

Dr. Vithalrao Vikhe Patil Foundation's

**DR. VITHALRAO VIKHE PATIL COLLEGE OF ENGINEERING,  
AHMEDNAGAR**

**DEPARTMENT OF MECHANICAL ENGINEERING**  
**NOTICE**

Date: 01-10-2020

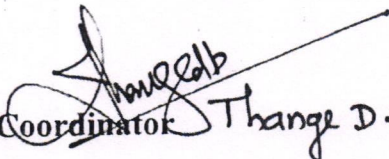
**B.E. Mechanical Students**

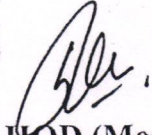
**Project Work in 2020-21**


All the students of **B.E Mechanical** are instructed to form a group for Project & leader of that group register their '**Project Title**' on or before **10 October 2020** in the given google form.

Link: - <https://forms.gle/bxKZcWBrJuRv6Szx9>


All the students should go through it and enter the necessary information of project ~~like~~

  
Project Coordinator **Thange D.B.**

  
HOD (Mech.)

  
Project Co-coordinator **Y. S. Pathare**



  
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# DEPARTMENT OF MECHANICAL ENGINEERING

## GUIDE ALLOTMENT FOR PROJECT WORK IN 2020-21

Group No.	Roll No.	Name of Students	Title of project	Sponsored/Non Sponsored	Category	Guide Allotment by HOD
G-1	156	Harshwardhan Yashwant Garde	Vidyut 2.0(Electric Two Wheeler)	Sponsored	Environmental	Prof K S Kadam
	142	Mupparam BalajiVyankatesh				
	70	SarafAkshayMahendra				
	66	Harsh Shailesh Rajguru				
G-2	11	Nikita Bhagwat	Vibration Analysis on Disc Brake	Non-Sponsored	Environmental	Prof A S Aher
	153	Mayuri-Bhor				
	7	Vivek Bagul				
	4	PratapAkhade				
G-3	76	Saifee sayeed sheikh	Thermal-Structural Finite Element Analysis of Injection Moulding Dies with Optimized Cooling and Heating Arrangement.	Non Sponsored	Environmental	Prof A S Aher
	71	Kamil mehmood sayed				
	72	Faizan shoukatali sheikh				
	73	Shifa akhil sheikh				
G-4	50	Harsha lokhande	Achieving 90° angle in aluminium and copper tig welding process from 3.03 sigma to 3.70 sigma	Sponsored	Safety	Prof R A Kandake
	40	Pratiksha kadam				
	139	Shubham kamble				
	20	Rushikesh lokhande				
G-5	21	Devadhe Akshay Dilip	Preparation of iron oxide pigment	Non-Sponsored	Environmental	Prof. D K Nannaware
	160	Borude Akash Ashok,				
	22	Dhamane Pranav Pramod				
G-6	28	GawaliRushikeshBabasahe	Mulching paper laying machine	Non-Sponsored	Environmental	Prof Dr. K B Kale
	10	Bhagat Deepak Annasaheb				
	29	Akash kailasghodake				
	6	Bade Abhishek sanjay				
G-7	17	Bidwai Gaurav Mahesh	Spur gear tooth failure in Pilger mill	Sponsored	Safety	Prof. R E Kalhapure
	15	Bhosale Satish Rajaram				
	1	Varun RavindraAbhang				
	2	AherSatyajeetArun				
G-8	13	BhiseSaurabh Kishor	Analysis of factors affecting tube side variation in cold pilgering	Sponsored	Societal Issues	Prof. R E Kalhapure
	91	Adsul Mahesh Manjabapu				
	106	DahatondeChaitali				
	16	Bhujbal nikita ashok				

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Group No.	Roll No.	Name of Students	Title of project	Sponsored/Non Sponsored	Category	Guide Allotment by HOD
G-9	102	Rahul kacharu Phuke	WEDM OFF MACHINE JOB SETUP PROJECT	Sponsored	Safety	Prof Dr. R R Navthar
	81	Sanjay shingare				
	158	Kabraravesh				
G-10	58	Pandav Vedanti Prakash	Fabrication of rotating fork lift	Non-Sponsored	Safety	Prof A D Kachare
	59	Patil Gayatri Sanjay,				
	55	Nanekar Bhakti Sunil,				
G-11		Zankar amit padmakar	Manufacturing Process improvement Techniques (Industrial Study Project)	Sponsored	Societal Issues	Prof AV Suryavanshi
		Sonawane ganesh baburao				
		Vikhe Mahesh shivaji				
		Chikane vijay ramesh				
G-12	115	Sahil Ashpak Pathan	Water jet cutting machine	Non-Sponsored	Safety	Prof P G Kohak
	60	Swapnil Patil				
	109	Nitin saondore				
	118	Tushar sargar				
G-13	44	Krishna Pramod Khadse,	Design development and fabrication of multipurpose mechanical equipment	Non-Sponsored	Societal Issues	Prof P A Narwade
	18	Rajesh Dinesh Chopade				
	171	Rushikesh Sanjay Dudhal				
	196	Kiran Bhausahb Labade				
G-14	36	Holam Rushikesh Govind	Solar operated agriculture 3 in 1 Mechanism	Non-Sponsored	Environmental	Prof Y S Pathare
	105	Tambe Ashish Bapu				
	97	Londhe Hrushikesh D				
	131	Wagh Vivek A				
G-15	33	Hawarge Prashant piraji	Design and Fabrication of Emergency braking system in Four-Wheeler	Non - Sponsored	Safety	Prof V P Patekar
	49	Kulkarni Atharv shirish49				
	52	Sunil ramprasad Maher				
	46	Kinkar Prashant hanumant				
G-16	43	Karande Omkar Rajendra	Sugarcane leaf removing machine	Sponsored	Societal Issues	Prof S K Kadu
	153	Bhor Shubham Gorakshanath				
	62	Pawar Suraj Vitthal				
G-17	26	Gaikwad Harshal Suresh	Sheet Grinding high rejection and rework in grinding process	Non-Sponsored	Environmental	Prof R A Kandake
	184	Landge Shivam Chandrakant,				
	38	Jadhav Vaibhav Ramdas				
	23	Dhole Sanket Javahar				
G-18	135	Raut Pranav Chhagan	Pneumatic paper cup making machine	Non-Sponsored	Environmental	Prof R A Darandale
	89	Waghmare Aniket Ganpat				
	61	Patole prafull namdeo				
	42	Kamble Rohit Laxmikant				

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Group No.	Roll No.	Name of Students	Title of project	Sponsored/Non Sponsored	Category	Guide Allotment by HOD
G-19	104	Shaikh Nazneen M	Industrial project	Sponsored	Environmental	Prof P A Narwade
	74	Shaikh Mujib G				
	130	Shinde Rutuja D				
	114	Shinde Karan S				
G-20	140	Nachiket santosh bhalekar	Design and development of model of override speed indication and accident prevention system	Non-Sponsored	Safety	Prof Dr. R R Navthar
	27	Kaustubh vilas garad				
	152	Ainar dnyaneshwar ashok				
G-21	99	Mane Mayur Somnath	Generation of Electricity using Wind Ventilator	Non-Sponsored	Environmental	Prof Dr. K B Kale
	133	Pawar Abhijit Annasaheb				
	103	Pund Ravindra Gorakshanath				
	100	More Rahul Dilip				
G-22	128	Khemnar Aniket	Intelligent Breaking with pneumatic Bumper	Non-Sponsored	Safety	Prof Y S Pathare
	121	Borude shubham				
	85	Taple Gaurav				
	122	Dasari Vyankatesh				
G-23	110	Shaikh Talha	Reinforcement of carbon fibre on Al connecting rod	Non-Sponsored	Environmental	Prof S M Magar
	84	Tamboli Salim				
	75	Mustakim shaikh				
G-24	69	Raut Dnyaneshwar Kakasaheb	Automatic Fertigation in Polyhouse using PLC	Non-Sponsored	Environmental	Prof R A Darandale
	77	Shelke Hrushikesh Balasaheb				
	64	Phatangare Tushar Bhausaheb				
	54	Mundada Rushikesh Subhash				
G-25	154	Omkar Ashok Landge	Manufacturing of component using powder metallurgy	Sponsored	Environmental	Prof D K Nannaware
	134	Mahesh Dilip Kalamkar				
	126	Vinayak Vijay Kale				
	150	Rushikesh Machhindra Lokhande				
G-26	92	Bora Pratik Sunil	INDUSTRIAL BOILER ALONG WITH AUTOMATION	Non-Sponsored	Environmental	Prof R S Waghmare
	127	Khan Arbaz Khair mohamed				
	111	Sayyed Shahid				
	113	Inamdar MohammadHuzefa Sabir				
G-27	83	Sonawane Ganesh Baburao	Aqua silencer	Non-Sponsored	Environmental	Prof D B Thange
	90	Zankar Amit Padmakar				
	88	Vikhe Mahesh Shivaji				
	198	Chikane Vijay Ramesh				

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Group No.	Roll No.	Name of Students	Title of project	Sponsored/Non Sponsored	Category	Guide Allotment by HOD
G-28	3	Akash Bansi Aher	Design & manufacturing of Compound Die, battery support bracket cradle assembly bumper cargo	Sponsored	Safety	Prof S S Gadhe
	125	Satish Mahadev Giri				
	25	Suraj Balraj Gaikwad				
	164	Nikhil Ramakant Amrutsagar				
G-29	117	Siddharth Balasaheb Ugale	Chassis and steering design of Go Kart	Non-Sponsored	Safety	Prof B T Tagad
	119	Akshay Ashok Virkar,				
	96	Dipak Bappurao Jawane				
G-30	32	Harshal Ashok Harke	Go Kart- Transmission system for go kart & 3D Modeling	Sponsored	Safety	Prof B T Tagad
	5	Onkar Ashok Akollar				
	78	Amol Sitaram Shinde				
	195	Bhagwan Shivram Yewale				
G-31	39	Mayur Pradeep Jadhav	Design of Braking system for GO KART	Non-Sponsored	Safety	Prof K S Kadam
	12	BHAVSAR SUMIT				
	34	Hawaladar Sohail Khalil				
	176	Sutar aniket ramnath				
G-32	85	Pagare Sangharshkumar	Hydraulic press by hydraulic jack	Non-Sponsored	Safety	Prof S S Gadhe
	98	Bharat Mohan Mahanor				
	146	Mungase Mahesh Shivaji				
	129	Gajanan Santosh Patil				
G-33	190	Shinde Sharad Ashok	Solid state battery	Non-Sponsored	Environmental	Prof R A Kandake
	189	Pohanerker Kartik Shripad				
	192	Ghule Rahul Ganesh				
	63	Pethkar saurav ramkrishna				
G-34	175	Lav Tulshiram Dhanad	ELECTRICITY GENRATION USING WIND VENTILATOR	Non-Sponsored	Environmental	Prof Y S Pathare
	174	Ajay Sanjay Gochide				
	169	Tekude Vaibhav Eknath				
	168	Tandale Tushar Surendra				
G-35	132	Ahmad Farhan wasim	Pneumatic system	Non-Sponsored	Safety	Prof V P Patekar
	180	Prasad mahavir gosavi				
	179	Joshi sanjog jayant.				
	181	Vaibhav raosaheb Auchite				
G-36	149	Supekar Pratik Karbhari	Autocar Automation system	Non-Sponsored	Safety	Prof M M Bidve
	147	Shaikh Aquib Nisar				
	145	Bhingardive Sanket Rajesh				
	148	Shettigar Sanjay				

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Group No.	Roll No.	Name of Students	Title of project	Sponsored/Non Sponsored	Category	Guide Allotment by HOD
G-37	68	Raut Vivek Baban	Design fabrication and analysis of Latent heat thermal energy storage operating with phase change material	Non-Sponsored	Environmental	Prof D B Thange
	112	Khatke Durvesh Balasaheb				
	65	Pund Rushikesh Gorakshnath				
	35	Hodgar Bharat Keshav				
G-38	24	Prathamesh Nitin Dhongade	Corrosion test chamber with humidifier	Non-Sponsored	Environmental	Prof R S Waghmare
		Shubham Thokal				
	138	Karan Nitin Agrawal				
	193	Vaibhav Anil Sonawane				
G-39	87	Vadane Vaibhav Haribhau	Onion Planting Machine	Non-Sponsored	Societal	Prof S K Kadu
	120	Zade Suraj Vikram				
	93	Burhade Vaibhav				
	123	Dipak Macchindra Dusang				
G-40	166	Willson makasare	Pvc pipe accessories moulding machine development.	Non-Sponsored	Environmental	Prof A V Suryavanshi
	167	Satyam Kate				
	31	Sidharth Gugale				
	37	Omkar Jadhav				
G-41	9	Bhadane Manoj Devidas	Hybrid Solar-Wind Power Plant System	Non-Sponsored	Environmental	Prof A D kachare
	57	Pagare Santosh Daulat				
	108	Hodgar Vaman Rajaram				
	151	Gaikwad Krushna Vamanrao				
G-42	143	Choure prajakta balasaheb	Design of Seatbelt Activated HANDBRAKE System in Cars	Non-Sponsored	Safety	Prof D. K. Nannaware
	47	Kamble priyanka janardhan				
		Barse Shubham devidas				
	95	Jadhav Krushna Balasaheb				
G-43	187	Rushikesh Jibhau Jadhav	Vibration reduction of propeller shaft used in bus	Non-Sponsored	Safety	Prof D B Thange
	170	Akshay Balasaheb Kale				
	45	Anurag laxman Khomane				
G-44	173	Shinde Rahul Chhabu	Deep learning and computer vision for automobile	Non Sponsered	Safety	Prof P G Kohak
G-45	51	Aniket Ravi Mahajan	Mechanical energy change in electrical energy	Non Sponsered	Environmental	Prof K S Kadam
	47	Kshitji Kshirsagar				
	197	Gunjal Sandip				
G-46	20	Deshmukh Anurag Ramesh	Solar refrigerator	Non Sponsered	Environmental	Prof R S Waghmare
	141	Dhus Vikas Sharad				
	30	Ghule Hrishikesh Somnath				
	163	Joshi Ajay Dattatray				

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Group No.	Roll No.	Name of Students	Title of project	Sponsored/Non Sponsored	Category	Guide Allotment by HOD
G-48	101	Palve Bandu Dnyandev	Self-Locking Gripper	Non Sponsored	Societal	Prof R A Darandale
	155	Bahir Sagar Rajendra				
	94	Gore Akash Gorakshanath				
		Shelke Rajesh Gangadhar				
G-49	183	Abhijit Shete	Quality Assurance System Using Image Processing (Rasberic-pi)	Non Sponsored	Societal	Prof M M Bidve
	124	Abhijit Gaddam				
	48	Pushkar Kshirsagar				
	185	Kishor More				
G50	161	Karale Akshaykumar	Pin Fin Experimental Investigation	Non Sponsored	Environmental	Prof B T Tagad
	144	Vyavahare Shubham				
	116	Shinde Kaluram Pandit				
	162	Sandesh Sanjay Shrangare				
G-51	53	More Sagar Vijay	WALL PAINTING ROBOT	Non Sponsored	Societal	Prof Dr. K B Kale
	86	Thombare Ashwini Janardhan				
	78	Shinde Akshay Ramesh				
	8	Bedase Jitendra Shashikant				
G52		Shikare Shrikrishna B.	REFRIGERATION SYSTEM BY USING LIQUEFIED PETROLEUM GAS	Non Sponsored	Environmental	Prof A. D. Kachare
		Sayambar Vivek R.				
		Prashant Waghmare				
		Sandesh Shrangare				

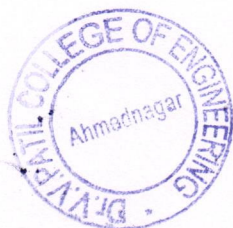
Total No. of Sponsored Projects = 11

Total No. of Non-sponsored Projects = 41

PROJECT COORDINATOR

Prof. (Dr) K B Kale

HOD  
HOD & Professor  
Dept. of Mechanical Engineering  
Dr. V. V.P. College of Engineering  
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**Department of Mechanical Engineering**  
**Project Synopsis**

**Title: Modification & Innovation of Electric Two Wheeler**

**1. INTRODUCTION**

Innovation is often also viewed as the application of better solutions that meet new requirements, unarticulated needs, or existing market needs. Such innovation takes place through the provision of more-effective products, processes, services, technologies, or business models that are made available to markets, governments and society. A vehicle was stolen every thirteen minutes in the capital as reported in a recent survey. With the increasing technological concepts, the vehicle security systems are more advanced now than decades ago. In normal electric scooter, the head lamps are used in night time and user might forget to switch it off which will result in extra use of battery in day time. So taking all these reasons into consideration we will do following innovations :

1. Power Generation using DC MOTOR (RO PUMP)
2. Enhanced Two Wheeler Security Systems using Biometric Sensor and Numeric Keypad
3. Automatic Head Lamp ON-OFF System
4. Electronic Side Stand

**2. PROBLEM STATEMENT**

In faster developing nations & acceptance of all luxurious things in automobile industry, vehicles running on electric power with minimum number of issues has become one of the major topics amongst the experts around the world. Now a day's electric vehicles are in a great demand but the vehicles having some issues which consumers faces directly or indirectly like charging time, more running cost, less range, less security so overcome these issues, solutions are regeneration of energy and Enhanced biometric security system

**3. OBJECTIVES**

All the affordable EVs that are present in today's market have a number of problems.

- 1) To increase the efficiency of present EVs.
- 2) Achieving more security to the vehicle.
- 3) Increase the interest in the changing world of EVs.
- 4) To build an affordable , almost self sufficient EV with the features comparable to the expensive ones.
- 5) Boot space management.
- 6) Reduction of weight as much as possible.
- 7) To bring about a change in the stagnant EV market.

**4. SCOPE**



One of the primary reasons for the introduction of electric vehicle into the market is the concern over greenhouse gas emissions and their contribution to global warming. The purpose of creating electric vehicle that reduced or eliminated exhaust emissions was to help combat this issue. There are a number of great benefits to electric vehicles (EVs) over conventional petrol/diesel vehicle

#### 5. Expected Outcomes

All the power should be based on electric power as the energy source.

regeneration capacity of vehicle should be improve

Gross weight of vehicle, acceleration, top speed and range of vehicle should be improve.

Also the security of vehicle should be enhance by using biometric fingerprint security system

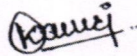
Submitted by

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Mr. Rajguru Harsh Shailesh (71846831H)

Mr. SarafAkshayMahendra (71702779B)



Prof. K. S. Kadam  
(Guide)



Dr. K. B. Kale  
(Head of Department)  
(Department of Mech. Engg.)