

**DR. AMBEDKAR INSTITUTE OF TECHNOLOGY, BANGALORE**  
**Department of Industrial Engineering Management**

8<sup>th</sup> Semester Project work Phase II- 18IMP81 Batch list 2021-22

SI No	NAME	USN	Company	GROUP NO	GUIDE	TITLE
1	CHANDANA M	1DA18IM005	Volvo construction equipment	1	Dr. Rajeshwari P	Improvement of overall equipment effectiveness.
2	VAISHNAVI V	1DA18IM033				
3	YASHASWINI K R	1DA18IM036				
4	CHANDINI P S	1DA19IM403				
5	BHAVANA M	1DA18IM003	Kennametal India ltd	2	Prof. Suprabha R	Improvement of Overall Equipment Effectiveness and Optimisation of KSIP Trays in cutting tool Manufacturing Industry.
6	PRUTHVI KUMAR R	1DA18IM024				
7	RAKSHITHA D	1DA18IM026				
8	MANJUNATH C	1DA18IM018	S. S. INDUSTRIES	3	Prof. Suprabha R	Quality and Production Improvement in Cold Forging Process
9	SURESH	1DA18IM030				
10	T HARIPRASATH	1DA18IM031				
11	VICKY KUMAR	1DA18IM034				
12	AFZAL SHARIFF	1DA19IM400	Globe-tech fortune industries pvt. Ltd.	4	Dr. C R Mahesha	Reducing lead time and defects with the application of lean concepts.
13	CHANDAN N	1DA19IM402				
14	PRAVEENA B N	1DA19IM407				
15	WAJATH ULLAKHAN	1DA19IM411				
16	DEEPU M	1DA18IM009	HINDUSTAN AERONAUTICS LIMITED	5	Dr. N Mohan	Reduction of Manufacturing Lead time by Implementation of lean Techniques at ARDC
17	KARTHIK S N	1DA18IM013				
18	KISHOR M A	1DA18IM015				
19	NUTHAN RAJ B M	1DA18IM021				
21	PRIYANKA V	1DA18IM023	V -Tech Engineering Pvt Ltd	6	Dr. Rajeshwari P	Implementation of Back Acting Bucket Control Fixture into an Excavator
22	RAKSHITHA	1DA18IM025				
23	S P AISHWARYA SIRI	1DA18IM027				
24	AKASH K J	1DA19IM401	SHAHI EXPORT PVT LTD	7	Prof. Rajesh K	Implementation of lean tools in the production line (sewing section) of apparel manufacturing
25	GOVINDARAJU T R	1DA19IM404				
26	PUNEETH M	1DA19IM408				
27	TILAKRAJ K P	1DA19IM410				

28	BHARATH M P	1DA18IM002	SJS Enterprises Kanakpura Road	8	Prof. Chetan N	Capacity planning using simulation and calculation of Overall equipment effectiveness for the production of dials
29	DEEKSHA N	1DA18IM007				
30	DILEEP M	1DA18IM010				
31	ELVIES RICHERD	1DA18IM011				
32	SHAMANTH S	1DA15IM037	Rexroth Bosch India	9	Dr. N Mohan	Material Requirement Planning Using ARIMA in Excel
33	NITHIN N	1DA17IM026				
34	PRADYUMNA K P	1DA17IM030				
35	SUMAN S	1DA17IM036				
36	HARISH D	1DA18IM012	METRO Cash & Carry, BENGALURU	10	Prof. Chetan N	Reduction of Logistics Cost By Optimizing The Design of Supply Chain Network For A Wholesale Distribution Company
37	NIKHILESHWARI B K	1DA18IM020				
38	PALLAVI R	1DA18IM022				
39	SONALI S	1DA18IM029				
40	SHRUTHI SHREE D K	1DA18IM028	KENNAMTAL INDIA LTD, BENGALURU.	11	Dr. S K Rajendra	Productivity improvement in Cold isostatic press and Excel based Macro Program for Wiredrawing Pellets. Design and Implementation of Macro Program to Generate Printed Geometrical Dimensions
41	LEENA C JAIN	1DA18IM017				
42	CHANDANA N	1DA18IM006				
43	MEGHANA N	1DA19IM406				
44	CHARAN R	1DA17IM014	SPECTRUM TOOL ENGINEERS PVT. LTD	12	Dr. C R Mahesha	Improvement of Overall Equipment Effectiveness in injection moulding unit
45	KEERTHI LATHA	1DA18IM014				
45	THIPPESWAMY E	1DA18IM032				
46	MADHU CHANDRA V	1DA19IM405				

Coordinator  
(Dr. S K Rajendra)

*S.K. Rajendra*

HOD

*(Signature)*  
(Dr. N Mohan)  
Professor & HOD  
Dept. of Industrial Engineering & Management  
Dr. Ambedkar Institute of Technology  
Near Inanabharathi Campus  
BDA Outer Ring Road  
Mallathahalli, Bangalore-560054



**DR. AMBEDKAR INSTITUTE OF TECHNOLOGY, BANGALORE**  
**Department of Industrial Engineering Management**

8<sup>th</sup> Semester (Parallel) Project work Phase II – **IMP84** Batch list 2021-22

SI No	NAME	USN	GROUP NO	GUIDE	TITLE
1	AKASH B J	1DA15IM002	13	Dr. S K Rajendra	Design and process optimization of main rotor hub cap installation tool for light combat helicopter
2	AKARSH RAJ	1DA16IM004			
3	MANJU V	1DA18IM405			
4	BHARATH RAJ K	1DA16IM006	14	Dr. Rajeshwari P	Implementation of SIX SIGMA & TOM and optimizing plant layout to achieve overall revenue surge in a fabrication firm.
5	NANDAN KUMAR D R	1DA16IM020			
6	NIKHIL M	1DA18IM407			

*S.K. Rajendra*  
Coordinators  
(Dr. S K Rajendra)

HOD

*(Dr. N Mohan)*  
**Professor & HOD**  
**Dept. of Industrial Engineering & Management**  
**Dr. Ambedkar Institute of Technology**  
Near Jnanaprakasha Campus  
BDA Compound  
Mallathahalli, Bangalore - 560076

# Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

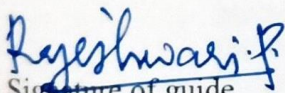
(An Autonomous Institution, Aided by Government of Karnataka Affiliated to VTU, Belagavi)  
Near Jnana Bharathi Campus, Mallathahalli, Bengaluru - 560056

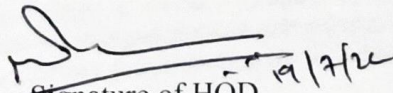


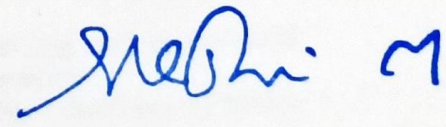
## CERTIFICATE

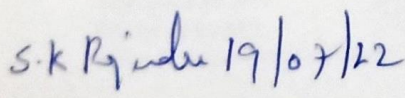
This is to certify that the project work entitled "IMPROVEMENT OF OVERALL EQUIPMENT EFFECTIVENESS" was carried out by CHANDANA(1DA18IM005), VAISHNAVI V (1DA18IM033), YASHASWINI K R (1DA18IM036) AND CHANDINI P S (1DA19IM403) Bonafede students of IEM Department Dr. Ambedkar Institute Of Technology, Bengaluru-56. The project work is carried out in a partial fulfilment for the award of degree in **Bachelor of Engineering in Industrial Engineering and Management** under Visveshwaraya Technological University, Belagavi during the academic year 2021-2022.

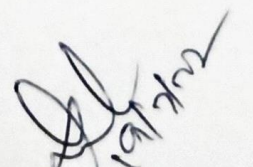
It is certified that all corrections/suggestions indicated for indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above said degree.

  
Signature of guide  
Dr. Rajeshwari P  
Associate professor  
IEM Dept, Dr. AIT

  
Signature of HOD  
Dr. N Mohan  
Professor & HOD IEM  
IEM Dept, Dr. AIT

  
Signature of principle  
Dr. M. Meenakshi  
Principal  
Dr. AIT

  
Name and signature of:  
The internal examiner

  
The external examiner  
Dr. Mr. RAMESH





**TO WHOMSOEVER IT MAY CONCERN**

Date: 06<sup>th</sup> January 2023

This is to certify that **Miss. Chandana M USN: 1DA18IM005, Miss. Vaishnavi V USN: 1DA18IM033, Miss. Yashaswini K R USN: 1DA18IM036, Miss. Chandini P S USN: 1DA19IM403** student of 8<sup>th</sup> Semester Industrial Engineering and Management from Dr. Ambedkar Institute of Technology, Bangalore Department of Industrial Engineering and Management has completed their Project titled "**Improvement of Overall Equipment Effectiveness**" starting from 04<sup>th</sup> January 2022 to 04<sup>th</sup> August 2022.

They displayed a professional character during their project and completed all their assigned tasks, during their project program with us, and were self-motivated, hardworking, and Enthusiastic.

We wish them all the best in their future endeavors.

For Volvo CE India Private Limited

A handwritten signature in blue ink, appearing to read "Raghavendra D K".

Raghavendra D K  
HR Administrator  
Volvo CE India Private Limited, Peenya



**Volvo CE Private Limited**  
Plot 7, 8 & 12, Phase I  
Peenya Industrial Area  
Peenya, Bengaluru – 560058  
Karnataka

**Telephone**  
+918041291500  
+918022192500

**Registered Office:**  
Volvo CE Private Limited  
Plot 7, 8 & 12, Phase I  
Peenya Industrial Area  
Peenya, Bengaluru – 560058  
Karnataka

# DR. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institution Affiliated to VTU, Belgavi, Aided by Govt. of Karnataka)

Outer Ring Road, Mallathalli, Bangalore- 560056

## DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT



Aided By Govt. of Karnataka

### CERTIFICATE

This is to certify that the **PROJECT** was carried out by **BHAVANA M (1DA18IM003)**, **PRUTHVI KUMAR R (1DA18IM024)** and **RAKSHITHA D (1DA18IM026)** bonafide students of Dr. Amedkar Institute Of Technology in a partial fulfillment for the award of Bachelor of Engineering Degree in Industrial Engineering and Management under Visveshwaraya Technological University, Belgavi during the academic year 2021-2022. It is certified that they have completed the **PROJECT** satisfactorily.

Signature of Internal Guide

**Mrs. SUPRABHA R**

11/7/22

Signature of HOD

**DR. N. MOHAN**

Signature of Principal

**Dr. M.MEENAKSHI**

**INTERNAL EXAMINER**

**EXTERNAL EXAMNER**





19<sup>th</sup> July 2022  
Bangalore

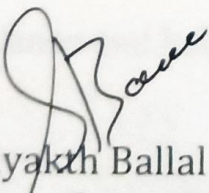
## CERTIFICATE

This is to certify that the following BE in Industrial Engineering and Management students from Dr. Ambedkar Institute of Technology Bangalore, have successfully completed their Project on **“Improvement in Overall Equipment Efficiency and Optimisation of KSIP Trays in Cutting Tool Manufacturing Industry”** in our organization from 23<sup>rd</sup> March 2022 to 11<sup>th</sup> July 2022.

- |                       |              |
|-----------------------|--------------|
| 1. Ms. Bhavana M      | (1DA18IM003) |
| 2. Ms. Rakshitha D    | (1DA18IM026) |
| 3. Mr. Pruthvikumar R | (1DA18IM024) |

We wish them all the success in their future endeavors.

For Kennametal India Limited

  
Samyakth Ballal  
Deputy General Manager Human Resources



**Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY**  
(An Autonomous Institution Affiliated to VTU, Belgavi, Aided by Govt. of Karnataka)  
Outer Ring Road, Mallathalli, Bangalore- 560056

**DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT**



## CERTIFICATE

This is to certify that the project work entitled “**QUALITY AND PRODUCTION IMPROVEMENT IN COLD FORGING PROCESS**” was carried out at **S S INDUSTRIES** by **MANJUNATH C (1DA18IM018), SURESH (1DA18IM030), T HARI PRASATH (1DA18IM031), VICKY KUMAR S S (1DA18IM034)** bonafide students of **IEM Department of Dr. Ambedkar Institute Of Technology**. The project work is carried out in partial fulfillment for the award of degree in **Bachelor of Engineering in Industrial Engineering and Management** under Visveshwaraya Technological University, Belgavi during the academic year 2021-2022.

It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above said degree.

*R. Suprabha* 11/7/22  
Signature of Internal Guide  
**Mrs. SUPRABHA R**  
Assistant Professor  
Dept. of IEM, Dr. AIT

*N. Mohan* 19/7/22  
Signature of HOD  
**Dr. N. MOHAN**  
Professor & HOD  
Dept. of IEM, Dr. AIT

*M. Meenakshi*  
Signature of Principal  
**Dr. M. Meenakshi**  
Principal  
Dr. AIT

**INTERNAL EXAMINER**

*S.K. Rajade* 19/07/22

**EXTERNAL EXAMNER**

*S.K. Rajade*  
19/7/22





DATE: 02.05.2022

## CERTIFICATE

This is to certify that below mentioned students of Dr.Ambedkar Institute of Technology, Bangalore has undergone the project on **“Quality and Production improvement in cold forging process”** at S S Industries.

During this period they has completed this project work and has come up with good report.

1. MANJUNATH C (1DA18IM018)
2. SURESH (1DA18IM030)
3. T. HARI PRASATH (1DA18IM031)
4. VICKY KUMAR S S (1DA18IM034)

From **SS INDUSTRIES**

Authorized Signature



# Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

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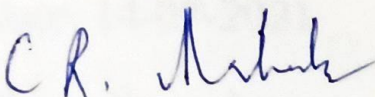
## DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT





### CERTIFICATE

This is to certify that the project work entitled “Reducing Lead Time and Defects with the Applications of Lean Concept” was carried out by **AFZAL SHARIFF (1DA19IM400)**, **CHANDAN .N (1DA19IM402)**, **PRAVEENA B. N(1DA19IM407)** and **WAJATH ULLA KHAN(1DA19IM411)** bonafide students IEM Department of Dr. Ambedkar Institute Of Technology, Bengaluru-56. The project work is carried out in a partial fulfillment for the award of degree in **Bachelor of Engineering in Industrial Engineering and Management** under Visveshwaraya Technological University, Belgavi during the academic year 2021-2022.

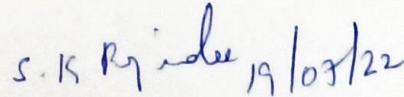
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Signature of Internal Guide  
**Dr.C . R MAHESHA**

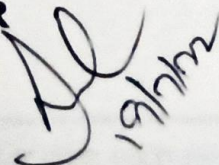
  
Signature of HOD 19/7/22  
**DR. N. MOHAN**

  
Signature of Principal  
**Dr. M. Meenakshi**

**INTERNAL EXAMINER**

  
S. K. R. Indee 19/03/22

**EXTERNAL EXAMINER**

  
19/7/22





# GLOBE-TECH FORTUNE INDUSTRIES PVT. LTD.

# 438, 12th Cross, 4th Phase, Peenya Industrial Area, Bengaluru-560 058.  
Tel : 080-4117 9413, 080-4117 2129 E-mail : admin@fortuneindocorp.com,

CIN : U29308KA2017PTC104482, MSME / UAN : KR03B0050177

GSTIN : 29AAGCG9130L1Z6, TAN No.: BLRG22538F

Website : www.fortuneindocorp.com

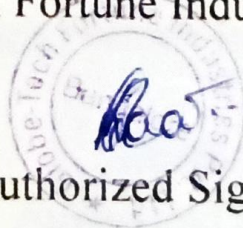
## CERTIFICATE

This is to certify that, **Mr. AFZAL SHARIFF**, Reg. No. **IDA19IM400** student of "BE" from " **Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY BANGALORE**", has completed the Project at **Globe-Tech Fortune industries Pvt. Ltd.** during the period 15-03-2022 to 15-05-2022, as a part of his curriculum and has submitted a report titled "**REDUCING LEAD TIME AND DEFECTS WITH THE APPLICATION OF LEAN CONCEPTS.**" During the project, we found his conduct to be diligent and honest.

We wish **Mr. AFZAL SHARIFF**, all the best in his future endeavours.

Thanks and regards,

Globe-Tech Fortune Industries Pvt. Ltd.



Authorized Sign

Date: 14-07-2021

Place: Bangalore





## **GLOBE-TECH FORTUNE INDUSTRIES PVT. LTD.**

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GSTIN : 29AAGCG9130L1Z6, TAN No.: BLRG22538F  
Website : www.fortuneindocorp.com


### **CERTIFICATE**

This is to certify that, **Mr. CHANDAN N, Reg. No. 1DA19IM402** student of "BE" from "**Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY BANGALORE**", has completed the Project at **Globe-Tech Fortune industries Pvt. Ltd.** during the period 15-03-2022 to 15-05-2022, as a part of his curriculum and has submitted a report titled "**REDUCING LEAD TIME AND DEFECTS WITH THE APPLICATION OF LEAN CONCEPTS.**" During the project, we found his conduct to be diligent and honest.

We wish **Mr. CHANDAN N**, all the best in his future endeavours.

Thanks and regards,

Globe-Tech Fortune Industries Pvt. Ltd.

  
Authorized Sign

Date: 14-07-2021

Place: Bangalore





## GLOBE-TECH FORTUNE INDUSTRIES PVT. LTD.

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GSTIN : 29AAGCG9130L1Z6, TAN No.: BLRG22538F  
Website : www.fortuneindocorp.com

### CERTIFICATE

This is to certify that, **Mr. PRAVEENA B N**, Reg. No. **1DA19IM407** student of "BE" from "**Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY BANGALORE**", has completed the project at **Globe-Tech Fortune industries Pvt. Ltd.** during the period 15-03-2022 to 15-05-2022, as a part of his curriculum and has submitted a report titled "**REDUCING LEAD TIME AND DEFECTS WITH THE APPLICATION OF LEAN CONCEPTS.**" During the project, we found his conduct to be diligent and honest.

We wish **Mr. PRAVEENA B N**, all the best in his future endeavours.

Thanks and regards,

Globe-Tech Fortune Industries Pvt. Ltd.

Authorized Sign

Date: 14-07-2021

Place: Bangalore





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GSTIN : 29AAGCG9130L1Z6, TAN No.: BLRG22538F  
Website : www.fortuneindocorp.com

### CERTIFICATE

This is to certify that, **Mr. WAJATH ULLA KHAN S**, Reg. No. **IDA19IM411** student of "BE" from "**Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY BANGALORE**", has completed the Project at **Globe-Tech Fortune industries Pvt. Ltd.** during the period 15-03-2022 to 15-05-2022, as a part of his curriculum and has submitted a report titled "**REDUCING LEAD TIME AND DEFECTS WITH THE APPLICATION OF LEAN CONCEPTS.**" During the Project, we found his conduct to be diligent and honest.

We wish **Mr. WAJATH ULLA KHAN S**, all the best in his future endeavours.

Thanks and regards,

Globe-Tech Fortune Industries Pvt. Ltd.



Authorized Sign

Date: 14-07-2021

Place: Bangalore



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Outer Ring Road, Mallathalli, Bangalore- 560056


## DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT





### CERTIFICATE

This is to certify that the project work entitled “REDUCTION OF MANUFACTURING LEAD TIME BY IMPLEMENTATION OF LEAN TECHNIQUES AT ARDC” was carried out by DEEPU M (1DA18IM009), KARTHIK SN (1DA18IM013), KISHOR MA (1DA18IM015) and NUTHAN RAJ B M (1DA18IM021) bonafide students IEM Department of Dr. Ambedkar Institute Of Technology, Bengaluru-56. The project work is carried out in a partial fulfillment for the award of degree in **Bachelor of Engineering in Industrial Engineering and Management** under Visveshwaraya Technological University, Belgavi during the academic year 2021-2022.

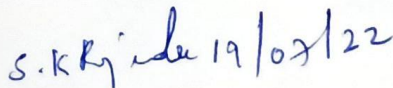
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Signature of Internal Guide  
**DR. N MOHAN**  
Professor & HOD,  
Dept. of IEM  
Dr. AIT

  
Signature of HOD  
**DR. N. MOHAN**  
Professor & HOD,  
Dept. IEM  
Dr. AIT

  
Signature of Principal  
**Dr. Meenakshi**  
Principal,  
Dr. AIT

**INTERNAL EXAMINER**

  
S.K.Rajade 19/07/22

**EXTERNAL EXAMINER**

  
19/7/22



D/ARDC/HR/Proj/Cert/1148/22

11.05.2022

## CERTIFICATE

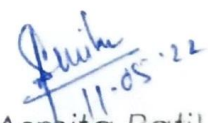
This is to certify that **Mr Deepu M (1DA18IM009)** who is a student of B.E (Industrial Engg), Dr. Ambedkar Institute of Technology, Bengaluru, has undergone **Project Work** at HAL ARDC, Design Complex, Bengaluru from 12-02-2022 to 11-05-2022 on "**No-Pay-No-Fee-Basis**". He has been punctual, sincere and committed trainee. His conduct has been found Excellent.

2. During the Project Work special emphasis was given on the following:

**"Using Value Stream Mapping-Lean Technique for Reduction of Manufacturing Lead Time"**

3. The student brings in a lot of energy and enthusiasm in the work. he is structured in his approach and methodical in resolving a problem. he is resourceful and adaptive to working environment.



  
(Asmita Pati)  
Sr. Manager (HR)  
ARDC, Design Complex.





D/ARDC/HR/Proj/Cert/1148/22

11.05.2022

### CERTIFICATE

This is to certify that **Mr Karthik S N (1DA18IM013)** who is a student of B.E (Industrial Engg), Dr. Ambedkar Institute of Technology, Bengaluru, has undergone **Project Work** at HAL ARDC, Design Complex, Bengaluru from 12-02-2022 to 11-05-2022 on "**No-Pay-No-Fee-Basis**". He has been punctual, sincere and committed trainee. His conduct has been found Excellent.

2. During the Project Work special emphasis was given on the following:

**"Using Value Stream Mapping-Lean Technique for Reduction of Manufacturing Lead Time"**

3. The student brings in a lot of energy and enthusiasm in the work, he is structured in his approach and methodical in resolving a problem. he is resourceful and adaptive to working environment.



*Asmita*  
11.05.22  
(Asmita Pati)  
Sr. Manager (HR)  
ARDC, Design Complex.





D/ARDC/HR/Proj/Cert/1148/22

11.05.2022

## CERTIFICATE

This is to certify that **Mr Kishor M A (1DA18IM015)** who is a student of B.E (Industrial Engg), Dr. Ambedkar Institute of Technology, Bengaluru, has undergone **Project Work** at HAL ARDC, Design Complex, Bengaluru from 12-02-2022 to 11-05-2022 on **"No-Pay-No-Fee-Basis"**. He has been punctual, sincere and committed trainee. His conduct has been found Excellent.

2. During the Project Work special emphasis was given on the following:

**"Using Value Stream Mapping-Lean Technique for Reduction of Manufacturing Lead Time"**

3. The student brings in a lot of energy and enthusiasm in the work, he is structured in his approach and methodical in resolving a problem. he is resourceful and adaptive to working environment.



*Asmita*  
11-05-22  
(Asmita Pati)  
Sr. Manager (HR)  
ARDC, Design Complex.





D/ARDC/HR/Proj/Cert/1148/22

11.05.2022

## CERTIFICATE

This is to certify that **Mr Nuthan Raj B M (1DA18IM021)** who is a student of B.E (Industrial Engg), Dr. Ambedkar Institute of Technology, Bengaluru, has undergone **Project Work** at HAL ARDC, Design Complex, Bengaluru from 12-02-2022 to 11-05-2022 on "**No-Pay-No-Fee-Basis**". He has been punctual, sincere and committed trainee. His conduct has been found Excellent.

2. During the Project Work special emphasis was given on the following:

**"Using Value Stream Mapping-Lean Technique for Reduction of Manufacturing Lead Time"**

3. The student brings in a lot of energy and enthusiasm in the work, he is structured in his approach and methodical in resolving a problem. he is resourceful and adaptive to working environment.



*Asmita*  
11-05-22

(Asmita Pati)

Sr. Manager (HR)

ARDC, Design Complex.



DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT



CERTIFICATE

This is to certify that the project work entitled “Implementation of Back Acting Bucket Control Fixture” was carried out by Priyanka V(1DA18IM023), Rakshita(1DA18IM025) and S P Aishwarya Siri(1DA18IM027) bonafide students of IEM Department of Dr. Ambedkar Institute Of Technology, Bengaluru-56. The project work is carried out in a partial fulfillment for the award of degree in Bachelor of Engineering Degree in Industrial Engineering and Management under Visveshwaraya Technological University, Belgaavi during the academic year 2021- 22.

It is certified that all corrections/suggestions indicated for indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above said degree.

Signature of Internal Guide  
Dr. RAJESHWARI. P

Signature of HOD  
Dr. N. MOHAN

Signature of Principal  
Dr. M. Meenakshi

INTERNAL EXAMINER

S.K. Ryande 20/07/22

EXTERNAL EXAMINER

S.K. Ryande 20/07/22



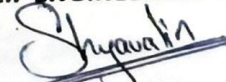
18.07.2022

## **CERTIFICATE**

This is to certify that Ms. Priyanka V (1DA18IM023), B.E of Industrial engineering student from Dr.Ambedkar Institute of Technology, Bengaluru, has done his Project Work titled **“IMPLEMENTATION OF BACK ACTING BUCKET CONTROL(BABC) FIXTURE INTO AN EXCAVATOR”** in our Industry from 15/03/22 to 04/06/22 as part of curriculum.

We have noticed that, during the period she has been punctual, sincere and committed trainee. She is resourceful and adaptive to working environment.

For **V-Tech ENGINEERING PVT. LTD.**

  
**Managing Director**

.....  
( Shyavalin v Murthy )  
MANAGING DIRECTOR



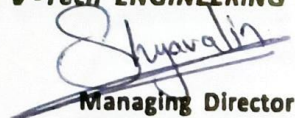
18.07.2022

## CERTIFICATE

This is to certify that Ms.Rakshita (1DA18IM025), B.E of Industrial engineering student from Dr.Ambedkar Institute of Technology, Bengaluru, has done his Project Work titled **“IMPLEMENTATION OF BACK ACTING BUCKET CONTROL(BABC) FIXTURE INTO AN EXCAVATOR”** in our Industry from 15/03/22 to 04/06/22 as part of curriculum.

We have noticed that, during the period she has been punctual, sincere and committed trainee. She is resourceful and adaptive to working environment.

For **V-Tech ENGINEERING PVT. LTD.**

  
Managing Director

.....  
( Shyavalin v Murthy)  
MANAGING DIRECTOR



18.07.2022

## CERTIFICATE

This is to certify that Ms. S.P Aishwarya Siri (1DA18IM027), B.E of Industrial engineering student from Dr.Ambedkar Institute of Technology, Bengaluru, has done his Project Work titled **“IMPLEMENTATION OF BACK ACTING BUCKET CONTROL(BABC) FIXTURE INTO AN EXCAVATOR”** in our Industry from 15/03/22 to 04/06/22 as part of curriculum.

We have noticed that, during the period she has been punctual, sincere and committed trainee. She is resourceful and adaptive to working environment.

**For V-Tech ENGINEERING PVT. LTD.**

  
**Managing Director**

.....  
( Shyavalin v Murthy)  
MANAGING DIRECTOR



# Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institution Affiliated to VTU, Belgavi, Aided by Govt. of Karnataka)

Outer Ring Road, Mallathalli, Bangalore- 560056

## DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT



### CERTIFICATE

This is to certify that the project work entitled "IMPLEMENTATION OF LEAN TOOLS IN THE PRODUCTION LINE (SEWING SECTION) OF APPAREL MANUFACTURING" was carried out by AKASH K J-(1DA19IM401), GOVINDARAJU T R-(1DA19IM404), PUNEETH M-(1DA19IM408), TILAK RAJ K. P-(1DA19IM410) bonafide students IEM Department of Dr. Ambedkar Institute Of Technology, Bengaluru-56. The project work is carried out in a partial fulfillment for the award of degree in **Bachelor of Engineering in Industrial Engineering and Management** under Visveshwaraya Technological University, Belgavi during the academic year 2021-2022.

It is certified that all corrections/suggestions indicated for indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above said degree.

S.K. Rajendee 18/7/22  
Signature of Internal Guide

Dr. RAJENDRA S. K

Signature of HOD

DR. N. MOHAN

Signature of Principal

Dr. M. MEENAKSHI

INTERNAL EXAMINER

S.K. Rajendee 19/07/22

EXTERNAL EXAMINER

Signature of External Examiner



# Shahi Exports Pvt. Ltd.

SEEPL/KNITS/PC/2022

21.05.2022

**TO WHOM-SO-EVER IT MAY CONCERN**

## **CERTIFICATE**

This is to certify that the following BE in Industrial Engineering and Management students from Dr. Ambedkar Institute of Technology Bangalore, have successfully completed their Project on **"IMPLEMENTATION OF LEAN TOOLS IN THE PRODUCTION LINE (SEWING SECTION) OF APPAREL MANUFACTURING"** in our organization from **10 April 2022 to 15th May 2022.**

We wish him all the best in future endeavors.

AKASH K J	1DA19IM401
GOVINDARAJU T R	1DA19IM404
PUNEETH M	1DA19IM408
TILAK RAJ K P	1DA19IM410

FOR **SHAHI EXPORTS PVT. LTD.,**



**DR. JAMES THOMAS**  
GENERAL MANAGER-ORGANIZATION  
DEVELOPMENT



No. 37/1B, 43/2, 43/3, Arekere Village, Bannerghatta Main Road, Bangalore - 560 076  
Telephone: 009-080-26583371/26597192/26488005/26480342



# Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institution Affiliated to VTU, Belgavi, Aided by Govt. of Karnataka)  
Outer Ring Road, Mallathalli, Bangalore- 560056

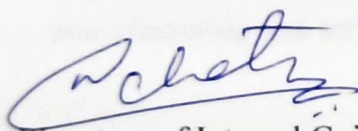
## DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT

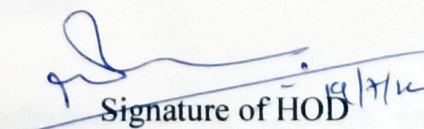



### CERTIFICATE

This is to certify that the project work entitled "Capacity planning using simulation and calculation of overall equipment effectiveness for the production of dials" was carried out by **BHARATH.M.P (1DA18IM002)**, **DEEKSHA.N (1DA18IM007)**, **DILEEP.M (1DA18IM010)** and **ELVIES RICHERD (1DA18IM011)** bonafide students of IEM Department Ambedkar Institute Of Technology, Bengaluru-56. The project work is carried out in partial fulfillment for the award of degree in **Bachelor of Engineering in Industrial Engineering and Management** under Visveshwaraya Technological University, Belgavi during the academic year 2021-2022.

It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above said degree.

  
Signature of Internal Guide  
**Mr. CHETAN N**

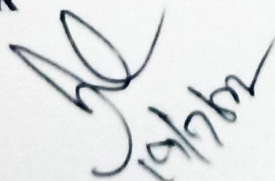
  
Signature of HOD  
**Dr. N. MOHAN**

  
Signature of Principal  
**Dr. M. Meenakshi**

**INTERNAL EXAMINER**

*S.K.Rg'ade 19/07/22*

**EXTERNAL EXAMNER**

  
*19/07/22*



S.J.S. Enterprises Limited

Sy. No 28/P1a of Agra Village and Sy No 85/P2  
of B.M. Kaval Village, Kengeri Hobli, Bangalore-560082  
P: +91 80 6194 0777 F: +9180 2842 5110  
Email: info@sjsindia.com  
www.sjsindia.com

ISO 14001 ISO 45001  
ISO 9001 IATF 16949  
Certified  
CIN: L51909KA2005PLC036601



SJS/HRM/PRJ CER/F36/ - R3675

July 18, 2022

**TO WHOM IT MAY CONCERN**

This is to certify that **Mr. Bharath M P** Roll No: **1DA18IM002** student of **8<sup>th</sup> Semester Industrial Engineering and Management** from **Dr. Ambedkar Institute of Technology**, Bangalore. He has successfully completed his Project titled **"Simulation and Modelling of Installed Capacity and Utilized Capacity of Production Plant Using ARENA"** Starting from **01-04-2022** to **01-06-2022**.

Bharath M P displayed a professional character during his project and completed all his assigned tasks, during his project program with us, he was found self-motivated, hardworking, and inquisitive.

We wish him all the best for future endeavours.

**For SJS Enterprises Limited,**

*S. Umadevi*

S. Umadevi

AGM - HR & Admin





SJS/HRM/PRJ CER/F36/ - R3676

July 18, 2022

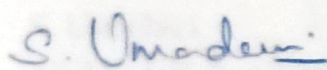
**TO WHOM IT MAY CONCERN**

This is to certify that Ms. Deeksha N Roll No: 1DA18IM007 student of 8<sup>th</sup> Semester Industrial Engineering and Management from Dr. Ambedkar Institute of Technology, Bangalore. She has successfully completed her Project titled "Simulation and Modelling of Installed Capacity and Utilized Capacity of Production Plant Using ARENA" Starting from 01-04-2022 to 01-06-2022.

Deeksha N displayed a professional character during her project and completed all her assigned tasks, during her project program with us, she was found self-motivated, hardworking, and inquisitive.

We wish him all the best for future endeavours.

For SJS Enterprises Limited,



S. Umadevi  
AGM - HR & Admin





SJS/HRM/PRJ CER/F36/ - R3677

July 18, 2022

**TO WHOM IT MAY CONCERN**

This is to certify that **Mr. Dileep M** Roll No: **1DA18IM010** student of **8<sup>th</sup> Semester Industrial Engineering and Management** from **Dr. Ambedkar Institute of Technology, Bangalore**. He has successfully completed his Project titled "**Simulation and Modelling of Installed Capacity and Utilized Capacity of Production Plant Using ARENA**" Starting from **01-04-2022 to 01-06-2022**.

**Dileep M** displayed a professional character during his project and completed all his assigned tasks, during his project program with us, he was found self-motivated, hardworking, and inquisitive.

We wish him all the best for future endeavours.

**For SJS Enterprises Limited,**

*S. Umadevi*

**S. Umadevi**  
**AGM - HR & Admin**





S.J.S. Enterprises Limited

Sy. No 26/P16 of Agra Village and Sy No 85/P6

of R.M. Kaval Village, Kengeri Hobli, Bangalore-560082

P: +91 80 4194 0777 F: +9180 2842 5110

Email: info@sjsindia.com

www.sjsindia.com

ISO 14001 ISO 45001

ISO 9001 IATF 16949

Certified

CIN: L51909KA2005PLC036601



Creating Possibilities

SJS/HRM/PRJ CER/F36/ - R3678

July 18, 2022

**TO WHOM IT MAY CONCERN**

This is to certify that **Mr. Elvies Richerd** Roll No: **1DA18IM011** student of **8<sup>th</sup> Semester Industrial Engineering and Management** from **Dr. Ambedkar Institute of Technology**, Bangalore. He has successfully completed his Project titled **"Simulation and Modelling of Installed Capacity and Utilized Capacity of Production Plant Using ARENA"** Starting from **01-04-2022 to 01-06-2022**.

**Elvies Richerd** displayed a professional character during his project and completed all his assigned tasks. during his project program with us, he was found self-motivated, hardworking, and inquisitive.

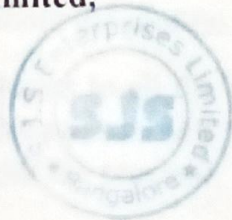
We wish him all the best for future endeavours.

For SJS Enterprises Limited,

Handwritten signature of S. Umadevi in blue ink.

**S. Umadevi**

**AGM - HR & Admin**



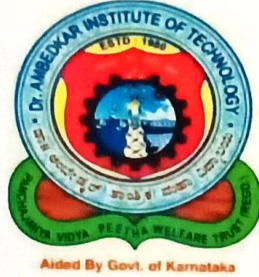


# Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institution Affiliated to VTU, Belgavi, Aided by Govt. of Karnataka)

Outer Ring Road, Mallathalli, Bangalore- 560056


## DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT





### CERTIFICATE

This is to certify that the project work entitled “**MATERIAL REQUIREMENT PLANNING USING ARIMA IN EXCEL**” was carried out by **SHAMANTH S (1DA15IM037)**, **NITHIN. N (1DA17IM026)**, **PRADYUMNA K P (1DA17IM030)** and **SUMAN S (1DA17IM036)** bonafide students **IEM Department** of **Dr. Ambedkar Institute Of Technology**, Bengaluru-56. The project work is carried out in a partial fulfillment for the award of degree in **Bachelor of Engineering in Industrial Engineering and Management** under Visveshwaraya Technological University, Belgavi during the academic year 2021-2022.

It is certified that all corrections/suggestions indicated for indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above said degree.

  
Signature of Internal Guide  
**DR. N . MOHAN**

  
Signature of HOD  
**DR. N. MOHAN**

  
Signature of Principal  
**DR. M. Meenakshi**

**INTERNAL EXAMINER**

S.K.R. Indu 19/07/22

**EXTERNAL EXAMINER**

  
19/7/22



Bosch Rexroth India Pvt. Ltd.  
Co.CIN -U29120G J1974 PTC002468  
Sanand Virangam Highway  
Mouje Iyava, Taluka Sanand  
Disffict Ahmedabad - 282 170  
Tel. +91(02717)678241  
[www.boschrexroth.co.in](http://www.boschrexroth.co.in)

Date: - July 18, 2022.

Place: - Bangalore

To,  
Professor & Head,  
Department of IEM,  
Dr.Ambedkar Institute of Technology,  
BDA Outer Ring Road, Mallathalli,  
Bengaluru — 560 056.

Malini.B.R, Human Resources  
Tel. +91 (0)80 68411200.  
[malini.br@boschrexroth.co.in](mailto:malini.br@boschrexroth.co.in)

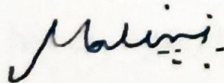
Dear Sir,

This is to certify that your students Mr. Shamanth. S (1DA15IM037), Mr. Nithin. N (1DA17IM026), Mr. Pradyumna K P (1DA17IM030) ,Mr. Suman. S (1DA17IM036) have completed their Project Work titled "Material Requirement Planning Using ARIMA In Excel" with us during the period starting from 9<sup>th</sup> May 2022 to 31<sup>st</sup> May 2022.

They have completed their Project Work successfully and to our satisfaction.

We wish them all the best for their future endeavors.

Sincerely,  
Bosch Rexroth (India) P vt. Ltd.



Malini.B R  
Human Resources.





# Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BENGALURU – 56

(An Autonomous Institution, Aided by Government of Karnataka Affiliated to VTU, Belagavi)

Near Jnana Bharathi Campus, Mallathahalli, Bengaluru-560056

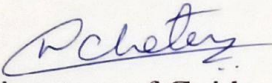
## DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT

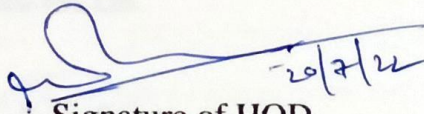



### CERTIFICATE

This is to Certify that the project work entitled **REDUCTION OF LOGISTICS COST BY OPTIMIZING THE DESIGN OF SUPPLY CHAIN NETWORK FOR A WHOLESALE DISTRIBUTION COMPANY** is carried out by **HARISH D (1DA18IM012), NIKHILESHWARI B K (1DA18IM020), PALLAVI R (1DA18IM022), SONALI S (1DA18IM029)** bonafide students of **IEM Department** of **Dr. Ambedkar Institute of Technology, Bengaluru-56**. The project work is carried out in partial fulfilment of the award of degree in Bachelor of Engineering in **Industrial Engineering and Management** from Visveswaraya Technological University, Belgaum during the Year 2021-22.

It is certified that all corrections/suggestions indicated for Internal Assessment has been incorporated in the report. This project has been approved as it satisfies the academic requirements in the respect of project work prescribed by the college.

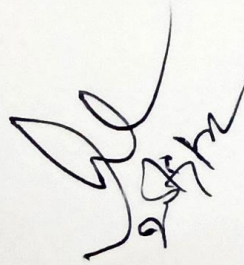
  
Signature of Guide  
**Mr. CHETAN N**

  
Signature of HOD  
**Dr. N. MOHAN**

  
Signature of Principal  
**Dr. M. MEENAKSHI**

**INTERNAL EXAMINER** S.K. Ryinder 20/07/22

**EXTERNAL EXAMINER**





METRO Cash & Carry India Pvt Ltd.  
No. 18/1, 18/2  
Konankunte Village, Uttarahalli Hobli,  
Bengaluru South Taluk, Bengaluru,  
Karnataka-560062, India  
Ph.: +91-9513622873, Email: metro.bengaluru@metro.co.in  
CIN: BS2021KA2022PTCD18486

To whomsoever it may concern

Date: 14<sup>th</sup> July 2022

This is to certify that **Mr. Harish D (1DA18IM012), Ms. Nikhileshwari B K (1DA18IM020), Ms. Pallavi R (1DA18IM022) and Ms. Sonali S (1DA18IM029)**, Students of **Dr. Ambedkar Institute of Technology, Department of Industrial Engineering, Bengaluru**, Has successfully completed their Project work at **Metro Cash & Carry India Pvt. Ltd, Bengaluru south** in the Supply chain department from 20<sup>th</sup> April 2022 to 13<sup>th</sup> July 2022.

They worked on the following project – **“Reduction of Logistics Cost by Optimizing the Design of Supply chain Network for a Wholesale Distribution Company”**

All necessary inputs were provided from our end for the successful completion of the project.

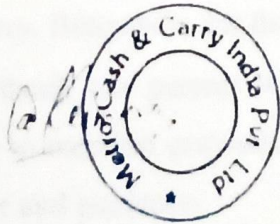
During the Project period, their conduct was found to be Satisfactory and enthusiastic.

We wish them all success in their future endeavors.

Thank You,

For **METRO Cash & Carry India Pvt. Ltd.**

**Dr. Ashok Kumar**  
**Supply & Logistics**



**METRO**

Cash & Carry

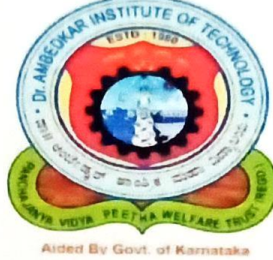


# DR. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institution Affiliated to VTU, Belgavi, Aided by Govt. of Karnataka)

Outer Ring Road, Mallathalli, Bangalore- 560056

## DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT




### CERTIFICATE

This is to certify that the project work entitled “**Productivity Improvement In Coldisostatic Press And Excel Based Macro Program For Wiredrawing Pellets**” was carried out by **LEENA C JAIN(1DA18IM017)** and **SHRUTHISHREE D K(1DA18IM028)** bonafide students of **IEM Department of Dr. Ambedkar Institute Of Technology, Bengaluru-56**. The project work is carried out in a partial fulfillment for the award of degree in **Bachelor of Engineering Degree in Industrial Engineering and Management** under Visveshwaraya Technological University, Belgavi during the academic year 2021- 22.

It is certified that all corrections/suggestions indicated for indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above said degree.

S.K Rajendra 18/7/22

Signature of Internal Guide  
**Dr. RAJENDRA S. K**

  
Signature of HOD  
**DR. N. MOHAN**

Signature of Principal  
**Dr. M. Meenakshi**

**INTERNAL EXAMINER**

S.K Rajendra 19/07/22

**EXTERNAL EXAMINER**

  
19/7/22





10<sup>th</sup> June 2022  
Bangalore

## CERTIFICATE

This is to certify that the following BE in Industrial Engineering and Management students from Dr. Ambedkar Institute of Technology Bangalore, have successfully completed their Project on **“Productivity Improvement in Cold Isostatic Press and Automation Program for Wire Drawing Pellets”** in our organization from 16<sup>th</sup> April 2022 to 30<sup>th</sup> May 2022.

- |                         |              |
|-------------------------|--------------|
| 1. Ms. Leena C Jain     | (1DA18IM017) |
| 2. Ms. Shruthishree D K | (1DA18IM028) |

We wish them all the success in their future endeavors.

For Kennametal India Limited

A handwritten signature in black ink, appearing to read 'Smyakth Ballal'.

Smyakth Ballal  
Deputy General Manager Human Resources



# Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institution Affiliated to VTU, Belgavi, Aided by Govt. of Karnataka)

Outer Ring Road, Mallathalli, Bangalore- 560056

## DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT




### CERTIFICATE

This is to certify that the project work entitled “**Design and Implementation of Macro Program to Generate Printed Geometrical Dimensions**” was carried out by **CHANDANA.N (1DA18IM006)** and **MEGHANA.N (1DA19IM406)** bonafide students of **IEM Department, Dr. Ambedkar Institute Of Technology, Bengaluru-56**. The project work is carried out in partial fulfillment for the award of degree in **Bachelor of Engineering** in Department of **Industrial Engineering and Management** under Visveshwaraya Technological University, Belgavi during the academic year 2021-2022.

It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved, as it satisfies the academic requirements in respect of project work prescribed for the above said degree.

S.K. Rajendree 18/7/22  
Signature of Internal Guide  
**Dr. RAJENDRA S. K**

  
Signature of HOD  
**DR. N. MOHAN**

Signature of Principal  
**Dr. M. Meenakshi**

**INTERNAL EXAMINER**

S.K. Rajendree 19/07/22

**EXTERNAL EXAMNER**

  
19/7/22





10<sup>th</sup> June 2022  
Bangalore

## CERTIFICATE

This is to certify that the following BE in Industrial Engineering and Management students from Dr. Ambedkar Institute of Technology Bangalore, have successfully completed their Project on “**Automation Program for Green Machining Process**” in our organization from 16<sup>th</sup> April 2022 to 30<sup>th</sup> May 2022.

- |                    |              |
|--------------------|--------------|
| 1. Ms. Chandana. N | (1DA18IM006) |
| 2. Ms. Meghana. N  | (1DA19IM406) |

We wish them all the success in their future endeavors.

For Kennametal India Limited

A handwritten signature in black ink, appearing to read 'Samiyakh Ballal', written over a faint circular stamp.

Samyakth Ballal  
Deputy General Manager Human Resources



# Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institution Affiliated to VTU, Belagavi, Aided by Govt. of Karnataka)  
Outer Ring Road, Mallathalli, Bangalore- 560056

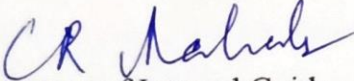
## DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT





### CERTIFICATE

This is to certify that the project work entitled “**Improvement of Overall Equipment Effectiveness in Injection Moulding Unit**” was carried out by **CHARAN R (1DA17IM014), THIPPESWAMY E (1DA18IM032), MADHU CHANDRA V (1DA19IM405)** and **KEERTHILATHA A (1DA18IM014)** bonafide students of **IEM Department of Dr. Ambedkar Institute of Technology, Bengaluru-56**. The project work is carried out in a partial fulfillment for the award of degree in **Bachelor of Engineering in Industrial Engineering and Management** under Visveswaraya Technological University, Belagavi during the academic year 2021-2022.


It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above said degree.

  
Signature of Internal Guide  
**Dr. C.R MAHESHA**

  
Signature of HOD  
**DR. N. MOHAN**

  
Signature of Principal  
**Dr. M. Meenakshi**

**INTERNAL EXAMINER**

  
S.K. Raju 20/07/22

**EXTERNAL EXAMINER**

  
Keerthilatha A





Date: 15-07-2022

## CERTIFICATE

### TO WHOMSOEVER IT MAY CONCERN

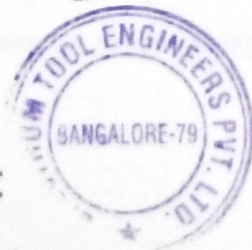
This is to certify that the following BE in Industrial Engineering and Management Students from Ambedkar Institute of Technology Bangalore, have successfully completed their Project on "IMPROVEMENT OF OVERALL EQUIPMENT EFFECTIVENESS IN INJECTION MOULDING UNIT" in our organization from 25<sup>th</sup> March 2022 to 25<sup>th</sup> April 2022.

- |                        |              |
|------------------------|--------------|
| 1. Mr. Charan R        | (1DA17IM014) |
| 2. Mr. Thippeswamy E   | (1DA18IM032) |
| 3. Mr. Madhu Chandra V | (1DA19IM405) |
| 4. Ms. Keerthilatha A  | (1DA18IM014) |

We Wish all of them all the very best for their future endeavor.

**For Spectrum Tool Engineers Pvt Ltd.,**

  
PRAMOD C



Administration



# Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An autonomous institution, Aided by Govt. of Karnataka, Affiliated to  
VTU)BDA Outer Ring Road, Near Jnana Bharathi Campus, Bengaluru -  
560056



DEPARTMENT OF INDUSTRIAL ENGINEERING & MANAGEMENT

## CERTIFICATE

Certified that the project work entitled **DESIGN & PROCESS OPTIMIZATION OF MAIN ROTOR HUB CAP INSTALLATION TOOL FOR LIGHT COMBAT HELICOPTER** is carried out by the following bonafide students of INDUSTRIAL ENGINEERING & MANAGEMENT in partial fulfillment for the award of Bachelor of Engineering, B.E at Dr. Ambedkar Institute of Technology, Bangalore, during the academic year 2021-22.

It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the project report.

The project report has been approved satisfying the academic requirements prescribed for the said Degree.

Sl. No	Name of the student	USN
1	AKASH B J	1DA15IM002
2	AKARSH RAJ A M	1DA16IM004
3	MANJU V	1DA18IM405

<i>S.K. Rajendra</i>	<i>[Signature]</i>	<i>[Signature]</i>
GUIDE Dr. S. K. Rajendra	HOD Dr. N. Mohan	PRINCIPAL Dr. M. Meenakshi

### External Viva:

Sl.No	Name of the examiner	Signature with date
1	Dr. S.K. RAJENDRA	<i>S.K.R. 25/07/22</i>
2	Dr. Venkatesh. N	<i>[Signature]</i> <i>25/07/22</i>




# CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN


This is to certify that below mentioned students pursuing B.E. in INDUSTRIAL ENGINEERING & MANAGEMENT from Dr Ambedkar Institute of Technology have successfully completed their project on "DESIGN AND PROCESS OPTIMIZATION OF MAIN ROTOR HUB CAP INSTALLATION TOOL for LIGHT COMBAT HELICOPTER" at Tooling & Final assembly, RWR&DC from 12-03-22 to 30-6-22 as a part of their curriculum.

AKASH B J	1DA15IM002
AKARSH RAJ A M	1DA16IM004
MANJU V	1DA18IM405

Their character and conduct during the above period were good.

  
**ONKARAPPA A S**  
AGM (TL & M/C Shop)  
RWR&DC, HAL

  
**CHETHAN H N**  
SM (TL)-RC

  
**DHINESH RAO P**  
SM-MS-RWRDC



# DR. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An autonomous institution, affiliated to VTU, Belagavi, and aided by government of Karnataka)

Near Jnana Bharathi campus, Mallathahalli, Bengaluru-560056

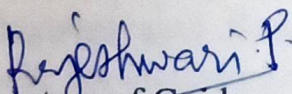
DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT

(ACCREDITED BY NBA & NAAC 'A' GRADE)



This is to certify that the technical project work titled “Implementation of SIX SIGMA & TQM and optimizing plant layout to achieve overall revenue surge in a fabrication firm” is submitted by Nikhil M (1DA18IM407), Bharath Raj K (1DA16IM006), Nandhan kumar D R (1DA16IM020), bonafide students of Dr. Ambedkar Institute of Technology, Bengaluru, in partial fulfilment for the award of degree of Bachelor of Engineering in Industrial Engineering and Management of the Visvesvaraya Technological University, Belagavi, during the year 2021–2022.

The technical project work report has been approved as it satisfies the academic requirements in respect of the project on current topic prescribed for Bachelor of Engineering degree.


  
Signature of Guide

**Dr. RAJESHWARI.P**

Associate Professor, IEM, Dr.AIT

Name of Examiners:

1. S.K. Rajendra
2. Dr. Venkatesh N


  
Signature of HOD

**Dr. N MOHAN**

Professor & HOD, IEM

Dr. AIT

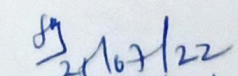

Dr. AIT  
UVCE

  
Signature of Principal

**Dr. M.Meenakshi**

Dr. AIT

Signature with date:

 25/07/22  
 25/01/22





# RAKSHU

Laser and Bending

No: 546/2, 4<sup>th</sup> Phase, 7<sup>th</sup> Main, Peenya Industrial Estate - 560058

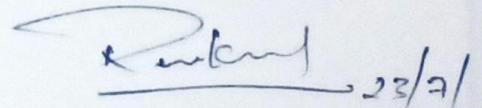
## CERTIFICATE

THIS IS TO CERTIFY THAT

- 1) MR. NIKHIL M (1DA18IM407)
- 2) MR. NANDAN KUMAR D R (1DA16IM020)
- 3) MR. BHARAT RAJ K (1DA16IM006)

Students of Dr. Ambedkar Institute of Technology, Bengaluru, and Department of IEM has successfully completed their PROJECT WORK on "Implementation of SIX SIGMA & TQM and optimizing plant layout to achieve overall revenue surge in a fabrication firm" from 01/04/2022 to 15/06/2022 as part of their curriculum.

The character and conduct during their project work were **GOOD** and we wish them bright success in future Endeavors.



Signature of the  
Proprietor