

**MTRE11 : Project Work**  
**Batch Allocation**

Venue: SNC Laboratory Date : 24.03.2023 Session FNAAN Branch / Class : IV MTRE

Sl. No.	Roll Number	Register Number	Name of the Student	Title of the Project Work
1	19UMTR006	920419115301	Thirumalaiselva.J	Automatic Oil shell Ejection ✓
	19UMTR018	920419115001	BaskaraPandi.P	
	19UMTR028	920419115002	Santhosh.S	
2	19UMTR014	920419115003	Siva.A	Semi-automatic lubrication system in washer production ✓
	19UMTR016	920419115005	Vikaash.P	
	19UMTR032	920419115006	NarendraKumar.R	
3	19UMTR010	920419115008	AnuAkshayaa.R M	Valet Robot ✓
	19UMTR029	920419115010	Devadharshini.R	
	19UMTR005	920419115007	Mohammed Ibrahim.S	
4	19UMTR038	920419115012	Mohammed Althaf.A	Gantry Welding Robot ✓
	19UMTR020	920419115011	Ragulraj.K	
	19UMTR004	920419115009	SelvaKumaravel.E	
5	19UMTR039	920419115302	Ananth.R	Adaptation in Washing Liquid Packaging System ✓
	19UMTR035	920419115014	Solairagul.R	
	19UMTR001	920419115013	SanthoshElavarasan.D	
6	19UMTR002	920419115015	SabeshNovin.S	Design and Fabrication of Husk Blower ✓
	19UMTR030	920419115016	ManojPrabhu.M	
	19UMTR041	920419115017	NalanrajShanmugam.S	
7	19UMTR003	920419115303	Arjun.P	AI Based Solar Panel Cleaning Robot ✓
	19UMTR033	920419115019	JothiVenkatesh.K	
	19UMTR008	920419115018	SankaraNarayanan.S	
8	19UMTR013	920419115021	Aravind.N	Pneumatic Cotton Feed Mechanism ✓
	19UMTR007	920419115020	Krishnaprakash.M	
	19UMTR015	920419115501	KarthickNissanth.N	
9	19UMTR011	920419115022	HariRaj.P R	Smart Vacuum Cleaner ✓
	19UMTR019	920419115502	Hariharan.G	
	19UMTR024	920419115023	Mohamed NazeerAnsari	
10	19UMTR009	920419115304	Sathya.K K	Computation of Length and Chopping in Extrusion Process Using PLC ✓
	19UMTR012	920419115024	Gowtham.G	
	19UMTR036	920419115305	Ramvenkadesh.S	
11	19UMTR027	920419115026	Naveenkumar.V	Design of Autonomous Line Following Robot for Sterilization Process ✓
	19UMTR031	920419115028	Ponnam.R	
	19UMTR017	920419115025	VijayaKumar.E	
12	19UMTR026	920419115030	Bawankalyan.A P	An Effective Impeller design for pumps ✓
	19UMTR021	920419115027	Rama Chandru.T	
	19UMTR034	920419115031	Sanjeev.K	
13	19UMTR023	920419115306	Prasanna.M	Pneumatic Powered Metal Split Machine ✓
	19UMTR022	920419115032	Mohamed Anas.S	
14	18UMTR036	920419115033	Prithivirajan.M	Design of Automatic Material handling of work piece in Punch Press ✓
	18UMTR037	920419115034	Rajaprabu.T	
	19UMTR037	920419115035	SamuvelKingsly.I	

**Internal Examiner**

Dr.S.RAJESHBABU

AP/MTRE

9204: KCET

**External Examiner**

Mr.H.RAMESH

Assistant Professor/ Department of  
 Mechatronics Engineering  
 Thiagaraja College of Engineering,  
 Madurai

# **AUTOMATIC OIL SHELL EJECTION**

## **PROJECT REPORT**

*Submitted by*

**BASKARA PANDI P** (920419115005)

**SANTHOSH S** (920419115027)

**THIRUMALAI SELVA J** (920419115033)

*In partial fulfilment for the award of the degree of*

**BACHELOR OF ENGINEERING**

**IN**

**MECHATRONICS ENGINEERING**



**DEPARTMENT OF MECHATRONICS ENGINEERING**

**KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY**

*(An Autonomous Institution Affiliated to Anna University, Chennai)*

**K. VELLAKULAM - 625 701 (Near Virudhunagar)**

**MARCH 2023**

**KAMARAJ COLLEGE OF ENGINEERING AND  
TECHNOLOGY**

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**K. VELLAKULAM - 625 701 (Near Virudhunagar)**

**BONAFIDE CERTIFICATE**

Certified that the project report "AUTOMATIC OIL SHELL  
EJECTION" is the bonafide work of "BASKARA PANDI P (920419115006),  
SANTHOSH S (920419115027) & THIRUMALAI SELVA (920419115033)"  
who carried out the project work under my supervision.



**SIGNATURE**

**Dr.K.KANNAN, M.E., M.E., Ph.D.,**

**HEAD OF THE DEPARTMENT**

Professor

Department of Mechatronics Engineering

Kamaraj College of Engineering &  
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K.Vellakulam, Madurai



**SIGNATURE**

**Mr.S. DAVID BLESSLEY, M.E., (Ph.D)**

**SUPERVISOR**

Assistant Professor

Department of Mechatronics Engineering

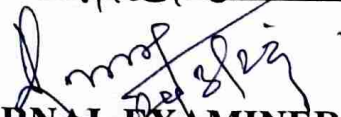
Kamaraj College of Engineering &  
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K.Vellakulam, Madurai

Submitted for the Viva Voce Examination held on 24/03/2023



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**

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Mobile : 99408 75949



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E-mail ID : aeenngg2009@yahoo.co.in



Date : 16/03/2023

### TO WHOM IT MAY CONCERN

This is to certify that Mr.P.BASKARA PANDI of B.E. MECHATRONICS ENGINEERING from KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY had undergone project from 07.10.2022 to 10.03.2023.

Throughout the project, his overall conduct and attitude towards the work was found good. He was hardworking, punctual and committed towards the implementation of the project in industry.

**Wishing Him all success for his future...**

  
For A.E. Engineering

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Mobile : 99408 75949



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---

### TO WHOM IT MAY CONCERN

Date : 16/03/2023

This is to certify that Mr.S.SANTHOSH of B.E.  
MECHATRONICS ENGINEERING from  
KAMARAJ COLLEGE OF ENGINEERING AND  
TECHNOLOGY had undergone project from  
07.10.2022 to 10.03.2023 .

Throughout the project, his overall conduct and  
attitude towards the work was found good. He was  
hardworking, punctual and committed towards the  
implementation of the project in industry.

**Wishing Him all success for his future...**

For A.E. Engineering



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**TO WHOM IT MAY CONCERN**

Date : 16/07/2023

This is to certify that Mr. J.THIRUMALAI SELVA  
of B.E. MECHATRONICS ENGINEERING from  
KAMARAJ COLLEGE OF ENGINEERING AND  
TECHNOLOGY had undergone project from 07.10.2022  
to 10.03.2023 .

Throughout the project, his overall conduct and  
attitude towards the work was found good. He was  
hardworking, punctual and committed towards the  
implementation of the project in industry.

**Wishing him all success for his future...**

  
For A.E. Engineering

# **SEMI-AUTOMATIC LUBRICATION SYSTEM IN WASHER PRODUCTION**

## **PROJECT REPORT**

*Submitted by*

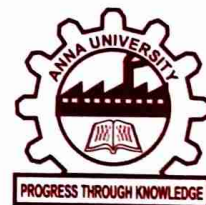
**NARENDRA KUMAR R** (920419115018)  
**SIVA A** (920419115032)  
**VIKAASH P** (920419115035)

*In partial fulfilment for the award of the degree of*

**BACHELOR OF ENGINEERING**

**IN**

**MECHATRONICS ENGINEERING**



**DEPARTMENT OF MECHATRONICS ENGINEERING  
KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY  
(An Autonomous Institution Affiliated to Anna University, Chennai)**

**K. VELLAKULAM, VIRUDHUNAGAR - 626 001**

**MARCH 2023**

**KAMARAJ COLLEGE OF ENGINEERING AND  
TECHNOLOGY**

(An Autonomous Institution Affiliated to Anna University, Chennai)

**K. VELLAKULAM, VIRUDHUNAGAR - 626 001**

**BONAFIDE CERTIFICATE**

Certified that the project report " SEMI-AUTOMATIC LUBRICATION SYSTEM IN WASHER PRODUCTION" is the bonafide work of "NARENDRA KUMAR R (920419115018), SIVA A (920418115032) & VIKASH P (920419115035)" who carried out the project work under my supervision.



**SIGNATURE**

**Dr. K. KANNAN, M.E., M.E., Ph.D.,**

**HEAD OF THE DEPARTMENT**

Professor  
Department of Mechatronics  
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**SIGNATURE**

**Mr. P. BALASUNDAR, M.E., (Ph.D)**

**SUPERVISOR**

Assistant Professor  
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Kamaraj College of Engineering &  
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K.Vellakulam,  
Virudhunagar - 626 001

Submitted for the Viva Voce Examination held on 24-03-2023



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**





# P.K.S ENGINEERING

AN IATF 16949 - 2016 CERTIFIED COMPANY

Shed No 75 , SIDCO Industrial Estate,  
Kappalur, Madurai - 625 008.  
Phone: 0452 - 2489860, 88838 77746.  
Email : pksengineering2013@gmail.com

17.03.2023

## CERTIFICATE OF PROJECT COMPLETION

This is to certify that **Mr. R.Narendra Kumar (920419115018)** a student of **B.E Mechatronics Engineering** from **Kamaraj College of Engineering and Technology** an Autonomous Institution, S.P.G. Chidambara Nadar- C. Nagammal Campus, K.Vellakullam – 625701 (Virudhunagar) has completed his project on topic **"Semi – Automatic Lubrication System in Washer Production"** at **"PKS Engineering, Kappalur, Madurai-625008"** during the period of **05-01-2023 TO 10-03-2023**. During this period, his conduct and character was found to be **Good**.

For **PKS ENGINEERING**  
  
Authorised Sign

TIN No. : 33635166062 | CST No. : 744463 | GST No : 33ANBPP0384Q1ZN

Tool Fabrication Works - Sheet Metal Pressed Components Manufacturing



**P.K.S**  
**ENGINEERING**

AN IATF 16949 - 2016 CERTIFIED COMPANY

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Phone: 0452 - 2489860, 88838 77746.  
Email : pksengineering2013@gmail.com

17.03.2023

**CERTIFICATE OF PROJECT COMPLETION**

This is to certify that **Mr.A.Siva (920419115032)** a student of **B.E Mechatronics Engineering** from **Kamaraj College of Engineering and Technology** an Autonomous Institution, S.P.G. Chidambara Nadar - C.Nagammal Campus, K.Vellakullam – 625701 (Virudhunagar) has completed his project on topic **“Semi-Automatic Lubrication System in Washer Production”** at **“P.K.S Engineering, Kappalur, Madurai - 625008”** during the period of **05-01-2023 TO 10-03-2023**. During this period, his conduct and character was found to be **Good**.

**FOR P.K.S ENGINEERING**

  
**Authorised Sign**

TIN No. : 33635166062 | CST No. :744463 | GST No : 33ANBPP0384Q1ZN

Steel Fabrication Works, Sheet Metal Processed Components Manufacturer



**P.K.S**  
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Phone: 0452 - 2489860, 88838 77746.  
Email : pksengineering2013@gmail.com

**17.03.2023**

**CERTIFICATE OF PROJECT COMPLETION**

This is to certify that **Mr. P.Vikaash (920419115035)** a student of **B.E Mechatronics Engineering** from **Kamaraj College of Engineering and Technology** an Autonomous Institution, S.P.G. Chidambara Nadar- C. Nagammal Campus, K.Vellakullam – 625701 (Virudhunagar) has completed his project on topic **“Semi – Automatic Lubrication System in Washer Production”** at **“PKS Engineering, Kappalur, Madurai-625008”** during the period of **05-01-2023 TO 10-03-2023**. During this period, his conduct and character was found to be **Good**.

**FOR PKS ENGINEERING**  
  
**Authorised Sign**

TIN No. : 33635166062 | CST No. :744463 | GST No : 33ANBPP0384Q1ZN

Fabrication Works - Sheet Metal Pressed Components Manufacturer

# **VALET ROBOT**

**A PROJECT REPORT**

*Submitted by*

**ANU AKSHAYAA R M (920419115001)**

**DEVADARSHINI R (920419115007)**

**MOHAMMED IBRAHIM S (920419115017)**

*In partial fulfillment for the award of the degree of*

**BACHELOR OF ENGINEERING**

**IN**

**MECHATRONICS ENGINEERING**



**DEPARTMENT OF MECHATRONICS ENGINEERING  
KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY  
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**K. VELLAKULAM, VIRUDHUNAGAR - 625 701**

**MARCH 2023**

**KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY**

**(An Autonomous Institution- Affiliated to Anna University, Chennai)**

**K. VELLAKULAM, VIRUDHUNAGAR - 625701**

**BONAFIDE CERTIFICATE**

Certified that the project report “VALET ROBOT” is the bonafide work of “R. M. ANU AKSHAYAA(920419115001), R. DEVADARSHINI (920419115007) and S. MOHAMMED IBRAHIM (920419115017)” who carried out the project work under my supervision.



**SIGNATURE**

**Dr.K.KANNAN**

**Head of the Department,**

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**SIGNATURE**

**Dr.K.KANNAN**

**SUPERVISOR ,**

Dept. of Mechatronics Engineering,

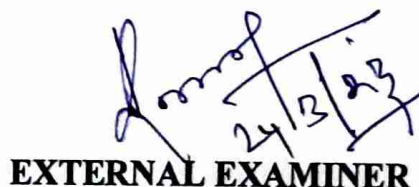
Kamaraj College of Engg & Tech,

K.Vellakulam,

Virudhunagar - 626 001.



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**

# **GANTRY WELDING ROBOT**

## **PROJECT REPORT**

*Submitted by*

**MOHAMMED ALTHAF A** (920419115302)  
**RAGUL RAJ K** (920419115022)  
**SELVA KUMARAVEL E** (920419115031)

*In partial fulfilment for the award of the degree of*

**BACHELOR OF ENGINEERING**

**IN**

**MECHATRONICS ENGINEERING**



**DEPARTMENT OF MECHATRONICS ENGINEERING**  
**KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY**  
(An Autonomous Institution Affiliated to Anna University, Chennai)

**K. VELLAKULAM VIRUDHUNAGAR - 625 001**

**MARCH 2023**

**KAMARAJ COLLEGE OF ENGINEERING AND  
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(An Autonomous Institution Affiliated to Anna University, Chennai)

**K. VELLAKULAM, VIRUDHUNAGAR- 625 701**

**BONAFIDE CERTIFICATE**

Certified that the project report "GANTRY WELDING ROBOT" is the bonafide work of "MOHAMMED ALTHAF A (920419115302), RAGUL RAJ K (920418115022) & SELVA KUMARAVEL E (920419115031)" who carried out the project work under my supervision.



**SIGNATURE**

**Dr.K.KANNAN, M.E., M.E., Ph.D.,**

**HEAD OF THE DEPARTMENT**

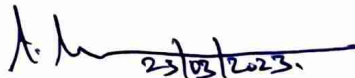
Professor

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**Mr.A.ARULKUMAR, M.E., (Ph.D)**

**SUPERVISOR**

Assistant Professor

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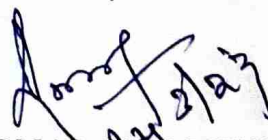
K.Vellakulam,

Virudhunagar - 626 001

Submitted for the Viva Voce Examination held on 24. 3. 2023



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**

# **ADAPTATION IN WASHING LIQUID PACKING SYSTEM**

## **PROJECT REPORT**

*Submitted by*

**SANTHOSH ELAVARASAN.D** (920419115028)  
**ANANTH.R** (920419115301)  
**SOLAI RAGUL.R** (920419115306)

*In partial fulfilment for the award of the degree of*

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IN  
MECHATRONICS ENGINEERING**



**DEPARTMENT OF MECHATRONICS ENGINEERING  
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(An Autonomous Institution Affiliated to Anna University, Chennai)**

**K. VELLAKULAM - 625 701 (Near Virudhunagar)**

**MARCH 2023**



**KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY**

(An Autonomous Institution Affiliated to Anna University, Chennai)

**K. VELLAKULAM - 625 701**

**BONAFIDE CERTIFICATE**

Certified that the project report "ADAPTATION IN WASHING LIQUID PACKING SYSTEM" is the bonafide work of "SANTHOSH ELAVARASAN D (920419115028), ANANTH R (920419115301) & SOLAI RAGUL R (920419115306)" who carried out the project work under my supervision.



**SIGNATURE**

**Dr.K.KANNAN, M.E., M.E., Ph.D.,**

**HEAD OF THE DEPARTMENT**

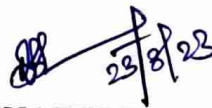
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Assistant Professor

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Submitted for the Viva Voce Examination held on 24/03/2023



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**

GSTIN : 33AENPB5651F1ZR

Dr Kamatchiamman Santhosha Devi Thirumal

TR 94430 67267

**SILVER CHEMICALS**  
MFRS. DETERGENT CAKE, DETERGENT POWDER

Ref :

Date : 18/03/2023

**CERTIFICATE OF COMPLETION**

This is to certify that **Mr.D.SANTHOSH ELAVARASAN** (920419115028) a student of **B.E Mechatronics Engineering** from **Kamaraj College of Engineering and Technology** an Autonomous Institution, **S.P.G.Chidambara Nadar - C.Nagammal Campus,K. vellakullam -625701(Virudhunagar)** has completed his project on topic **“ADAPTATION IN WASHING LIQUID PACKAGING SYSTEM”** at **“Silver Chemicals (Valayankulam, Madurai – 625022)”** during the period of **22-12-2022 to 07-03-2023.**

*For Silver Chemicals*



Proprietor

---

Old No. 1/255, New No. 1/390, Main Road, Valayankulam, Madurai - 22.  
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☎ 94430 67267

**SILVER CHEMICALS**  
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Ref :

Date : 18/03/2023

**CERTIFICATE OF COMPLETION**

This is to certify that **Mr.R.ANANTH (920419115301)** a student of **B.E Mechatronics Engineering** from **Kamaraj College of Engineering and Technology** an Autonomous Institution, **S.P.G.Chidambara Nadar - C.Nagammal Campus,K. vellakullam -625701(Virudhunagar)** has completed his project on topic **“ADAPTATION IN WASHING LIQUID PACKAGING SYSTEM”** at **“Silver Chemicals (Valayankulam, Madurai – 625022)”** during the period of **22-12-2022 to 07-03-2023.**

*For Silver Chemicals*

*S. Baskarannadar*

Proprietor

---

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Ref :

Date : 18/03/2023

**CERTIFICATE OF COMPLETION**

This is to certify that **Mr.R.SOLAI RAGUL(920419115306)** a student of **B.E Mechatronics Engineering** from **Kamaraj College of Engineering and Technology** an Autonomous Institution, **S.P.G.Chidambara Nadar - C.Nagammal Campus,K. vellakullam -625701(Virudhunagar)** has completed his project on topic **“ADAPTATION IN WASHING LIQUID PACKAGING SYSTEM”** at **“Silver Chemicals (Valayankulam, Madurai – 625022)”** during the period of **22-12-2022 to 07-03-2023.**

*For Silver Chemicals*



Proprietor

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E-mail : [mdusilvar@yahoo.com](mailto:mdusilvar@yahoo.com) [baskarannadar1@gmail.com](mailto:baskarannadar1@gmail.com)

# **DESIGN AND FABRICATION OF HUSK BLOWER**

**A PROJECT REPORT**

*Submitted by*

**MANOJ PRABHU M (920419115014)**

**SABESH NOVIN S (920419115024)**

**NALANRAJ SHANMUGAM S (920419115303)**

*In partial fulfillment for the award of the degree of*

**BACHELOR OF ENGINEERING**

**IN**

**MECHATRONICS ENGINEERING**



**DEPARTMENT OF MECHATRONICS ENGINEERING  
KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY  
(An Autonomous Institution - Affiliated to Anna University, Chennai)  
K.VELLAKULAM, VIRUDHUNAGAR - 625 701**

**MARCH 2023**

# KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY

(An Autonomous Institution- Affiliated to Anna University, Chennai)

K.VELLAKULAM, VIRUDHUNAGAR - 625 701

## BONAFIDE CERTIFICATE

Certified that the project report " DESIGN AND FABRICATION OF HUSK BLOWER" is the bonafide work of "MANOJ PRABHU S (920419115014), SABESH NOVIN S (920418115024) & NALANRAJ SHNAMUGAM S (920419115303)" who carried out the project work under my supervision.



**SIGNATURE**

**Dr. K. KANNAN,**

**Head of the Department,**

Designation,

Dept. of Mechatronics Engineering,

Kamaraj College of Engg & Tech,

K.Vellakulam,

Virudhunagar - 626 001.



**SIGNATURE**

**Mr. A. GANESAN, M.E.,**

**SUPERVISOR,**

Designation,

Dept. of Mechatronics Engineering,

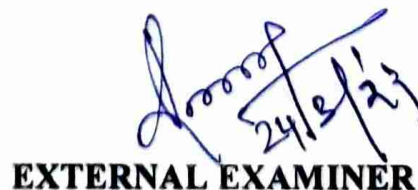
Kamaraj College of Engg & Tech,

K.Vellakulam,

Virudhunagar - 626 001.



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**



# ARONN KINTECH ENGINEERING WORKS

## PROJECT CERTIFICATE

Date: 20.01.2023

Place: Coimbatore

### To Whomsoever It May Concern

This is to certify that,

**Mr.MANOJ PRABHU.M (Reg.No: 920419115014)**  
**Mr.SABESH NOVIN.S (Reg.No: 920419115024)**  
**Mr.NALANRAJ SHANMUGAM.S (Reg.No: 920419115303)**

Final year Mechatronics Engineering, KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, has undergone project at our company during the period of 20/12/2022 to 7/01/2023.

During the project execution, performance and conduct was good.

**Title of the Project: Design and Fabrication of husk blower**

We wish in all success in his future endeavors.

**For Aronn Kintech Engineering Works**

**ARONN KINTECH ENGINEERING WORKS**  
**S.F.No: 489, 7/2, Annalyappar Street**  
**Nallampalayam**  
**Coimbatore - 641006.**

+91 9894459351  
+91 9500510556

7/2, Annalappan Street,  
Nallampalayam, Coimbatore - 641 006  
Tamilnadu, India

GSTIN: 33ABXFA4482C12C  
aronnkintech@gmail.com

# **AI BASED SOLAR PANEL CLEANING ROBOT**

## **PROJECT REPORT**

*Submitted by*

**ARJUN P (920419115003)**

**JOTHI VENKATESH K (920419115011)**

**SANKARANARAYANAN S (920419115026)**

*In partial fulfilment for the award of the degree of*

**BACHELOR OF ENGINEERING**

**IN**

**MECHATRONICS ENGINEERING**



**DEPARTMENT OF MECHATRONICS ENGINEERING**  
**KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY**  
(An Autonomous Institution Affiliated to Anna University, Chennai)

**K. VELLAKULAM - 625 701 (Near Virudhunagar)**

**MARCH 2023**



# KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY

(An Autonomous Institution Affiliated to Anna University, Chennai)

K. VELLAKULAM - 625 701 (Near Virudhunagar)

## BONAFIDE CERTIFICATE

Certified that the project report "AI BASED SOLAR PANEL CLEANING ROBOT" is the bonafide work of "ARJUN P (920419115003), JOTHI VENKATESH K (920419115011) & SANKARANARAYANAN S (9201419115026)" who carried out the project work under my supervision.



**SIGNATURE**

**Dr.K.KANNAN, M.E., M.E., Ph.D.,**

**HEAD OF THE DEPARTMENT**

Professor

Dept. of Mechatronics Engineering

Kamaraj College of Engg & Tech,

K.Vellakulam, Madurai



**SIGNATURE**

**Dr.K.KANNAN, M.E., M.E., Ph.D.,**

**SUPERVISOR**

Professor & Head

Dept. of Mechatronics Engineering

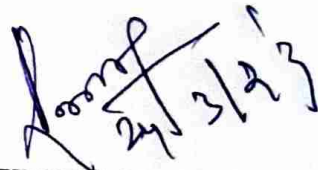
Kamaraj College of Engg & Tech,

K.Vellakulam, Madurai

Submitted for the Viva Voce Examination held on 24-03-2023



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**

# **PNEUMATIC COTTON FEED MECHANISM**

## **PROJECT REPORT**

*Submitted by*

<b>ARAVIND N</b>	<b>920419115002</b>
<b>KARTHICK NISSANTH N</b>	<b>920419115012</b>
<b>KRISHNAPRAKASH M</b>	<b>920419115013</b>

*In partial fulfillment for the award  
of the degree of*

**BACHELOR OF ENGINEERING IN  
MECHATRONICS ENGINEERING**



**DEPARTMENT OF MECHATRONICS ENGINEERING  
KAMARAJ COLLEGE OF ENGINEERING AND Technology**

**(An Autonomous Institution - Affiliated to Anna University, Chennai)**

**K.VELLAKULAM - 625 701 (Near Virudhunagar)**

**MARCH 2023**

**KAMARAJ COLLEGE OF ENGINEERING AND  
TECHNOLOGY**

(An Autonomous Institution- Affiliated to Anna University, Chennai)

**K.VELLAKULAM - 625 701 (Near Virudhunagar)**

**BONAFIDE  
CERTIFICATE**

Certified that the project report "Pneumatic Cotton Feed Mechanism" is the bonafide work of N.ARAVIND(920419115002), N.KARTHICKNISSANTH(920419115012),M.KRISHNAPRAKASH(920419115013) who carried out the project work under my supervision.



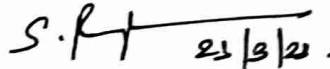
**SIGNATURE**

**Dr.K.KANNAN,M.E., M.E., Ph.D.,**

**HEAD OF THE DEPARTMENT**

Dept Of Mechatronics Engineering  
Kamaraj College Of Engineering &  
Technology

K. Vellakulam, Madurai



**SIGNATURE**

**Dr.S.RAJESHBABU M.E.Ph.D**

**SUPERVISOR**

Dept Of Mechatronics Engineering  
Kamaraj College Of Engineering &  
Technology

K. Vellakulam, Madurai

Submitted for the Viva Voce Examination held on 24.03.2023



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**



February 25, 2023

**CERTIFICATE**

This is to certify that **Mr.N.Aravind (Reg.No.920419115002)**, a student of Final year **B.E.Mechatronics** from **Kamaraj Collage of Engineering & Technology**, has completed his "**PNEUMATIC COTTON FEED MECHANISM**" at **GHCL Limited, Paravai** during the period from **20.12.2022** to **20.01.2023**.

We wish him all success in his future endeavof.

For GHCL Limited ,  
Sree Meenakshi Mills ,  
Paravai-625402.  
Textile mill in samayanallur,  
Madurai, Tamilnadu.

A handwritten signature in black ink, appearing to read 'Bhuneshwar Mishra'.



**Bhuneshwar Mishra**  
**Sr. GM - Sustainability & Company Secretary**  
(Membership No.: FCS 5330)



**February 25, 2023**

**CERTIFICATE**

**This is to certify that Mr.N.Karthick Nissanth (Reg.No.920419115012), a student of Final year B.E.Mechatronics from Kamaraj Collage of Engineering & Technology, has completed his " PNEUMATIC COTTON FEED MECHANISM" at GHCL Limited, Paravai during the period from 20.12.2022 to 20.01.2023.**

**We wish him all success in his future endeavor.**

**For GHCL Limited ,  
Sree Meenakshi Mills ,  
Paravai-625402.  
Textile mill in samayanallur,  
Madurai, Tamilnadu.**



**Bhuvneshwar Mishra  
Sr. GM - Sustainability & Company Secretary  
(Membership No.: FCS 5330)**

**GHCL Limited**



**February 25, 2023**

## **CERTIFICATE**

This is to certify that **Mr.M.KrishnaPrakash (Reg.No.920419115013)**, a student of **Final year B.E.Mechatronics from Kamaraj Collage of Engineering & Technology**, has completed his "**PNEUMATIC COTTON FEED MECHANISM**" at **GHCL Limited, Paravai** during the period from **20.12.2022 to 20.01.2023**.

**We wish him all success in his future endeavor.**

For GHCL Limited ,  
Sree Meenakshi Mills ,  
Paravai-625402.  
Textile mill in samayanallur,  
Madurai, Tamilnadu.



**Bhuwleshwar Mishra**  
**Sr. GM - Sustainability & Company Secretary**  
(Membership No.: FCS 5330)

B- 38, GHCL House, Institutional Area, Sector- 1, Noida, (U.P.) - 201301, India Ph : +91-120-2535335, 4939900. Fax : +91-120-2535 209  
CIN : L2 4100GJ1983PLC006 513. E-mail : [ghclinfo@ghcl.co.in](mailto:ghclinfo@ghcl.co.in) Website : [www.ghcl.co.in](http://www.ghcl.co.in)

Regd. Office : GHCL House, Opp. Punjab Hall, Near Navrangpura Bus Stand, Navrangpura, Ahmedabad, Gujarat - 380009, India



# KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY

(An Autonomous Institution- Affiliated to Anna University, Chennai)  
**K.VELLAKULAM - 625 701 (Near Virudhunagar)**

## BONAFIDE CERTIFICATE

Certified that the project report “Smart Vacuum Cleaner” is the bonafide work of  
**G.HARI HARAN(920419115009), P.R.HARI RAJ(920419115010),**  
**H.MOHAMED NAZEER ANSARI(920419115016)** who carried out the project  
work under my supervision.



**SIGNATURE**

**Dr.K.KANNAN,M.E., M.E., Ph.D.,**

**HEAD OF THE DEPARTMENT**

Dept Of Mechatronics Engineering  
Kamaraj College Of Engineering &  
Technology  
K. Vellakulam, Madurai




**SIGNATURE**

**Dr.S.RAJESHBABU M.E.Ph.D**

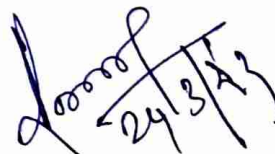
**SUPERVISOR**

Dept of Mechatronics Engineering  
Kamaraj College Of Engineering &  
Technology  
K. Vellakulam, Madurai

Submitted for the Viva Voce Examination held on 24.03.2023



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**



GSTIN:33AAZFS6203Q1ZE

## SRI VENKATESHWARA BOARD

Factory :

**PETHUREDDIPATTI** - 626 205.  
ODAIPATTI (P.O.) **SATTUR** (T.K.)  
VIRUDHUNAGAR DIST. TAMILNADU.  
Tele Fax : (04562) 284618

Office :

174,Railway Feeder Road.  
**SATTUR** - 626 203.  
Virudhunagar Dist.  
Ph : (04562) 260592

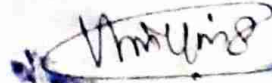
### CERTIFICATE

Date:18-02-2023

This is to certify that **Mr.H.MOHAMED NAZEER ANSARI REG.NO(920419115016)** a student of **B.E Mechatronics Engineering** from **Kamaraj College of Engineering Technology** an Autonomous Institution, S.P.G.Chidambara Nadar-C.Nagammal Campus, K.vellakullam 625701(Virudhunagar) has completed his project "**SMART VACUUM CLEANER**" at "**Sri Venkateshwara Boards**" during the period FROM 20-12-2022 TO 28-01-2023.

Wishing him all success for his future.

For Sri Venkateshwara Boares

FOR  Partner

GSTIN:33AAZFS6203Q1ZE

## SRI VENKATESHWARA BOARD

Factory :

**PETHUREDDIPATTI** - 626 205.  
ODAIPATTI (P.O.) SATTUR (T.K.)  
VIRUDHUNAGAR DIST. TAMILNADU.  
Tele Fax : (04562) 284618

Office :

174,Railway Feeder Road,  
**SATTUR** - 626 203.  
Virudhunagar Dist.  
Ph : (04562) 260592

### CERTIFICATE

Date:18-02-2023

This is to certify that **Mr.P.R.HARI RAJ REG.NO(920419115010)** a student of **B.E Mechatronics Engineering** from **Kamaraj College of Engineering Technology** an Autonomous Institution ,S.P.G.ChidambaraNadar - C.Nagammal Campus,K.vellakullam-625701(Virudhunagar) has completed his project **"SMART VACUUM CLEANER"** at **"Sri Venkateshwara Boards"** during the period **FROM 20-12-2022 TO 28-01-2023.**

Wishing him all success for his future.

for  Partner  
For Sri Venkateshwara Boards

GSTIN:33AAZFS6203Q1ZE

## SRI VENKATESHWARA BOARD

Factory :

**PETHUREDDIPATTI** - 626 205.  
ODAIPATTI (P.O.) SATTUR (T.K.)  
VIRUDHUNAGAR DIST. TAMILNADU.  
Tele Fax : (04562) 284618

Office :

174, Railway Feeder Road.  
**SATTUR** - 626 203.  
Virudhunagar Dist.  
Ph : (04562) 260592

### CERTIFICATE

Date:18-02-2023

This is to certify that **Mr.G.HARI HARAN REG.NO(920419115009)** a student of **B.E Mechatronics Engineering** from **Kamaraj College of Engineering and Technology** an Autonomous Institution, S.P.G.Chidambara Nadar-C.Nagammal Campus,K.vellakullam-625701(Virudhunagar) has completed his project **"SMART VACUUM CLEANER"** at **"Sri Venkateshwara Boards"** during the period **FROM 20-12-2022 TO 28-01-2023.**

**Wishing him all success for his future.**

For Sri Venkateshwara Boards  
For *[Signature]*  
Managing Partner

# COMPUTATION OF LENGTH AND CHOPPING USING PLC

## PROJECT REPORT

*Submitted by*

<b>GOWTHAM G</b>	<b>(920419115008)</b>
<b>SATHYA K K</b>	<b>(920419115030)</b>
<b>RAMVENKADESH S</b>	<b>(920419115304)</b>

*In partial fulfilment for the award of the degree of*

## BACHELOR OF ENGINEERING

IN

## MECHATRONICS ENGINEERING



**DEPARTMENT OF MECHATRONICS ENGINEERING**  
**KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY**  
(An Autonomous Institution Affiliated to Anna University, Chennai)

**K. VELLAKULAM, VIRUDHUNAGAR - 626 001**

**MARCH 2023**

**KAMARAJ COLLEGE OF ENGINEERING AND  
TECHNOLOGY**

(An Autonomous Institution Affiliated to Anna University, Chennai)

**K. VELLAKULAM, VIRUDHUNAGAR - 626 001**

**BONAFIDE CERTIFICATE**

Certified that the project report "COMPUTATION OF LENGTH AND CHOPPING USING PLC" is the bonafide work of "GOWTHAM G (920419115008), SATHYA K K (920418115030) & RAMVENKADESH S (920419115304)" who carried out the project work under my supervision.

  
**SIGNATURE**

**Dr. K. KANNAN, M.E., M.E., Ph.D.,**

**HEAD OF THE DEPARTMENT**

Professor

Department of Mechatronics

Engineering

Kamaraj College of Engineering &  
Technology

K.Vellakulam,

Virudhunagar - 626 001

  
**SIGNATURE**

**Mr. A. GANESAN, M.E.,**

**SUPERVISOR**

Assistant Professor

Department of Mechatronics

Engineering


Kamaraj College of Engineering &  
Technology

K.Vellakulam,

Virudhunagar - 626 001

Submitted for the Viva Voce Examination held on 24.03.2023

  
**INTERNAL EXAMINER**

  
**EXTERNAL EXAMINER**

Ref: ATC/TVL/TRG/22-23/01

Date: 31.01.2023

**CERTIFICATE**

This is to certify that Mr. G. GOWTHAM (Reg. No. 920419115008), Mr. K. K. SATHYA (Reg. No. 920419115030) & Mr. S. RAMVENKADESH (Reg. No. 920419115304), the students of Final Year B.E Mechatronics Engineering from Kamaraj College of Engineering & Technology, Madurai has successfully completed their project on "Computation of length and chopping using PLC" at ATC Tires Private Limited, Tirunelveli in Engineering Department during the period from 23.12.2022 to 20.01.2023.

We wish him all success in his future endeavor.

For ATC Tires Private Limited



R.SENTHIL,  
DGM - HR & IR



**ALLIANCE GALAXY PRIMEX**

ATC Tires Pvt. Ltd.

Plant: Sipool-SEZ, Plot No.A-2, Sipool Industrial Growth Centre, Gangaikondan, Dist. Tirunelveli, Tamil Nadu- 627 352  
Phone: +91 462 6800612 | Email: info@yokohama-oh.com

Registered Office: Unit No 1001, 10<sup>th</sup> Floor Tower A, Embassy 247, LBS Marg, Vikhroli (West), Mumbai - 400 083  
Phone: +91 22 3957 9600 | Fax +91 22 3957 9699 | Email: info@yokohama-oh.com | CIN : U25111MH2007PTC172456

# **DESIGN OF AUTONOMOUS LINE FOLLOWING ROBOT FOR STERILIZATION PROCESS**

## **PROJECT REPORT**

*Submitted by*

**NAVEENKUMAR V**

**(920419115019)**

**PONRAM R**

**(920419115020)**

**VIJAYA KUMAR E**

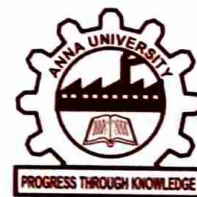
**(920419115034)**

*In partial fulfilment for the award of the degree of*

**BACHELOR OF ENGINEERING**

**IN**

**MECHATRONICS ENGINEERING**



**DEPARTMENT OF MECHATRONICS ENGINEERING  
KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY  
(An Autonomous Institution Affiliated to Anna University, Chennai)  
K. VELLAKULAM - 625 701 (Near Virudhunagar)**

**MARCH 2023**

**KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY**  
(An Autonomous Institution Affiliated to Anna University, Chennai)

**K. VELLAKULAM - 625 701 (Near Virudhunagar)**

**BONAFIDE CERTIFICATE**

Certified that the project report "**DESIGN OF AUTONOMOUS LINE FOLLOWING ROBOT FOR STERILIZATION PROCESS** " is the bonafide work of "**NAVEENKUMAR V (920419115019), PONRAM R (920418115020) & VIJAYA KUMAR E (920419115034)**" who carried out the project work under my supervision.



**SIGNATURE**

**Dr.K.KANNAN, M.E., M.E., Ph.D.,**

**HEAD OF THE DEPARTMENT**

Professor

Department of Mechatronics Engineering

Kamaraj College of Engineering &  
Technology

K.Vellakulam, Madurai.



**SIGNATURE**

**Mr.S.WESLEY MOSES SAMDOSS**

**M.E.,(Ph.D),,**

**SUPERVISOR**

Assistant Professor

Department of Mechatronics Engineering

Kamaraj College of Engineering &  
Technology

K.Vellakulam, Madurai.

Submitted for the Viva Voce Examination held on 24/3/23



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**





**ADHITYA AGRO  
PRODUCT®**

Kanavaipatti Post & Village,  
Natham Main Road,  
Near Gopalpatti, Dindigul-624308.


GST IN : 33AAMFA4845R1ZV

Date: 4 March 2023

## CERTIFICATE

This is to certify that **Mr.V.NaveenKumar (Reg.No.920419115019)**, B.E., (Mechatronics Engineering) student from Kamaraj Collage of Engineering & Technology, has done his Project Work titled “ **Design of Autonomous Line Following Robot for Sterilization Process**” in Our Industry from 19.01.2023 to 03.03.2023.

We have noticed that, during the period, he has shown keen interest in his assignments and also regular in attendance.

  
(Mr.D.Shantha Moorthy)  
SUPERVISOR



[www.adhityaagroproduct.com](http://www.adhityaagroproduct.com)



0451 - 2559016/2559125



[adhitya.agro@gmail.com](mailto:adhitya.agro@gmail.com)



**ADHITYA AGRO  
PRODUCT®**

Kanavaipatti Post & Village,  
Natham Main Road,  
Near Gopalpatti, Dindigul-624308.


GST IN : 33AAMFA4845RIZV

Date: 4 March 2023

## CERTIFICATE

This is to certify that **Mr.R.Ponram (Reg.No.920419115020)**, B.E., (Mechatronics Engineering) student from Kamaraj Collage of Engineering & Technology, has done his Project Work titled “ **Design of Autonomous Line Following Robot for Sterilization Process**” in Our Industry from 19.01.2023 to 03.03.2023.

We have noticed that, during the period, he has shown keen interest in his assignments and also regular in attendance.

  
(Mr.D.Shantha Moorthy)  
SUPERVISOR



[www.adhityaagroproduct.com](http://www.adhityaagroproduct.com)



0451 - 2559016/2559125



[adhitya.agro@gmail.com](mailto:adhitya.agro@gmail.com)



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Kanavaipatti Post & Village,  
Natham Main Road,  
Near Gopalpatti, Dindigul-624308.

GST IN : 33AAMFA4845RIZV

Date: 4 March 2023

## CERTIFICATE

This is to certify that **Mr.E.Vijaya Kumar (Reg.No.920419115034)**, B.E., (Mechatronics Engineering) student from Kamaraj Collage of Engineering & Technology, has done his Project Work titled “ **Design of Autonomous Line Following Robot for Sterilization Process**” in Our Industry from 19.01.2023 to 03.03.2023.

We have noticed that, during the period, he has shown keen interest in his assignments and also regular in attendance.

(Mr.D.Shantha Moorthy)  
SUPERVISOR



[www.adhityaagroproduct.com](http://www.adhityaagroproduct.com)



0451 - 2559016/2559125



[adhitya.agro@gmail.com](mailto:adhitya.agro@gmail.com)

**AN EFFECTIVE IMPELLER DESIGN IN  
PUMPS**

**PROJECT REPORT**

*Submitted by*

<b>BAWANKALYAN A P</b>	<b>(920419115006)</b>
<b>RAMA CHANDRU T</b>	<b>(920419115023)</b>
<b>SANJEEV K</b>	<b>(920419115025)</b>

*In partial fulfilment for the award of the degree of*

**BACHELOR OF ENGINEERING**

**IN**

**MECHATRONICS ENGINEERING**



**DEPARTMENT OF MECHATRONICS ENGINEERING  
KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY  
(An Autonomous Institution Affiliated to Anna University, Chennai)  
K. VELLAKULAM, VIRUDHUNAGAR - 626 001**

**MARCH 2023**

**KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY**

(An Autonomous Institution Affiliated to Anna University, Chennai)

**K. VELLAKULAM, VIRUDHUNAGAR - 626 001**

**BONAFIDE CERTIFICATE**

Certified that the project report "AN EFFEECTIVE IMPELLER DESIGN FOR PUMPS" is the bonafide work of "BAWANKALYAN A P (920419115006), RAMA CHANDRU T (920418115023) & SANJEEV K (920419115025)" who carried out the project work under my supervision.



**SIGNATURE**

**Dr. K. KANNAN, M.E., M.E., Ph.D.,**

**HEAD OF THE DEPARTMENT**

Professor & Head  
Department of Mechatronics  
Engineering,  
Kamaraj College of Engineering &  
Technology  
K.Vellakulam,  
Virudhunagar - 626 001



**SIGNATURE**

**Mr. P. BALASUNDAR, M.E., (Ph.D)**

**SUPERVISOR**

Assistant Professor  
Department of Mechatronics  
Engineering,  
Kamaraj College of Engineering &  
Technology  
K.Vellakulam,  
Virudhunagar - 626 001

Submitted for the Viva Voce Examination held on 24.03.2023



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**



## **ENBEST PUMPS (INDIA) PRIVATE LIMITED**

GSTIN 33AAACE4591M1ZG CIN U29120TZ1988PTC 002161

Mfrs. of Centrifugal Jet Pumps & Monobloc. Multistage and Shallow well jet and its accessories

AN ISO 9001 / ISO 14001 / ISO 45001 CERTIFIED COMPANY

S.F No.362/3, Somayampalayam, Thadagam Road, Coimbatore - 641 108, Tamilnadu India

16.03.2023

### **CERTIFICATE**

This is to certify that **A.P.BAWANKALYAN (920419115006)** a student of **B.E Mechatronics Engineering** from **Kamaraj College of Engineering and Technology** an Autonomous Institution, **S.P.G.Chidambara Nadar-C.Nagammal Campus, K.Vellakullam-625701(Near Virudhunagar)** has completed his project on topic **"An Effective Impeller Design For Pumps"** during the period of **20-12-2022 to 04-03-2023**. During this period, his conduct and character was found to be **Very Good**.

**Enbest Pumps India Pvt.Ltd**



*[Signature]*  
**HR Department**



## **ENBEST PUMPS (INDIA) PRIVATE LIMITED**

GSTIN : 33AAACE4591M1ZG CIN :U29120TZ1988PTC 002161  
Mfrs. of : Centrifugal Jet Pumps & Monobloc, Multistage and Shallow well jet and its accessories  
AN ISO 9001/ ISO 14001 / ISO 45001 CERTIFIED COMPANY  
S.F. No.362/3, Somayampalayam, Thadagam Road, Coimbatore - 641 108, Tamilnadu, India

16.03.2023

### **CERTIFICATE**

This is to certify that **T.RAMA CHANDRU (920419115023)** a student of **B.E Mechatronics Engineering** from **Kamaraj College of Engineering and Technology** an Autonomous Institution, S.P.G.Chidambara Nadar-C.Nagammal Campus, K.Vellakullam-625701(Near Virudhunagar) has completed his project on topic "**An Effective Impeller Design For Pumps**" during the period of **20-12-2022 to 04-03-2023**. During this period, his conduct and character was found to be **Very Good**.

**Enbest Pumps India Pvt.Ltd**



*[Signature]*  
HR Department



## **ENBEST PUMPS (INDIA) PRIVATE LIMITED**

GSTIN : 33AAACE4591M1ZG CIN :U29120TZ1988PTC 002161

Mfrs. of : Centrifugal Jet Pumps & Monobloc, Multistage and Shallow well jet and its accessories

**AN ISO 9001/ ISO 14001 / ISO 45001 CERTIFIED COMPANY**

S.F. No.362/3, Somayampalayam, Thadagam Road, Coimbatore - 641 108, Tamilnadu, India

**16.03.2023**

### **CERTIFICATE**

This is to certify that **K.SANJEEV (920419115025)** a student of **B.E Mechatronics Engineering** from **Kamaraj College of Engineering and Technology** an Autonomous Institution, **S.P.G.Chidambara Nadar-C.Nagammal Campus, K.Vellakullam-625701(Near Virudhunagar)** has completed his project on topic **"An Effective Impeller Design For Pumps"** during the period of **20-12-2022** to **04-03-2023**. During this period, his conduct and character was found to be **Very Good**.

**Enbest Pumps India Pvt.Ltd**

  
**HR Department**





**PNEUMATIC POWER METAL SPLIT MACHINE**

**PROJECT REPORT**

*Submitted by*

**MOHAMED ANAS S (920419115015)**

**PRASANNA M (920419115021)**

*In partial fulfillment for the award of the degree of*

**BACHELOR OF ENGINEERING**

**IN**

**MECHATRONICS ENGINEERING**



**DEPARTMENT OF MECHATRONICS ENGINEERING  
KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY**

*(An Autonomous Institution Affiliated to Anna University, Chennai)*

**K. VELLAKULAM - 625 701 (Near Virudhunagar)**

**MARCH 2023**

**KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY**

(An Autonomous Institution Affiliated to Anna University, Chennai)

**K.VELLAKULAM-625701(Near Virudhunagar)**

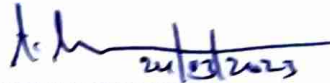
**BONAFIDE CERTIFICATE**

Certified that the project report "PNEUMATIC POWER METAL SPLIT MACHINE" is the bonafide work of "MOHAMED ANAS S (920419115015) & PRASANNA M (920419115021)" who carried out the project work under my super vision.



**SIGNATURE**

**Dr. K. KANNAN, M.E., M.E.,  
Ph.D.,  
HEAD OF THE DEPARTMENT**  
Professor  
Department of Mechatronics  
Engineering  
Kamaraj College of Engineering &  
Technology  
K. Vellakulam, Madurai



**SIGNATURE**

**Mr. A. ARUL KUMAR, M.E., (Ph.D)**  
**SUPERVISOR**  
Assistant Professor  
Department of Mechatronics  
Engineering  
Kamaraj College of Engineering &  
Technology  
K. Vellakulam, Madurai

Submitted for the Viva Voce Examination held on 24/03/2023



**INTERNALEXAMINER**



**INTERNALEXAMINER**

**DESIGN AND FABRICATION OF PICK AND PLACE  
ROBOT FOR PUNCH PRESS**

**PROJECT REPORT**

*Submitted by*

<b>SAMUVEL KINGSLY I</b>	<b>(920419115305)</b>
<b>PRITHVIRAJAN M</b>	<b>(920419115501)</b>
<b>RAJA PRABU T</b>	<b>(920419115502)</b>

*In partial fulfillment for award of the degree of*

**BACHELOR OF ENGINEERING**

**IN**

**MECHATRONICS ENGINEERING**



**DEPARTMENT OF MECHATRONICS ENGINEERING  
KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY  
(An Autonomous Institution Affiliated to Anna University, Chennai)  
K. VELLAKULAM - 625 701 (Near Virudhunagar).**

**MARCH 2023**

**KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**(An Autonomous Institution Affiliated to Anna University, Chennai)**  
**K. VELLAKULAM - 625 701 (Near Virudhunagar).**

**BONAFIDE CERTIFICATE**

Certified that this project report "DESIGN AND FABRICATION OF PICK AND PLACE ROBOT FOR PUNCH PRESS" is the bonafide work of "I. SAMUVEL KINGSLEY (920419115305), M. PRITHIVIRAJAN (920419115501) & T. RAJA PRABU (920419115502)" who carried out the project work under my supervision.



**SIGNATURE**

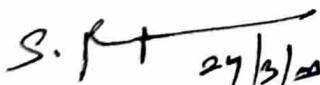
**Dr. K. KANNAN, M.E., M.E., Ph.D.,**  
**HEAD OF THE DEPARTMENT,**  
Professor,  
Dept. of Mechatronics Engineering,  
Kamaraj College of Engg. & Tech.,  
K. Vellakulam, Madurai.



**SIGNATURE**

**Mr. S. WESLEY MOSES SAMDOSS,**  
**M.E., (Ph.D),**  
**SUPERVISOR,**  
Assistant Professor,  
Dept. of Mechatronics Engineering,  
Kamaraj College of Engg. & Tech.,  
K. Vellakulam, Madurai.

Submitted for the Viva Voce Examination held on 24/03/2023



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**

GST : 33AMYPR630612R

950 777 444 9



**RR INDUSTRIES**  
78/4 RAMAIAH STREET, OVIYAR  
STREET, JAIHINDPURAM, MADURAI. 625 011.  
TAMIL NADU.

DATE: 17/03/2023

**Certificate**

This is to certify that Samuvel Kingsly. I. (920419115305), The Student of B.E. Mechatronics Engineering, from Kamaraj College of Engineering and Technology, An Autonomous Institute S.P.G. Chidambaram Nadar, C. Nagammal Campus, K. Vellamkulam, Madurai-625701, has successfully completed their project on "Pick and place robot for punch press" at R R INDUSTRIES, Madurai in Engineering Department during the Period from 20/12/2022 to 25/02/2023

*Wishing him all the success for his future...*

For R.R. INDUSTRIES

Proprietor

GST : 33AMYPR6306E1ZR

959 777 444 9



**RR INDUSTRIES**  
78/4 RAMAIAH STREET, OVIYAR  
STREET, JAIHINDPURAM, MADURAI. 625 011.  
TAMIL NADU.

DATE: 17/03/2023

**Certificate**

This is to certify that Prithivirajan. M(920419115501), The Student of B.E. Mechatronics Engineering, from Kamaraj College of Engineering and Technology, An Autonomous Institute S.P.G. Chidambara Nadar, C. Nagammal Campus, K. Vellamkulam, Madurai-625701, has successfully completed their project on "Pick and place robot for punch press" at R R INDUSTRIES, Madurai in Engineering Department during the Period from 20/12/2022 to 28/02/2023

*Wishing him all the success for his future...*

For R.R. INDUSTRIES

A handwritten signature in black ink, appearing to be 'R. R. Industries' or similar, written over the printed name 'Proprietor'.

Proprietor

RST : 98AMYPH000E12R

959 777 444 9



**RR INDUSTRIES**  
78/4 RAMAIAH STREET, OVIYAR  
STREET, JAIHINDPURAM, MADURAI. 625 011.  
TAMIL NADU.

---

DATE: 17/03/2023

**Certificate**

This is to certify that Raja Prabhu.T(920419115502), The Student of B.E.Mechatronics Engineering, from Kamaraj College of Engineering and Technology, An Autonomous Institute S.P.G.Chidambara Nadar, C.Nagamal Campus, K.Vellankulam, Madurai-625701, has successfully completed their project on " Pick and place robot for punch press" at R R INDUSTRIES, Madurai in Engineering Department during the Period from 20/12/2022 to 25/02/2023

*Wishing him all the success for his future...*

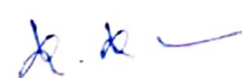
For R.R. INDUSTRIES


Proprietor

DEPARTMENT OF MECHATRONICS ENGINEERING  
(Accredited by NBA, New Delhi)  
Consolidated Mark Statement – Internship  
Class : III - MTRE  
Regulation : 2020  
2022-2023: Even Semester

S.No.	Roll Number	Register Number	Name of Student	Total (100)*
1.	20UMT001	920420UMT001	R.NAVEEN	90
2.	20UMT002	920420UMT002	G.RAHUL	76
3.	20UMT003	920420UMT003	R.GEMRELTON	92
4.	20UMT004	920420UMT004	C.VEERANAN	90
5.	20UMT005	920420UMT005	S.KARTHIKEYAN	86
6.	20UMT006	920420UMT006	K.SAKTHIBALA	81
7.	20UMT007	920420UMT007	R.RAMANAVEL	84
8.	20UMT008	920420UMT008	M.E.NAVEENPRAKASH	85
9.	20UMT009	920420UMT009	V.ANANDAKRISHNAN	90
10.	20UMT010	920420UMT010	S.BHUVANESHWARAN	94
11.	20UMT011	920420UMT011	S.SABARIVASAN	75
12.	20UMT012	920420UMT012	R.MANIKANDAN	88
13.	20UMT013	920420UMT013	K.HARRISHBABU	83
14.	20UMT014	920420UMT014	P.KRISHNA KUMAR	87
15.	20UMT015	920420UMT015	V.HARISH RAMACHANDRAN	80
16.	20UMT016	920420UMT016	R.ESAKKI ANAND	81

  
Signature of Internship Incharge

  
Signature of HoD

  
Signature of Dean (Academic Courses)



## TO WHOM IT MAY CONCERN

This to certify that **Mr.R.Naveen** a student of **B.E Mechatronics Engineering**, the **Roll No:20UMT001** from **Kamaraj College of Engineering and Technology**, an autonomous institution, S.P.G Chidhambara Nadar-C.Nagammal campous, K.Vellakulam, Madurai-625-701, had undergone a long internship training programe for

**Fifteen Days [From 27/06/2022 To 12/07/2022]** which he completed successfully.

Through out the training, his overall conduct and attitude towards work was found satisfactory. He was hard working, punctual, and committed in carrying out his assignments.

**Wishing his all success for his future...**

For VILVAM OFFSET PRINTERS

  
Proprietor



Date: 12.07.2022

TO WHOM IT MAY CONCERN

This is to certify that **Mr. RAHUL G.** (Reg. No. 920420UMT002) studying Second year department of "**MECHATRONICS ENGINEERING**" at KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, has successfully completed 15 days internship in the field of **LOW COST AUTOMATION** Projects from 28.06.2022 to 12.07.2022 under guidance of Mr. DHARMENDRA BABU A.

During the period of his internship program with us he had exposed to different processes and was found diligent, hardworking and inquisitive. We wish him every success in his life and career.

For STAR CONVERTERS,

DHARMENDRA BABU A

(Managing Director)





# HiTECH SERVICES

## INTERNSHIP COMPLETION CERTIFICATE

This is to certify that Mr. R.Gem Relton student of B.E Mechatronics Engineering from Kamaraj College of Engineering and technology had completed his internship programme of 15 days from June 28th to to July 12th 2022 in our company under our supervision.

During his internship he has demonstrated his skills with self motivation to learn new skills. His performance exceeded our expectation and we wish him for his upcoming career.

DATE: July 12, 2022

For Hi-TECH Services

J. Joanwells (M D)

321-E, Kattabomman Street, Nayakkamar Chavadi Complex, VIRUDHUNAGAR - 626 001. ☎ 9487682133

Website : [www.hitechser.com](http://www.hitechser.com) E-mail : [joehitechservices@gmail.com](mailto:joehitechservices@gmail.com)

- 
- Air Conditioner, Air Cooler • Refrigerator, Deep Freezer • Washing Machine • Microwave Oven
  - Invertor, Pump Motor • Electrical and Plumbing Works • Computer Service



Date: 12.07.2022

TO WHOM IT MAY CONCERN

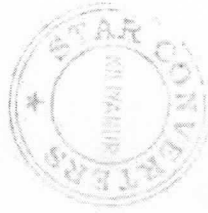
This is to certify that **Mr.VEERANAN C**, (Reg. No.920420UMT004) studying Second year department of "**MECHATRONICS ENGINEERING**" at KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, has successfully completed 15 days internship in the field of **LOW COST AUTOMATION** Projects from 28.06.2022 to 12.07.2022 under guidance of Mr. DHARMENDRA BABU A.

During the period of his internship program with us he had exposed to different processes and was found diligent, hardworking and inquisitive. We wish him every success in his life and career.

For STAR CONVERTERS,

DHARMENDRA BABU A

(Managing Director)





Date: 12.07.2022

TO WHOM IT MAY CONCERN

This is to certify that **Mr. KARTHIKEYAN S**, (Reg. No.920420umt005) studying Second year department of "**MECHATRONICS ENGINEERING**" at KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, has successfully completed 15 days internship in the field of **LOW COST AUTOMATION** Projects from 28.06.2022 to 12.07.2022 under guidance of Mr. DHARMENDRA BABU A.

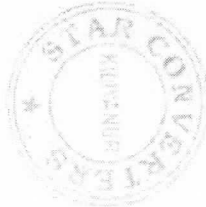
During the period of his internship program with us he had exposed to different processes and was found diligent, hardworking and inquisitive.

We wish him every success in his life and career.

For STAR CONVERTERS,

DHARMENDRA BABU A

(Managing Director)



GSTIN : 33AIUPR1579F1ZS

Glory to God

Cell : 94871 68244  
9488368244



**AC.R.Service**

2C, Chinnapallivasal Complex, Thanthimara Street, VIRUDHUNAGAR - 626 001.



## INTERNSHIP COMPLETION CERTIFICATE

This is to certify that K.Sakthi Bala student of B.E Mechatronics Engineering from Kamaraj College of Engineering and technology had completed his internship programme of 15 days from 28/06/2022 to 12/07/2022 in our company under our supervision.

During his internship he has demonstrated his skills with self motivation to learn new skills. His performance exceeded our expectation and we wish him for his upcoming career.

DATE: July 12, 2022

For GEM AC.R.Service

J. Ragladruban (M D)

Cell: 9487168244, 9488368244

**Gem AC.R. Service**

2-C, Chinnapallivasal Complex, Thanthimara Street,  
VIRUDHUNAGAR - 626001



Date: 12.07.2022

TO WHOM IT MAY CONCERN

This is to certify that **Mr. RAMANAVEL R,** (Reg. No.920420UMT007) studying Second year department of "**MECHATRONICS ENGINEERING**" at KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, has successfully completed 15 days internship in the field of **LOW COST AUTOMATION** Projects from 28.06.2022 to 12.07.2022 under guidance of Mr. DHARMENDRA BABU A.

During the period of his internship program with us he had exposed to different processes and was found diligent, hardworking and inquisitive. We wish him every success in his life and career.

For STAR CONVERTERS,

DHARMENDRA BABU A

(Managing Director)



Audi Madurai



12.07.2022

Dealership  
**M/s. Jahnvi Motor Pvt Ltd.**  
1, Madurai - Dindigul National Highway,  
Samayanallur Post, Madurai - 625 402  
Tel. : +91-452-2543400  
Fax : +91-452-2543402  
Mail : info@audimadurai.in

To Whomsoever Concern

Registered Office  
No.5, AKS Nagar  
Thadagam Road  
Coimbatore - 641 001  
www.audimadurai.com  
CIN : U50100TZ2011PTCO17370

This is to certify that Mr.M.E.Naveen Prakash , 920420UMT008 studying B.E (Mechatronics) II Year in Kamaraj College of Engineering & Technology, Virudhunagar. He has completed internship training in our organization during the period of **28.06.2022 to 12.07.2022.**

We found him sincere, hardworking, technically sound and result-oriented during his internship.

We wish him every success in life.

For Jahnvi Motor (P) Ltd

Best regards,

Ranjith.C

HR Manager



GSTIN : 33AIUPR1579F1ZS

Glory to God

Cell : 94871 68244  
9488368244



**AC.R.Service**

2C, Chinnapallivasal Complex, Thanthimara Street, VIRUDHUNAGAR - 626 001.



## INTERNSHIP COMPLETION CERTIFICATE

This is to certify that Mr V.Anandakrishnan student of B.E Mechatronics Engineering from Kamaraj College of Engineering and technology had completed his internship programme of 15 days from 28/06/2022 to 12/07/2022 in our company under our supervision.

During his internship he has demonstrated his skills with self motivation to learn new skills. His performance exceeded our expectation and we wish him for his upcoming career.

DATE: July 12, 2022

For GEM AC.R.Service

J. Ragladruban (M D)

Cell: 9487168244, 9488368244

**Gem AC.R. Service**

2-C, Chinnapallivasal Complex, Thanthimara Street,  
VIRUDHUNAGAR - 626001



Date: 12.07.2022

TO WHOM IT MAY CONCERN

This is to certify that **Mr. BHUVANESHWARAN S,** (Reg. No.920420UMT010) studying Second year department of "**MECHATRONICS ENGINEERING**" at KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, has successfully completed 15 days internship in the field of **LOW COST AUTOMATION** Projects from 28.06.2022 to 12.07.2022 under guidance of Mr. DHARMENDRA BABU A.

During the period of his internship program with us he had exposed to different processes and was found diligent, hardworking and inquisitive.

We wish him every success in his life and career.

For STAR CONVERTERS,

DHARMENDRA BABU A

(Managing Director)



GSTIN : 33AIUPR1579F1ZS

Glory to God

Cell : 94871 68244  
9488368244



**AC.R.Service**

2C, Chinnapallivasal Complex, Thanthimara Street, VIRUDHUNAGAR - 626 001.



## INTERNSHIP COMPLETION CERTIFICATE

This is to certify that Mr. S.Sabarivasan student of B.E Mechatronics Engineering from Kamaraj College of Engineering and technology had completed his internship programme of 15 days from 28/06/2022 to 12/07/2022 in our company under our supervision.

During his internship he has demonstrated his skills with self motivation to learn new skills. His performance exceeded our expectation and we wish him for his upcoming career.

DATE: July 12, 2022

For GEM AC.R.Service

J. Ragladruban (M D)

Cell: 9487168244, 9488368244  
**Gem AC.R. Service**  
2-C, Chinnapallivasal Complex, Thanthimara Street,  
VIRUDHUNAGAR - 626001

GSTIN : 33AIUPR1579F1ZS

Glory to God

Cell : 94871 68244  
9488368244



**AC.R.Service**

2C, Chinnapallivasal Complex, Thanthimara Street, VIRUDHUNAGAR - 626 001.



## INTERNSHIP COMPLETION CERTIFICATE

This is to certify that R.Manikadan student of B.E Mechatronics Engineering from Kamaraj College of Engineering and technology had completed his internship programme of 15 days from 28/06/2022 to 12/07/2022 in our company under our supervision.

During his internship he has demonstrated his skills with self motivation to learn new skills. His performance exceeded our expectation and we wish him for his upcoming career.

DATE: July 12, 2022

For GEM AC.R.Service

J. Ragladruban (M D)

Cell: 9487168244, 9488368244

 **AC.R. Service**

2-C, Chinnapallivasal Complex, Thanthimara Street,  
VIRUDHUNAGAR - 626001



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# SUNSHIV

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PCB DESIGNING & MANUFACTURING  
INDUSTRIAL PRODUCTS & AUTOMATION  
3D MODELING & PRINTING  
INDUSTRIAL TRAINING

10-07-2022

TO WHOM IT MAY CONCERN

This is certify that Mr. **K.HARRISH BABU** studying 2<sup>nd</sup> year MECHATRONICS at KAMARAJ COLLEGE OF ENGG & TECH has successfully completed 15 days real INDUSTRIAL INTERNSHIP TRAINING in the fields of PRODUCT DESIGN AND MANUFACTURING, EMBEDDED PROGRAMMING from 26-06-2022 to 10-07-2022.

We wish him for his future career.

For SUNSHIV ELECTRONIC SOLUTIONS,

S.SUNDARAMOORTHY  
CEO

245, Chinnasamy Naidu Road, New Siddhapudur, Gandhipuram, Coimbatore - 641 044.

Phone : 0422-4980499 Mobile : 98422 02351, 97509 14445

Email : [sunshivpcb@gmail.com](mailto:sunshivpcb@gmail.com) Web : [www.sunshivelectronics.com](http://www.sunshivelectronics.com)

GSTIN : 33AIUPR1579F1ZS

Glory to God

Cell : 94871 68244  
9488368244



**AC.R.Service**

2C, Chinnapallivasal Complex, Thanthimara Street, VIRUDHUNAGAR - 626 001.



## INTERNSHIP COMPLETION CERTIFICATE

This is to certify that Mr P.Krishna Kumar student of B.E Mechatronics Engineering from Kamaraj College of Engineering and technology had completed his internship programme of 15 days from 28/06/2022 to 12/07/2022 in our company under our supervision.

During his internship he has demonstrated his skills with self motivation to learn new skills. His performance exceeded our expectation and we wish him for his upcoming career.

DATE: July 12, 2022

For GEM AC.R.Service

A handwritten signature in blue ink, appearing to read "J. Ragladruban".

J. Ragladruban (M D)

Cell: 9487168244, 9488368244

**Gem AC.R. Service**

2-C, Chinnapallivasal Complex, Thanthimara Street,  
VIRUDHUNAGAR - 626001



Date: 12.07.2022

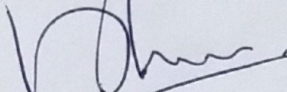
TO WHOM IT MAY CONVERN

This is to certify that Mr.V.HARISH RAMACHANDRAN (Reg.No.920420UMT015) studying second year department of "**MECHATRONICS ENGINEERING**" at KAMARJ COLLEGE OF ENGINEERING AND TEHCNOLOGY , has successfully completed 15 days internship in the field of **LOW COST AUTOMATION** Projects from 28.06.2022 to 12.07.2022 under guidance of Mr.DHARMENDRA BABU A.

During the period of his internship program with us he had exposed to different processes and was found diligent, hardworking and inquisitive.

We wish him success in his life and career.

For STAR CONVERTERS,

  
DHARMENDRA BABU A  
(Managing Director)

GSTIN : 33AIUPR1579F1ZS

Glory to God

Cell : 94871 68244  
9488368244



**AC.R.Service**

2C, Chinnapallivasal Complex, Thanthimara Street, VIRUDHUNAGAR - 626 001.



## INTERNSHIP COMPLETION CERTIFICATE

This is to certify that Mr R.Esakkianand student of B.E Mechatronics Engineering from Kamaraj College of Engineering and technology had completed his internship programme of 15 days from 28/06/2022 to 12/07/2022 in our company under our supervision.

During his internship he has demonstrated his skills with self motivation to learn new skills. His performance exceeded our expectation and we wish him for his upcoming career.

DATE: July 12, 2022

For GEM AC.R.Service

J. Ragladruban (M D)

Cell: 9487168244, 9488368244

**Gem AC.R. Service**

2-C, Chinnapallivasal Complex, Thanthimara Street,  
VIRUDHUNAGAR - 626001