



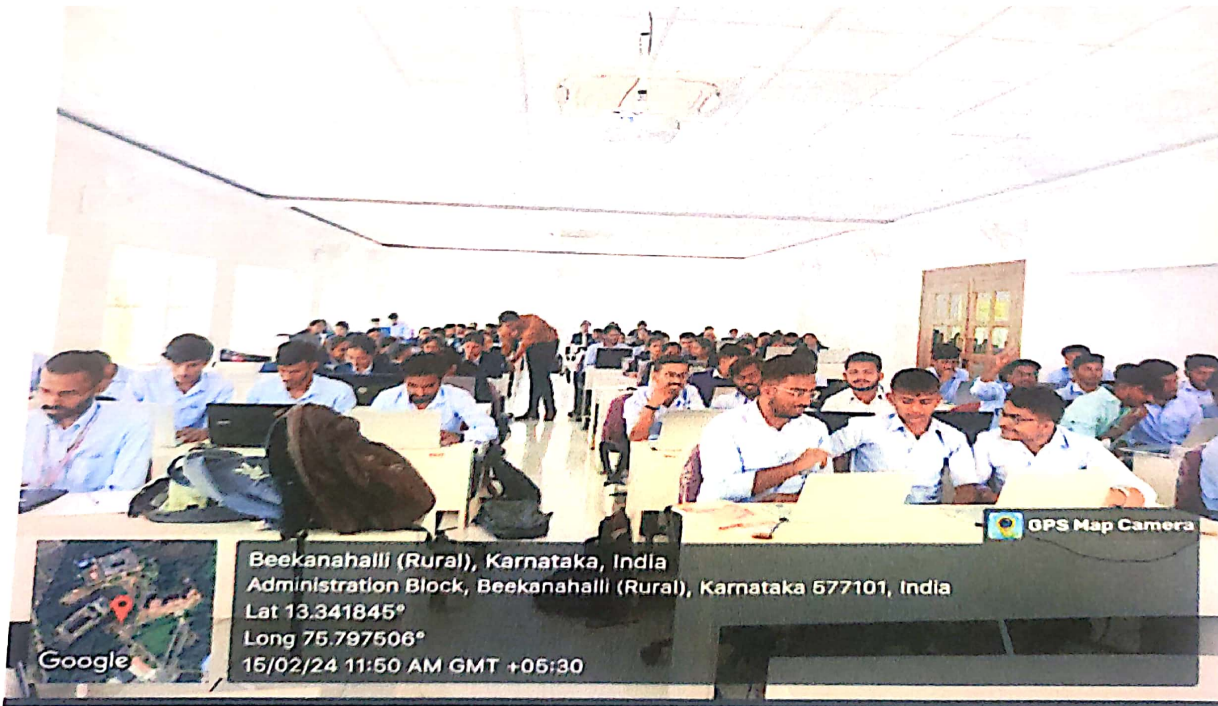
Report

Internship on “Industry 4.0: The Next Industry Revolution”

Internship Description: Four weeks Internship was conducted for final year students on the title “Industry 4.0, The Next Industry Revolution” conducted in department of ECE, AIT Chikamagaluru by Loginware softtec Pvt Ltd Bangalore from 12.02.2024 to 21-03-2024. Total number of students benefited by this Internship are 102. The objective of this Internship is to enhance the knowledge in the field of IOT, Raspberry Pi, Python Applications and Industry 4.0.

Resource Persons:

Thejesh P, Director , Loginware Softec Pvt Ltd and team members.
Contact: 9916609819



Jahnie
Signature of the Coordinator

Sreenivas
Signature of the HOD
Prof. S. S. Srinivas
Dept. of Electronics & Communication Engg
Adichunchanagiri Institute of Technology
Chikamagaluru - 577 102

Internship Program : Industry 4.0, The Next Industry Revolution



Day 1-2 : Python Basics

- Session 1 : Introduction to Python**
Overview of Python programming language
Setting up the development environment
- Session 2 : Python Data Types and Variables**
Understanding data types (Integers, floats, strings)
Working with variables
- Session 3 : Control Flow Statements**
Conditional statements (if, else, elif)
Looping structures (for, while)
- Session 4 : Functions and Modules**
Defining functions
Importing and using modules

Day 3-4: Advanced Python Concepts

- Session 5: Object-Oriented Programming (OOP)**
Introduction to OOP in Python
Creating classes and objects
- Session 6: Exception Handling**
Handling errors and exceptions
Using try-except blocks
- Session 7 : File Handling**
Reading and writing files
Working with different file formats (text, CSV)

- Session 8: Advanced Python Libraries**
Overview of popular libraries (NumPy, Pandas, Matplotlib)
Basic data analysis and visualization

Day 5-6: Python Database

- Session 9: Introduction to Databases**
Basics of databases and their types
Overview of relational databases
- Session 10 : Working with SQLite in Python**
Connecting to SQLite database
Performing CRUD operations
- Session 11 : Introduction to SQLAlchemy**
Understanding ORM (Object Relational Mapping)
Interacting with databases using SQLAlchemy
- Session 12: Project: Building a Database-Driven Application**

Day 7-8: Front-End Concepts using Dash Library

- Session 13: Introduction to Dash**
Overview of Dash and its capabilities
Setting up a Dash application
- Session 14: Dash Components and Layout**
Building interactive dashboards
Styling and structuring Dash applications
- Session 15: Project: Developing a Data Visualization Dashboard with Dash**

Day 9-10: Raspberry Pi, Peripherals, IoT, and Industry 4.0

- Session 16: Introduction to Raspberry Pi**
Overview of Raspberry Pi and its applications
Setting up a Raspberry Pi
- Session 17: Working with Raspberry Pi Peripherals**
Exploring GPIO (General Purpose Input Output)
Interfacing sensors and actuators
- Session 18: IoT Integration with Raspberry Pi**
Connecting Raspberry Pi to the internet
Sending and receiving data using MQTT
- Session 19: Industry 4.0 Applications and Case Studies**
Real-world examples of Industry 4.0 implementations
Discussing challenges and future trends
- Session 20: Final Project and Presentation**
Participants work on a mini-project combining Python, databases, Dash, and Raspberry Pi concepts
Presentation and feedback





Date: 12/02/2023 TO 21/03/2024

INTERNSHIP ON INDUSTRY 4.0, THE NEXT INDUSTRY REVOLUTION.

Student Registration

Sl. No.	USN	Name	Signature
1	4AI20EC057	NIRUPAM HEGDE M P	Nirupam Hegde
2	4AI20EC058	NISARGA S	Nisarga S
3	4AI20EC059	NISARGAKANTH K L	Nisargakanth
4	4AI20EC061	NISCHITHA H S	Nischitha
5	4AI20EC062	NITHIN H M	Nithin H.M.
6	4AI20EC063	NITHIN N	Nithin N
7	4AI20EC064	P V SAIGEETHIKA	Geethika
8	4AI20EC065	PALLAVI S	PALLAVI S
9	4AI20EC066	POOJA M NAIK	Pooja
10	4AI20EC067	POOJASHREE M N	Poojashree
11	4AI20EC068	PRAGATHI S	Pragathi
12	4AI20EC069	PRAJWAL S L	Prajwal
13	4AI20EC071	PREKSHA C Y	Preksha
14	4AI20EC072	R PRATHIK	Prathik
15	4AI20EC074	RAKSHITH K	Rakshith K
16	4AI20EC075	RAKSHITH N P	Rakshith N P
17	4AI20EC076	RUDRESH L S	Rudresh
18	4AI20EC077	S V UNNATHI	S V Unnathi
19	4AI20EC081	SHABAZ KHAN	Shabaz Khan
20	4AI20EC082	SHAKTHI B S	Shakthi B S
21	4AI20EC083	SHEETHAL M	Sheetal
22	4AI20EC085	SHREE VISHNU N V	Shree Vishnu N V
23	4AI20EC086	SHREYA B M	Shreya B.M.
24	4AI20EC087	SHWETHA H S	Shwetha
25	4AI20EC088	SNEHA N S	Sneha N-S
26	4AI20EC089	SONIKA H P	Sonika

27	4AI20EC091	SRUJAN K J	
28	4AI20EC092	SRUSTI B A	Sruti
29	4AI20EC093	SUDEEP K P	Sudip K. P
30	4AI20EC094	SUGAM GANESH K S	Sugam
31	4AI20EC095	SUGAM K N	Sugam K N
32	4AI20EC096	SUJAY URS C B	Sujay
33	4AI20EC097	SUKHI D	Sukhi D
34	4AI20EC098	SWAMYKOTRESH B	Swamy kotresh. B.
35	4AI20EC100	SWATHI B P	Swathi B P
36	4AI20EC101	SWATHISH H SHETTY	Swathish H Shetty
37	4AI20EC102	VAGDEVI M K	Vagdevi M K
38	4AI20EC103	VAISHNAVI S R	Vaishnavi S R
39	4AI20EC104	VARSHA C J	Varsha C. J
40	4AI20EC105	VARSHINI S	Varshini S
41	4AI20EC106	VARSHITH D N	Varshith D N
42	4AI20EC109	VINAYAK BHYRESH ONIMANI	Vinayak
43	4AI20EC110	VINAYAKA M S.	Vinayaka M S.
44	4AI20EC111	VIVEK S M	Vivek S. M
45	4AI20EC112	YASHWANTH K N	Yashwanth K N.
46	4AI20EC113	YOGISH N S	Yogish
47	4AI21EC402	NANDASHREE A G	Nandashree A.G

Signature of the Coordinator

Signature of the HOD
 Professor & Head
 Dept. of Electronics & Communication Engg
 Adichunchanagiri Institute of Technology
 Chikmagalur - 577 102



DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ADIC HUNCHANAGIRI INSTITUTE OF TECHNOLOGY
(Affiliated to J. J. University, Bangalore, Recognized by AICTE, New Delhi & Accredited by N.E.A., New Delhi)
Jyothinagar, Chikkamagaluru - 577 102



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Student Registration

Sl. No.	USN	Name	Signature
1	4AI20EC001	ABHISHEK M KARIKATTI	
2	4AI20EC002	ABHISHEK NITHYA	
3	4AI20EC003	ABHISHEK PRAJAPATI	
4	4AI20EC004	ABHISHEK T C	
5	4AI20EC006	ANOUSHKA T K	
6	4AI20EC007	ANUSHA G K	
7	4AI20EC008	ANUSHA K R	
8	4AI20EC009	ANUSHREE C J	
9	4AI20EC010	ARPITHA H S	
10	4AI20EC011	ASHWINI KALARI	
11	4AI20EC012	BASAVARAJU M M	
12	4AI20EC013	BHAGYA SHREE K R	
13	4AI20EC014	BHARATH A L	
14	4AI20EC015	BHARATH S	
15	4AI20EC016	BHOOMIKA B S	
16	4AI20EC017	BHOOMIKA B L	
17	4AI20EC018	BHOOMIKA P N	
18	4AI20EC019	BHUVANA T G	
19	4AI20EC021	CHETHANSHETTY C R	
20	4AI20EC023	DARSHAN M BANGRE	
21	4AI20EC024	DEEKSHITH L R	
22	4AI20EC025	DEEPIKA T	
23	4AI20EC026	GAGANA URS G S	
24	4AI20EC027	GIRIDHANYA C	
25	4AI20EC028	GOWTHAM P	
26	4AI20EC029	GREESHMA B R	

27	4AI20EC030	HANUMANTH J URS	Hanuma
28	4AI20EC031	HARSHITHA M K	Harshitha.M.K
29	4AI20EC032	HEMA C S	Hema C.S.
30	4AI20EC033	JEEVAN KUMAR G P	Jeevan
31	4AI20EC034	KARTHIK B S	Karthik.B.S
32	4AI20EC035	KAVANA S NAIK	Kavana.S.Naik
33	4AI20EC036	KAVYA K M	Kavya
34	4AI20EC037	KAVYASHREE URS C N	Kavyashree
35	4AI20EC038	KUSUMA B K	Kusuma B.K.
36	4AI20EC039	LIKHITH H D	Likhith H.D.
37	4AI20EC040	MADAN C R	Madan C.R.
38	4AI20EC042	MADHAN GOWDA M	madhan gowda.m
39	4AI20EC043	MAHASOOK AHMED	Mahesook
40	4AI20EC044	MAHESH	Mahesh
41	4AI20EC046	MOHAMMED M	Mohammed M.
42	4AI20EC047	MONISHA S	Monisha S.
43	4AI20EC048	MOULYA	Moulya K.N.
44	4AI20EC049	MOUZIMA RUME	Mouzima Rume
45	4AI20EC050	NADIYA IRAM	Nadiya
46	4AI20EC051	NAVEEN V HIREMATH	Naveen Hiremath
47	4AI20EC052	NAVYA B K	Navya
48	4AI20EC053	NEHA M N	Neha M.N.
49	4AI20EC054	NIKHIL K S	Nikhil K.S.
50	4AI20EC055	NIKHITH R M	Nikhith R.M.
51	4AI20EC056	NIRIKSHA K G	Niriksha
52	4AI20EC115	PANCHAMI K G	Panchami.K.G.
53	4AI21EC401	MAGESH P	Magesh P.
54	4AI21EC400	DEVIKA	Devika

Signature of the Coordinator

Signature of the HQD

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INDUSTRY 4.0, THE NEXT INDUSTRY REVOLUTION

7TH A

Internship 2023-24

Sl.No	USN	Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	4AI20EC001	ABHISHEK M KARIKATTI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	4AI20EC002	ABHISHEK NITHYA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	4AI20EC003	ABHISHEK PRAJAPATI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	4AI20EC004	ABHISHEK T C	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	4AI20EC006	ANUSHKA T K	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	4AI20EC007	ANUSHA G K	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	4AI20EC008	ANUSHA K R	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	4AI20EC009	ANUSHREE C J	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	4AI20EC010	ARPITHA H S	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	4AI20EC011	ASHWINI KALARI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
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13	4AI20EC014	BHARATH A L	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
14	4AI20EC015	BHARATH S	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	4AI20EC016	BHOOMIKA B S	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
16	4AI20EC017	BHOOMIKA B L	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
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18	4AI20EC019	BHUVANA T G	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
19	4AI20EC021	CHETHANSHETTY C R	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
20	4AI20EC023	DARSHAN M BANGRE	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
21	4AI20EC024	DEEKSHITH L R	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
22	4AI20EC025	DEEPIKA T	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
23	4AI20EC026	GAGANA URS G S	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
24	4AI20EC027	GIRIDHANYA C	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
25	4AI20EC028	GOWTHAM P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
26	4AI20EC029	GREESHMA B R	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P



7th A Date ▶

Sl.No	USN	Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
27	4A120EC030	HANUMANTH J URS	P	P	.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
28	4A120EC031	HARSHITHA M K	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
29	4A120EC032	HEMA CS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
30	4A120EC033	JEEVAN KUMAR G P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
31	4A120EC034	KARTHIK B S	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
32	4A120EC035	KAVANA S NAIK	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
33	4A120EC036	KAVYA K M	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
34	4A120EC037	KAVYASHREE URS C N	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
35	4A120EC038	KUSUMA B K	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
36	4A120EC039	LIKHITH H D	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
37	4A120EC040	MADAN C R	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
38	4A120EC042	MADHAN GOWDA M	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
39	4A120EC043	MAHASOOK AHMED	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
40	4A120EC044	MAHESH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
41	4A120EC046	MOHAMMED M	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
42	4A120EC047	MOINISHA S	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
43	4A120EC048	MOULTYA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
44	4A120EC049	MOUZIMA RUME	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
45	4A120EC050	NADIYA IRAM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
46	4A120EC051	NAVEEN V HIREMATH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
47	4A120EC052	NAVYA B K	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
48	4A120EC053	NEHA M N	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
49	4A120EC054	NIKHIL K S	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
50	4A120EC055	NIKHITH R M	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
51	4A120EC056	NIRIKSHA K G	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
52	4A120EC115	PANCHAMI K G	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
53	4A121EC401	MAGESH P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
54	4A121EC400	DEVIKA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

7 th B Date

Sl.No	USN	Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	4AI20EC057	NIRUPAM HEGDE M P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	4AI20EC058	NISARGA S	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	4AI20EC059	NISARGAKANTH K L	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	4AI20EC061	NISCHITHA H S	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	4AI20EC062	NITHIN H M	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	4AI20EC063	NITHIN N	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	4AI20EC064	P V SAIGEETHIKA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	4AI20EC065	PALLAVI S	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	4AI20EC066	POOJA M NAIK	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	4AI20EC067	POOJASHREE M N	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	4AI20EC068	PRAGATHI S	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	4AI20EC069	PRAJWAL S L	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
13	4AI20EC071	PREKSHA C Y	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
14	4AI20EC072	R PRATHIK	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	4AI20EC074	RAKSHITH K	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
16	4AI20EC075	RAKSHITH N P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
17	4AI20EC076	RUDRESH L S	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
18	4AI20EC077	S V UNNATHI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
19	4AI20EC081	SHABAZ KHAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
20	4AI20EC082	SHAKTHI B S	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
21	4AI20EC083	SHEETHAL M	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
22	4AI20EC085	SHREE VISHNU N V	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
23	4AI20EC086	SHREYA B M	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
24	4AI20EC087	SHWETHA H S	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
25	4AI20EC088	SNEHA N S	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
26	4AI20EC089	SONIKA H P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
27	4AI20EC091	SRUJAN K J	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

