

#### MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS) (An UGC Autonomous Institution, Affiliated to JNTUH, Hyderabad Accredited 2<sup>nd</sup> time by NAAC with 'A' Grade & NBA and Recipient of World Bank Assistance under TEQIP-II S.C. 1.1) Maisammaguda (H), Medchal-Malkajgiri District, Secunderabad, Telangana State – 500100 www.mrec.ac.in

## **Department of Computer Science and Engineering**

#### CIRCULAR

Date: 24/02/2020

All the students are hereby informed that Value Added Course on "DATA STRUCTURES ANALYSIS AND ALGORITHMS" is being organized by the Computer Science and Engineeringdepartment on dated 2<sup>nd</sup> March 2020 to06<sup>th</sup> March 2020. The resource person for the course is "Ms. Sruthi Gandhi, Verizon Data Services, Mr. D Srinivasa RaoAsstProf"

Students are advised to register their names to the programme coordinator "Mr. PV Ramana Murthy, Associate Prof, CSE Dept", on or before 28/02/2020 and utilize this opportunity to enhance their skills by attending the programme.

The detailed schedule of the programme will be displayed in the notice board.

Head of the Department

Copy to:

- 1) Circulation in Students classroom
- 2) All HOD's
- 3) Notice Boards
- 4) PA to principal for filing.

Na Reddy Engineering College Maisammaguda, Dhulapaliy, Via Kompally), Sec'bad-500100 Ay Enga

#### About the Institution

Malla Reddy Engineering College (Autonomous) is one of the reputed engineering colleges in Hyderabad, Telangana. MREC (A) is part of Malla Reddy Group of Institutions (MRGI), founded by Sri. Ch. Malla Reddy, currently Hon'ble Minister, Labor and Employment, Factories, Women and Child Welfare and Skill Development, Govt. of Telangana State. The college is situated in a serene, lush green environment in Maisammaguda, Gundlapochampally, Medchal(M), Medchal-Malkajgiri District Telangana– 500100.

The college was established in 2002 and is an autonomous institution approved by UGC and affiliated to JNTUH. The college is re-accredited by NAAC with 'A' Grade (II Cycle) and was conferred autonomous status by JNTUH in 2011 and by UGC in 2014 for a period of 6 years. Our eligible UG and PG programs received NBA accreditation and some of them received reaccreditation too. The college caters to wide ranging aspirations and goals of student communities by offering new courses in UG courses provides PG courses and MBA along with programs in various streams of Engineering & Technology and Management. It boasts of worldclass infrastructure and well-equipped laboratories in all departments and is skillfully and smartly guided by Dr. A. Ramaswami Reddy, Director, MREC (A) and Dr. A. Raveendra, Principal. MREC (A) who have a rich teaching and industrial experience.

#### **Advisory Committee**

Chief Patrons: Sri. Ch. Malla Reddy, Minister-Telangana State-India. Founder Chairman Malla Reddy Group of Institutions Patrons: Sri.Ch. Mahender Reddy Secretary, MRGI Dr. Ch. Bhadra Reddy President, MRGI Co-Patrons: Dr. A. RamaSwami Reddy Director, MREC (A) Dr. A. Raveendra Principal, MREC (A)

Convener: Dr. R.P. Ram Kumar HOD CSE Coordinator: Mr. P.V. Ramana Murthy Associate Professor, CSE Resource Person 1: Ms. Sruthi Gandhi Verizon Data Services 2: Mr. D. Srinivasa Rao Assistant professor

**Organizing Committee:** 

Dr. O. Obulesu, Professor, CSE Dr. S. Dhanalakshmi, Professor, CSE Mr. Sanjeeva Polepaka, Associate Professor, CSE Mr. S. Ajay Kumar, Associate Professor, CSE Ms. S. Sandhya Ran, Assistant Professor, CSE Mr. Md. Inayathulla, Assistant Professor, CSE Mr. A. Lakshman, Assistant Professor, CSE Mr. P. Venkateshwara Rao, Assistant Professor, CSE Mr. G. Vamshi Krishna, Assistant Professor, CSE





A One-Week Skill development Course (Value added Course) On "Data Structures and Analysis of Algorithms" (2<sup>nd</sup> to 6<sup>th</sup> March, 2020)



Organized by Department of Computer Science and Engineering MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)MAIN CAMPUS An UGC Autonomous Institution, Approved by AICTE & Affiliated to JNTUH-Hyderabad Reaccredited by NAAC with 'A' Grade (II Cycle) Maisammaguda(H), Gundlapochampally (V), Medchal (M), Medchal (Malkajgiri District Telangana - 500100, India

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Mr.

#### **Registration Form**

Name of the Participant :-----

Branch& Year :-----

Name of Institution:	
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Address for Communication:-----

Mobile Number:-----

E-Mail ID:-----

**DECLARATION:** 

The information furnished above is true to the best of my Knowledge.

Place:

Date:

#### Signature of Applicant

#### About the Department

The Department of CSE was started in the year 2005 with a vision of imparting high-quality education to suite the global standards in Computer science and Engineering. The department has got highly qualified & committed faculty members supported by dedicated technical staff.

The department has its own library and sophisticated laboratories not only to suite curriculum requirements but also to serve research needs such as Computer Networks, Data Mining, Software Engineering, Image processing & Cloud Computing. Workshops, software simulation etc. The department formed CSI and ISTE student branch for the benefit of students and faculty by conducting technical Conferences, workshops, FDPs and Guest lectures.

#### **Overview of the Programme**

A data structure is a named location that can be used to store and organize data. And, an algorithm is a collection of steps to solve a particular problem. Learning data structures and algorithms allow us to write efficient and optimized computer programs.

#### **Objectives of the Programme**

The main objective of this programme is to provide an introduction to basic and advanced data structures, and algorithms for manipulating them, by using a programming language. The participants will learn how the choice of data structures and algorithm design methods impact the performance of programs. How to choose the appropriate data structure and algorithm design method for a specified application.

#### Topics to be covered

- Elements of Algorithm Analysis
- Lists, Stacks and Queues
- Different types of Tree Data Structures
- Hashing Techniques
- Sorting and Searching Problems
- Graph Algorithms
- Algorithm Design Techniques
- NP- completeness
- Amortized Analysis

## Certificate

After successful completion of the course the certificates shall be issued to the participants.

### Outcome of the program

On completion of this course, participants will be able to identify data structures suitable to solve problems, develop and analyze algorithms for linear and non-linear data structures, implement symbol table using hashing techniques, identify algorithm design methodology to solve problems, distinguish between P and NP classes of problems, and analyze amortized time complexity.

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## VAC DATA STRUCTURES AND ANALYSIS OF ALGORITHMS Syllabus

- Introduction -Data Management concepts, Data types primitive and non-primitive, Types of Data Structures- Linear & Non Linear structures.
- Arrays, Representation of arrays, Applications of arrays. Stack: Stack-Definitions & Concepts, Operations On Stacks, Applications of Stacks.
- Queue: Representation Of Queue, Operations On Queue, Circular Queue, Priority Queue, Array representation of Priority Queue,
- Linked List: Singly Linked List, Doubly Linked list. Circular linked list ,Linked implementation of Stack, Linked implementation of Queue, Applications of linked list.
- Linear and Non-Linear data structures, Tree definitions, Threaded binary tree, Binary search trees,
- Applications Of Trees:Some balanced tree mechanism,eg. AVL trees, 2-3 trees, Height Balanced, Weight Balance.
- Graph-Matrix Representation Of Graphs, Elementary Graph operations, Breadth First Search, Depth First Search.
- SORTING And SEARCHING: Insertion Sort, Quick Sort, Merge Sort, Heap Sort, Sorting On Several Keys, List and Table Sort, Linear Search, Binary Search.
- Hashing And File Structures : Hashing: The symbol table, Hashing Functions, Collision-Resolution Techniques,
- File Structure: Concepts of fields, records and files, Sequential, Indexed and Relative/Random File Organization,
- Concepts of fields, records and files, Sequential, Indexed and Relative/Random File.Organization, Indexing structure for index files, hashing for direct files, Multi-Key file organization and access methods.



Malla Reddy Engineering College Maisammaguda, Dhulapaliy, (Post Via Kompally), Sec'bad-500100



MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS) (UGC Autonomous Institution, Affiliated to JNTUH, Accredited 2<sup>nd</sup> time by NAAC with 'A' Grade & NBA and Recipient of World Bank Assistance under TEQIP-II S.C. 1.1)

Maisammaguda (H), Medchal-Malkajgiri District, Telangana State – 500100

**DEPARTMENT: CSE** 

DATA STRUCTURES AND ANALYSIS OF ALGORITHM

Date:02/03/2020-06/03/2020

SI.No	Roll No	Name of the Students	Year/Semester
1	18J41A0501	ADLA RAJA REDDY	11/11
2	18J41A0502	ARE CHAKRI	11/11
3	18J41A0503	ARUPULA KISHORE	11/11
4	18J41A0504	BALUSANI SRICHARAN	11/11
5	18J41A0505	BEJJANKI JYOTHI	11/11
6	18J41A0506	BHUKYA BALARAJU	/
7	18J41A0507	BIDAR PRANEEL	11/11
8	18J41A0508	BOLLAMPALLI RAKESH	11/11
9	18J41A0509	BOYA NITHISHA	11/11
10	18J41A0510	CHALVADIDHANUSH	11/11
11	18J41A0511	CHAMARTHI KALYAN VARMA	11/11
12	18J41A0512	CHILLAKANTI L NAGA SATYA NARASIMHA BHARGAV	11/11
13	18J41A0513	DATHRIKA KARTHIK	11/11
14	18J41A0514	DHONDIAKSHAYA	11/11
15	18J41A0515	DODDIGUNTA DINESH	11/11
16	18J41A0516	GADDAM ABHIRAM	11/11
17	18J41A0517	GUJJARI ANIRUDH	11/11
18	18J41A0518	GUMMAPU JOHN MARY	11/11
19	18J41A0519	GUNDETI SRIJA REDDY	11/11
20	18J41A0520	GURIJA SHRAVAN	/
21	18J41A0521	JUTTA TEJA SRI GUNA SAI SUMA	11/11
22	18J41A0522	KAGITAPU ROHITH	11/11
23	18J41A0523	KALANGI PURUSHOTHAM	11/11
24	18J41A0524	KALPURE NEEMA	II/II
25	18J41A0525	KALYANI JAZI BHANUTEJA	11/11
26	18J41A0526	KANUMATHI REDDY SUJITH	11/11
27	18J41A0527	KANURI JAYA VARADATTA REVANTH	11/11
28	18J41A0528	KATHI VAMSHI KRISHNA	

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29	18J41A0529	KATRAVATH GANGA	/
30	18J41A0530	KONA RAMYA	11/11
31	18J41A0531	KOPPULA SAI PHANI	11/11
32	18J41A0532	KOTTE HEMANTH	II/11
33	18J41A0533	KUTHURU KARTHIK	11/11
34	18J41A0534	MADGULA UDAY KUMAR	11/11
35	18J41A0535	MADHIRA SAINATH	/
36	18J41A0536	MALLEPALLI HIMAJAREDDY	11/11
37	18J41A0537	MOHAMMED TABREZ	.11/11
38	18J41A0538	NIMMAGADDA SRI HARSHA CHAITANYA	11/11
39	18J41A0539	OMKAR BIDARKAR	11/11
40	18J41A0540	P SAI ABHIJAT	11/11
41	18J41A0541	PEDDI SUNAYANI	11/11
42	18J41A0542	PENDRU MEGHANA REDDY	11/11
43	18J41A0543	PODISHETTI PAVAN	11/11
44	18J41A0544	POLISETTY SHRUTHI	11/11
45	18J41A0545	PULLAKHANDAMAPARNA	11/11
46	18J41A0546	RASAKONDA ADVETHA	11/11
47	18J41A0547	RAVULA TEJA SRI	11/11
48	18J41A0548	SAI CHARAN REDDY ASHANNAGARI	11/11
49	18J41A0549	SAMALA SHRUTHI	11/11
50	18J41A0550	SARDAR DALBEER SINGH	11/11
51	18J41A0551	SARVA HRUTHIK NARAYAN	11/11
52	18J41A0552	SRIYAPUREDDY SNEHA REDDY	11/11
53	18J41A0553	T SALANURAG REDDY	11/11
54	18J41A0554	THAMMINENI ASHA NIKITHA	11/11
55	18J41A0555	THUMMA PRANATHI	11/11
56	18J41A0556	TRISHA VUDEPU	11/11
57	18J41A0557	VADLAMUDI NAVEEN /	11/11
58	18J41A0558	VIDYACHARAN DUNDIGAL	11/11
59	18J41A0559	YATELLI PRANAY PAUL	11/11
60	18J41A0560	ZEBA TARANNUAM	11/11
61	18J41A0561	ABDUL SAMAD	11/11
62	18J41A0562	AKKINAPALLI SAIDEEPAK	11/11
63	18J41A0563	ANANDITA THAKUR	11/11
64	18J41A0564	ANANTHU VENKATA NAGA SAI SUMANTH	11/11
65	18J41A0565	ANNOLLA TULASI	11/11
66	18J41A0566	ANUSHA LILY MATHIAS	11/11
67	18J41A0567	BANOTHU GEETHANJAL	11/11
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68	18J41A0568	BAZAR ANKIT GOUD	11/11
69	18J41A0569	BEGARIPRAVEEN KUMAR	11/11
70	18J41A0570	BHUKYA SONIYA	1/11
71	18J41A0571	BOGGARAPU NIKHILESH	11/11
72	18J41A0572	BOLLAMPALLY VINEETH RAJ	11/11
73	18J41A0573	BUDHA RAHUL RISHWANTH	11/11
74	18J41A0574	CHINTALA ASHA SREE	11/11
75	18J41A0575	CHITTA SRILEKHA	
76	18J41A0576	DAKSHAJAA	11/11
77	18J41A0577	DUGGE RAVITEJA	11/11
78	18J41A0578	GADDAM AKSHATH REDDY	11/11
79	18J41A0579	GAJJELA PRASHANTH	11/11
6.0	18J41A0580	GOPU SHINY TARA	11/11
81	18J41A0581	GORINKALA LAXMAN KUMAR	/1
82	18J41A0582	GOTTE ANIRUDH	11/11
83	18J41A0583	INDHANA MADHU RAMYASREE	11/11
84	18J41A0584	K PAVANI KRISHNA	11/11
85	18J41A0585	KAMMARI RAMYA	11/11
86	18J41A0586	KAPILAVAI SIVA NAGA SAI LOKESH	11/11
87	18J41A0587	KASULADEVI NANDINI	11/11
88	18J41A0588	KATURIAKSHAY	11/11
89	18J41A0589	KESARISREE	11/11
90	18J41A0590	KHEMSHETTE KAPIL	11/11
91	18J41A0591	KONGANTI RAM KUMAR	11/11
92	18J41A0592	KUMBHAM SAI CHARAN	11/11
93	18J41A0593	M R NILESH	11/11
94	18J41A0594	MAMULLA HARISH	11/11
95	18J41A0595	MANTHU SUNIL	11/11
96	18J41A0596	MEDASANI JAYALAKSHMI	/
97	18J41A0597	MEDIKAYALA GOURI SHANKAR	11/11
98	18J41A0598	MERUGA PRIYANKA	11/11
99	18J41A0599	MOHAMMED MUNAWAR HUSSAIN	11/11
100	18J41A05A0	MUPPIDI YAGAPRIYA	11/11
101	18J41A05A1	PADAMATISUJATHA	11/11
102	18J41A05A2		11/11
103			171
104		PETA GOPIKASIRI	11/11
105		POTHARAM MOUNIKA	1/1
106			11/11

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107	18J41A05A7	REDDY SAI SUMANTH	11/11
108	18J41A05A8	RITESH GOURAVARAM NAVALUR	
109	18J41A05A9	SALARAVIND MULA	
110	18J41A05B0	SAINNI VIJAYKANTH	
111	18J41A05B1	SANABOINA NAVEEN	JI/11
112	18J41A05B2	SATTARAPU SIDDARTH	11/11
113	18J41A05B3	SHASHANK REDDY ANNARAPU	11/11
114	18J41A05B4	SIRUSALA CHANDRAKANTH	11/11
115		TADIKONDA GNANDEEP	11/11
116	18J41A05B6	TURAKA TEJASWINI	11/11
117	18J41A05B7	VALETILOKESH	11/11
118		VANKUDOTHU PRAVEEN	11/11
119	18J41A05B9		11/11
120		YAPA MOUNIKA	
121		ABHINAV BORAD	11/11
122	18J41A05C2	ABHISHEK BOMMENA	11/11
123		ADDAGADA BALAKRISHNA	11/11
124		B G ASLAS KUMAR	II/II
125	18J41A05C5	B RUCHITHA	11/11
126	18J41A05C6	BANDARU ANVITHA	11/11
127	18J41A05C7	BASHETTI SAITEJA	11/11
128	18J41A05C8	BATHINI REETHIKA	11/11
129	18J41A05C9	BEGARI PAVAN KUMAR	11/11
130	18J41A05D0	CHAPETTI ANVESH REDDY	11/11
131	18J41A05D1	CHINTHAPALLY ESHWAR SAI RAGHAVA	11/11
132	18J41A05D2	DODDIGUNTA VAMSIKRISHNA	11/11
133	18J41A05D3	DUGGIRALA DURGA RAM PRASAD	11/11
134	18J41A05D4	DUTTA SAI SRAVANI	11/11
135	18J41A05D5	GADDAM AKHILA	II/II
136	18J41A05D6	GADDAM ASHVITHA	/
137	18J41A05D7	GADDAM LOKESH REDDY	/ [
138	18J41A05D8	GADEPAGA SPARSHA	11/11
139	18J41A05D9	GANGULA MANASA	11/11
140	18J41A05E0		-11/11
141	18J41A05E1	GOPARAJU DHRUVA TEJA RAO	11/11
142	18J41A05E2	GUDIMELLA AMRESH	11/11
143	18J41A05E3	GULLA HEMANTH	11/11
144	18J41A05E4		- 11/11
144	18J41A05E5	JIDIGE SANJANA KRISHNA	/

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145	18J41A05E6	JOGIPETACHYUTH	11/11
146	18J41A05E7	K SHRISTI	11/11
147	18J41A05E8	KADURLA SRINIVAS	11/11
148	18J41A05E9	KATINEEDI BINDHU	11/11
149	18J41A05F0	KATRAVATH PRAKASH	11/11
150	18J41A05F1	KUSNAM SAI NARSIMHA REDDY	IV/II
151	18J41A05F2	MANGILIPALLY HARI PRASAD	11/11
152	18J41A05F3	MANNE SRINIDHI	11/11
153	18J41A05F4	MANNEPALLI SAMUEL JOHNSON	11/11
154	18J41A05F5	METLA VENKATA SAI CHANDRA SHEKAR	11/11
155	18J41A05F6	MIRYALA SWATHI	11/11
156	18J41A05F7	MOHAMMED FATHEBABA	11/11
157	18J41A05F8	MOHAMMED ISMAIL	11/11
158	18J41A05F9	MUKKU SHIRLEY	11/11
159	18J41A05G0	MUNJALA SAI VARDHAN	11/11
160	18J41A05G1	MUSHAM VAMSHI KRISHNA	11/11
161	18J41A05G2	MUTHOJU VASANTH	11/11
162	18J41A05G3	N YESWANTH REDDY	- 11/11
163	18J41A05G4	PAILA JEESHITHA	11/11
164	18J41A05G5	PALLAMREDDY PRAHARSHA REDDY	11/11
165	18J41A05G6	POTLAPALLY SAI CHARAN	11/11
166	18J41A05G7	POTRU RAMKI	11/11
167	18J41A05G8	REVOORI PRANEETH REDDY	11/11
168	18J41A05G9	S PRAMATH PARASHAR	11/11
169	18J41A05H0	SHAIK HUSNA SHAHEEN	11/11
170	18J41A05H1	SHAIK NOUSHEEN SULTANA	11/11
171	18J41A05H2	SHIVAM SINGH	17.11
172	18J41A05H3	SK KAREEM BABA	11/11
173	18J41A05H4	SOMANNGARI RITHIKA	11/11
174	18J41A05H5	TAUQIR PASHA	11/11
175	18J41A05H6	THATI VAMSHI KRISHNA	11/11
176	18J41A05H7	THIPPALLI LAKSHMAN	/
177	18J41A05H8	UPPUNUTHULA SAI SUSMITHA	11/11
178		VAKULABHARANAM PREM SAI	11/11
179	18J41A05J0	VISHNU VARDHAN REDDY MOTHE	11/11
180	18J41A05J1	AENUGU SUPRITH REDDY	11/11
181	18J41A05J2	ANUJ KUMAR GAURAV	11/11
182		AREPALLI MURALI	11/11
183		ARTHAM HARISH	11/11



Reheipai Malla Reddy Engineering College Malsammaguda, Dhulapally, (Post Via Kompally), Sec'bad-500190

184	18J41A05J5	BATHULA BHANU PRASAD	11/18
185	18J41A05J6	BATHULA SUMANTH	II/II
186	18J41A05J7	BETHU MEGHANA	
187	18J41A05J8	C VARSHITHA REDDY	/
189	18J41A05J9	CHAVA VIJAY MANOHAR	11/11
190	18J41A05K0	CHIGULLAPALLI SATHWIKA	11/11
191	18J41A05K1	DEVARAKONDA SHIVA SAI CHARY	11/11
192	18J41A05K2	ENDLA ADITHYASAI	
193	18J41A05K3	GADDAM YUVARAJ	II/II
194	18J41A05K4	GOLKONDA VENKATESHWAR REDDY	11/11
195	18J41A05K5	GONE KAVERI	11/11
196	18J41A05K6	GOPUMANIDEEP	II/II
197	18J41A05K7	GUDLA SAMEEKSHA	11/11
198	18J41A05K8	GUNDETI ROHITH REDDY	11/11
199	18J41A05K9	JAISWAL DILEEP KUMAR	/
200	18J41A05L0	JIDUGU RAJYA LAXMI	11/11
201	18J41A05L1	JITENDRA REDDY N KODURU	11/11
202	18J41A05L2	KANDALA L N ADITHYA HEMANTH	11/11
203	18J41A05L3	KANIKANTI SRI PAVAN	11/11
204	18J41A05L4	KASULA SAI PRAKASH	11/11
205	18J41A05L5	KATUKOJWALA BHAVANA	11/11
206	18J41A05L6	KOLLAREDDY TEJASWARI	11/11
207	18J41A05L7	KONDETI PRANAVI	11/11
203	18J41A05L8	KURRA GIRISHKRISHNA	11/11
209	18J41A05L9	M ANIKETH REDDY	-11/11
210	18J41A05M0	MAHENDARKAR VIDYA	11/11
211	18J41A05M1	MARKA SAI CHAITANYA	II/II
212	18J41A05M2	MUPPIDI SHANMUK RAHUL REDDY	11/11
213	18J41A05M3	MURALA AAKESH KUMAR	11/11
214	18J41A05M4	NAMA SAI MADHU GOVARDHAN	JI/11
215	18J41A05M5	NUNE SRUTHI	11/11
213	18J41A05M6	PAKALA RUTHWIK	/
217	18J41A05M7	PANDRINKI ADHI NARAYANA	11/11
218	18J41A05M8	PANTHANGI VENKATA SAI	11/11
219	18J41A05M9	PASUPULETI RAHUL	11/11
220	18J41A05N0	PAYAL SAMANTA	11/11
221	18J41A05N4	PUPPALA RAJA RAJESHWARI	11/11
222	18J41A05P3	THOTA AKSHITHA	11/11
223	18J41A05P9	YARRAMNENI CHANDAMA	11/11
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224	19J45A0501	AGURLA RAJ KUMAR	11/11
225	19J45A0502	AKULA SAHANA	11/11
226	19J45A0503	ALBAYWAR SHIVA KUMAR	11/11
227	19J45A0505	BURRIDIVYA	11/11
228	19J45A0506	CHITLA DHANUSH	11/11
229	19J45A0507	DAKURI RAMAKANTH	11/11
230	19J45A0508	EPPAKAYALA MANISAI	11/11
231	19J45A0509	GADDAM MANASA	11/11
232	19J45A0510	GURRAM SRIVIDYA	11/11
233	19J45A0511	INDRALA SAI THUSHAR	11/11
234	19J45A0514	MADUPU NIKHILA	11/11
235	19J45A0515	MARAPAKAYUVARAJ	11/11
236	19J45A0516	NETHI AKHILA SAI	11/11
237	19J45A0517	OGGU ARAVIND SAI	11/11
238	19J45A0520	POLASA RAKESH	11/11
239	19J45A0521	RAYABARAPU VAISHNAVI	11/11
240	19J45A0522	SUDDALA OMKAR	11/11
241	19J45A0523	THALAKOKKULA NAVANEETHA	11/11
242	19J45A0524	VELAGALA RAMCHARAN	11/11



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MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS) (UGC Autonomous Institution, Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad). Accredited 2<sup>nd</sup> time by NAAC with 'A' Grade, Maisammaguda (H), Medchal-Malkajgiri District, Secunderabad, Telangana State – 500100, www.mrec.ac.in

#### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VAC-Data Structures and Analysis of Algorithms - Summary

07.02.2019

Course duration: 2<sup>nd</sup>February 2019 to 7<sup>th</sup>February 2019.

Overview of the Course

A data structure is a named location that can beused to store and organize data. And, analgorithm is a collection of steps to solve aparticular problem. Learning data structuresand algorithms allow us to write efficient and optimized computer programs.

**Objectives of the Course** 

The main objective of this programme is toprovide an introduction to basic and advanceddata structures, and algorithms for manipulatingthem, by using a programming language. Theparticipants will learn how the choice of datastructures and algorithm design methods impact the performance of programs. How to choose the appropriate data structure and algorithm designmethod for a specified application?

The speaker also covered the following topics:

Elements of Algorithm Analysis, Lists, Stacks and Queues, Different types of Tree Data Structures, Hashing Techniques, Sorting and Searching Problems, Graph Algorithms, Algorithm Design Techniques and NP- completeness.

Outcome of the program

At the end of this course, participants areable to identify data structures suitable to solveproblems, develop and analyse algorithms forlinear and non-linear data structures, implementsymbol table using hashing techniques, identifyalgorithm design methodology to solve problems, distinguish between P and NP classes of problems, and analyse amortized time complexity.

Walla Reddy Engineering College Maisammaguda, Dhulapaliy After successful completion of the course thecertificates are issued to the participants Post Via Kompally), Socibad 500100

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## MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

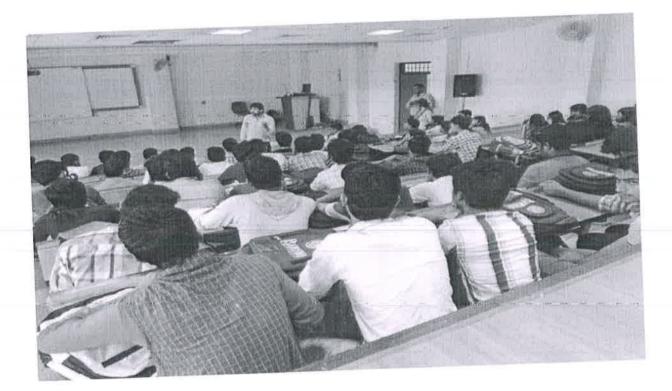
(An UGC Autonomous Institution, Affiliated to JNTUH, Hyderabad Accredited 2<sup>nd</sup> time by NAAC with 'A' Grade & NBA and Recipient of World Bank Assistance under TEQIP--II S.C. 1.1)

Maisammaguda (H), Medchal-Malkajgiri District, Secunderabad, Telangana State

500100

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VAC DATA STRUCTURE





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## MALLA REDDY ENGINEERING COLLEGE

(Autonomous) Maisammaguda, Dhulapally (Post via Kompally), Secunderabad - 500 100. (UGC Autonomous Institution, Affiliated to JNTUH, Accredited 2nd time by NAAC with 'A' Grade)

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

# CERTIFICATE OF COMPLETION

This is to certify that Mr./Ms. <u>D AKSHAYA</u> bearing Roll No. <u>18J41A0514</u> has successfully completed Certificate / Value Added Course / Workshop in <u>Data Structures and Analysis of Algorithams</u> conducted by the Department of **Computer Science and Engineering** from <u>D2<sup>nd</sup> March 2020 to 06<sup>th</sup> March 2020</u>.

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(Autonomous) Maisammaguda, Dhotapally, (Post Via Kompally), Sec bad-500 100



## MALLA REDDY ENGINEERING COLLEGE

(Autonomous)



Maisammaguda, Dhulapally (Post via Kompally), Secunderabad - 500 100.

(UGC Autonomous Institution, Affiliated to JNTUH, Accredited 2nd time by NAAC with 'A' Grade)

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

# **CERTIFICATE OF COMPLETION**

This is to certify that Mr./Ms. <u>ARE CHAKRI</u> bearing Roll No. <u>18J41A0502</u> has successfully completed Certificate / Value Added Course / Workshop in <u>Data Structures and Analysis of Algorithams</u> conducted by the Department of **Computer Science and Engineering** from <u>O2<sup>nd</sup> March 2020 to O6<sup>th</sup> March 2020</u>.



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# **CERTIFICATE OF COMPLETION**

This is to certify that **Mr./Ms. <u>B</u>\_JYOTHI** bearing **Roll No. <u>18J41A0505</u>** has successfully completed Certificate / Value Added Course / Workshop in <u>Data Structures and Analysis of Algorithams</u> conducted by the Department of **Computer Science and Engineering** from <u>O2<sup>nd</sup> March 2020 to O6<sup>th</sup> March 2020</u>.

COORDINATOR

PRINCIPA Maisammaguda, Dholapally, (Post Via Kompaty), Sec bad-500-100



## MALLA REDDY ENGINEERING COLLEGE

(Autonomous) Maisammaguda, Dhulapally (Post via Kompally), Secunderabad - 500 100. (UGC Autonomous Institution, Affiliated to JNTUH, Accredited 2nd time by NAAC with 'A' Grade)

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

# CERTIFICATE OF COMPLETION

This is to certify that **Mr./Ms. <u>G</u> JOHN** bearing **Roll No. <u>18J41A0518</u>** has successfully completed Certificate / Value Added Course / Workshop in <u>Data Structures and Analysis of Algorithams</u> conducted by the Department of **Computer Science and Engineering** from <u>O2<sup>nd</sup> March 2020 to O6<sup>th</sup> March 2020</u>.

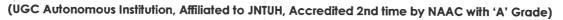
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## MALLA REDDY ENGINEERING COLLEGE (Autonomous) Maisammaguda, Dhulapally (Post via Kompally), Secunderabad - 500 100.



## **DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

# **CERTIFICATE OF COMPLETION**

This is to certify that **Mr./Ms. <u>K</u> JAYA** bearing **Roll No. <u>18J41A0527</u>** has successfully completed Certificate / Value Added Course / Workshop in <u>Data Structures and Analysis of Algorithams</u> conducted by the Department of **Computer Science and Engineering** from <u>O2<sup>nd</sup> March 2020 to O6<sup>th</sup> March 2020</u>.

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