



**IPS Academy**

**INSTITUTE OF ENGINEERING & SCIENCE**

*Knowledge, skills and values*



**Department of Mechanical Engineering**

## *Letter from the Editors*

*Dear Readers,*

As Editorial Board Members of Mechanical Engineering Departmental Magazine, it is our immense pleasure to welcome you to the latest edition of magazine **Mechazine**. The objective of magazine is to update and showcase the latest development of Mechanical engineering and application of Mechanical technology. **Mechazine** includes articles from Mechanical Engineering Department. Let us join hands and explore the boundless universe in quest of the never-ending truth of Mechanical Engineering and build a new world of sustainable development. We would like to thank the management of Institute of Engineering & Science, IPS Academy, all the reviewers and authors.

We take this opportunity to thank our respected Principal **Dr. Archana Keerti Chowdhary**, HOD **Dr. Sanjay Jain** and all the faculty members for their incessant inspiration and kind support.

We hope that this edition would be enjoyable as well as informative.

*Editors...*





## EDITORIAL BOARD

S. No.	Name of Student	Year
1.	Mr. Aayam Rai	Final Year
2.	Mr. Prajjawal Saxena	Final Year
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6.	Mr. Harshit Tejra	First Year

## Faculty Coordinators

1.	Mr. Kapil Patodi	Assistant Professor
2.	Mr. Pradeep Singh Hada	Assistant Professor



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# STUDENT ARTICLES



## Water Purification Machine

### (What Future really needs not just e-vehicles?)

**Abstract:** This is a “Unique independent, integrated Water purification system” and it caters to remote communities, villages at crises. The main goal of the machine is to deliver “Potable drinking water- from any source, anytime, anywhere. The jeep is mobile, self-contained, independent and automatic and this machine produces Drinking Water according to (World Health Organisation) WHO Water standards. The technique not only desalinates the seawater, it's capable of removing sewage and dirt from it too. The researchers combined expertise in oceanography, chemical engineering, agricultural engineering and biosystems engineering to come up with the solution.

**Introduction:** India faces quite a bad water situation, as a large part of the population does not have access to proper drinking water. Most of the Indian water bodies get polluted with organic and hazardous pollutants. Moreover, there are interstate disputes over river waters. With a steadily increasing population that will reach an estimated 1.7 billion by 2050, there is a dire need to find ways to provide clean drinking water. Groundwater is not considered a sustainable source, as it may

end one day due to over extraction. This leads to a need to improve our wastewater treatment as well as desalination. This GalMobile-like technology can be a huge help to India, especially since the country has a large part of its borders, linked to seas and oceans.

The jeep is a patented project developed by GAL Water Technologies. In February 2015, the company launched a unique Water Purification System, GALMOBILE, the first of its kind in the world. The mobile plant can purify up to 20,000 litres of sea water a day and 80,000 litres of brackish, muddy or contaminated river water and bring it to WHO standards. It is a “Unique independent, integrated Water purification system” and it caters to remote communities, villages at crises, and emergency situations in Israel. The main goal of the machine is to deliver “Potable drinking water- from any source, anytime, anywhere.” Israel’s technology is a source of envy for many world nations.

Saline water can be made into freshwater, which is the purpose of this portable, inflatable solar still (it even wraps up into a tiny package). The process is called desalination, and it is being used more and more around the world to provide people with needed freshwater. Most of the United States has, or can gain access to,





ample supplies of freshwater for drinking purposes. But, freshwater can be in short supply in many parts of the Nation and world. And, as the population continues to grow, shortages of freshwater will occur more often, if only in certain locations. In some areas, salt water (from the ocean, for instance) is being turned into freshwater for drinking.

The "simple" hurdle that must be overcome to turn seawater into freshwater is to remove the dissolved salt in seawater. That may seem as easy as just boiling some seawater in a pan, capturing the steam and condensing it back into water (distillation). Other methods are available but these current technological processes must be done on a large scale to be useful to large populations, and the current processes are expensive, energy-intensive, and involve large-scale facilities.

**Need of this machine:** The scarcity of freshwater resources and the need for additional water supplies is already critical in many arid regions of the world and will be increasingly important in the future. Many arid areas simply do not have freshwater resources in the form of surface water such as rivers and lakes. They may have only limited underground water resources, some that are becoming more brackish as extraction of water from the

aquifers continues. Solar desalination evaporation is used by nature to produce rain, which is the main source of freshwater on earth.

Another way saline water is desalinized is by the "reverse osmosis" procedure. In most simplistic terms, water, containing dissolved salt molecules, is forced through a semipermeable membrane (essentially a filter), in which the larger salt molecules do not get through the membrane holes but the smaller water molecules do. Reverse osmosis is an effective means to desalinate saline water, but it is more expensive than other methods. As prices come down in the future the use of reverse osmosis plants to desalinate large amounts of saline water should become more common.

#### **Characteristics of this machine:**

1. The jeep is mobile, self-contained, independent and automatic.
2. It is quite lightweight, as it weighs just 1540 Kgs.
3. It can connect to any possible Water source (rivers, lakes, oceans, brackish water, wells, and more).
4. The machine produces Drinking Water according to (World Health Organisation) WHO Water standards.
5. The jeep can control and analyse stable supply of drinking water.



6. It features an advanced control system, which reduces the need for operator attendance and works on 'Plug and Play' configuration
7. The GalMobile can resist to all weather conditions.
8. The speed of the jeep is 90 kilometres per hour.
9. It is an Independent energy source.
10. In order to deploy the GalMobile, one needs less than 30 minutes, by just 2 people.
11. It contains an integrated water storage tank with a capacity of 265 Gallons to 2650 Gallons.
12. The jeep runs on a mere 12V low voltage system.
13. The GalMobile has small dimensions, which makes it easy to store, carry and ship.

#### References:

1. <http://gal-water.com/solutions/drinking-water-2/project-5-2/mobile-systems-accessories/>
2. <https://www.financialexpress.com/industry/technology/what-is-galmobile-how-israelitechnology-netanyahus-fascinating-jeep-can-solve-water-woes-in-modis-india/753243/>

**Harsh Baria (IV Year)**

### Electric Vehicles: The Future of Transport

Today when the world is thriving to use day by day new technology everywhere, Electric Vehicles must be the future means of transport. Pollution, growing demand for fuel, Global Warming, promoting eco-friendly means of transport are some of the reasons for promoting electric vehicles.

Electric Vehicles are means of transport that consume eclectic energy as fuel instead of traditional fuels such as petrol, diesel, and CNG. These vehicles may be powered through a collector system by electricity from off-vehicle sources or maybe inbuilt with a battery, solar panels, fuel cells, or an electric generator to convert fuel to electricity. Electric bikes, electric cars, electric rickshaws, etc are some examples of electric vehicles. Most of the trains including metros are already running worldwide through electricity.

#### **Need of Electric Vehicles**

These are following factors which creates urgent need for use of electric vehicles:

- To reduce pollution
- To conserve non-renewable natural resources
- To reduce import of petrol and diesel
- To promote use of renewable energy





- To reduce global warming
- To fulfill the need of growing demand of more means of transport

The world population is increasing drastically day by day and the demand of means of transport also growing proportionally. Thus demand of fuel is also increasing. Too much smoke comes out from traditional vehicles this cause air pollution which take many lives every year.



### Benefits of Electric Vehicles uses

We all are living in an advance era of technology. Advancement of technology always helps for betterment of human life. Use of electric vehicles are very beneficial for human as well as for environment in many ways. Some of these are given below:

- Electric vehicles run from electricity and doesn't emit smoke

thus it is very helpful for reducing the pollution which causes many types of life threatening disease.

- Smoke is also one of the major causes of global warming. Thus using electric vehicles will reduce global warming.
- Petrol, Diesel and CNG are non-renewable natural resources of energy. Over-use of these fuels is not good for nature also. Thus use of electric vehicles can be very

helpful for conservation of these natural resources.

- Today when advancement of technology growing rapidly electric vehicles are new means of transport to fulfill the larger demand of people growing day by day.
- Electric vehicles are eco-friendly. Use of electric vehicles is good for environment as well as human life.
- Electric vehicles are new technology. This sector will grow

day by day which will generate lot of employment in this field.

- Electric vehicle will reduce the dependency of a nation on petroleum export countries.
- This will reduce the import cost of petrol, diesel like fuels and thus it will help in growing the economy of the country.
- Cost of electric vehicles is also low if we compare the recurring expenditure on petrol and diesel used in traditional means of transport.

### **Government initiative towards use of Electric Vehicles**

As electric vehicle is cheaper in long run and also environment friendly, Government is continuously promoting the use of electric vehicles. Since long time many trains including metros have been running on electricity. Indian Railways trains are now almost running on electricity. Electric bike, electronic car, electronic rikshaw are already in market. Now people should use more electric vehicles in place of traditional petrol & diesel vehicles. Government has started campaign to promote use of electric vehicles. Some rebate on taxes and subsidy on purchasing the electric vehicles, are also provided by the Government. Recently Delhi Government has launched

'Switch Delhi' campaign to promote the use of electric vehicles.

### **'Switch Delhi' Campaign**

Recently Delhi Government has launched 'Switch Delhi' campaign a Jan Aandolan to promote use of **electric vehicles**. This initiative has been taken by Delhi Government to cut down air pollution caused due to smoke emitted by traditional petrol & diesel vehicles. Earlier in August 2020 Delhi Government introduced Delhi EV Policy. Under this policy Delhi Government provides waiver on road tax, benefits up to Rs.1.5 lakh on four wheelers and more.

Electric Vehicles are the future of means of transport. It becomes more necessary when we think about the growing pollution, pollution born disease and global warming. We must use **electric vehicle** keeping in mind the above points including the environment and also promote the use of electric vehicle.

**Shivpal Singh (III Year)**

### **Vocal for Local**

**Vocal for Local** message was given by our Prime Minister Shri Narendra Modi to encourage the local products for the speedy progress of the country and to achieve the goal of Aatmanirbhar Bharat. Indian Prime Minister Shri Narendra Modi



encouraged people of the country for 'Vocal for Local' while delivering his seventh consecutive Independence Day Speech from the rampart of Red Fort on 15th August 2020. He said that the mindset of free India should be **vocal for local** to achieve the goal of Aatmanirbhar Bharat. We should appreciate, promote and use our local products.



The basic meaning of **Vocal for Local** is to make local and use local also promote local products. This initiative will provide employment to the many people of that region and the local market will develop. After some time these local markets will progress so high that they will export their famous products in many countries across the world. If we use local products this will not only strengthen local identity but also boost economy of that area and country.

**Vocal for Local** also encourage people to start producing all the necessary products locally and reduce the use of imported products. During the countrywide lock-

down when all the mediums of transport were on halt, entire world realize the value of vocal for local and usefulness of local products. We should learn the lessen from this also and promote local products.

The positive effect of Vocal for Local has been seen during the Diwali festival season. People of the country appreciated local products and purchased local made diya and many other things used in Diwali instead of Chinese products. From the support of such large number of people in Vocal for Local during this festival season it can be anticipated that this new initiative will strengthen the local market and economy of the county.

We should learn the lesson from the pandemic when local products, local people and everything which were available locally proved helpful and worked for us. We could be self reliant for every critical condition with the Mantra of Vocal for Local.

**Amarnath Kunwar (II Year)**

### Aatm Nirbhar Bharat

“Aatm Nirbhar” which is a Hindi word meaning in English is “**Self Reliant**” which also refers less dependency on others or don’t be dependent of others. Aatm Nirbhar





Bharat is basically a term formulated at the time of pandemic COVID-19 in India. It is actually the vision of our Hon'ble Prime Minister Shri Narendra Modi ji to make India and Indians self reliant by starting production of all mandatory items locally. Vocal for Local is also integral of Aatm Nirbhar Bharat Abhiyan.

### **Motive behind Aatma Nirbhar Bharat Movement**

India is dependent on lots of imports from many countries across the world and pays a large import bill in comparison to export. During the time of pandemic all the import and export activities across the world was on halt. Transportation on goods and services were stopped. Then it was very difficult to live without resources as import of goods were not possible due to termination of transport activities.

India faced problems in terms of shortage of Hospital beds, PPE kits, Covid test kits, medicines, ventilators and other necessary respiratory and medical equipments including basic supplies of hand sanitizers, N95 Masks. We realized that it is the time for us to depend upon indigenous Innovation, products and local manufacturing. To fulfill these demands and promote production of these items in the country our Prime Minister Shri Narendra Modi started Aatma Nirbhar

Bharat Campaign. He defined the five pillars of Aatm Nirbhar Bharat to boost the economy and to turn difficulties into opportunity.

### **The Five pillars of Aatm Nirbhar Bharat focus on:**

1. Economy
2. Infrastructure
3. System
4. Vibrant Demography and
5. Demand

### **The Five phases of Aatm Nirbhar Bharat are:**

**Phase-I:** Businesses including MSMEs

**Phase-II:** Poor, including migrants and farmers

**Phase-III:** Agriculture

**Phase-IV:** New Horizons of Growth

**Phase-V:** Government Reforms and Enablers

Aatma Nibhar Bharat actually means that we are able to produce the products indigenously, what we need and eventually play a larger role in the global economy by exporting the surplus products. This was the real vision of Aatm Nirbhar Bharat.

### **Impact of Aatm Nirbhar Bharat Abhiyan**

Impact of Aatm Nirbhar Bharat Abhiyaan can be seen that from zero production of Personal Protection



Equipment (PPE) Kits before March 2020, today India has created a capacity of locally producing more than 2 lakh PPE kits daily and it is growing steadily. Earlier to this India uses imported PPE kits and pays a lot of money in return. India also developed our own Covid testing kits and number of vaccines are in final stage of trails. In some ways Aatm Nirbhar Bharat Abhiyan is the reinforcement of Make in india. Defence ministry is now also pushing to make indigenous production of weapons.

Thus Aatm Nirbhar Bharat vision is a true way to nurture and flourish India's innovations and to make India a Global Leading country in all terms.

### **Economic packages and Support packages under Aatm Nirbhar Bharat**

To make Aatm Nirbahr Bharat Abhiyan more successful Indian Government has announced bailout packages and support packages to various sectors to increase liquidity in the market. Our Prime Minister Shri Narendra Modi announced the economic package along with various packages. These packages that were released during the lockdown was around US\$ 283.73 billion, which is about 10 per cent of India's GDP. The economic package was expected to provide support and strength to various sections of the

country. It will also give a renewed boost to the development journey of the country in 2020. In order to prove the determination of a self-reliant India, Land, Labour, Liquidity and Laws have all been emphasized in this economic package.

One of the most important recommendations of Aatm Nirbhar Bharat packages is that for upto 200 Crores of Tenders, now global tendering is not required. This will be beneficial for Indian companies and its competitiveness will also increase.

### **Long term Benefit of Aatm Nirbhar Bharat Abhiya.**

Aatm Nirbhar Bharat Abhiyan promoted various innovations and new products development in India. By this import of India will decrease and export will increase thus in the long run our trade deficit will reduce. Export promotion will help us save foreign currency and earn more foreign currency. Aatm Nirbhar Bharat package will help in growing Indian small and medium enterprises and the manufacturing sector will flourish. This program will help in achieving 5 Trillion economy vision of Indian Government.

**Somya Jain (II Year)**





## ISHRAE CHAPTER



### CHAPTER INSTALLATION SESSION 2020 – 21 @ 07/08/2020

The chapter was installed online in IES IPS Academy in the month of August 2020.

Indore Chapter

Indore Chapter

**ISHRAE INDORE CHAPTER –Presents - Installation Ceremony of Student Chapter  
And Technical Talk**

**ON 07<sup>th</sup> AUGUST 2020, 02:00 PM**  
- Goto Webinar

ISHRAE Indore Chapter cordially Invites you, for the Student Chapter Installation Ceremony of Institute of Engineering and Science IPS Academy, Indore. Swami Vivekananda College of Engineering, Indore & Ujjain Engineering College, Ujjain And Technical talk on Careers in HVAC&R Industry

Guest of Honor – Mr Nishant Gupta  
National Treasurer - ISHRAE

Guest of Honor –Mr Pankaj Tiwari -  
RD West 2

Guest of Honor – Mr Sharad Choudhary  
Past President – Ishrae Indore

Speaker – Mr Sandeep Belsare  
IPP – Ishrae Indore

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President

Kapil Jain  
President Elect

Ravindra Bohra  
Secretary

Neena Pandya  
Program Chair

Sharad Shukla  
Student Chair

Swapnil Sharma  
RSVP- 9981521152

Host Committee :-  
Ankush Jhawar (Treas.)  
Shishir Jain (Youth Chair)

Title Partner- Society Year 2020-21

Carrier Airconditioning & Refrigeration Ltd.

Knowledge Partner- Society Year 2020-21

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For More Details reach us-  
ishraeindore@gmail.com







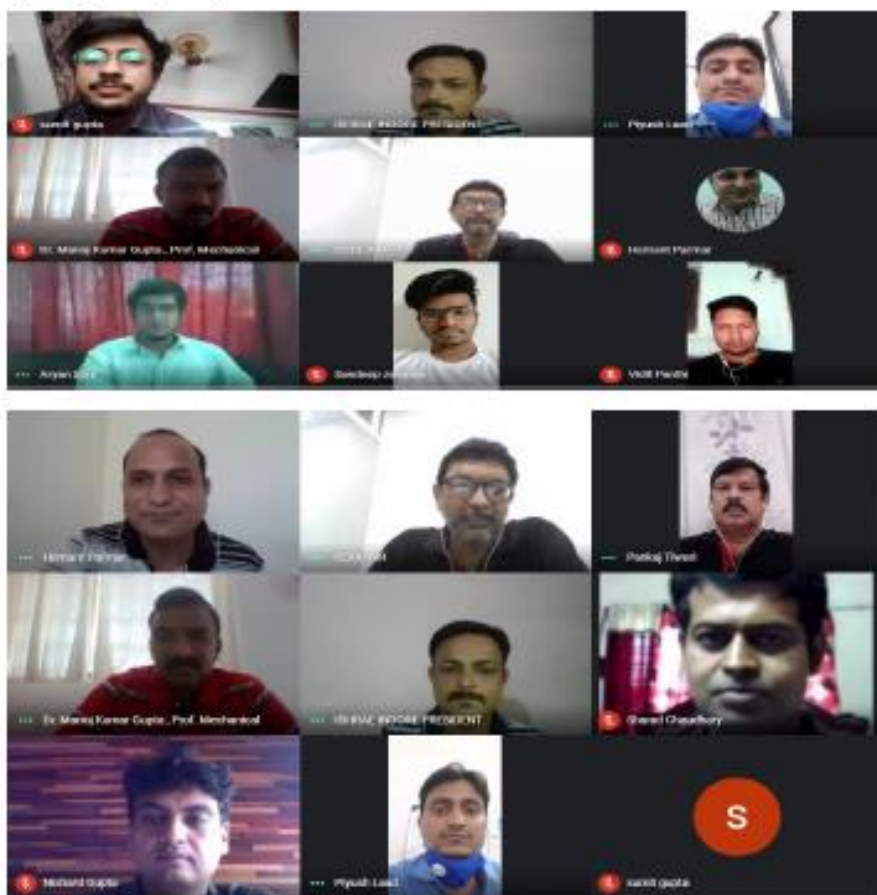
Indore Chapter

ISHRAE INDORE – STUDENT CHAPTER INSTALLATION EVENT – 07.08.2020

Institute of Engineering and Science IPS Academy,

Swami Vivekananda College of Engineering

Ujjain Engineering College



## ❖ Industrial Visit



**आओ देखें Factory!**  
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**Register by 27th August 2020**  
Students will get the link directly from Hitachi on 28th Aug.

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E-mail : [v.thakur@ishraehq.in](mailto:v.thakur@ishraehq.in)

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Air conditioning solutions



## ❖ Teachers Day Event



Indore Chapter



ISHRAE INDORE CHAPTER –Presents



Indore Chapter



Indore Chapter

## COOLEX – 2020

**On Teacher's Day -05<sup>th</sup> September 2020, 02:00 PM Onwards**  
- Go to meeting

ISHRAE Indore Chapter cordially Invites you, for Student Day Program – COOLEX 2020  
Join us to Witness Our Student Members performing – Dance, Singing, Poetry, Mimicry & Many more Acts.....



**Organizer - Alex Louis**  
President – IPS Academy  
ISHRAE INDORE Student Chapter



**Organizer - Sumit Gupta**  
President – Ujjain Engg College  
ISHRAE INDORE Student Chapter



**Organizer - Manish Chouhan**  
President – Swami Vivekanand Coll of Engg  
ISHRAE INDORE Student Chapter

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**Kapil Jain**  
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## ❖ Ozone Day Event



Indore Chapter



ISHRAE INDORE CHAPTER –Presents



Indore Chapter



Indore Chapter

## O3-Tech : 2020

**“Innovate Your Thoughts”**  
**On OZONE DAY, 16<sup>th</sup> September 2020**

ISHRAE Indore Chapter cordially Invites you, for O<sub>3</sub>-Tech : 2020.  
ISHRAE Indore Students prepare & make your own video of 3 mins. on theme – “Ozone Layer Depletion” & send it to your coordinating student, on or before 15<sup>th</sup> September 2020. Winners will be declared on 16<sup>th</sup> September 2020.



**Organizer – Aakash Singh**  
Secretary – IPS Academy  
ISHRAE INDORE Student Chapter



**Organizer – Chanchal Lande**  
Secretary– Ujjain Engg College  
ISHRAE INDORE Student Chapter



**Organizer –Suyog Choudhary**  
Secretary– Swami Vivekanand Coll of Engg  
ISHRAE INDORE Student Chapter

**Faculty Coordinators –**  
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2.Mr. Vishal Wankhade, SVCE  
3.Mr. Amit Chandsarkar, Acropolis – 1  
4.Mr. Anshuman Purohit, Mediacaps

**Cash Prize**  
1<sup>st</sup> 1500/- Rs  
2<sup>nd</sup> 1000/- Rs  
3<sup>rd</sup> 500/- Rs

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**Swapnil Sharma**  
Coordinator- 9981521152  
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## ❖ Motivational Talk












**ISHRAE INDORE CHAPTER –Presents**  
**A Motivational Talk on Career Guidance for Students**  
**by Dr Sandeep Atre**  
**12<sup>th</sup> December 2020, 02:00PM, at Go to Meeting.**



**Dr. Sandeep Atre**

**About Speaker –**  
**Sandeep Atre**, PhD is the Founder-Director of Socialigence – a venture specializing in development of ‘*Social & Emotional Intelligence*’ and its offshoot interpersonal skills through workshops and online course based on extensive research in neuroscience and psychology.  
 He is also one of the Founder-Directors of CH EdgeMakers – a leading ‘Coaching and Training’ group of Central India.  
 He has authored two books “Understanding Emotions Logically” and “Observing Nonverbal Behavior”.

**Milind Ingole**  
President

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## Departmental News & Updates

### Students Achievements

#### **(A) Paper Published in Journals International**

S. No.	Name	Topic / Title of the Paper	Name of Journal (refereed)	Year of publish (with month)
1	Aman Singh Amit Kumar Bharat Bhushan	Investigation and Design Modification in Exhaust Manifold Through Static Structural Analysis Using Hypermesh	International Journal of Mechanical Dynamics & Analysis	Aug.2020

#### **(B) Paper Presented in Seminar / Conference National**

S. No.	Name	Topic / Title of Paper Seminar / conference	Date		Details of Seminar / conference Proceeding and organized by
			From dd/mm/yyyy	To dd/mm/yyyy	
1	Tarun Dange	"Unmanned under water Vehicle"	08/05/2021	08/05/2021	Mechanical Engineering
2	Rajat kostha		08/05/2021	08/05/2021	Mechanical Engineering
3	Vishwas Rai		08/05/2021	08/05/2021	Mechanical Engineering
4	Pushpendra Gupta	Transmission of light through optical fiber	08/05/2021	08/05/2021	Mechanical Engineering
5	Ujjawal Chhari		08/05/2021	08/05/2021	Mechanical Engineering
6	Vaibhav Thakre		08/05/2021	08/05/2021	Mechanical Engineering
7	Shubham Yadav		08/05/2021	08/05/2021	Mechanical



					Engineering
8	Rakshit jore	Design, Evaluation and Fabrication of Switch	08/05/2021	08/05/2021	Mechanical Engineering
9	Nikhil sagar prajapat	Board with Key and Mobile Stand	08/05/2021	08/05/2021	Mechanical Engineering
10	Prateek garde	Design and development of board cleaning system	08/05/2021	08/05/2021	Mechanical Engineering
11	Prakhar Sharma		08/05/2021	08/05/2021	Mechanical Engineering
12	Saransh Jain		08/05/2021	08/05/2021	Mechanical Engineering
13	Saurav Bhandari		08/05/2021	08/05/2021	Mechanical Engineering
14	Abhishek Singh Sisodiya		08/05/2021	08/05/2021	Mechanical Engineering
15	Vaibhav Ghosh	Design and fabrication of chainless bicyclic with vertical paddling	08/05/2021	08/05/2021	Mechanical Engineering
16	Sumit Dhakad		08/05/2021	08/05/2021	Mechanical Engineering
17	Karan Rathore	Design and development of dish washer machine	08/05/2021	08/05/2021	Mechanical Engineering
18	Akhilesh singh		08/05/2021	08/05/2021	Mechanical Engineering
19	Dherendra Singh yadav		08/05/2021	08/05/2021	Mechanical Engineering
20	Kaushal Ahirwar	Molding and analysis of two stroke engine with SFI	08/05/2021	08/05/2021	Mechanical Engineering
21	Tanmay sharma		08/05/2021	08/05/2021	Mechanical Engineering
22	gaurav Singh		08/05/2021	08/05/2021	Mechanical Engineering
23	Jagrat Singh Rao	Design and Fabrication of Four-Way Mechanised	08/05/2021	08/05/2021	Mechanical Engineering
24	Gaurav Shrineel	Hacksaw Using Slider Mechanism	08/05/2021	08/05/2021	Mechanical Engineering
25	Yash Upadhyay	Design and fabrication of vacuum forming machine	08/05/2021	08/05/2021	Mechanical Engineering
26	Rohit Raghuvanshi		08/05/2021	08/05/2021	Mechanical Engineering
27	Sukhveer singh chunn	Evaluation of Change in Properties of Metals After	08/05/2021	08/05/2021	Mechanical Engineering
28	Vishal patel	Quenching and Partitioning	08/05/2021	08/05/2021	Mechanical Engineering





29	Aayam Rai	HVAC and R system design for IT Company	08/05/2021	08/05/2021	Mechanical Engineering
30	Lokesh Baraskar		08/05/2021	08/05/2021	Mechanical Engineering
31	Aayush Sharma		08/05/2021	08/05/2021	Mechanical Engineering
32	Nishant Soni		08/05/2021	08/05/2021	Mechanical Engineering
33	Harshit Digarse	Design and fabrication of semi - automatic road side reflector stud Installation Machine	08/05/2021	08/05/2021	Mechanical Engineering
34	Harsh Baria		08/05/2021	08/05/2021	Mechanical Engineering
35	Ayush Jain		08/05/2021	08/05/2021	Mechanical Engineering
36	Aniket Pathak		08/05/2021	08/05/2021	Mechanical Engineering
37	Vishmay Khede	Ejector base Refrigeration for domestic Refrigerator	08/05/2021	08/05/2021	Mechanical Engineering
38	Varun Shivpuriya		08/05/2021	08/05/2021	Mechanical Engineering
39	Rohit Rathod		08/05/2021	08/05/2021	Mechanical Engineering
40	Swadeep Dwiwedi		08/05/2021	08/05/2021	Mechanical Engineering
41	Vikash Singh Dangi	Levitation ( Increasing efficiency of Vortex tube used for cooling )	08/05/2021	08/05/2021	Mechanical Engineering
42	Sushil Parihar		08/05/2021	08/05/2021	Mechanical Engineering
43	Rajaditya Singh Rathore	H.V.A.C Design for IT Company	08/05/2021	08/05/2021	Mechanical Engineering
44	Prajawal Saxena		08/05/2021	08/05/2021	Mechanical Engineering
45	Rahul Yadav		08/05/2021	08/05/2021	Mechanical Engineering
46	Ritik Pandey	HVAC system designing for a company (ISHRAE Project)	08/05/2021	08/05/2021	Mechanical Engineering
47	Akshat Gupta	Research paper or industrial tanning no decided	08/05/2021	08/05/2021	Mechanical Engineering
48	Abhishek Thakur	Plastic Bottele Crusher Machine	08/05/2021	08/05/2021	Mechanical Engineering
49	Harsh Pandey		08/05/2021	08/05/2021	Mechanical



					Engineering
50	Aman Singh		08/05/2021	08/05/2021	Mechanical Engineering
51	Amit Kumar Singh	NVH analyses on front and rear seat of vehicle	08/05/2021	08/05/2021	Mechanical Engineering
52	Bharat Bhushan		08/05/2021	08/05/2021	Mechanical Engineering
53	Abhishek Malviya		08/05/2021	08/05/2021	Mechanical Engineering
54	Abhishek Sarathe	Analysis of Heat Transfer Rate from Different Geometries by Applying Materials of Critical Thickness	08/05/2021	08/05/2021	Mechanical Engineering
55	Anurag Raikwar		08/05/2021	08/05/2021	Mechanical Engineering
56	Darshan Kochar		08/05/2021	08/05/2021	Mechanical Engineering
57	Ankit Prasad		08/05/2021	08/05/2021	Mechanical Engineering
58	Md. Shaqib	Design, Modelling and Analysis of Brake Shoe	08/05/2021	08/05/2021	Mechanical Engineering
59	Mohd Aaqib		08/05/2021	08/05/2021	Mechanical Engineering
60	Arun Rawal		08/05/2021	08/05/2021	Mechanical Engineering
61	Devendra S. Parmar	Design of Stress Reducing Load Carrying Equipment	08/05/2021	08/05/2021	Mechanical Engineering
62	Mayur Pawar		08/05/2021	08/05/2021	Mechanical Engineering
63	Rajpal Singh Sendhav		08/05/2021	08/05/2021	Mechanical Engineering
64	Reyaz Gaddi	Design and fabrication of Pneumatic Can Crusher Machine	08/05/2021	08/05/2021	Mechanical Engineering
65	Pratik Gondane	Design and fabrication of Pedal Operated Hacksaw	08/05/2021	08/05/2021	Mechanical Engineering
66	Pratik Jaiswal		08/05/2021	08/05/2021	Mechanical Engineering
67	Rishi Bhushan Pandey		08/05/2021	08/05/2021	Mechanical Engineering
68	Vidit Pardhi		08/05/2021	08/05/2021	Mechanical Engineering
69	Prakul N Chaturvedi	Design and fabrication of pesticide spraying Drone	08/05/2021	08/05/2021	Mechanical Engineering
70	Yaman Kalyani		08/05/2021	08/05/2021	Mechanical Engineering



71	Sourav Kumar		08/05/2021	08/05/2021	Mechanical Engineering
72	Vinay Jaiswal		08/05/2021	08/05/2021	Mechanical Engineering
73	Rahul Jha		08/05/2021	08/05/2021	Mechanical Engineering
74	Sachin Yadav	Design and Fabrication of Water and Power Saving Device for House Hold Tanks	08/05/2021	08/05/2021	Mechanical Engineering
75	Shubham R. Yepurwar		08/05/2021	08/05/2021	Mechanical Engineering
76	Abhineet S Sisodiya		08/05/2021	08/05/2021	Mechanical Engineering
77	Swapnil Sharma	Design and Installation of Roster Mixture	08/05/2021	08/05/2021	Mechanical Engineering
78	Rahul Patidar		08/05/2021	08/05/2021	Mechanical Engineering
79	Yesh Gaarhwal	Double Acting Hacksaw Using Scotch Yoke Mechanism	08/05/2021	08/05/2021	Mechanical Engineering
80	Sumit Jadia		08/05/2021	08/05/2021	Mechanical Engineering
81	Shubham choudhery		08/05/2021	08/05/2021	Mechanical Engineering



## **TOP SCORERS OF THE DEPARTMENT**

### **LIST OF STUDENTS WHO IS GETTING FIRST/SECOND POSITION (ACADEMICS) (UG)**

<b>S. No</b>	<b>Name of Student</b>	<b>Sem/Year</b>	<b>Position</b>	<b>Percentage</b>
1	Prajwal Saxena	VIII	I	8.72
2	Aayam Rai	VIII	II	8.47
3	Rahul Kumar Lakshkar	V	I	8.32
4	Shiv Pratap Singh	V	II	8.25
5	Utkarsh Shinde	III	I	9.48
6	Gourav Undhaliya	III	II	9.16
7	Anirudh Mishra	I	I	9.45
8	Roshik Vyas	I	II	9.40

### **LIST OF STUDENTS WHO IS GETTING FIRST/SECOND POSITION (PG)**

<b>S. No</b>	<b>Name of Student</b>	<b>Sem/Year</b>	<b>Position</b>	<b>Percentage</b>
1	Pradhyumn Soni		I	9.00
2	Rohit Singh Baghel		I	9.00
3	Ajay Kumar Lodhi		II	8.95

