

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING
(AUTONOMOUS)
L.B.Reddy Nagar, Mylavaram - 521 230, N.T.R. District, Andhra Pradesh, India
Affiliated to JNTUK, Kakinada & Approved by AICTE New Delhi
Accredited by NAAC with 'A' grade, An ISO 9001:2015 Certified Institution
DEPARTMENT OF AEROSPACE ENGINEERING
Website: <https://www.lbrce.ac.in/ase/index.php> Email: hodaero@lbrce.ac.in Phone:08659-222933 Ext:624/623

Date: 20-01-2023

Two-week student certification program on
“ANSYS, HYPER MESH and LS-DYNA”

PROGRAM DETAILS

Title	Two-week student certification program on “ANSYS, HYPER MESH and LS-DYNA”
Faculty Coordinator	Mr.S.Indrasena Reddy Sr.Assistant Professor Dept of Aerospace Engineering Mr.Nazumuddin Shaik Sr.Assistant Professor Dept of Aerospace Engineering
Student Coordinator	MADDU DURGA BHASKAR (IV Year, Aerospace Engineering)
No. of Participants	40 Students
Event Type:	Certification program
Resource Persons	Mr.B.R.M.V. Krishna, Simulation Engineer Mr.G.M. Raja Mahendra, Simulation Engineer Mayinkrish Ventures PVT LTD, Hyderabad.
Program Schedule	02-01-2023 to 12-01-2023

The objective of the event:

This is a certification program on **“ANSYS, HYPER MESH and LS-DYNA”** and is specially meant for Engineering final students.

ANSYS is a popular and well-recognized general-purpose finite element modelling package for numerically solving a large range of problems including static, dynamic mechanical, structural analysis (linear and nonlinear), heat transfer and fluid problems, as well as acoustic and electromagnetic problems. It is widely used in the mechanical, automobile, structural, chemical and aeronautical industries.

Hypermesh is a computer-aided design programme that simplifies the process of creating meshes for complicated models and making the meshed models needed for FEM analysis. The outcomes of FEM analysis support project designers in understanding how their products work under various loading conditions when they are in use. This course is the first step in learning about FEA meshing methods and how to clean up geometry once you send it to be analyzed. It talks about different ways to make meshes and how to fix errors in mesh quality.

LS-DYNA is the introduction of the nonlinear finite element solver. It is designed for engineers in industries such as automotive, aerospace, construction, or defence in their workflow.

The outcome of the event :

Introduce the ANSYS concepts and make familiar with the tools and techniques of its package. This certification program aims at providing **complete hands-on training** on FEA analysis. The program helped the participants to develop expertise in various aspects of ANSYS, Hypermesh and LS-DYNA applications.

This certification program helped the students to apply their knowledge in the basics of finite element analysis (FEA) and how to use it in structural design and analysis covered and

Using Hypermesh geometric tools to create and edit nodes, usage of 1D and 2D meshing techniques for different kinds of meshing, such as hexa, shell, and tetra.

Similarly, LS-DYNA helped the students to understand transient dynamic problems which include nonlinearities.

Feedback / Suggestions:

The coordinators have taken feedback from students. Students expressed their extreme satisfaction with the program.

Students expressed to increase the conductivity of these kinds of certification programs with hands-on training for their skill development.

Action Plan:

Planning to conduct more certification programs by experts from the industry.

Certification Program Schedule Day wise:

Day 1: 02-01-2023

- Introduction and applications of FEM
- Space Claim

Day 2: 03-01-2023

- ANSYS WORKBENCH
 - Static structure
 - Thermal analysis

Day 3: 04-01-2023

- Fascia penetration analysis
- Simple pendulum
- CFD

Day 4: 05-01-2023

- HYPERMESH

- The basics of finite element analysis (FEA) and how to use it in structural design and analysis are covered.
- Using Hypermesh geometric tools to create and edit nodes
- use 1D and 2D meshing techniques.

Day 5: 06-01-2023

- different kinds of meshing, such as hexa, shell, and tetra.
- techniques of morphing and macro generation.

Day 6: 07-01-2023

- Sheet metal meshing (BIW parts)
- Plastic meshing

Day 7: 09-01-2023

- LS-DYNA
 - Impact analysis
 - Crash analysis
 - Drop test

Day 8: 10-01-2023

- Static analysis
- Meshing
- System library
- Analysis of automotive CRASH BOX

Day 9: 11-01-2023

- Contacts
- Large deformation
- Nonlinear material behaviour

Day 10: 12-01-2023

- Analysis basic definitions
- Example problems
- Dr P.Lovaraju addressed the gathering
- Certification of course completion was presented to participants.

Event Brochure

ABOUT THE INSTITUTE

The Lakireddy Bali Reddy College of Engineering (LBRCE) was established in the year 1998 by Lakireddy Bali Reddy Charitable Trust, whose architect is Er. Lakireddy Bali Reddy garu. The institute is established with the sole aim of providing high quality educational opportunities in the field of science, engineering, technology and management. It is spread over 60 acres of sprawling lush green landscape spotted with orchids and grooves. It is approved by AICTE, affiliated to JNTUK, Kakinada and attained autonomous status in the year 2010. It attained NAAC accreditation status with 'A' Grade. The institute is certified by ISO: 9001-2015.

ABOUT THE DEPARTMENT

The Department of Aerospace Engineering was started in the year 2011. The department offers 4 years undergraduate program, B.Tech in Aerospace Engineering. The department has a team of highly qualified, dedicated and motivated faculty and well-equipped laboratories. The department has laboratories, classrooms, faculty rooms, sophisticated lab equipment's and well-versed library. The department has a wide range of teaching activities.

ABOUT THE PROGRAMME

This is a two-week student certification program on "ANSYS, HYPER MESH and LS-DYNA" and is specially meant for engineering final year students. Students have undergone the certification program with different Modules like static structural Analysis, modal Analysis, various meshing Techniques for simple and complex geometrical models such as beams, landing gear,

etc. recent years, the use of finite ANSYS has become an important tool in furthering a variety of fields of Engineering such as Mechanical, Aerospace, Electronics, etc.

Course Contents:

- Space Claim
- ANSYS WORKBENCH
 - Static structure
 - Thermal analysis
 - Fascia penetration analysis
 - Simple pendulum
 - CFD
- HYPERMESH
 - Sheet metal meshing (BIW parts)
 - Plastic meshing
- LS-DYNA
 - Crash analysis
 - Drop test

The program covers the complex problems in the analysis with FEM and CFD to understand the application to the core

ELIGIBILITY

The program is open for the graduate students of Dept. of Mechanical Engineering and Dept. Aerospace Engineering. In addition, the PG students of Dept. of Mechanical are eligible

RESOURCE PERSONS

Mr.B.R.M.V. Krishna, Simulation Engineer
Mr.G.M. Raja Mahendra, Simulation Engineer
Mayinkrish Ventures PVT LTD, Hyderabad.

Address for Correspondence & Registration
Mr.S.Indrasena Reddy, Mr.Nazumuddin Shaik
Coordinators

E-mail: aero.lbrce@gmail.com
Mobile: +91 -9885449822, 7842630713

Registration Link

<https://tinyurl.com/ychnbpv>

Two-week student certification program on
"ANSYS, HYPER MESH and LS-DYNA"
02-01-2023 to 12-01-2023



Chief Patrons

Sri Lakireddy Jaya Prakash Reddy
Honorary Chairman
Sri Lakireddy Prasad Reddy
Chairman
Sri Lakireddy Vijay Kumar Reddy
Vice Chairman

Patrons

Sri G. Srinivasa Reddy
President, LBRCT
Dr. K. Appa Rao
Principal
Dr. K. Harinadha Reddy
Vice-Principal

Conveners

Dr.P.Lovaraju
Professor & HOD
Aerospace Engineering

Co-ordinators

Mr.S.Indrasena Reddy
Sr.Assistant Professor
Dept of Aerospace Engineering
Mr.Nazumuddin Shaik
Sr.Assistant Professor
Dept of Aerospace Engineering
Organized by:

DEPARTMENT OF AEROSPACE ENGINEERING
LAKIREDDY BALI REDDY COLLEGE OF
ENGINEERING(AUTONOMOUS), MYLAVARAM
N.T.R (Dt), A.P.

Event Banner



LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (Autonomous)
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NAAC Accredited with "A" grade, Accredited by NBA
New Delhi & Certified by ISO 9001:2015, <http://www.lbrce.ac.in>



Two Week Student Certification Program
On
Advanced Simulations
(ANSYS,CFD,HYPERMESH & LS-DYNA)



In Association with
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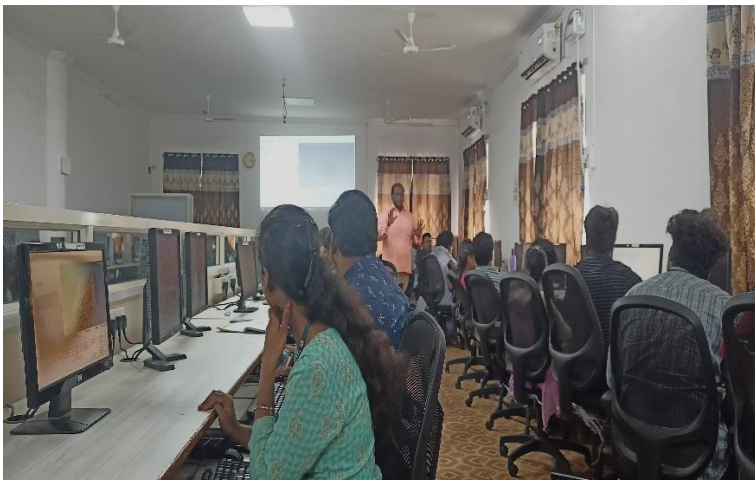
During
02-01-2023 to 13-01-2023



Organized by :
Department of Aerospace Engineering

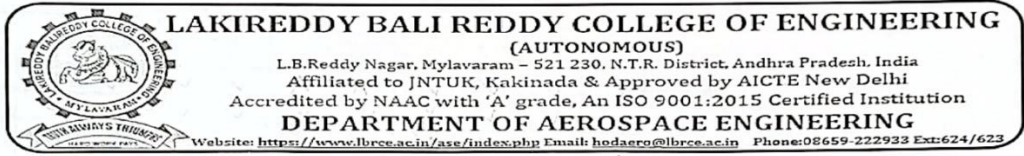


Photographs



List of Students Registerd

S.No.	Roll Number	Name of the Student
1	18761A2145	SHAIK NOUSHAD
2	19761A2101	ANDEY SATHVIKA
3	19761A2104	BHAVANI MELROY ANTHONY
4	19761A2106	CHUNDURU RAJESH
5	19761A2109	DURU AKSHAY PAUL KUMAR
6	19761A2110	EDUPUGANTI BHANU PRASAD
7	19761A2111	GADDE ROSHITHA SANKAR
8	19761A2113	ILAPOGU MOHAN SURAJ
9	19761A2114	JONNADHULA SARIKA
10	19761A2115	KAMJERI HANEESHA
11	19761A2116	KODAVATI SUMA
12	19761A2120	KUNDRAPU NARENDRA
13	19761A2121	LOPINTI HAREESH
14	19761A2124	MARAM AKSHAYA
15	19761A2125	MARELLA CHARWAK
16	19761A2126	MUTHI LALITH SRI SAI PHANI RAJ
17	19761A2128	NANDIREDDY YESASHWINI
18	19761A2129	NATUKULA DEEPTHI NAGA SNEHA
19	19761A2130	P DEVASUGANTH
20	19761A2131	PADI VASISTA
21	19761A2133	PANAMALA HANEESH BABU
22	19761A2134	PAPOLU SATYA NAGA RAVI TEJA
23	19761A2135	PATIBANDLA SUPRAJA
24	19761A2136	PILLA SRIDEVI
25	19761A2137	RAVI NAGARJUNA
26	19761A2138	RAYANA SRI KAVYA
27	19761A2139	SEELAM JYOTHI
28	19761A2140	SHAIK ABDUL RAHMAN
29	19761A2141	SYED SHOUKATH ALEEM
30	19761A2143	THAMMINENI DURGAPRASAD
31	19761A2147	VEMURI SURYA SAINADH
32	19761A2148	VINJUMALLA PRAVEEN KUMAR
33	20765A2101	CHILAKALA NAVEEN KUMAR
34	20765A2102	GARIGIPATI SRI SAI VENKATA BHADRINATH
35	20765A2103	KALLURI MANOHARREDDY
36	20765A2104	MADDU DURGA BHASKAR
37	20765A2105	MALLA YASWANTH MAHALAKSHMI NAIDU
38	20765A2106	NANGEDDA LIKHITH KUMAR
39	20765A2107	SHAIK NAGUR VALI
40	20765A2108	VINNAKOTA SRI VENKATA SATYA SAI



Student Certification Program on Advanced Simulations -Attendance Sheet

Date:02-01-2023

S.No.	Roll. No.	Name	02-01-23		03-01-23		04-01-23		05-01-23		06-01-23		07-01-23	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1	18761A2145	SHAIK NOUSHAD	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	19761A2101	ANDEY SATHVIKA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3	19761A2104	BIHAVANI MELROY ANTHONY	✓	✓	✓	✓	✓	✓	✓	✓	A	A	✓	✓
4	19761A2106	CHUNDURU RAJESH	✓	✓	A	A	✓	✓	✓	✓	✓	✓	✓	✓
5	19761A2109	DURU AKSHAY PAUL KUMAR	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6	19761A2110	EDUPUGANTI BHANU PRASAD	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
7	19761A2111	GADDE ROSHITHA SANKAR	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
8	19761A2113	ILAPOGU MOHAN SURAJ	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
9	19761A2114	JONNADHULA SARIKA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
10	19761A2115	KAMJERI HANEESHA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
11	19761A2116	KODAVATI SUMA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
12	19761A2120	KUNDRAPU NARENDRA	✓	✓	✓	✓	✓	✓	A	A	✓	✓	✓	✓
13	19761A2121	LOPINTI HAREESH	A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
14	19761A2124	MARAM AKSHIYA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
15	19761A2125	MARELLA CHARWAK	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	A
16	19761A2126	MUTHI LALITH SRI SAI PHANI RAJ	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
17	19761A2128	NANDIREDDY YESASHWINI	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
18	19761A2129	NATUKULA DEEPTHI NAGA SNEHA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
19	19761A2130	P DEVASUGANTH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
20	19761A2131	PADI VASISTA	✓	✓	✓	✓	✓	A	✓	✓	✓	✓	✓	✓
21	19761A2133	PANAMALA HANEESH BABU	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

S.No.	Roll. No.	Name	02-01-23		03-01-23		04-01-23		05-01-23		06-01-23		07-01-23	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
22	19761A2134	PAPOLU SATYA NAGA RAVI TEJA	✓	✓	✓	✓	A	A	✓	✓	✓	✓	✓	✓
23	19761A2135	PATIBANDLA SUPRAJA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
24	19761A2136	PILLA SRIDEVI	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
25	19761A2137	RAVI NAGARJUNA	✓	✓	✓	✓	✓	✓	✓	✓	A	A	✓	✓
26	19761A2138	RAYANA SRI KAVYA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
27	19761A2139	SEELAM JYOTHI	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
28	19761A2140	SHAIK ABDUL RAHMAN	✓	A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
29	19761A2141	SYED SHOUKATH ALEEM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
30	19761A2143	THAMMINENI DURGA PRASAD	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
31	19761A2147	VEMURI SURYA SAINADH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
32	19761A2148	VINJUMALLA PRAVEEN KUMAR	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
33	20765A2101	CHILAKALA NAVEEN KUMAR	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
34	20765A2102	GARIGIPATI SRI SAI VENKATA BHADRINATH	✓	✓	✓	✓	✓	✓	✓	✓	A	A	✓	✓
35	20765A2103	KALLURI MANOHARREDDY	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
36	20765A2104	MADDU DURGA BHASKAR	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
37	20765A2105	MALLA YASWANTH MAHALAKSHIMI NAIDU	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
38	20765A2106	NANGEDDA LIKHITH KUMAR	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
39	20765A2107	SHAIK NAGUR VALI	✓	✓	A	A	✓	✓	✓	✓	✓	✓	A	A
40	20765A2108	VINNAKOTA SRI VENKATA SATYA SAI	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Signature
Nazumuddin shake S. Irachanna kethu
Signature of Faculty Co-ordinators

Signature
Head of the Department



LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

(AUTONOMOUS)

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DEPARTMENT OF AEROSPACE ENGINEERING

Website: <http://www.lbrce.ac.in> / info@lbrce.ac.in Email: info@lbrce.ac.in Phone: 08659 222933 Ext:621/623

Student Certification Program on Advanced Simulations - Attendance Sheet

Date: 09-01-2023

S.No.	Roll. No.	Name of the Student	09-01-2023		10-01-2023		11-01-2023		12-01-2023		13-01-2023	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1	18761A2145	SHAIK NOUSHAD ✓	✓	✓	A	✓	✓	✓	✓	A	✓	✓
2	19761A2101	ANDEY SATHVIKA ✓	✓	A	✓	✓	A	✓	✓	✓	✓	✓
3	19761A2104	BHAVANI MELROY ANTHONY ✓	A	✓	✓	✓	✓	✓	✓	A	✓	✓
4	19761A2106	CHUNDURU RAJESH ✓	✓	✓	A	✓	✓	✓	A	✓	✓	✓
5	19761A2109	DURU AKSHAY PAUL KUMAR ✓	✓	A	✓	✓	✓	✓	A	✓	✓	✓
6	19761A2110	EDUPUGANTI BHANU PRASAD ✓	✓	✓	A	✓	✓	✓	A	✓	✓	✓
7	19761A2111	GADDE KOSHITHA SANKAR ✓	✓	✓	✓	✓	A	A	✓	✓	✓	✓
8	19761A2113	ILAPOGU MOHAN SURAJ ✓	✓	A	✓	✓	✓	✓	✓	A	✓	✓
9	19761A2114	JONNADHULA SARIKA ✓	A	✓	✓	✓	✓	A	✓	✓	✓	✓
10	19761A2115	KAMJERI HANEESHA ✓	A	✓	✓	A	✓	✓	✓	✓	✓	✓
11	19761A2116	KODAVATI SUMA ✓	✓	✓	✓	✓	A	✓	✓	A	✓	✓
12	19761A2120	KUNDRAPU NARENDRA ✓	✓	✓	A	✓	✓	A	✓	✓	✓	✓
13	19761A2121	LOPINTI HAREESH ✓	✓	✓	✓	A	✓	✓	A	✓	✓	✓
14	19761A2124	MARAM AKSHAYA ✓	A	✓	✓	A	✓	✓	✓	✓	✓	✓
15	19761A2125	MARELLA CHARWAK ✓	✓	✓	✓	✓	A	✓	✓	✓	A	✓
16	19761A2126	MUTHI LALITH SRI SAI PHANI RAJ ✓	✓	✓	A	✓	✓	✓	✓	✓	✓	✓
17	19761A2128	NANDIREDDY YESASHWINI ✓	✓	A	✓	✓	A	✓	✓	✓	✓	✓
18	19761A2129	NATUKULA DEEPTHI NAGA SNEHA ✓	A	✓	✓	✓	✓	✓	A	✓	✓	✓
19	19761A2130	P DEVASUGANTH ✓	A	✓	✓	✓	A	✓	✓	✓	✓	✓
20	19761A2131	PADI VASISTA ✓	✓	✓	✓	✓	✓	A	A	✓	✓	✓
21	19761A2133	PANAMALA HANEESH BABU ✓	✓	A	✓	A	✓	✓	✓	✓	✓	✓

S.No.	Roll. No.	Name of the Student	09-01-2023		10-01-2023		11-01-2023		12-01-2023		13-01-2023	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
22	19761A2134	PAPOLU SATYA NAGA RAVI TEJA ✓	A	✓	✓	A	✓	✓	✓	✓	✓	✓
23	19761A2135	PATIBANDLA SUPRAJA ✓	✓	✓	A	✓	✓	✓	A	✓	✓	✓
24	19761A2136	PILLA SRIDEVI ✓	✓	✓	✓	A	✓	✓	✓	✓	✓	✓
25	19761A2137	RAVI NAGARJUNA ✓	✓	✓	✓	✓	A	✓	✓	✓	✓	✓
26	19761A2138	RAYANA SRI KAVYA ✓	✓	A	✓	✓	✓	✓	✓	✓	✓	✓
27	19761A2139	SEELAM JYOTHI ✓	✓	✓	A	✓	✓	✓	✓	✓	✓	✓
28	19761A2140	SHAIK ABDUL RAHMAN ✓	✓	✓	✓	✓	✓	✓	✓	A	✓	✓
29	19761A2141	SYED SHOUKATH ALEEM ✓	A	✓	✓	A	✓	✓	✓	✓	✓	✓
30	19761A2143	THAMMINENI DURGAPRASAD ✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
31	19761A2147	VEMURI SURYA SAINADH ✓	✓	✓	✓	✓	✓	✓	A	✓	✓	A
32	19761A2148	VINJUMALLA PRAVEEN KUMAR ✓	✓	✓	✓	✓	✓	✓	✓	✓	A	✓
33	20765A2101	CHILAKALA NAVEEN KUMAR ✓	A	✓	✓	✓	✓	✓	✓	✓	✓	A
34	20765A2102	GARIGIPATI SRI SAI VENKATA BHADRINATH ✓	✓	A	✓	✓	✓	✓	✓	A	✓	✓
35	20765A2103	KALLURI MANOHARREDDY ✓	✓	✓	A	A	✓	✓	✓	✓	✓	✓
36	20765A2104	MADDU DURGA BHASKAR ✓	✓	✓	✓	✓	✓	A	✓	✓	✓	✓
37	20765A2105	MALLA YASWANTHI MAHALAKSHMI NAIDU ✓	✓	✓	A	✓	✓	✓	✓	A	✓	✓
38	20765A2106	NANGEDDA LIKHITH KUMAR ✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
39	20765A2107	SHAIK NAGUR VALI ✓	✓	A	✓	✓	✓	✓	A	✓	✓	✓
40	20765A2108	VINNAKOTA SRI VENKATA SATYA SAI ✓	A	✓	✓	✓	A	✓	✓	✓	✓	✓

Nazamuddin Shaik ✓
 S. Indrasena Babu ✓
 Signature of Faculty Co-ordinators

Head of the Department