



# A J INSTITUTE OF ENGINEERING AND TECHNOLOGY

NH-66, Kottara Chowki, Mangaluru -575006, Karnataka, INDIA

A Unit of Laxmi Memorial Education Trust®

(Approved by AICTE, New Delhi. Affiliated to Visveswaraya Technological University, Belagavi)

Accredited by NBA (BE: CV, CSE, ECE, ISE, ME)

## Memorandum of Understanding (MOU)

### Government Tool room and Training Centre

The Government Tool Room and Training Centre, Mangaluru, has collaborated with A.J. Institute of Engineering and Technology through a Memorandum of Understanding (MOU) signed on February 2, 2022. This agreement encompasses internship training, projects, workshops, seminars, and industrial visits. Known for its advanced training and industry connections, the Centre will provide students with hands-on experience and practical insights, bridging the gap between theoretical knowledge and real-world applications, thus enhancing their professional readiness.

#### Activity Details

Sl No.	Event	Year	Page No.
1	Industrial Visit to GTTC	2021-22	2-4
2	Industrial Visit to GTTC	2021-22	5-7
3	Industrial Visit to GTTC	2022-23	8-10
4	Industrial Visit to GTTC	2022-23	11-13
5	Internship	2022-23	14

  
Principal  
A.J. Institute of Engineering & Technology  
Mangaluru - 575 006




# AJ INSTITUTE OF ENGINEERING & TECHNOLOGY

A Unit of Laxmi Memorial Education Trust®

(Approved by AICTE, New Delhi, Affiliated to Visvesvaraya Technological University, Belgavi)

<b>NAME OF THE EVENT:</b>	Industrial visit to Government Tool Room and Training center
<b>ORGANISING DEPARTMENT /COMMITTEE :</b>	Mechanical Engineering
<b>NAME OF THE CO-ORDINATORS:</b>	Mr. Karthik A.V.
<b>DATE :</b>	22-2-22
<b>NO OF PARTICIPANTS :</b>	23

23 Students of 3<sup>rd</sup> Semester along with 1 faculty members visited Government Tool Room and Training center on 22-02-2022 at 10.00 AM. Initially, principal was explained vision, mission and background of GTTC. Then the students were taken around the Labs to show the various Machines like 3D Printing, CNC, IOT, Reverse Engineering etc. GTTC Faculty members were explained the process of PLC controller, Awareness of the Software like CAE, CAD. It was very informative and useful for the students to get more exposure about the machines.

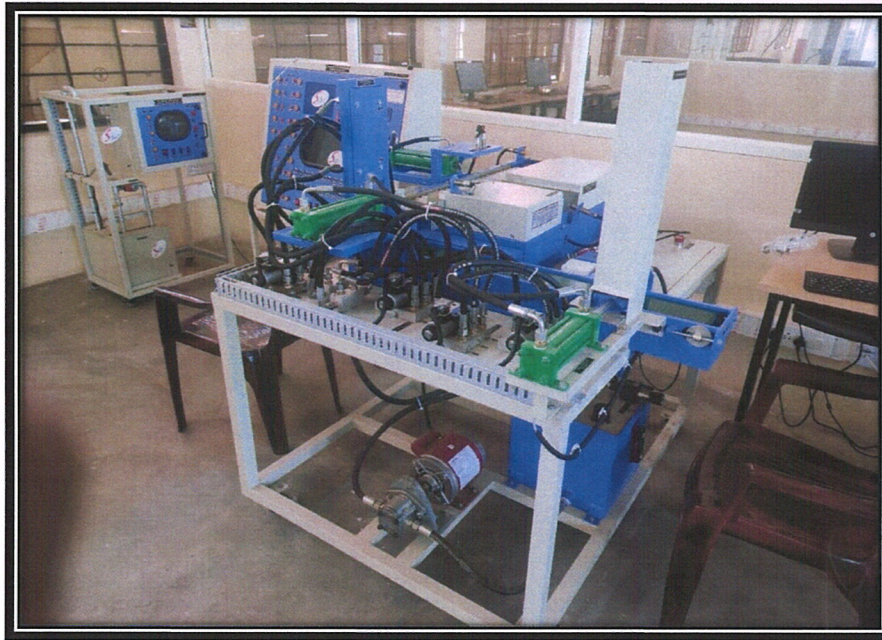
  
Principal  
A.J. Institute of Engineering & Technology  
Mangaluru - 575 006



# AJ INSTITUTE OF ENGINEERING & TECHNOLOGY

A Unit of Laxmi Memorial Education Trust<sup>®</sup>

(Approved by AICTE, New Delhi, Affiliated to Visvesvaraya Technological University, Belgavi)



*[Handwritten signature]*

**CO-ORDINATOR**

*[Handwritten signature]*

**HOD/CHAIRMAN**

*[Handwritten signature]*

**PRINCIPAL**

H.O.D. - Mechanical Engineering  
A.J. INSTITUTE OF ENGINEERING AND TECHNOLOGY  
Mangaluru - 575 006, D.K., Karnataka

A.J. Institute of Engineering & Technology  
Mangaluru - 575 006

**CC To:**

1. President, LMET
2. Vice President, LMET
3. File



# AJ INSTITUTE OF ENGINEERING & TECHNOLOGY

A Unit of Laxmi Memorial Education Trust

(Approved by AICTE, New Delhi, Affiliated to Visvesvaraya Technological University, Belgaui)

## Department of Mechanical Engineering

Date: 22-02-2022

### Attendance for Government Tool Room and Training Center

Sl No	USN	Name	Department	Signature
1.	4JK19ME025	MOHAMMED MAQSHAF	ME	
2.	4JK20ME001	ABHISHEK KUMAR PADAVU	ME	
3.	4JK20ME003	AKHIL SAJEEV	ME	
4.	4JK20ME004	ASHIK H S	ME	
5.	4JK20ME005	BHUVAN B SHETTY	ME	
6.	4JK20ME006	DEEPAK	ME	
7.	4JK20ME007	GAUTHAM J PUTHRAN	ME	
8.	4JK20ME009	JERIEL SEAN	ME	
9.	4JK20ME010	JIBEN JACOB	ME	
10.	4JK20ME011	JOEL SIBI	ME	
11.	4JK20ME013	MANISH	ME	
12.	4JK20ME014	MUHAMMED SHAZ T P	ME	
13.	4JK20ME015	NUHMAN	ME	
14.	4JK20ME016	P N ARUN	ME	
15.	4JK20ME018	PRASHANT SANKAPPA KARADIGUDD	ME	
16.	4JK20ME019	SALIAN VIKITH VISHWANATH	ME	
17.	4JK20ME020	SANDEEP K UNNIKRISHNAN	ME	
18.	4JK20ME021	SANGEETH DINESH	ME	
19.	4JK20ME022	SHIVANESH R	ME	
20.	4JK20ME023	U SAGAR	ME	
21.	4JK21ME400	PRATHIK	ME	

Coordinator

HOD 22/2/22

Principal

H.O.D. - Mechanical Engineering  
A.J. INSTITUTE OF ENGINEERING AND TECHNOLOGY  
Mangaluru - 575 006, D.K., Karnataka

A.J. Institute of Engineering & Technology  
Mangaluru - 575 006



# AJ INSTITUTE OF ENGINEERING & TECHNOLOGY

A Unit of Laxmi Memorial Education Trust®

(Approved by AICTE, New Delhi, Affiliated to Visvesvaraya Technological University, Belgavi)

<b>NAME OF THE EVENT</b>	Industrial Visit to Government Tool Room and Training Centre.
<b>ORGANISED BY</b>	Department of Electronics and Communication Engineering, AJIET
<b>FACULTY COORDINATORS</b>	Mrs. Thrapthi Shetty Mrs. Sahana K Adyanthaya
<b>DATE &amp; TIME</b>	08-06-2022
<b>PO &amp; PSO Mapped</b>	PO – 1,5,12 PSO – 1,3

## Description About visit:

The students of 2<sup>nd</sup> year ECE (33) along with Faculties (2), visited Government Tool Room and Training Centre(GTTC) on June 08<sup>th</sup>,2022. GTTC is located in Baikampady Industrial area, Mangaluru.

GTTC is an autonomous society, a recognised Scientific and Research Organization by the Government of India. GTTC is serving the industry by providing well trained skilled manpower in the area of Tool and Die making, Mechatronics and Electronics.

GTTC, Mangaluru centre is equipped with several labs such as Product Design and Development, Validation lab, Automation and control lab, Internet of Things lab, and Reality Lab. The students were taken to the IoT lab wherein they were introduced to the concept of fundamentals of IOT development and IoT modeling with thing worx.

Next, the basics of PLC, basics of SCADA, industrial level control and batch process reactor system, process instrumentation technology, advance process control techniques, advanced electro pneumatic system, industrial electro hydraulic system concepts were explained in the Automation and Control Lab. The students were also explained about augmented reality with vuforia studio in the Reality Lab.

Students Visited	32
Faculties Visited	2

Principal 1  
A.J. Institute of Engineering & Technology  
Mangaluru - 575 006

## Student Details

SI. No	USN	NAME	SI. No	USN	NAME
1.	4JK20EC001	Abhijeeth C	17.	4JK20EC023	Keerthan Tilak Mendon
2.	4JK20EC002	Abhinethri C T	18.	4JK20EC024	Manish Shetty
3.	4JK20EC003	Adithya G V	19.	4JK20EC025	Manjusha M
4.	4JK20EC004	Akash	20.	4JK20EC026	Mohan Singh Khati
5.	4JK20EC007	Amith Melric Veigas	21.	4JK20EC029	Prashanth S M
6.	4JK20EC008	Ankitha	22.	4JK20EC032	Sahil Monna Pinto
7.	4JK20EC010	Athmiya Raj A G	23.	4JK20EC033	Sandesh
8.	4JK20EC011	Bhavish B Malli	24.	4JK20EC034	Seema J Rai
9.	4JK20EC012	Chethan	25.	4JK20EC037	Spo0rthi
10.	4JK20EC013	Deeptha Suresh A	26.	4JK20EC038	Swasthik Kamath
11.	4JK20EC015	Durgesh	27.	4JK20EC039	Valarie Neeshma Sequeira
12.	4JK20EC016	Geetha D P	28.	4JK20EC040	Sanjana
13.	4JK20EC017	Hardik	29.	4JK20EC041	Prajval
14.	4JK20EC018	Harshith	30.	4JK21EC400	Gopal Krishna
15.	4JK20EC019	Hemanth Kumar H N	31.	4JK21EC401	Manikya
16.	4JK20EC020	Hitaishini C U	32.	4JK21EC402	Sai Prasad

## Photos of the Industrial Visit :



*Thrapthi*

**FACULTY COORDINATORS**

1) THRAPTHI SHETTY

2) SAHANA ADYANTHAYA

*[Signature]*

**HOD**

H.O.D. - Electronics & Commn. Engineering  
A.J. INSTITUTE OF ENGINEERING AND TECHNOLOGY  
Mangaluru - 575 006, D.K., Karnataka

*[Signature]*

**PRINCIPAL**

Principal

A.J. Institute of Engineering & Technology  
Mangaluru - 575 006

## Student Feedback

Timestamp	Name	USN	The industrial visit was found useful?	The industrial visit had practical exposure	The sessions were interactive and helpful in enriching new knowledge?	How much would you recommend the visit for the next batch to this place
23/06/2022 16:31:06	Sahil	4JK20EC032	Yes	Yes	yes	3
23/06/2022 16:31:37	Geetha D P	4JK20EC016	Yes	Yes	yes	2
23/06/2022 16:31:45	Saiprasad BS	4JK21EC402	Yes	Yes	yes	4
23/06/2022 16:45:32	Manjusha M	4JK20EC025	Yes	Yes	yes	4
23/06/2022 17:10:44	Gopalakrishna	4JK21EC400	Yes	Yes	yes	3
23/06/2022 17:18:58	Adithya G V	4JK20EC003	Yes	Yes	yes	5
23/06/2022 19:20:16	Seema J Rai	4JK20EC034	Yes	Yes	yes	3
23/06/2022 19:24:39	Akash	4JK20EC004	Yes	Yes	yes	4
27/06/2022 15:44:19	Mohan Singh khati	4JK20EC026	Yes	Yes	yes	4
29/06/2022 10:47:57	Spoorthi	4JK20EC037	Yes	Yes	yes	4
29/06/2022 10:52:04	Valarie	4JK20EC039	Yes	Yes	yes	4
29/06/2022 10:52:32	Ankitha	4jk20ec008	Yes	Yes	yes	4
30/06/2022 11:12:35	HARSHITH	4JK20EC018	No	Yes	yes	3
30/06/2022 11:12:43	Chethan	4JK20EC012	No	Yes	yes	1
30/06/2022 14:08:50	ABHINETHRI C T	4JK20EC002	Yes	Yes	yes	5
30/06/2022 14:08:51	Sanjana N	1CD20EC040	Yes	Yes	yes	4
30/06/2022 15:09:17	Deeptha A	4JK20EC013	Yes	Yes	yes	3



## AJ INSTITUTE OF ENGINEERING & TECHNOLOGY

A Unit of Laxmi Memorial Education Trust

(Approved by AICTE, New Delhi, Affiliated to Visvesvaraya Technological University, Belgaavi)


Date: 16-12-2022

### Report on “Industrial visit to Government Tool Room and Training Center”

Name of the Program:	Industrial visit to Government Tool Room and Training Center	Program Dates & Timings:	16-12-2022 2.00PM -5.00PM	
Name & Details of the Resource Person:				
Organized by (Clubs/ Dept.)	Department of Mechanical Engineering	In Association with (clubs)		
Number of Participants	32	Students	30	Faculty 2
Program Outcome (PO) Mapping	PO1, PO2, PO3, PO5, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2.			
Coordinators	Dr. Vighnesha Nayak & Mr. Sudheer Kini K			

#### **About the Program:**

30 Students of 3<sup>rd</sup> Semester along with 1 faculty members visited Government Tool Room and Training Center on 16-12-2022 at 2.00 PM. Initially, principal was explained vision, mission and background of GTTC. Then the students were taken around the Labs to show the various machines like 3D Printing, CNC, IOT, Reverse Engineering etc. GTTC Faculty members were explained the process of PLC controller, Awareness of the Software like CAE, CAD. It was very informative and useful for the students to get more exposure about

  
Principal  
A.J. Institute of Engineering & Technology  
Mangaluru - 575 006

the machines to show the various foundry technology adopted in the company. It was very informative and practical exposure for the students to get more knowledge about metal casting.

**Objectives:** The program **Industrial visit to Government Tool Room and Training Centre** enable students/ faculty to

1. Understand the basic concepts of sand casting and moulding.
2. Explain the steps involved in the casting process and pattern making.
3. Develop leadership qualities and effectively communicate with all level of organization

**Outcomes:** On successful completion of program of this lecture/ technical talk/workshop the student should able to:

1. Understand the basic concepts of 3D printing, IOT, CNC.
2. Explain the steps involved in the 3D printing and generation of part program.
3. Develop leadership qualities and effectively communicate with all level of organization.

**Articulation Matrix:**

Course Outcomes	Program Outcomes POs												PSOs of Dept. of ME	
	1	2	3	4	5	6	7	8	9	10	11	12	PSO 1	PSO 2
1	2				3								2	2
2	2	2			3								2	2
3							2	3	3	3	2		2	2
<b>Average</b>	<b>2</b>	<b>2</b>			<b>3</b>		<b>2</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>		<b>2</b>	<b>2</b>

**Photos:**



*[Signature]*  
Coordinator

*[Signature]*  
HOD

*[Signature]*  
Principal

H.O.D. - Mechanical Engineering  
A.J. INSTITUTE OF ENGINEERING AND TECHNOLOGY, A.J. Institute of Engineering & Technology  
Mangaluru - 575 006, D.K., Karnataka  
Mangaluru - 575 006

Date: 16-12-2022

**Attendance for "Industrial visit to Government Tool Room and Training Centre"**

Sl No	USN	Name	Department	Signature
1.	4JK21ME001	ABDUL MASHAL	ME	Mashal
2.	4JK21ME002	ABHILASH M	ME	Abhilash
3.	4JK21ME004	ABHISHEK BHAT P	ME	Abhishek
4.	4JK21ME005	ABIN C JOY	ME	Abin
5.	4JK21ME006	ABIN JOSEPH	ME	Abin
6.	4JK21ME007	ABINU N V	ME	Abinu
7.	4JK21ME008	ADITH P	ME	Adith
8.	4JK21ME009	ADITHYAN M	ME	Adithyan
9.	4JK21ME010	AFEF HASHIM K V	ME	Afef
10.	4JK21ME011	AKASH V	ME	Akash
11.	4JK21ME012	ALEX K R	ME	Alex
12.	4JK21ME013	AMAL ANTONY	ME	Amal
13.	4JK21ME014	ANANDU KRISHNA T V	ME	Anandu
14.	4JK21ME015	ANKITH ALVA	ME	Ankith
15.	4JK21ME016	ANSON SAJI	ME	Anson
16.	4JK21ME017	ANUGRAH K	ME	Anugrah
17.	4JK21ME018	ASHFAR ALI T A	ME	Ashfar
18.	4JK21ME019	B V TUSHAR	ME	Bv
19.	4JK21ME020	BHAVAN C S	ME	Bhavan
20.	4JK21ME022	EPHES IMMANUAL JOSHY	ME	Ephes
21.	4JK21ME023	GAUTHAM J	ME	Gautham
22.	4JK21ME024	JAYANTHA	ME	Jayantha
23.	4JK21ME025	JAYARAMAN T J	ME	Jayaraman
24.	4JK21ME026	JISHNU K	ME	Jishnu
25.	4JK21ME027	K R ADITHYA	ME	Kr
26.	4JK21ME029	LALAN KUMAR S	ME	Lalan
27.	4JK21ME030	LIBIN P T	ME	Libin
28.	4JK21ME031	LOHITH G	ME	Lohith
29.	4JK21ME032	MAHESH B	ME	Mahesh
30.	4JK21ME033	MELVIN THOMAS	ME	Melvin

  
Coordinator

  
HOD 16/12/22

  
Principal



# AJ INSTITUTE OF ENGINEERING & TECHNOLOGY

A Unit of Laxmi Memorial Education Trust

(Approved by AICTE, New Delhi, Affiliated to Visvesvaraya Technological University, Belgaavi)

Date: 23-12-2022

## Report on "Industrial visit to Government Tool Room and Training Center"

Name of the Program:	Industrial visit to Government Tool Room and Training Center	Program Dates & Timings:	23-12-2022 2.00PM -5.00PM			
Name & Details of the Resource Person:						
Organized by (Clubs/ Dept.)	Department of Mechanical Engineering	In Association with (clubs)				
Number of Participants	22	Students	20	Faculty	2	
Program Outcome (PO) Mapping	PO1, PO2, PO3, PO5, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2.					
Coordinators	Mr. Prasad B G and Mr. Sudesh Shetty M					

### About the Program:

20 Students of 3<sup>rd</sup> Semester along with 1 faculty members visited Government Tool Room and Training Center on 23-12-2022 at 2.00 PM. Initially, principal was explained vision, mission and background of GTTC. Then the students were taken around the Labs to show the various machines like 3D Printing, CNC, IOT, Reverse Engineering etc. GTTC Faculty members were explained the process of PLC controller, Awareness of the Software like CAE, CAD. It was very informative and useful for the students to get more exposure about the machines.

Principal

A.J. Institute of Engineering & Technology  
Mangaluru - 575 006

**Objectives:** The program **Industrial visit to Government Tool Room and Training Centre** enable students/ faculty to

**Objectives:** The program **Industrial visit to Government Tool Room and Training Centre** enable students/ faculty to

1. Understand the basic concepts of sand casting and moulding.
2. Explain the steps involved in the casting process and pattern making.
3. Develop leadership qualities and effectively communicate with all level of organization

**Outcomes:** On successful completion of program of this lecture/ technical talk/workshop the student should able to:

1. Understand the basic concepts of 3D printing, IOT, CNC.
2. Explain the steps involved in the 3D printing and generation of part program.
3. Develop leadership qualities and effectively communicate with all level of organization.

**Articulation Matrix:**

Course Outcomes	Program Outcomes POs												PSOs of Dept. of ME	
	1	2	3	4	5	6	7	8	9	10	11	12	PSO 1	PSO 2
1	2				3								2	2
2	2	2			3								2	2
3							2	3	3	3	2		2	2
<b>Average</b>	<b>2</b>	<b>2</b>			<b>3</b>			<b>2</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>

**Photos:**



*[Signature]*  
**Coordinator**

*[Signature]*  
**HOD**

*[Signature]*  
**Principal**  
**Principal**  
A.J. Institute of Engineering & Technology  
Mangaluru - 575 006

H.O.D. - Mechanical Engineering  
A.J. INSTITUTE OF ENGINEERING AND TECHNOLOGY  
Mangaluru - 575 006, D.K., Karnataka

Date: 23-12-2022

**Attendance for "Industrial visit to Government Tool Room and Training Center"**

SI No	USN	Name	Department	Signature
1.	4JK21ME035	MOHAMMED ASHUR ANWAR	ME	Anwar
2.	4JK21ME036	MOHAMMRD HUMRAZ	ME	Humraz
3.	4JK21ME037	MOHAMMED HUSSAIN SHAHIL S	ME	Shahil
4.	4JK21ME038	MOHAMMED MASOOK	ME	Masook
5.	4JK21ME039	MOHAMMED SHAKEEL	ME	Shakeel
6.	4JK21ME041	MOKSHITH P	ME	Mokshith
7.	4JK21ME044	MUHAMMED SABITH K	ME	Sabith
8.	4JK21ME045	NASWIF NOUSHAD	ME	Noushad
9.	4JK21ME046	NAVEENA C K	ME	Naveena
10.	4JK21ME048	P ROHITH SURENDRAN	ME	Rohith
11.	4JK21ME049	SAHAD B	ME	Sahad
12.	4JK21ME050	SAIFUDDIN MOIDIN AHMED	ME	Ahmed
13.	4JK21ME051	SANDESH	ME	Sandesh
14.	4JK21ME052	SHEIKH MOHAMMAD AZEEM	ME	Azeem
15.	4JK21ME053	SHEZIN HARIS	ME	Shezin
16.	4JK21ME054	SHIJU P S	ME	Shreyas
17.	4JK21ME055	SHIVARAJA PAWAR	ME	Shivaraja
18.	4JK21ME056	SHREYAS K	ME	Shreyas
19.	4JK21ME057	SUJEET KUMAR H N	ME	Sujeet
20.	4JK21ME058	VISHNU N P	ME	Vishnu
21.	4JK21ME059	YASHWIN T	ME	Yashwin
22.	DIPLOMA	ARUN KUMAR	ME	Arun
23.	DIPLOMA	AKSHITH	ME	Akshith
24.	DIPLOMA	AYAN THONSE	ME	Ayan
25.	DIPLOMA	HARISHA G	ME	Harisha
26.	DIPLOMA	SHRIPATHI K	ME	Shreepathide
27.	DIPLOMA	NITHIN KUMAR	ME	Prajwal
28.	DIPLOMA	PRAJWAL K	ME	Prajwal
29.	DIPLOMA	VISHWAS RAGHAVENDRA	ME	Vishwas
30.	DIPLOMA	HANUMANTHA GOWDA	ME	Chan

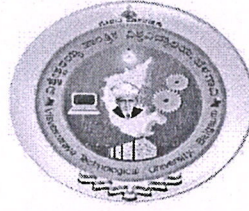
Coordinator

HOD

Principal

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Jnana Sangama, Belagavi – 590018



## An Internship Report

*Submitted in partial fulfilment of the requirements for the award of Degree of*

**BACHELOR OF ENGINEERING**

in

**MECHANICAL ENGINEERING**

by

**ABHILASH A. S**

**4JK19ME002**

**Internship Carried out at**

**GTTC, Mangalore**

### **Internal Guide**

**Mr. Harold Joyson D'Souza**

Assistant Professor

Dept. of Mechanical Engineering

AJiet, Mangaluru

### **External Guide**

**Mr. A. L. Arunachalam**

Trainer

GTTC, Mangalore



**A. J. INSTITUTE OF ENGINEERING AND TECHNOLOGY**

**A Unit of Laxmi Memorial Education Trust ®**

**(Approved by AICTE, New Delhi, Affiliated to VTU, Belagavi, Recognised  
by Govt. of Karnataka)**

**Kottara Chowki, Mangaluru-575006, Karnataka**

**2022-2023**

**Principal**

**A.J. Institute of Engineering & Technology  
Mangaluru - 575 006**