



**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. I.1)  
Maisammaguda (H), Medchal-Malkajgiri District, Secunderabad,  
Telangana State – 500100  
www.mrec.ac.in

## Department of Computer Science and Engineering

### CIRCULAR

Date: 10/08/2016

All the students are hereby informed that Value Added Course on “**Data Structures and Analysis of Algorithms**” is being organized by the **Computer Science and Engineering** department on dated **22<sup>nd</sup> August 2016 to 27<sup>th</sup> August 2016**. The resource person for the course is “**Mr. V. Ramana**, Assistant Professor, VNRVJIET.”

Students are advised to register their names to the programme coordinator “**Mr. PV Ramana Murthy, Associate Prof, CSE Dept**”, on or before 20/08/2016 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.

*Ramana*  
Principal  
Malla Reddy Engineering College  
Maisammaguda, Dhulapally,  
(Post Via Kompally), Sec'bad-500100



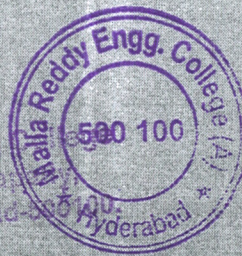
## About the Institution

**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 world-class infrastructure and well-equipped laboratories in all departments and is skillfully and smartly guided by **Dr. S Sudhakar Reddy Principal, MREC (A)** who has rich teaching and industrial experience.

Mr.

*Handwritten signature*  
Principal  
Malla Reddy Engineering College  
Maisammaguda, Dhulapally  
(Post Via Kompally), Sec'bad-500100, Hyderabad



## Advisory Committee

**Chief Patrons:** Sri. Ch. Malla Reddy,  
Founder Chairman  
Malla Reddy Group of Institutions

**Patrons:** Sri.Ch. Mahender Reddy  
Secretary, MRGI  
Dr.Ch.Bhadra Reddy  
President, MRGI

**Co-Patrons:** Dr. S Sudhakar Reddy  
Principal, MREC

**Convener:** Dr. R.P.Ram Kumar  
HOD CSE

**Coordinator:** Mr. P.V.Ramana Murthy  
Associate Professor, CSE

**Resource Person :** Mr. V Ramana  
Assistant professor  
VNRVJIET

## 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

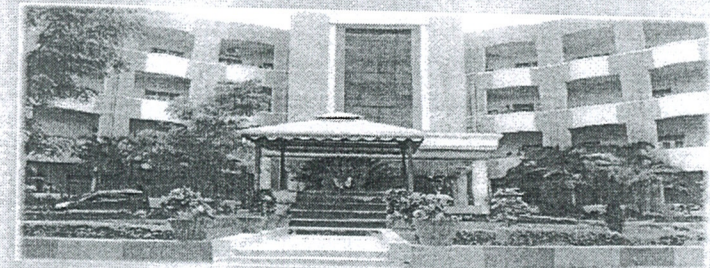
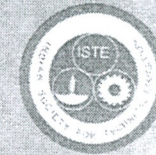


*A One-Week Skill development Course  
(Value added Course)*

*On*

**"Data Structures and Analysis of Algorithms"**

**(22<sup>nd</sup> to 27<sup>th</sup> August, 2016)**



*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  
Re-accredited by NAAC with 'A' Grade (II Cycle)  
Maisammaguda(H), Gundlapochampally (V),  
Medchal (M), Medchal - Malkajgiri District  
Telangana - 500100, India.

## Registration Form

Name of the Participant :-----  
-----

Branch & Year :-----  
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Name of Institution:-----  
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Address for Communication:-----  
-----  
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Mobile Number:-----  
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E-Mail ID:-----  
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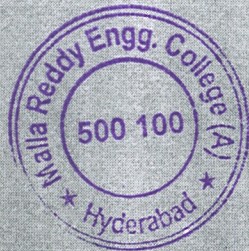
### DECLARATION:

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

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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500100

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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.



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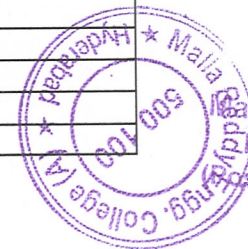
Maisammaguda (H), Medchal-Malkajgiri District, Telangana State – 500100

Department: CSE

**DATA STRUCTURES AND ANALYSIS  
OF ALGORITHMS**

Date:22/08/2016-26/08/2016

Sl. No	Roll No	Name of the students	Year/Semester
1	14J41A0501	Atluri Pranay Chowadary	III/I
2	14J41A0502	Alla Shanith	III/I
3	14J41A0503	A Venkateshwar Rao	III/I
4	14J41A0504	Aluri Mahendar Reddy	III/I
5	14J41A0505	Boppidi Madhuri Reddy	III/I
6	14J41A0506	B Maghana Anand	III/I
7	14J41A0507	B Navya Prathyusha	III/I
8	14J41A0508	Bukke Kesava Sai Krishna Naik	III/I
9	14J41A0509	Ch Niyanth Reddy	III/I
10	14J41A0510	Chiruvolu Revanth Rumar	III/I
11	14J41A0511	Ch Vijay Kanth Reddy	III/I
12	14J41A0512	Chakalaparam Raman Deevana	III/I
13	14J41A0513	D Hemanth	III/I
14	14J41A0514	Dasari Jagadeesh	III/I
15	14J41A0515	D Sushmita Priya	III/I
16	14J41A0516	Deverasetti Saikiran	III/I
17	14J41A0517	Dhanush Kodi Ranga Rajan	III/I
18	14J41A0518	Dodda Bhuvaneswari	III/I
19	14J41A0519	Duddu Vaishavi	III/I
20	14J41A0520	Eppa Sai Deepak	III/I
21	14J41A0521	Gaddam Abhiram Goud	III/I
22	14J41A0522	Goukarla Prasanna Kumar	III/I
23	14J41A0523	Illuri Satyageethika	III/I
24	14J41A0524	Jupally Hari Priya	III/I
25	14J41A0525	Japa Sadhana	III/I
26	14J41A0526	Katragadda Jagadeswar	III/I
27	14J41A0527	Kundur Srinitha	III/I
28	14J41A0528	Kunna Srujan Kumar	III/I
29	14J41A0529	Kethepalli Vineetha	III/I

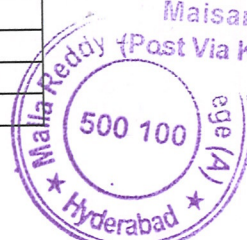


*Ravi*  
Principal

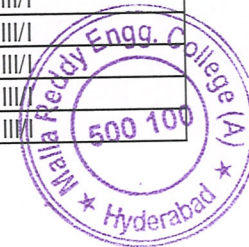
Malla Reddy Engineering College  
Maisammaguda, Dhulapally,  
(Post Via Kompally), Sec'bad-500100

30	14J41A0530	Kotaru Yeswanth	III/I
31	14J41A0531	Kanaji Sushma	III/I
32	14J41A0532	Kanne Sai Teja	III/I
33	14J41A0533	Kanneboyina Monika	III/I
34	14J41A0534	Kemshetty Sarika	III/I
35	14J41A0535	Kommula Prem Kumar	III/I
36	14J41A0536	Lingala Srikanth	III/I
37	14J41A0537	Macharla Indu	III/I
38	14J41A0538	Mohammad Haseeb Ul Shoaib	III/I
39	14J41A0539	Molugumati Sathvik	III/I
40	14J41A0540	Nerella Rajashekar Reddy	III/I
41	14J41A0541	N Saikrishna	III/I
42	14J41A0542	Puchakayala Akhila	III/I
43	14J41A0543	P Raghava Vamshidhar Reddy	III/I
44	14J41A0544	Pathloth Praveen Nayak	III/I
45	14J41A0545	Pooja Agarwal	III/I
46	14J41A0546	Ramya Shree Tatikonda	III/I
47	14J41A0547	Srigiri Nihal	III/I
48	14J41A0548	S Prem	III/I
49	14J41A0549	Sardar Harjendar Singh	III/I
50	14J41A0550	Sardar Sohan Singh Chahel	III/I
51	14J41A0551	Siddharth Kothamasu	III/I
52	14J41A0552	Srungavarapu Spanadana Chowdary	III/I
53	14J41A0553	Talasila Sujith	III/I
54	14J41A0554	Thimmareddy Rohith Reddy	III/I
55	14J41A0555	Tummuru Tejashwini	III/I
56	14J41A0556	T V Subha Vaishanai	III/I
57	14J41A0557	Uddagiri Sai Krishna	III/I
58	14J41A0558	V Sai Sravan Akash	III/I
59	14J41A0559	Varikollu Sainadh	III/I
60	14J41A0560	Vetcha Naimisha	III/I
61	14J41A0561	M Jaya Surya Raj	III/I
62	14J41A0562	S Sharath	III/I
63	14J41A0561	A Monish	III/I
64	14J41A0562	A Bhavyasree	III/I
65	14J41A0563	A Khashyap	III/I
66	14J41A0564	A Madhusudan Reddy	III/I
67	14J41A0565	G Gopal Prasad	III/I

*Raundh*  
 Principal  
 Malla Reddy Engineering College  
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68	14J41A0566	Aarthi Reddy P	III/I
69	14J41A0567	Adem Reetu	III/I
70	14J41A0568	Adithya Raj Alladi	III/I
71	14J41A0569	Aendala Sunil Kumar	III/I
72	14J41A0570	Amara Chinta Bhanu Prakash	III/I
73	14J41A0571	Anchala Sesha Sai Sneha	III/I
74	14J41A0572	B Sri Krishna	III/I
75	14J41A0573	Balaskula Hardhik	III/I
76	14J41A0574	B.Vaishnavi Yadav	III/I
77	14J41A0575	Bhargav Sashank Goparaju	III/I
78	14J41A0576	D Srikanth Reddy	III/I
79	14J41A0577	Dasari Tejaswini	III/I
80	14J41A0578	Davuluri Raja Sekhar	III/I
81	14J41A0579	Dharamsoti Mohan	III/I
82	14J41A0580	Donthineni Srujan	III/I
83	14J41A0581	Empaty Akhila	III/I
84	14J41A0582	G Padma Sirisha	III/I
85	14J41A0583	Gadda Vijaybabu	III/I
86	14J41A0584	Gangarajula Suraj	III/I
87	14J41A0585	Gudipally Reema	III/I
88	14J41A0586	Guggilla Neelima	III/I
89	14J41A0587	K Bharath Kumar Reddy	III/I
90	14J41A0588	Katipalli Naresh Babu	III/I
91	14J41A0589	Kola Jahnavi	III/I
92	14J41A0590	Koneru Pujitha	III/I
93	14J41A0591	M Guru Teja	III/I
94	14J41A0592	M Haripriya	III/I
95	14J41A0593	M Rashmitha Reddy	III/I
96	14J41A0594	M Srikar Reddy	III/I
97	14J41A0595	Madala Yojana	III/I
98	14J41A0596	Matakatla Issac Solomon	III/I
99	14J41A0597	Mohammed Zubair	III/I
100	14J41A0598	Mukthavarapu Laxmi Sravanthi	III/I
101	14J41A0599	P Akhil	III/I
102	14J41A05A1	P Rakshith Raj	III/I
103	14J41A05A2	P Srujan Reddy	III/I
104	14J41A05A3	P V Monika	III/I
105	14J41A05A4	Palvai Nikitha	III/I
106	14J41A05A5	Patlolla Akhila Reddy	III/I

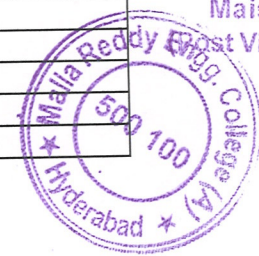


*Ramesh*  
Principal  
Malla Reddy Engineering College  
Maisammaguda, Dhulapally,  
(Post Via Kompally), Sec'bad-500100

107	14J41A05A6	Piska Srikanth	III/I
108	14J41A05A8	Rangisetty Mahesh	III/I
109	14J41A05A9	Rapala Sowjanya Lahari	III/I
110	14J41A05B0	Ravulapati Manikanta Reddy	III/I
111	14J41A05B1	Reddy Lalith Teja	III/I
112	14J41A05B2	Shaik Kasim Nayab Rasool	III/I
113	14J41A05B3	Shaik Nafees Ahmed	III/I
114	14J41A05B4	T Dinesh Reddy	III/I
115	14J41A05B5	T Sahithi Lakshmi	III/I
116	14J41A05B6	T Shravya	III/I
117	14J41A05B7	Telukuntla Supriya	III/I
118	14J41A05B8	Thotakura Gayathri	III/I
119	14J41A05B9	Vanga Harshitha Reddy	III/I
120	14J41A05C0	Vasanth Sonavane	III/I
121	14J41A05C1	Anabathula Umesh Kumar	III/I
122	14J41A05C2	Are Dhanasree	III/I
123	14J41A05C3	Arolla Bhavani	III/I
124	14J41A05C4	Asif Rasool	III/I
125	14J41A05C5	Awaru Nikitha	III/I
126	14J41A05C6	Bondalapati Dinesh	III/I
127	14J41A05C7	B Sai Teja	III/I
128	14J41A05C8	Bhiri Mounica Sai Sree Anusha	III/I
129	14J41A05C9	B Revanth	III/I
130	14J41A05D0	Bommisetty Vinitha Lakshmi	III/I
131	14J41A05D1	Bonaboyana Manaswini	III/I
132	14J41A05D2	Bonala Bharadwaj	III/I
133	14J41A05D3	Cheella Karthik Sai	III/I
134	14J41A05D4	Ch Manoj Kumar	III/I
135	14J41A05D5	D Shirisha	III/I
136	14J41A05D6	Devarapaga Ashok	III/I
137	14J41A05D7	Dhulipala Manogna	III/I
138	14J41A05D8	E Radheshyam	III/I
139	14J41A05D9	Gunda Ravali	III/I
140	14J41A05E1	Gaddam Alekhya	III/I
141	14J41A05E2	Gongireddy Thejaswini	III/I
142	14J41A05E3	H Sahana	III/I
143	14J41A05E4	Jangapelli Nineesha	III/I
144	14J41A05E5	J Chakradhar	III/I
144	14J41A05E6	J Shiva Kumar	III/I

*Raveesh*  
Principal

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





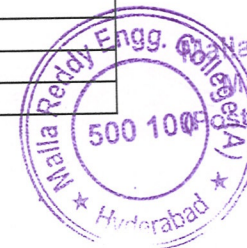
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146	14J41A05E8	Kolla Nikhil Reddy	III/I
147	14J41A05E9	K V Vamshi Krishna	III/I
148	14J41A05F0	Kalyanam Kalyani	III/I
149	14J41A05F1	Karishma M Wadhe	III/I
150	14J41A05F2	Karuturi Reshmi Chowdary	III/I
151	14J41A05F3	Kodamagundla Prem Sharan	III/I
152	14J41A05F4	L Sai Deepak	III/I
153	14J41A05F5	Lingampalli Suresh	III/I
154	14J41A05F6	Manikya Joanna Pranathi	III/I
155	14J41A05F7	Metpally Nikhil	III/I
156	14J41A05F8	Matteddula Sri Lakshmi	III/I
157	14J41A05F9	Madhunala Sai Meghana	III/I
158	14J41A05G0	Mandati Akhil Reddy	III/I
159	14J41A05G1	Marri Manisha	III/I
160	14J41A05G2	Murahari Rohit	III/I
161	14J41A05G3	Nagandla Manasa	III/I
162	14J41A05G4	Potturu Eswar	III/I
163	14J41A05G5	Pabba Sahithya	III/I
164	14J41A05G6	Potharaju Nikhil Kumar	III/I
165	14J41A05G7	Sriram Sai Kiran	III/I
166	14J41A05G8	Tiruvalluri Jajajeevaraj Enosh	III/I
167	14J41A05G9	T Manish	III/I
168	14J41A05H0	Tejavath Mahesh Kumar	III/I
169	14J41A05H2	Varikuntla Karthik	III/I
170	14J41A05H3	Vakdoth Sridhar	III/I
171	14J41A05H4	Vangapandu Sai Kumar	III/I
172	14J41A05H5	Nagori Vinayak Kumar	III/I
173	14J41A05H6	Vutla Nvs Manidhar	III/I
174	14J41A05H7	Yeruva Keerthi	III/I
175	14J41A05H8	Yappuram Sumana	III/I
176	14J41A05H9	Yerragonda Nageswara Rao	III/I
177	14J41A05J0	Yerramshetty Sai Praneeth	III/I
178	14J41A05J1	Sri Navya A	III/I
179	14J41A05J2	Achanta Sravya	III/I
180	14J41A05J3	Aman Kumar Singh	III/I
181	14J41A05J4	Arumalla Hema Sunanda	III/I
812	14J41A05J5	Ashok Anusha	III/I
183	14J41A05J6	Ashok Ayushi	III/I



*Raveedh*  
Principal

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

184	14J41A05J7	Bairapogu Divya	III/I
185	14J41A05J8	Barigela Sandyarani	III/I
186	14J41A05J9	Boga Sai Santosh	III/I
187	14J41A05K0	Bommadi Harini	III/I
189	14J41A05K1	Bommi Yashwanth Simha	III/I
190	14J41A05K2	Bondili Sai Santosh Singh	III/I
191	14J41A05K3	Cheganti Himabindu	III/I
192	14J41A05K4	Chiluveru Veda	III/I
193	14J41A05K5	Sumalatha Dusa	III/I
194	14J41A05K6	Danthala Uday	III/I
195	14J41A05K7	Dheshmuk Beedipalli Munavar Basha	III/I
196	14J41A05K8	E Sai Sharan Reddy	III/I
197	14J41A05K9	Etikala Srikanth Reddy	III/I
198	14J41A05L0	Gangam Kundana	III/I
199	14J41A05L1	Gourav Badhey	III/I
200	14J41A05L2	Gunji Mabu	III/I
201	14J41A05L3	I Varun	III/I
202	14J41A05L4	Jeedipally Sravya Reddy	III/I
203	14J41A05L5	Sai Krishna K N	III/I
204	14J41A05L6	Kanneganti Sri Harsha	III/I
205	14J41A05L7	Kethapally Umesh	III/I
206	14J41A05L8	Kaki Varun Sai	III/I
207	14J41A05L9	Kamatata Harivaraprasad	III/I
208	14J41A05M0	Kasireddy Venkata Akshith Reddy	III/I
209	14J41A05M1	Lingala Raja Shekar Reddy	III/I
210	14J41A05M2	M Anant Nagg	III/I
211	14J41A05M3	Pruthvi M	III/I
212	14J41A05M4	Miryala Sai Krishna	III/I
213	14J41A05M5	Mamidi Susan Blessy	III/I
214	14J41A05M6	Manjramkar Smitha	III/I
215	14J41A05M7	Gaikwad Mayur Maruthi	III/I
216	14J41A05M8	Md Sohial Ahmed	III/I
217	14J41A05M9	Mulkala Joshua Rao	III/I
218	14J41A05N0	Mundrathi Akshatha	III/I
219	14J41A05N1	Muniganti Rahul Ganesh	III/I
220	14J41A05N2	Muntha Prashanth	III/I
221	14J41A05N3	Nareddy Pravallika	III/I
222	14J41A05N4	Nannapaneni Ravi Teja	III/I



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223	14J41A05N5	Nadgodhi Nihal	III/I
224	14J41A05N6	Nalla Anish Reddy	III/I
225	14J41A05N7	Narra Prathyusha Reddy	III/I
226	14J41A05N8	Nishanth Kumar Nirala	III/I
227	14J41A05N9	P Vineesha	III/I
228	14J41A05P0	Rahul R	III/I
229	14J41A05P1	Ritu Neelam	III/I
230	14J41A05P2	Samindla Sindhuja	III/I
231	14J41A05P3	Sunshetty Susheel Preethamkumar	III/I
232	14J41A05P4	T Narendra Kumar	III/I
233	15J41A05D5	Challa Meghana	III/I
234	15J41A05D6	Challa Shalini Reddy	III/I
235	15J41A05D7	Chetti Dheeraj Kumar	III/I
236	15J41A05D8	Degala Dilip	III/I
237	15J41A05E6	Kankante Tanmay	III/I
238	15J41A05L6	Jinka Shiva Naga Manoj	III/I
239	15J41A05L7	Kadurla Srikanth	III/I
240	15J41A0596	Manala Swetha	III/I
241	15J41A0597	Mandalaju Sharath Kumar	III/I
242	15J41A05G0	Odeti Manojkumar	III/I
243	15J41A05G1	Pasham Vishwanath Reddy	III/I
244	14J41A05P5	Potla Tharun Kumar Reddy	III/I
245	14J41A05P6	Uddanti Swathi	III/I
246	14J41A05P7	Vallamdas Ratheesh	III/I
247	14J41A05P8	Viswanadha Lakshmi Mounica	III/I
248	14J41A05P9	Pendru Vydeesh Reddy	III/I



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## VAC-Data Structures and Analysis of Algorithms - Summary

26.08.2016

Course duration : 22<sup>nd</sup> Aug 2016 to 26<sup>th</sup> Aug 2016

### Overview of the Course

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 Course

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?

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 ☐ NP-completeness

### Outcome of the program

At the end of this course, participants are 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.

After successful completion of the course the certificates are issued to the participants



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### VAC DATA STRUCTURE



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## CERTIFICATE OF COMPLETION

This is to certify that **Mr./Ms. ATLURI PRANAY** bearing Roll No. **14J41A0501** has successfully completed Certificate / Value Added Course / Workshop in **Data Structures and Analysis of Algorithms** conducted by the Department of Computer Science and Engineering from **22<sup>nd</sup> August 2016 to 27<sup>th</sup> August 2016.**

COORDINATOR

HOD

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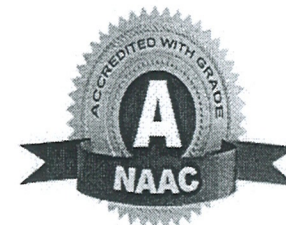


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This is to certify that Mr./Ms. I SADHANA bearing Roll No. 14J41A0525 has successfully completed Certificate / Value Added Course / Workshop in Data Structures and Analysis of Algorithms conducted by the Department of Computer Science and Engineering from 22<sup>nd</sup> August 2016 to 27<sup>th</sup> August 2016.

  
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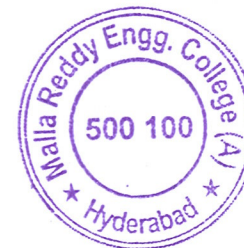
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This is to certify that **Mr./Ms. D HEMANTH** bearing Roll No. **14J41A05013** has successfully completed Certificate / Value Added Course / Workshop in **Data Structures and Analysis of Algorithms** conducted by the Department of Computer Science and Engineering from **22<sup>nd</sup> August 2016 to 27<sup>th</sup> August 2016.**

  
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## CERTIFICATE OF COMPLETION

This is to certify that Mr./Ms. ALLA SHANITH bearing Roll No. 14J41A0502 has successfully completed Certificate / Value Added Course / Workshop in Data Structures and Analysis of Algorithms conducted by the Department of Computer Science and Engineering from 22<sup>nd</sup> August 2016 to 27<sup>th</sup> August 2016.

  
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