Office, UCE, O.U.

(3) In view of extended lockdown for offline instructions , the faculty can compensate the lost classwork by taking extra classes on Saturdays including Second Saturdays.

Head of the Department
Department of H & S
Methodist College of Engg. & Tech.
Abids, Hyderabad-500 001

Dean, Faculty of Engineering., O.U

METHODIST COLLEGE OF ENGINEERING AND TECHNOLOGY

Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd:2008 | Address : King Koti Road, Abids, Hyderabad, Telangana, 500001
Email: principal@methodist.edu.in

Department of Computer Science and Engineering

Subject Preferences A.Y-2020-21 EVEN SEM

Timestamp	Name of the Faculty	Designation	Willing to continue next semester (if	Subjects Taught Previou	Subject Preference-1	Subject Preference-2	AMC Professional Elective Subject Preference-3	CBCS Professional Elective Subject Preference-4	Remarks(if any)
3-5-2021 17:17:12	T PRAVEEN KUMAR	Asst . Prof	Yes	DSA, DM, DAA, DBMS , C	PC231CS OOP using JAVA	ES102CS Programming for Problem Solving	PE651CS Data Mining(AMC PE V)	PE 823 CS Software Quality and Testing(CBCS PE III)	
3-8-2021 11:10:41	Rajashekar D	Asst . Prof	Yes	Pps, dm, dbms, irs, oosd,	ES102CS Programming for Problem Solving	PC231CS OOP using JAVA	PE630CS Machine Learning(AMC PE IV)	PE 835 CS Data Science using R Programming(CBCS PE IV)	
3-5-2021 22:05:52	A. RAJESH	Asst . Prof	Yes	Design & Analysis of Algor	PC601 CS Compiler Design	PC233CS Database Management Systems	PE629CS Speech and Natural Language Processing(AMC PE IV)	PE 834 CS Natural Language Processing(CBCS PE IV)	Need a break for One month to deliver DAA or DBMS Subject.
3-6-2021 9:39:42	Er Sandeep Ravikanti	Asst . Prof	Yes	CO,IS,IoT,SQT	PC232CS Computer Organization	PC602 CS Computer Networks	PE654CS Internet of Things(AMC PE V)	PE 823 CS Software Quality and Testing(CBCS PE III)	Digital forensics as 5th option
3-7-2021 1:12:58	P V RAMANAIAH	Asst . Prof	Yes	C, C++, DS, JAVA, PL, DE	PC231CS OOP using JAVA	PC603 CS Designing and Analysis of Algorithms	PE628CS Cloud Computing(AMC PE IV)	PE 822 CS Image Processing(CBCS PE III)	
3-6-2021 10:19:14	MVDS Krishnamurty	Asst . Prof	Yes	AI & SE	PC603 CS Designing and Analysis of Algorithms	PC602 CS Computer Networks	PE630CS Machine Learning(AMC PE IV)	PE 834 CS Natural Language Processing(CBCS PE IV)	
3-6-2021 14:11:49	E.Shailaja	Assoc. Prof	Yes	C, CPP,DM,GPAPR THEO	ES102CS Programming for Problem Solving	PC232CS Computer Organization	PE627CS Advanced Operating Systems(AMC PE IV)	PE 832 CS Information Retrieval Systems(CBCS PE IV)	
3-8-2021 10:41:51	UNNATI KHANAPURKAR	Asst . Prof	Yes	Compiler Construction, Co	PC601 CS Compiler Design	PC231CS OOP using JAVA	PE653CS Digital Forensics(AMC PE V)	PE 821 CS Mobile Computing(CBCS PE III)	
3-8-2021 10:49:40	B Sowjanya	Asst . Prof	Yes	Operating Systems,Web T	PC231CS OOP using JAVA	PC602 CS Computer Networks	PE653CS Digital Forensics(AMC PE V)	PE 821 CS Mobile Computing(CBCS PE III)	
3-8-2021 11:12:59	Dr Sharada Varalakshmi	Prof	Yes	DBMS , DM , PPS , MC , I	PC233CS Database Management Systems	ES102CS Programming for Problem Solving	PE651CS Data Mining(AMC PE V)	PE 835 CS Data Science using R Programming(CBCS PE IV)	
3-8-2021 11:15:23	Dr Vuppu Padmakar	Assoc. Prof	Yes	PPS, Cloud Computing, D	ES102CS Programming for Problem Solving	ES102CS Programming for Problem Solving	PE628CS Cloud Computing(AMC PE IV)	PE 842 CS Cloud Computing(CBCS PE V)	
3-8-2021 11:38:21	S Sunil Kumar	Asst . Prof	Yes	Computer network	PC602 CS Computer Networks	Not Applicable	PE654CS Internet of Things(AMC PE V)	PE 823 CS Software Quality and Testing(CBCS PE III)	---
3-8-2021 12:26:17	G.Saritha	Asst . Prof	No	NA	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Wants to take semister break to complete research work
3-8-2021 12:48:40	ADEPU RAJESH	Assoc. Prof	Yes	PPS	ES102CS Programming for Problem Solving	PC232CS Computer Organization	PE651CS Data Mining(AMC PE V)	PE 833 CS Machine Learning(CBCS PE IV)	Intrested to teach PPS for 2nd sem.
3-8-2021 13:07:52	UDAY KUMAR	Asst . Prof	Yes	SOFTWARE ENGINEERI	PC602 CS Computer Networks	ES102CS Programming for Problem Solving	PE652CS Human Computer Interaction(AMC PE V)	PE 843 CS Human Computer Interaction(CBCS PE V)Option 13	

Head of the Department
Department of CSE
Methodist College of Engg & Tech
Abids, Hyderabad.

METHODIST
COLLEGE OF ENGINEERING & TECHNOLOGY
Accredited by NAAC with A+ and NBA
Estd : 2008 Affliated to Osmania University & Approved by AICTE

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DATE:08-04-2021

CSE STAFF WORKLOAD (2020-21 EVEN SEMESTER)				
S. No	Faculty name	Subjects	Work load	Coordinators/ In charges
1.	Dr. P. Lavanya Prof. & HOD	OOPS IV SEM B OOPS LAB IV SEM A&B	7	1. HOD 2. Academic Committee Chairman. 3. Coordinator of Website / ICT/NPTEL.
2.	Dr. G. Ravinder Reddy, Professor	PROJECT WORK	8	1. Mentor
3.	Dr M Sharadha varalakshmi Professor	DBMS- IV SEM B DBMS LAB IV SEM A&B	7	1. Mentor
4.	Dr. V. Padmakar Asoc. Prof.	DBMS IV SEM A DBMS LAB IV SEM A&B CC VIII SEM A&B	11	1. Coordinator of IIIC Cell. 2. Member of R & D Cell. 3. Mentor. 4. CO Ordinator VIII sem A
5.	Mr A Rajesh Asoc. Prof.	PPS II SEM PPS LAB II SEM	7	1. Dept. Exam Branch 2. Mentor
6.	Dr. E. Shailaja Asoc . Prof.	DAA VI SEM A DAA LAB VI SEM A&B	7	1. Member of Admissions Cell. 2. Member of General Maintenance. 3. CSI Coordinator. 4. Labs. 5. Mentor. 6. Coordinator VI Sem-A
7.	Mrs. V. Sailaja Assoc. Prof.	PROJECT VIII SEM A&B	8	1. Mentor 2. DAC member 3. Women Cell Coordinator 4. Grievances Cell Coordinator
8.	Mr. T. Praveen Kumar Asst. Prof	OOPS IV SEM A OOPS LAB IV SEM A&B	7	1. Coordinator of Time Table Cell. 2. Programme Assessment Committee Member. 3. Microsoft Program. 4. Time Table (Central). 5. CEBC, IIT- FOSS 6. Mentor. 7. ERP Software

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DATE:08-04-2021

9.	Mr. D. Raja Shekar Asst. Prof.	ML VI SEM A&B CD LAB VI SEM A	5	1. Member of Transport Cell. 2. Department Assessments Committee Member. 3. CISCO 4. Mentor.
10.	Mr. L.Thirupathi Asst. Prof	CD LAB VI SEM A&B	4	1.Mentor 2. CICSO
11.	Mr. R. Sandeep Asst. Prof.	CO IV SEM B CO LAB IV SEM A&B	7	1. Member of Website ICT Cell. 2. Coordinator of Alumni Cell. 3. Dept. Sports. 4. Mentor. 5. Coordinator IV Sem -B
12.	Mrs. B. Sowjanya Asst. Prof.	CN VI SEM A CN LAB VI SEM A&B Summer Internships	7	1. Coordinator of Library Cell. 2. Member of Student Welfare Cell. Cultural Activities. 3. Mentor. 4. Department Assessments Committee Member. 5. Coordinator VI S sem B
13.	Mr. P.V. Ramanaiah Asst. Prof.	DAA VI SEM A DAA LAB VI SEM A&B	7	1. Time Table 2. Mentor 3. ICT Coordinator
14.	Mrs. Unnati K. Asst. Prof.	CN VI SEM ECEA&B CN LAB VI SEM ECE A&B	7	1. Member of Arts & Cultural Cell. 2. Member of Alumni Cell 3. Mentor. 4. CISCO 5. Labs -In charge
15.	Mrs. P M Tulasi Asst. Prof.	JAVA LAB IV SEM A&B	4	1. Mentor 2. Exam Branch
16.	Mr. Uday Kumar Asst. Prof.	DM VI SEM A&B MC VIII SEM A&B	7	1. Member of Sports Cell. 2. Member of Public Relation Cell. 3. Sports. 4. Mentor.
17.	Mr. T. Chandra Mohan ,Asst. Prof.	CN LAB VI SEM A&B	4	1. Mentor 2. Lab In charge

METHODIST
COLLEGE OF ENGINEERING & TECHNOLOGY
Accredited by NAAC with A+ and NBA
Estd : 2008 Affliated to Osmania University & Approved by AICTE

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DATE:08-04-2021

18.	Mr. A. Rajesh Asst. Prof.	CD VI SEM A&B CD LAB VI SEM A&B	7	1. Member of NSS Cell. 2. Member of Medical Assistant Cell. 3. Exam Branch 4. Mentor.
19.	Mrs. C. Sravanthi Asst.-Prof.	DAA LAB VI SEM A&B	4	1. Mentor 2. Attendance Coordinator
20.	Mr. K.Venkata Srujan Asst. Prof.	DBMS LAB IV SEM A&B	4	1. Mentor
21.	Mr. Krishnamurthy Asst. Prof	CC VI SEM A&B MAJOR PROJECTS VIII SEM A&B CD LAB VI SEM B	12	1. Member of Student Counseling & Mentoring Cell. 2. Member of EDC Cell. 3. Mentor.
22.	Mrs M Aruna Asst. Prof	IOT VI SEM A&B Summer Internships	3	1. Mentor
23.	Mrs Sowmya Asst. Prof	CO IV SEM A CO LAB IV SEM A&B	7	1. Mentor 2. Class Coordinator- IV Sem
24.	Mrs. S K Sruthi Asst. Prof	PPS II SEM PPS LAB II SEM	7	1. Mentor 2. Placement Coordinator
25.	Ms. A. Lalitha Asst. Prof.	CO LAB IV SEM A&B	4	1. Mentor 2. Results
26.	S.Sunil Kumar Asst. Prof.	PPS LAB II SEM	4	1. Mentor
27.	Mrs Deepthi joshi Asst. Prof.			
28.	Mrs Shaziya Jabeena Asst. Prof.	New Timings		
29.	Mr Hemanth Asst. Prof.			
30.	Dr Ankitha Asst. Prof.			

Head of the Department
Department of CSE
Methodist College of Engg & Tech
Abids, Hyderabad.

Course/Subject Name	
Faculty Name	
Department	
AY	
Class	
Institute V/M - Principal Signed Xerox copy	
Department V / M /PEO - HoD signed Xerox copy	
POs /PSOs	
Course Syllabus with Structure	
Course Outcomes (CO)	
Mapping CO with PO/PSO; Course with PO/PSO with Justification	
Academic Calendars (University, Department) - Xerox copy	
Class Time table - highlighting the course periods including tutorial	
Lesson plan with number of hours/periods, TA/TM, Text/Reference book	
Gap within the syllabus - mapping to CO, PO/PSO	
Gaps beyond the syllabus - Mapping to PO/PSO	
Gaps addressed by a resource person - document	
Gaps addressed by any other teaching aid/methodology	
Lecture notes	
List of Power point presentations / Videos including CD	
University Question papers	
Internal Question papers, Key with CO and BT	
Assignment Question papers mapped with CO and BT	
Scheme of evaluation with CO and BT mapping	
Tutorial topics with evidence	
Result Analysis to identify weak and advanced learners - 3 times in a semester	
Result Analysis at the end of the course	
Remidial class for weak students - schedule and evidences	
Advance Learners- Engagement documentation	
List of student certifications in relevant NPTEL courses	
Course Assessment (Plan & Execution)	
CO, PO/PSO attainment sheets	
CO Feedback form, analysis	
Student feedback analysis, corrective measured planned	
Observation for not attaining CO or for improvement	
Plan of action to improve CO attainment next time	
Attendance register (Theory/Tutorial/Remidial) - Teacher/Course delivery record; Continuous evaluation	
Course file (Digital form)	
Marks of Mid examination (Question wise)	

FACULTY NAME :- Mr. ADEPU RAJESH

DESIGNATION :- Associate Professor

DEPARTMENT :- COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR :-2020-21

CLASS :- I SEM (A & B SECTION)

Institute Vision & Mission

VISION

- To produce ethical, socially conscious and innovative professionals who would contribute to sustainable technological development of the society.

MISSION

- To impart quality engineering education with latest technological developments and interdisciplinary skills to make students succeed in professional practice.
- To encourage research culture among faculty and students by establishing state of art laboratories and exposing them to modern industrial and organizational practices.
- To inculcate humane qualities like social values, professional ethics, environmental consciousness and leadership for sustainable contribution to the society.

Department of Computer Science & Engineering
Vision & Mission

VISION

- To build the most conducive milieu for quality and research oriented education in Computer Science & Engineering, there by preparing innovative and well-prepared computing professionals. The department believe in the vision – "Tomorrow's Technology through Today's Education"

MISSION

M1 To provide the open environment and fosters professional and personal growth for all students and faculties.

M2 To prepare our students for successful careers in the computing professions' through flexible programs of study that can be adapted to support individual career goals.

M3 To provide the best quality education and training, by implementing novel educational practices.

M4 Expedite high performance of excellence in teaching, research and innovations.

M5 To promote interdisciplinary learning.

M6 To implant moral, ethical, social valued education to the students so as to become responsible citizens of the country.

Program Educational Objectives

PEO1: **Quality Education**: Provide Quality Engineering Education in the field of Computer Science & Engineering so as to encourage them to realize the importance of continuous education by adopting social, ethical and moral values.

PEO2: **Factual Life Problem Solving:** To educate students with proficiency in core areas of Computer Science & Engineering to enable them to analyze, design, and synthesize data and technical concepts to create novel products and solutions for the real life problems.

PEO3: **Interdisciplinary Learning:** To promote collaborative learning and spirit of team work through multidisciplinary projects and diverse professional activities.

PEO4: **Promote Research:** Understand the state of the art in the recent areas of research in Computer Science & Engineering and to formulate problems from them and perform original work to contribute in the advancement of the state of the art.

Mapping PEOs to Mission

	M1	M2	M3	M4	M5	M6
PEO1 Quality Education	√		√			√
PEO2 Factual Life Problem Solving	√	√			√	
PEO3 Interdisciplinary Learning					√	√
PEO4 Promote Research				√		

Engineering Program Outcomes

PO1	Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3	Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4	Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions
PO5	Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
PO6	The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice
PO9	Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings
PO10	Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions
PO11	Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments
PO12	Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes

PSO1: **Expertise Skills:** Budding to understand the requirements, analyze, implement and design Software Systems.

PSO2: **Logical Skills:** Potential to apply academic knowledge to hands-on execution for the quality software product.

PSO3: **Profession and Entrepreneurship:** Awareness to adopt new technology with unparalleled idea to be a successful entrepreneur in addition towards higher studies.

GROUP DISTRIBUTION

B.E. (I, II – Semesters)

NUMBER OF DIVISIONS PER COURSE OF O.U. AFFILIATED RESPECTIVE ENGINEERING COLLEGES

S. No	*COLLEGE NAME*	*GROUP – A*					*No. of Div.*	*GROUP – B*				*No. of Div.*	*Total No. of Div.*
		ECE	IT	ME	PE	AE		CSE	CE	EEE	EIE		
1	MVSR	3	2	2	-	1	8	3	2	2	-	7	15
2	MJCET	2	2	2	1	-	7	2	2	1	1	6	13
3	DCET	2	1	2	1	-	6	2	2	1	1	6	12
4	ISL	2	1	1	-	-	4	2	2	1	-	5	9
5	METHODIST	2	-	2	-	-	4	2	2	1	-	5	9
6	MEC	2	-	1	-	-	3	2	1	1	-	4	7
7	SWATHI	1	-	1	-	-	2	1	1	-	-	2	4
8	STANLEY	2	1	-	-	-	3	3	-	1	-	4	7
9	NGIT	-	2	-	-	-	2	3	-	-	-	3	5
*10**	NSAKCET	2	1	4	-	-	7	2	3	1	-	6	13
*11**	LORDS	1	1	4	-	-	6	2	3	1	-	6	12
	TOTAL	19	11	19	2	1	52	24	18	10	2	54	106

Note: * Applied to OU for Affiliation from the academic year 2019-2020

Group – B

CSE : Computer Science and Engineering
CE : Civil Engineering
EEE : Electrical & Electronics Engineering
EIE : Electronics & Instrumentation Engineering

SCHEME OF INSTRUCTION & EXAMINATION
B.E. (All Branches) I - Semester
(Group B – CSE, CE, EEE, EIE)

S. No.	Course Code	Course Title	Scheme of Instructions				Scheme of Examination			Credits
			L	T	P/ D	Contact Hours/Week	CIE	SEE	Duration in Hours	
MC : Three Week Induction Programme										
Theory Course										
1	MC112CE	Environmental Science	2	-	-	2	30	70	3	-
2	MC113PY	Essence of Indian Traditional Knowledge	2	-	-	2	30	70	3	-
3	BS102MT	Mathematics-I	3	1	-	4	30	70	3	4
4	BS105CH	Chemistry	3	1	-	4	30	70	3	4
5	ES107CS	Programming for Problem Solving	3	-	-	3	30	70	3	3
Practical/ Laboratory Course										
6	BS153CH	Chemistry Lab	-	-	3	3	25	50	3	1.5
7	ES155CS	Programming for Problem Solving Lab	-	-	4	4	25	50	3	2
8	ES157ME	Workshop/ Manufacturing Process	1	-	4	5	50	50	3	3
Total			**14**	**02**	**11**	**27**	**250**	**500**		**17.5**

BS: Basic Science **ES**: Engineering Science **MC**: Mandatory Course
L: Lecture **T**: Tutorial **P**: Practical **D**: Drawing
CIE: Continuous Internal Evaluation **SEE**: Semester End Examination (Univ. Exam)

PY: Philosophy **MT**: Mathematics **CH**: Chemistry
CE: Civil Engineering, **CS**: Computer Science and Engineering, **ME**: Mechanical Engineering.

Note:

1. Each contact hour is a Clock Hour.
2. The duration of the practical class is two hours, however it can be extended wherever necessary, to enable the student to complete the experiment.

Course Code	Course Title						Core / Elective
ES107CS	**Programming for Problem Solving (Common to All Branches)**						**Core**
Prerequisite	Contact Hours per Week				CIE	SEE	Credits
	L	T	D	P			
-	3	-	-	-	**30**	**70**	3

Course Objectives

- To introduce the basic concepts of Computing environment, number systems and flowcharts
- To familiarize the basic constructs of C language – data types, operators and expressions
- To understand modular and structured programming constructs in C
- To learn the usage of structured data types and memory management using pointers
- To learn the concepts of data handling using pointers

Course Outcomes

The students will able to

1. Formulate simple algorithms for arithmetic and logical problems.
2. Translate the algorithms to programs (in c language).
3. Test and execute the programs and correct syntax and logical errors.
4. Implement conditional branching, iteration and recursion.
5. Decompose a problem into functions and synthesize a complete program using divide and conquer approach.
6. Use arrays, pointers and structures to formulate algorithms and programs.
7. Apply programming to solve matrix addition and multiplication problems and searching and sorting problems.
8. Apply programming to solve simple numerical method problems, namely rot finding of function, differentiation of function and simple integration.

Unit - I

Introduction to Programming: Introduction to components of a computer system (disks, memory, processor, where a program is stored and executed, operating system, compilers etc.).
Idea of Algorithm: steps to solve logical and numerical problems.
Representation of Algorithm: Flowchart / Pseudocode with examples. From algorithms to programs; source code, variables (with data types) variables and memory locations, Syntax and Logical Errors in compilation, object and executable code.

Unit - II

Control Structures: Arithmetic expressions and precedence, Conditional Branching and Loops, Writing and evaluation of conditionals and consequent branching.
Arrays: Arrays (1-D, 2-D), Character arrays and Strings

Unit - III

Basic Algorithms: Searching, Basic Sorting Algorithms (Bubble and Selection), Finding roots of Equations. **Functions:** Functions (including using built in libraries), Parameter passing in functions, call by value. **Passing arrays to functions:** idea of call by reference

Unit - IV

Recursion: Recursion, as a different way of solving problems. Example programs, such as Finding Factorial, Fibonacci series. **Structure:** Structures, Defining structures and Array of Structures

Unit - V

Pointers - Idea of pointers, Defining pointers, Use of Pointers in self-referential structures, notion of linked list (no implementation), **Introduction to File Handling.**

Suggested Readings:

1. Byron Gottfried, Schism's Outline of Programming with C, McGraw-Hill
2. A.K. Sharma, Computer Fundamentals and Programming in C, Universities Press, 2nd Edition, 2018.
3. E. Balaguruswamy, Programming in ANSI C, Tata McGraw-Hill
4. Brian W. Kernighan and Dennis M. Ritchie, the C Programming Language, Prentice Hall of India.

Course Code	Course Title						Core / Elective
ES 155 CS	**Programming for Problem Solving Lab (Common to All Branches)**						**Core**
Prerequisite	Contact Hours per Week				CIE	SEE	Credits
	L	T	D	P			
-	-	-	-	4	**25**	**50**	2

Course Objectives

- Understand the fundamentals of programming in C Language.
- Write, compile and debug programs in C.
- Formulate solution to problems and implement in C.
- Effectively choose programming components to solve computing problems

Course Outcomes

The students will able to

1. Choose appropriate data type for implementing programs in C language.
2. Design and implement modular programs involving input output operations, decision making and looping constructs.
3. Implement search and sort operations on arrays.
4. Apply the concept of pointers for implementing programs on dynamic memory management and string handling.
5. Design and implement programs to store data in structures and files.

Programming Exercise:

1. Finding maximum and minimum of given set of numbers, finding roots of quadratic equation.
2. Sin x and Cos x values using series expansion.
3. Conversion of binary to decimal, octal, hexadecimal and vice versa.
4. Generating Pascal triangle, pyramid of numbers.
5. Recursion: factorial, Fibonacci, GCD.
6. Matrix addition and multiplication using arrays, linear search and binary search using recursive and non-recursive procedures.
7. Bubble sort and selection sort.
8. Programs on pointers: pointer to arrays, pointer to functions.
9. Functions for string manipulations.
10. Programs on structures and unions.
11. Finding the number of characters, words and lines of given text file.
12. File handling programs

Suggested Readings:

1. Byron Gottfried, Schaum's Outline of Programming with C, McGraw-Hill
2. A.K. Sharma, Computer Fundamentals and Programming in C, Universities Press, 2018.
3. E. Balaguruswamy, Programming in ANSI C, Tata McGraw-Hill
4. Brian W. Kernighan and Dennis M. Ritchie, the C Programming Language, Prentice Hall of India.

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

Affiliated to Osmania University College Code 160/

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Academic Year 2020-21

Course Name with Code	Programming for Problem Solving **(ES107CS)**
Class	I Semester CSE
Faculty Name	**Mrs Dr. M. Sharada Varalakshmi/Mr.Adepu Rajesh**

Course Outcomes

After completing this course the student will be able to:

CO No.	Course Outcome	Taxonomy Level
107.1	Formulate simple algorithms for arithmetic and logical problems; **Translate** the algorithms to programs in C Language.	**Understanding**
107.2	Test and execute the programs and correct syntax and logical errors.	**Applying**
107.3	Implement conditional branching, iterations and strings.	**Evaluating**
107.4	Decompose a problem into functions and synthesize the basic search and sort algorithms	**Analyzing**
107.5	Construct recursive programs and use structures to formulate algorithms and programs	**Creating**
107.6	Apply programming to solve problems using pointers and understand linked list and file handling programs.	**Understanding Applying**

MAPPING OF COs WITH POs & PSOs(Curriculum):

Correlation Level: High – 3; Medium – 2; Low – 1

PO / CO	PO1	PO 2	PO 3	PO4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS01	PSO 2	PSO 3
C107.1	2	1	1	-	3	-	-	-	1	-	-	2	2	3	1
C107.2	3	2	-	-	3	-	-	-	1	-	-	2	3	3	1

C107.3	3	2	2	1	3	-	-	-	1	-	-	2	3	3	1
C107.4	3	3	1	1	3	-	-	-	1	-	-	2	3	3	1
C107.5	3	3	2	2	3	-	-	-	1	-	-	2	3	3	1
C107.6	3	3	3	3	3	-	-	-	1	-	-	2	3	3	1
C107	2.8	2.3	1.8	1.75	3	-	-	-	1	-	-	2	2.8	3	1

Faculty Signature

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

Affiliated to Osmania University - College Code - 1607

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Academic Year 2020-21

Course Name with Code	Programming for Problem Solving **(ES107CS)**
Class	I Semester CSE
Faculty Name	**Mrs Dr. M. Sharada Varalakshmi/Mr.Adepu Rajesh**

Gaps Identified within the curriculum:

S.No.	Name of the topic identified as gap	Relevance to CO	Relevance to PO/PSO	Method used to address the gap
1	Preprocessor Directives	CO1	PO2,PO4	PPT
2	Number System	CO1	PO1,PO3	PPT

Topics Identified beyond curriculum:

S.No.	Name of the topic identified as gap	Relevance to CO	Relevance to PO/PSO	Method used to address the gap
1	Time Complexity	CO6	PO2,PO3	PPT

REVISED MAPPING OF COs WITH POs & PSOs (closing gaps within Curriculum):

Correlation Level: High – 3; Medium – 2; Low – 1

PO / CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS01	PS O2	PSO 3
C107.1	2	1	1	2	3	-	-	-	1	-	-	2	2	3	1
C107.2	3	2	-	-	3	-	-	-	1	-	-	2	3	3	1
C107.3	3	2	2	1	3	-	-	-	1	-	-	2	3	3	1
C107.4	3	3	1	1	3	-	-	-	1	-	-	2	3	3	1

C107.5	3	3	2	2	3	-	-	-	1	-	-	2	3	3	1
C107.6	3	3	3	3	3	-	-	-	1	-	-	2	3	3	1
C107	2.83	2.33	1.8	1.8	3				1			2	2.83	3	1

Faculty Signature

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

Affiliated to Osmania University College Code: 1607

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Academic Year 2020-21

Course Name with Code	Programming for Problem Solving
Class	I Semester , CSE
Faculty Name	**Mrs Dr. M. Sharada Varalakshmi/Mr.Adepu Rajesh**

Gaps identified based on the mapping:

1. The syllabus covers theory, concepts and problem solving using fundamental principles related to engineering knowledge only. The Program Outcomes from 6 to 8 and 10 to 12 are not directly addressed.

Plan of Action / Corrective measures:

1) Teaching of professional ethics can be integrated in the course by encourage to students to do the assignments and quizzes honestly and to teach them to report the experimental observation without manipulation. This way PO8 has been addressed.

2) Team work and technical communication is encouraged by giving the student group assignments and group tasks to solve a complex problem in parts. This way PO9 has been improved.

3) Communication classes can be held to students which teaches them to write effective reports and make effective presentations, and give and receive clear instructions . This way PO10 has been addressed.

REVISED MAPPING OF COS WITH POS & PSOS (closing Topic beyond curriculum):

Correlation Level: High – 3; Medium – 2; Low – 1

PO / CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS01	PS O2	PSO 3
C107.1	2	1	1	2	3	-	-	1	2	1	-	2	2	3	1
C107.2	3	2	-	-	3	-	-	1	2	1	-	2	3	3	1
C107.3	3	2	2	1	3	-	-	1	2	1	-	2	3	3	1
C107.4	3	3	1	1	3	-	-	1	2	1	-	2	3	3	1
C107.5	3	3	2	2	3	-	-	1	2	1	-	2	3	3	1

C107.6	3	3	3	3	3	-	-	1	2	1	-	2	3	3	1
C107	2.83	2.33	1.8	1.8	3			1	2	1		2	2.83	3	1

Faculty Signature

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

Affiliated to Osmania University College Code: 1607

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CO-PO/PSO mapping Justification

Mapped POs & PSOs (Direct) PO1, PO2, PO3, PO4, PO5, PO9, PO12, PSO1, PSO2, PSO3
Mapped POs & PSOs (Corrective measures) PO8, P10

Course outcomes:

C107.1 : Formulate simple algorithms for arithmetic and logical problems; **Translate** the algorithms to programs in C Language.. **(Understanding)**

	Mapping Level	Justification
PO1	2	Definitions of all instructions into step by step to get the results for the given task. contribute to engineering knowledge.
PO2	1	The above definitions are directly supportive in understanding the problem analysis of C Programming.
PO3	1	Encouraging learning of basic concepts through ICT teaching-Learning resources
PO4	2	Provide Base Knowledge to solve problems.
PO5	3	Global coding platforms were used for problem solving.
PO8	1	Indirect but practical approach to teach honesty in learning process
PO9	2	Group assignments and tasks
PO10	1	Group assignments and mutual presentations
PO12	2	Need to update as per the technology changes

C107.2 : Test and execute the programs and correct syntax and logical errors. **(Applying)**

	Mapping Level	Justification
PO1	3	Apply mathematical knowledge to write the task and rectify syntactical, logical errors and also test and execute the given task
PO2	2	Directly supportive for problem analysis
PO5	3	Global coding platforms were used for problem solving.
PO8	1	Indirect but practical approach to teach honesty in learning process

PO9	2	Group assignments and tasks
PO10	1	Group assignments and mutual presentations
PO12	2	Need to update as per the technology changes

C107.3: Implement conditional branching, iterations and strings. **(Evaluate)**

	Mapping Level	Justification
PO1	3	Apply mathematical knowledge with engineering fundamentals to solve complex problems
PO2	2	The above is directly supportive in understanding the problem analysis
PO3	2	Encouraging learning of basic concepts through ICT teaching-Learning resources
PO4	1	Encouraging learning of basic concepts through ICT teaching-Learning resources
PO5	3	Global coding platforms were used for problem solving.
PO8	1	Indirect but practical approach to teach honesty in learning process
PO9	2	Group assignments and tasks
PO10	1	Group assignments and mutual presentations
PO12	2	Need to update as per the technology changes

C107.4 : Decompose a problem into functions and synthesize the basic search and sort algorithms **(Analyzing)**

	Mapping Level	Justification
PO1	3	Directly contributing to engineering knowledge and analyzing to create appropriate module in engineering applications
PO2	3	The above is directly supportive in understanding the problem analysis
PO3	1	Encouraging learning of basic concepts through ICT teaching-Learning resources
PO4	1	Encouraging learning of basic concepts through ICT teaching-Learning resources
PO5	3	Global coding platforms were used for problem solving.

PO5	3	Global coding platforms were used for problem solving.
PO8	1	Indirect but practical approach to teach honesty in learning process
PO9	2	Group assignments and tasks
PO10	1	Group assignments and mutual presentations
PO12	2	Need to update as per the technology changes

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF HUMANITIESANDSCIENCES

CLASS TIME TABLE

CLASS-I BE CIVIL 2020-21 SEM-I W.E.F 21-12-2020

	9.30-10.30	10.30-11.30	11.30-12.30	12.30.1.15	1.15-2.15	2.15-3.15
MON	CHEM	-	M-I	L	PPS	MENTORING
TUES	-	M-I	ENGLISH	U	CHEM	REMEDIAL
WED	PPS	M-I	E S	N	CHEM	COM CLASS
THUR	M-I	PPS	ES	C	ENGLISH	-
FRI	M-I	CHEM	PPS	H	ES	-
SAT	-	-	-		-	-

Course Code	Course Name	Name of the Faculty
MC802CE	Envirormental Science	Dr.Santosh Kumar
BS201MT	Mathematics-1	Ms.Swapna
BS204CH	Chemistry	Mr.Anil
ES302CS-CE	Programming for Problem Solving	Mr.A Rajesh
ENG	English	Dr.Manilal
	Mentoring	Mr.G Anil/ Dr.Manilal
REM	Remedial	Concern faculty
COM CLASS	Compensatory Class	
CLASS TEACHER		Mr.G ANIL

Class In-Charge

Time Table Coordinator

Head of The Department

Head of the Department
Department of H & S
Methodist College of Engg. & Tech.
Abids, Hyderabad-500 001

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF HUMANITIESANDSCIENCES

CLASS TIME TABLE

CLASS-I BE EEE **2020-21 SEM-I** **W.E.F 21-12-2020**

	9.30-10.30	10.30-11.30	11.30-12.30	12.30.1.15	1.15-2.15	2.15-3.15
MON	CHEM	EITK	M-I	L	PPS	MENTORING
TUES	EITK	M-I	ENGLISH	U	CHEM	REMEDIAL
WED	PPS	M-I	ES	N	CHEM	COM CLASS
THUR	M-I	PPS	ES	C	ENGLISH	-
FRI	M-I	CHEM	PPS	H	ES	-
SAT	-	-	-		-	-

Course Code	Course Name	Name of the Faculty
MC802CE	Envirormental Science	Dr.Santosh Kumar
MC803PY	Essence of Indian Traditional Knowledge	Mr.Lalithnarayana
BS201MT	Mathematics-1	Ms.Swapna
ES302CS-CE	Programming for Problem Solving	Mr.A Rajesh
BS204CH	Chemistry	Ms.Vani/Mr.Anil
HS101EG	English	Mr.Murthy
	Mentoring	Mr.G Anil/ Dr.Manilal
REM	Remedial	Concern faculty
COM CLASS	Compensatory Class	
CLASS TEACHER		Mr.G ANIL

Class In-Charge Time Table Coordinator Head of The Department

Head of the Department
Department of H & S
Methodist College of Engg. & Tech.
Abids, Hyderabad-500 001

METHODIST COLLEGE OF ENGINEERING&TECHNOLOGY
DEPARTMENT OF SCIENCE OF HUMANUTIES

FacultyIndividual Time Table

Faculty Name: Mr.A.Rajesh Assoc Professor **A.Y: 2020-21** **Semester: I** **W.E.F. 21-12-2020**

	9.30-10.30	10.30-1130	11.30-12.30	12.30-1.15	1.15-2.15	2.15-3.15	3.15-4.15
MON				L	CIVIL&EEE		
TUES		CSE-B		U			
WED	CIVIL&EEE		CSE-B	N			
THUR		CIVIL&EEE		C			
FRI			CIVIL&EEE	H	CSE-B		
SAT	CSE-B						

S.NO	COURSE CODE	COURSE NAME	CLASS	Additional Responsibilities
1	ES302CS	Programming for Problem Solving	I CSE-B	
2	ES302CS	Programming for Problem Solving	I CIVIL&EEE	

Faculty

Head of the Department

Head of the Department
Department of H & S
Methodist College of Engg. & Tech
Abids, Hyderabad-500 001

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

Affiliated to Osmania University - College Code - 1607

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

LESSON PLAN

The course plan is meant as a guideline. There may probably be changes.

UNIT No	Topic	No. of Periods	Cumulative Periods	Teaching Aids
UNIT I	Introduction to Programming, Introduction to components of a computer system(Disk, Memory, Processor)	2	2	T1,T3,T4
	Operating Systems , Compilers, Interpreters, How the program is stored and executed	2	4	T1,T3,T4
	Representation of algorithms, Pseudo code, Flowchart	3	7	T1,T3,T4
	Data types, variables, Syntax errors, logical errors, Object & executable code	2	9	T1,T3,T4
UNIT II	Operators , Precedence	2	11	T1,T3,T4
	Conditional Branching	3	14	T1,T3,T4,T5
	Arrays(1-D)	5	19	T1,T3,T4,T5
	2D Arrays	3	22	T1,T3,T4,T5
	Character arrays & Strings	2	24	T1,T3,T4,T5,T2
UNIT III	Linear Search, Binary Search	2	26	T1,T3,T4,T5,T2
	Selection Sort	1	27	T1,T3,T4,T5,T2
	Bubble Sort	1	28	T1,T3,T4,T5,T2
	Finding Roots of Quadratic Equation	1	29	T1,T3,T4,T5
	Functions	2	31	T1,T3,T4,T5,T6
	Parameter passing	1	32	T1,T3,T4,T5,T6
	Library functions, Programs	3	35	T1,T3,T4,T5
	Passing Arrays to functions	2	37	T1,T3,T4,T5,T2
UNIT IV	Recursion	2	39	T1,T3,T4,T5

	Structures	4	43	T1,T3,T4,T5
	Unions	1	44	T1,T3,T4,T5
UNIT V	Pointers, Idea of pointers	1	45	T1,T3,T4
	Pointer arithmetic	1	46	T1,T3,T4,T5
	Self referential Structures	1	47	T1,T3,T4
	Files	1	50	T1,T3,T4,T5,T6

Teaching Methods

S.No	Teaching Methods
T1	Chalk and Talk
T2	PPT
T3	Group Tasks/Assignments
T4	Student Seminars
T5	Software Based Learning
T6	Video Lectures

List Of PPT's

S.No	Topic Name	PPT link
1	Character arrays and Strings	https://www.slideshare.net/subhakrishna5/arrays-and-strings
2	Linear Search	https://www.slideshare.net/SKAhsan/linear-searchandbinarysearch-75111784
3	Binary Search	https://www.slideshare.net/SKAhsan/linear-searchandbinarysearch-75111784
4	Selection Sort	Selection Sort.ppt
5	Bubble Sort	https://www.cc.gatech.edu/~bleahy/cs1311/cs1311lecture16wdl.ppt
6	Passing Arrays to Functions	http://www.cse.ust.hk/~liao/comp102/PPT/arrayfunction.ppt

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

Affiliated to Osmania University - College Code - 1607

List Of Video Lectures

S.No	Topic Name	Video Link
1	Functions	https://nptel.ac.in/courses/106/104/106104128/ https://nptel.ac.in/courses/106/104/106104128/
2	Parameter Passing	https://www.youtube.com/watch?v=HEiPxjVR8CU
3	Files	https://nptel.ac.in/courses/106/104/106104128/

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

Affiliated to Osmania University - College Code - 1607

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Academic Year 2020-2021

Course Name with Code	Programming for Problem Solving **(ES107CS)**
Class	I Semester CSE
Faculty Name	Mr. ADEPU RAJESH

Course Outcomes

After completing this course the student will be able to:

CO No.	Course Outcome	Taxonomy Level
107.1	Formulate simple algorithms for arithmetic and logical problems; **Translate** the algorithms to programs in C Language.	**Understanding**
107.2	Test and execute the programs and correct syntax and logical errors.	**Applying**
107.3	Implement conditional branching, iteration and recursion.	**Evaluating**
107.4	Decompose a problem into functions and synthesize a complete program using divide and conquer approach	**Analysing**
107.5	Construct by using strings, arrays, pointers, structures and files to formulate algorithms and programs	**Creating**
107.6	Apply programming to solve matrix problems and searching and sorting problems.	**Understanding** **Applying**

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

Affiliated to Osmania University - College Code - 1607

MAPPING OF COs WITH POs & PSOs(Curriculum):

Correlation Level: High – 3; Medium – 2; Low – 1

PO / CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12	PS01	PSO2	PSO3
C107.1	2	1	1	-	1	-	-	-	1	-	-	2	2	3	1
C107.2	3	2	-	-	1	-	-	-	1	-	-	2	3	3	1
C107.3	3	2	2	1	1	-	-	-	1	-	-	2	3	3	1
C107.4	3	3	1	1	1	-	-	-	1	-	-	2	3	3	1
C107.5	3	3	2	2	1	-	-	-	1	-	-	2	3	3	1
C107.6	3	3	3	3	1	-	-	-	1	-	-	2	3	3	1
C107	2.8	2.3	1.8	1.75	1	-	-	-	1	-	-	2	2.8	3	1

Faculty Signature

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

Affiliated to Osmania University - College Code - 1607

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROPOSED LESSON PLAN

UNIT No	Topic	No. of Periods	Cumulative Periods	Teaching Aids
UNIT I	Introduction to Programming, Introduction to components of a computer system(Disk, Memory, Processor)	2	2	T1,T3,T4
	Operating Systems , Compilers, Interpreters, How the program is stored and executed	2	4	T1,T3,T4
	Representation of algorithms, Pseudo code, Flowchart	3	7	T1,T3,T4
	Data types, variables, Syntax errors, logical errors, Object & executable code	2	9	T1,T3,T4
UNIT II	Operators , Precedence	2	11	T1,T3,T4
	Conditional Branching	3	14	T1,T3,T4,T5
	Arrays(1-D)	5	19	T1,T3,T4,T5
	2D Arrays	3	22	T1,T3,T4,T5
	Character arrays & Strings	2	24	T1,T3,T4,T5,T2
UNIT III	Linear Search, Binary Search	2	26	T1,T3,T4,T5,T2
	Selection Sort	1	27	T1,T3,T4,T5,T2
	Bubble Sort	1	28	T1,T3,T4,T5,T2
	Finding Roots of Quadratic Equation	1	29	T1,T3,T4,T5
	Functions	2	31	T1,T3,T4,T5,T6
	Parameter passing	1	32	T1,T3,T4,T5,T6
	Library functions, Programs	3	35	T1,T3,T4,T5
	Passing Arrays to functions	2	37	T1,T3,T4,T5,T2

UNIT IV	Recursion	2	39	T1,T3,T4,T5
	Structures	4	43	T1,T3,T4,T5
	Unions	1	44	T1,T3,T4,T5
UNIT V	Pointers, Idea of pointers	1	45	T1,T3,T4
	Pointer arithmetic	1	46	T1,T3,T4,T5
	Self referential Structures	1	47	T1,T3,T4
	Files	1	50	T1,T3,T4,T5,T6

Teaching Methods

S.No	Teaching Methods
T1	Chalk and Talk
T2	PPT
T3	Group Tasks/Assignments
T4	Student Seminars
T5	Software Based Learning
T6	Video Lectures

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

Affiliated to Osmania University - College Code - 1607

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Academic Year 2020-2021

Course Name with Code	Programming for Problem Solving **(ES107CS)**
Class	I Semester CSE
Faculty Name	Mr. ADEPU RAJESH

Gaps Identified within the curriculum:

S.No.	Name of the topic identified as gap	Relevance to CO	Relevance to PO/PSO	Method used to address the gap
1	Preprocessor Directives	CO1	PO2,PO4	PPT
2	Number System	CO1	PO1,PO3	PPT

Gaps Identified beyond curriculum:

S.No.	Name of the topic identified as gap	Relevance to CO	Relevance to PO/PSO	Method used to address the gap
1	Time Complexity	CO6	PO2,PO3	PPT

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

Affiliated to Osmania University - College Code - 1607

REVISED MAPPING OF COs WITH POs & PSOs (closing gaps within Curriculum):

Correlation Level: High – 3; Medium – 2; Low – 1

PO / CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS0 1	PS O2	PS O3
C107.1	2	1	1	2	1	-	-	-	1	-	-	2	2	3	1
C107.2	3	2	-	-	1	-	-	-	1	-	-	2	3	3	1
C107.3	3	2	2	1	1	-	-	-	1	-	-	2	3	3	1
C107.4	3	3	1	1	1	-	-	-	1	-	-	2	3	3	1
C107.5	3	3	2	2	1	-	-	-	1	-	-	2	3	3	1
C107.6	3	3	3	3	1	-	-	-	1	-	-	2	3	3	1
C107	2.83	2.33	1.8	1.8	1				1			2	2.83	3	1

Faculty Signature

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

Affiliated to Osmania University - College Code - 1607

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Academic Year 2020-2021

Course Name with Code	Programming for Problem Solving
Class -	I Semester , CSE
Faculty Name	Mr. ADEPU RAJESH

Gaps identified based on the mapping:

1. The syllabus covers theory, concepts and problem solving using fundamental principles related to engineering knowledge only. The Program Outcomes from 6 to 8 and 10 to 12 are not directly addressed.

Plan of Action / Corrective measures:

1) Teaching of professional ethics can be integrated in the course by encourage to students to do the assignments and quizzes honestly and to teach them to report the experimental observation without manipulation. This way PO8 has been addressed.

2) Team work and technical communication is encouraged by giving the student group assignments and group tasks to solve a complex problem in parts. This way PO9 has been improved.

3) Communication classes can be held to students which teaches them to write effective reports and make effective presentations, and give and receive clear instructions . This way PO10 has been addressed.