



# LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

(AUTONOMOUS)

Accredited by NAAC with 'A' Grade, ISO 9001:2015 Certified Institution

Approved by AICTE, New Delhi and Affiliated to JNTUK, Kakinada

L.B.Reddy Nagar, Mylavaram-521230, Krishna Dist, Andhra Pradesh, India

## DEPARTMENT OF MECHANICAL ENGINEERING

### SUMMARY OF INDUSTRIAL VISITS

A.Y: 2022-23

S.No	Class/ Section	Name of the Industry	Date of visit	No. of Students
1.	III, V and VII sem B.Tech students (ISHRAE members)	Mohan Spintex India Limited, Industrial Park, Mallavalli	29-10-2022	50
2.	II B.Tech-III sem A-Section	Prakasa Spectro Cast P Ltd, Enikepadu	13-12-2022	57
3.	II B.Tech-III sem A-Section	Prakasa Spectro Cast P Ltd, Enikepadu	14-12-2022	59
4.	III B.Tech-VI sem A&B Sections	APSRTC Zonal Workshop, Vidyadharapuram, Vijayawada	03-02-2023	54
5.	II B.Tech-IV Sem A-Section	Kusalava International Limited, Adavinekkalam	21.04.2023	50
6.	II B.Tech-IV Sem B-Section	Kusalava International Limited, Adavinekkalam	06.05.2023	37

**DEPARTMENT OF MECHANICAL ENGINEERING**



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**L.B.Reddy Nagar, Mylavaram-521230, Krishna Dist, Andhra Pradesh, India**

**A.Y.2022-23**

## **DEPARTMENT OF MECHANICAL ENGINEERING**

### **ISHRAE STUDENT CHAPTER OF LBRCE**

#### **REPORT ON EVENT**

#### **“INDUSTRY VISIT TO MOHAN SPINTEX INDIA LIMITED, INDUSTRIAL PARK, MALLAVALLI”**

- Event Type : Industry Visit of ISHRAE Students from B. Tech-III, V and VII Semester students to M/s Mohan Spintex India Limited, Industrial Park, Mallavalli
- Date / Duration : 29<sup>th</sup> October 2022
- Name of Industry : M/s Mohan Spintex India Limited, Industrial Park, Mallavalli
- Faculty Accompanied : Mr.S.Rami Reddy & Mr. S.Uma Maheswar Reddy  
NT staff – Mr.V.Ravinder Reddy
- Total no of students : 50
- Objective of the event: To get exposure to the humidification plant, air conditioning, ventilation units
- Outcome of event : Students acquired knowledge on different processes of making the yarn, spinning, weaving, dyeing, packing sections. In this process students visited the humidification plant, air conditioning, Ventilation units and understood the importance of each unit in getting the final product in the expected quality.

#### **Description / Report on Event:**

The total 49 number of II, III and IV B.Tech Students who were taken the ISHRAE student membership under the ISHRAE student chapter of LBRCE run by the Department of Mechanical Engineering along with Co-ordinator accompanied by three staff members (including 2 Teaching & 1 Non-Teaching) visited M/s Mohan Spintex India Limited, Industrial Park, Mallavalli unit, Vijayawada on 29-10-2022, Saturday. The main objective of the visit is to bridge the gap between industry and academia. This is a very large industry with an annual turn over of 1000 crores with

four plants located in A.P. The unit in Mallavalli is the fourth unit of the company where all complete fabric is manufactured in different designs as per customer requirements.

After arriving the industry, the students were divided into two batches and they were taken to observe the making of yarn from the raw material, spinning section, weaving section, dyeing section, packing sections. In this process students also exposed to the humidification plant, air conditioning, ventilation units. The concerned technical staff explained neatly the step by step processes in each and every section to the student understanding level. They have taken the students to the water recycling plant, power plant run by rice husk, quality control and packing sections also. The students have also observed the different fabrics displayed in the unit got idea about different stages of manufacturing i.e., from raw material to end product. The staff also explained the importance of energy conservation aspects, best practices and environmental concerns to the students.

Feedback / Suggestions: The students felt very happy and they expressed that they have learnt a lot about the making of yarn from the raw material, spinning section, weaving section, dyeing section, packing sections, humidification plant, air conditioning, ventilation units. They have understood the importance of maintaining the required R.H value for obtaining quality product.

Photographs: The following are the photographs of Industrial Visit of ISHRAE Student members to M/s Mohan Spintex India Limited, Industrial Park, Mallavalli



Students listening to the instructions given by staff of Mohan Spintex India Ltd, Mallavalli



Students listening to the staff of at rise husk based power plant at Mohan Spintex India Ltd, Mallavalli



Students listening to the staff of water treatment plant at Mohan Spintex India Ltd, Mallavalli



Students listening to the staff of water treatment plant at Mohan Spintex India Ltd, Mallavalli



Students listening to the instructions of staff at Mohan Spintex India Ltd, Mallavalli



Group Photo of the Students with Mohan Spintex Staff at Mohan Spintex India Ltd, Mallavalli



Head of the Department (Dr.S.Pichi Reddy)



Students traveling in Bus to Mohan Spintex Ltd



Students are listening to PPT at Seminar hall Mohan Spintex India Ltd, Mallavalli



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## DEPARTMENT OF MECHANICAL ENGINEERING

### REPORT ON EVENT

#### “INDUSTRY VISIT TO PRAKASA SPECTRO CAST P LIMITED, ENIKEPADU, VIJAYAWADA”

Event Type	:	Industry Visit of B. Tech-III Semester A Section Students
Date / Duration	:	13 <sup>th</sup> December 2022
Name of Industry	:	M/s Prakasa Spectro Cast P Limited, Enikepadu, Vijayawada.
Faculty Accompanied	:	Mr.K.Lakshmi Prasad & Mr. K,Saibabu NT staff – Mr.V.Ravinder Reddy and Mr.N.Narasimha Rao
Total no of students	:	57
Objective of the event:	:	To get exposure to the production practices in industries.
Outcome of event	:	Students acquired knowledge of fundamental manufacturing processes like furnaces, casting process and use of different machines and tools for further finishing.

#### Description / Report on Event:

The II B.Tech-III Semester A&B Section Students of Mechanical Engineering accompanied with four staff members (including 2 teaching & 2 non teaching) visited **Prakasa Spectro Cast P Limited**, Enikepadu, Vijayawada on 13-12-2022. The main objective of the visit is to bridge the gap between industry and academia. These industries mainly focus on manufacturing of various material castings as per customer requirements.

After arriving the industry, the students were divided into two batches and the first batch was sent to **Prakasa Spectro Cast P Limited** and the second batch to Krishna Engineering works, which is a sister concern of Prakasa Spectro cast. Mr. T.Pardhasaradhi, MD, of Prakasa Spectro cast address the students and introduced about the industry. Later they allotted supervisors and sent them to visit the industry. The supervisors explained the steps involved in casting process & safety precautions.

The industry consists of two units, namely casting unit & machine shop. The casting unit consists of various processes includes pattern making, mould preparation, melting of metals, pouring of metals in to the mould cavity, solidification process, and fettling. The companies using sand with silica as additive for mould preparation. Using silica the sand stables for high temperatures.

Photographs: The following are the photographs of Industry Visit of B.Tech-III Semester A-Section Students to M/s Prakasa Spectro Cast P Limited, Enikepadu, Vijayawada.



GPS Map Camera  
 Vijayawada, Andhra Pradesh, India  
 GM7W+8VJ, Kanuru Main Rd, Enikepadu,  
 Vijayawada, Andhra Pradesh 521108, India  
 Lat 16.514078°  
 Long 80.697615°  
 13/12/22 11:59 AM GMT +05:30  
 Google

Students listening to the presentation of Shri.T.Pardhasaradhi, MD about the industry



GPS Map Camera  
 Vijayawada, Andhra Pradesh, India  
 GM7W+8VJ, Kanuru Main Rd, Enikepadu,  
 Vijayawada, Andhra Pradesh 521108, India  
 Lat 16.514075°  
 Long 80.697622°  
 13/12/22 11:59 AM GMT +05:30  
 Google

Students listening to the presentation of Shri.T.Pardhasaradhi, MD about the industry



B.Tech-III Semester A section students watching the drilling process at Machine shop

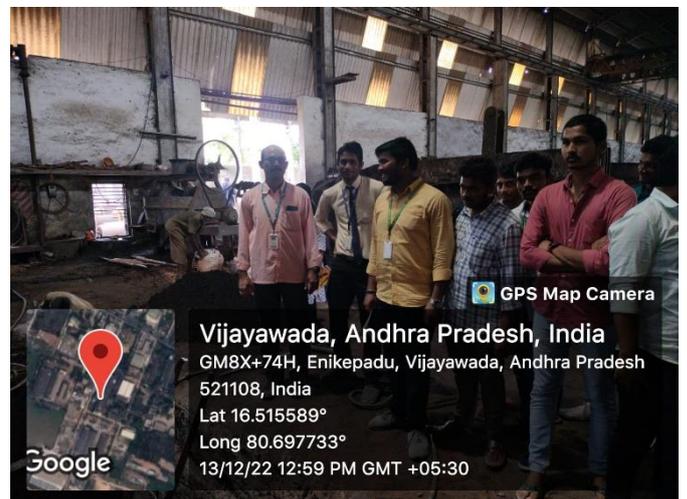


B.Tech-III Semester A section students watching the castings made and showing to the students



GPS Map Camera  
 Vijayawada, Andhra Pradesh, India  
 2k car care flat no:267,block no:c10 1st crops road,,new  
 Autonagar, Enikepadu, Vijayawada, Andhra Pradesh 520007, India  
 Lat 16.514271°  
 Long 80.697685°  
 13/12/22 11:20 AM GMT +05:30  
 Google

B.Tech-III Semester A section students watching the boring process at Machine shop



GPS Map Camera  
 Vijayawada, Andhra Pradesh, India  
 GM8X+74H, Enikepadu, Vijayawada, Andhra Pradesh  
 521108, India  
 Lat 16.515589°  
 Long 80.697733°  
 13/12/22 12:59 PM GMT +05:30  
 Google

B.Tech-III Semester A section students watching the machining operation at Lathe machine at Machine shop



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## DEPARTMENT OF MECHANICAL ENGINEERING

### REPORT ON EVENT

#### “INDUSTRY VISIT TO PRAKASA SPECTRO CAST P LIMITED, ENIKEPADU, VIJAYAWADA”

Event Type	:	Industry Visit of B. Tech-III Semester B Section Students
Date / Duration	:	14 <sup>th</sup> December 2022
Name of Industry	:	M/s Prakasa Spectro Cast P Limited, Enikepadu, Vijayawada.
Faculty Accompanied	:	Mr.S.Rami Reddy & Mr. S.Umamaheswar Reddy NT staff – Mr.D,Ashok Kumar and Mr.P.Manikyala Rao
Total no of students	:	59
Objective of the event:	:	To get exposure to the production practices in industries.
Outcome of event	:	Students acquired knowledge of fundamental manufacturing processes like furnaces, casting process and use of different machines and tools for further finishing.

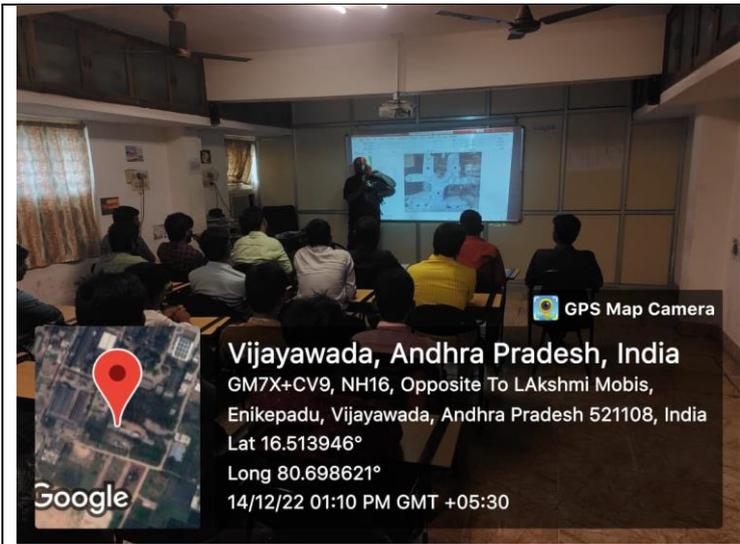
#### Description / Report on Event:

The II B.Tech-III Semester B Section Students of Mechanical Engineering accompanied with four staff members (including 2 teaching & 2 non teaching) visited **Prakasa Spectro Cast P Limited**, Enikepadu, Vijayawada on 14-12-2022. The main objective of the visit is to bridge the gap between industry and academia. These industries mainly focus on manufacturing of various material castings as per customer requirements.

After arriving the industry, the students were divided into two batches and the first batch was sent to **Prakasa Spectro Cast P Limited** and the second batch to Krishna Engineering works, which is a sister concern of Prakasa Spectro cast. Mr. T.Pardhasaradhi, MD, of Prakasa Spectro cast addressed the students and introduced about the industry. Later they allotted supervisors and sent them to visit the industry. The supervisors explained the steps involved in casting process & safety precautions.

The industry consists of two units, namely casting unit & machine shop. The casting unit consists of various processes includes pattern making, mould preparation, melting of metals, pouring of metals in to the mould cavity, solidification process, and fettling. The companies using sand with silica as additive for mould preparation. Using silica the sand stables for high temperatures.

Photographs: The following are the photographs of Industry Visit of B.Tech-III Semester B-Section Students to M/s Prakasa Spectro Cast P Limited, Enikepadu, Vijayawada.



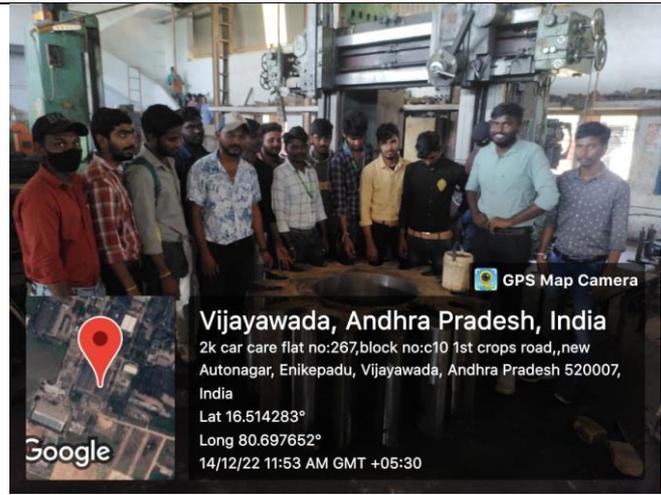
Students listening to the presentation of Shri.T.Pardhasaradhi, MD about the industry



Students listening to the presentation of Shri.T.Pardhasaradhi, MD about the industry



B.Tech-III Semester B section students are taking a group photo in the premises of Prakasa Spectro cast



B.Tech-III Semester B section students watching the drilling operations at the Machine shop



B.Tech-III Semester B section students watching the patterns and casting in the casting division



B.Tech-III Semester B section students watching the components at the Machine shop



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## DEPARTMENT OF MECHANICAL ENGINEERING

### REPORT ON EVENT

#### “INDUSTRY VISIT TO APSRTC ZONAL WORKSHOP, VIDYADHARAPURAM, VIJAYAWADA”

Event Type	:	Industry Visit of B. Tech-III Year A & B Section Students
Date / Duration	:	3 <sup>rd</sup> February 2023
Name of Industry	:	M/s APSRTC ZONAL WORKSHOP, Vidyadharapuram, Vijayawada.
Faculty Accompanied	:	Mr.S.Rami Reddy, Sr. Asst. Professor & Mr.V.Sankara Rao, Sr. Asst. Professor NT staff – Mr.D.Ashok Kumar and Mr.N.Narasimha Rao
Total no of students	:	54
Objective of the event:	:	To get exposure to the best workshop practices for automobiles (Buses).
Outcome of event	:	Students acquired knowledge of fundamental operations of welding, machining, riveting, bending and assembling different components of buses.

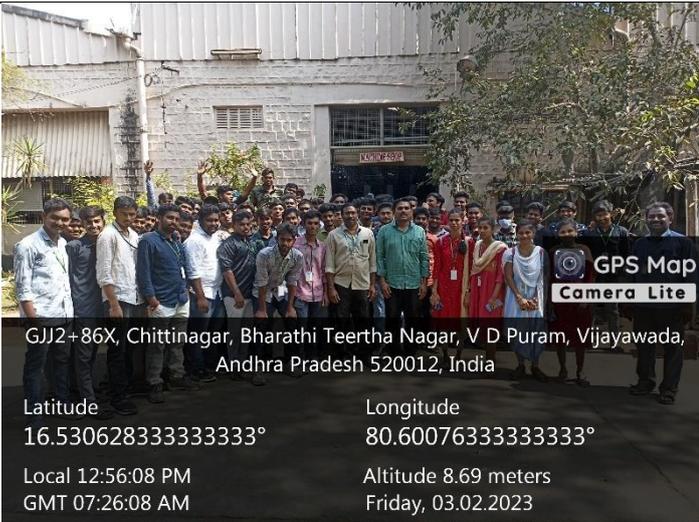
#### **Description / Report on Event:**

The III B.Tech - VI Semester A & B Section Students of Mechanical Engineering accompanied with four staff members (including 2 teaching & 2 non teaching) visited APSRTC ZONAL WORKSHOP, Vidyadharapuram, Vijayawada on 03-02-2023. The main objective of the visit is to bridge the gap between industry and academia. These industries mainly focus on manufacturing of various material castings as per customer requirements.

After arriving the industry, the students were divided into three batches and they were guided by technical staff inside the APSRTC ZONAL WORKSHOP to different sections viz., fabrication and repair, tyre section, machine shop and explained neatly to the students by the allotted supervisors have clarified the students doubts. The supervisors explained the steps involved in casting process & safety precautions. All the small, medium and big IC engine components were displayed for easy understanding of the function and use in an automotive.

The APSRTC ZONAL WORKSHOP has many sophisticated equipment for fabrication works, repair and testing purpose. The students were taken to each section and explained them all the procedures in an easily understanding manner by the technical staff. The students interacted with the foreman and other skilled persons and got clarified their doubts, about riveting, welding, bending and machining processes and various tools used for bus body building and repair works.

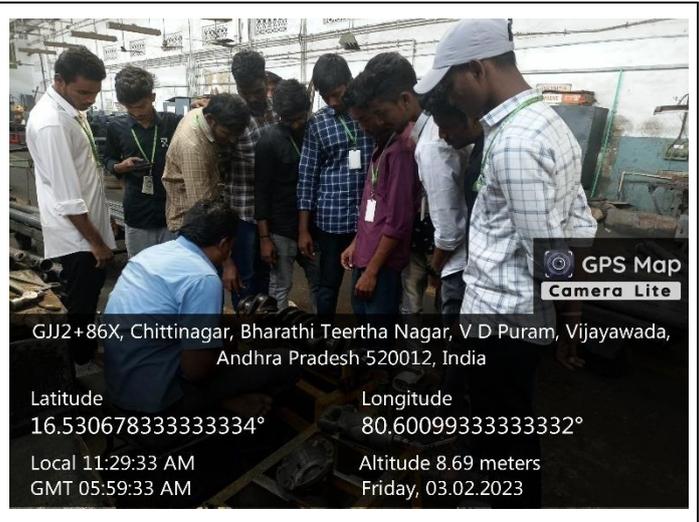
**Photographs:** The following are the photographs of Industry Visit of III B.Tech-VI Semester A & B-Section Students to M/s APSRTC ZONAL WORKSHOP, Vidyadharapuram, Vijayawada.



GJJ2+86X, Chittinagar, Bharathi Teertha Nagar, V D Puram, Vijayawada, Andhra Pradesh 520012, India

Latitude 16.530628333333333° Longitude 80.600763333333333°  
 Local 12:56:08 PM Altitude 8.69 meters  
 GMT 07:26:08 AM Friday, 03.02.2023

Students taking a photograph in front of APSRTC ZONAL workshop with Faculty and Staff



GJJ2+86X, Chittinagar, Bharathi Teertha Nagar, V D Puram, Vijayawada, Andhra Pradesh 520012, India

Latitude 16.530678333333334° Longitude 80.600993333333332°  
 Local 11:29:33 AM Altitude 8.69 meters  
 GMT 05:59:33 AM Friday, 03.02.2023

Students observing the crankshaft parts explained by to the instructor in the APSRTC ZONAL workshop



GJJ2+HG9, Chittinagar, Bharathi Teertha Nagar, V D Puram, Vijayawada, Andhra Pradesh 520012, India

Latitude 16.530821666666668° Longitude 80.601431666666667°  
 Local 11:15:38 AM Altitude 8.69 meters  
 GMT 05:45:38 AM Friday, 03.02.2023

Students listening to the instructor in the APSRTC ZONAL workshop



GJJ2+HG9, Chittinagar, Bharathi Teertha Nagar, V D Puram, Vijayawada, Andhra Pradesh 520012, India

Latitude 16.530873333333332° Longitude 80.601235°  
 Local 01:08:13 PM Altitude 8.69 meters  
 GMT 07:38:13 AM Friday, 03.02.2023

Students taking a photograph with APSRTC ZONAL workshop Officials and Staff



Students observing the operations performed by the instructor in the APSRTC ZONAL workshop



Students observing the starting motor of Bus performed by the technicians in the APSRTC ZONAL workshop



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## DEPARTMENT OF MECHANICAL ENGINEERING

### REPORT ON EVENT “INDUSTRIAL VISIT TO “KUSALAVA INTERNATIONAL LIMITED, Adavinekkalam”

**A.Y: 2022-23**

Event Type	:	Industrial Visit of B.Tech-IV Semester A-Section Students
Date / Duration	:	21.04.2023 for one day
Name of Industry	:	Kusalava International Limited, Adavinekkalam
Faculty Accompanied:		Mr.K.Venkateswara Reddy, Asst. Professor, Mr.K.Sai Babu, Asst. Professor NT staff – Mr.G.Ravindra Reddy and Mr.D.Ashok Kumar
Total no of students:		50
Objective of the event:		To get exposure to the casting process and CNC Machines.
Outcome of event	:	Students acquired knowledge of centrifugal casting process used for making Cylinder liners and the working of CNC machines.

#### **Description / Report on Event:**

The II B.Tech II Semester A Section Students of Mechanical Engineering accompanied with four staff members (including 2 teaching & 2 non teaching) visited KUSALAVA INTERNATIONAL LIMITED, Adavinekkalam 21-04-2023 timings 10 AM to 4 PM. The main objective of the visit is to bridge the gap between industry and academia.

Kusalava International Limited is one of the leading manufacturer of critical engine parts, supplying to major OEM's in India. Kusalava International also has a dominating presence in the After Market, its products are marketed under the brand name Tiger Power, and currently Tiger Power possesses a market share of 35% in India and 30% in USA.

After arriving the industry, the students were divided into three batches and they were guided by technical staff inside the Kusalava International Limited to different sections viz., casting, repair, machine shop and explained neatly to the students by the allotted supervisors have clarified the student doubts. The supervisors explained the steps involved in casting process & safety precautions. All the small, medium and big IC engine cylinders and liners were displayed for easy understanding of the function and use in an automotive.

**Feedback / Suggestions:** The students felt very happy and they expressed that they have learnt a lot about the centrifugal casting process used for making Cylinder liners and working of CNC machines.

**Photographs:** The following are the photographs of Industrial Visit of IV Semester A-Section Students to KUSALAVA INTERNATIONAL LIMITED, Adavinekkalam.

:



Entrance of Kusalava International Limited, Adavinekkalam



Blast furnace



Grinding Machines



Mould cavity



Group photo in front of KUSALAVA INTERNATIONAL LIMITED, Adavinekkalam



Group photo in front of KUSALAVA INTERNATIONAL LIMITED, Adavinekkalam

*Splade*  
HEAD  
Dept of Mechanical Engineering,  
LAKIREDDY BALI REDDY COLLEGE OF ENGG  
MYLAVARAM - 521 236, Krishna Dist., A.P.  
(Dr.S.Pichi Reddy)



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## DEPARTMENT OF MECHANICAL ENGINEERING

### REPORT ON EVENT INDUSTRIAL VISIT TO “KUSALAVA INTERNATIONAL LIMITED, Adavinekkalam”

**A.Y: 2022-23**

Event Type	:	Industrial Visit of B.Tech-IV Semester B-Section Students
Date / Duration	:	06.05.2023 for one day
Name of Industry	:	Kusalava International Limited, Adavinekkalam
Faculty Accompanied:		Mr.V.Sankararao, Sr. Asst. Professor, Mr.S.Uma Maheswara Reddy, Asst. Professor NT staff – Mr.G.Ravindra Reddy and Mr.P.Manikyala Rao
Total no of students:		37
Objective of the event:		To get exposure to the casting process and CNC Machines.
Outcome of event	:	Students acquired knowledge of centrifugal casting process used for making Cylinder liners and the working of CNC machines.

#### **Description / Report on Event:**

The II B.Tech II Semester B Section Students of Mechanical Engineering accompanied with four staff members (including 2 teaching & 2 non teaching) visited KUSALAVA INTERNATIONAL LIMITED, Adavinekkalam 06-05-2023 timings 10 AM to 3 PM. The main objective of the visit is to bridge the gap between industry and academia.

Kusalava International Limited is one of the leading manufacturer of critical engine parts, supplying to major OEM's in India. Kusalava International also has a dominating presence in the After Market, its products are marketed under the brand name Tiger Power, and currently Tiger Power possesses a market share of 35% in India and 30% in USA.

After arriving the industry, the students were divided into three batches and they were guided by technical staff inside the Kusalava International Limited to different sections viz., casting, repair, machine shop and explained neatly to the students by the allotted supervisors have clarified the student doubts. The supervisors explained the steps involved in casting process & safety precautions. All the small, medium and big IC engine cylinders and liners were displayed for easy understanding of the function and use in an automotive.

**Feedback / Suggestions:** The students felt very happy and they expressed that they have learnt a lot about the centrifugal casting process used for making Cylinder liners and working of CNC machines.

**Photographs:** The following are the photographs of Industrial Visit of IV Semester B-Section Students to KUSALAVA INTERNATIONAL LIMITED, Adavinekkalam.



Entrance of Kusalava International Limited, Adavinekkalam



Blast furnace



Grinding Machines



Mould cavity



Group photo in front of KUSALAVA INTERNATIONAL LIMITED, Adavinekkalam



Group photo in front of KUSALAVA INTERNATIONAL LIMITED, Adavinekkalam

*Splal*  
HEAD  
Dept of Mechanical Engineering  
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MYLAVARAM - 521 230, Krishna Dist., A.P.

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