

# “परित्राणाय साधुनाम्”

“Saving the Noble”



SHRI NARENDRA MODI  
PRIME MINISTER OF INDIA

“Every person is a soldier in this battle and also leading the battle”

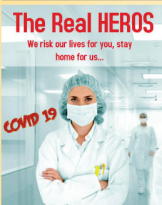


Corona patients in India till date.



Spread of COVID-19 across the world

## SALUTE TO WARRIORS



**OPERATION SAMUDRA SETU**  
BIGGEST EVACUATION



## Editorial Board

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Mech. 8th Semester

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## CAD Motion Mechanism



“One stop for techies”

Official Youtube Channel  
of  
Department of Mechanical Engineering

<https://bit.ly/3cXMcAc>

“To give real service,  
you must add something  
which cannot be bought  
or measured with money”

**SIR M.VISVESVARAYA**

God of Engineering, India  
Recipient of “Bharat Ratna”



## ALUMNI SECTION

Hello Everyone,

I Umesh Nande, a 2015 batch pass out from Department of Mechanical Engineering and currently working in Indian Oil Corporation Limited (IOCL), commonly known as Indian Oil. It is an Indian government owned Oil and Gas Company. I have cleared the GATE 2015 examination and got recruited thorough the same.

Here, I want to share some valuable points which will ultimately help you to achieve your goals:

**1. Identify with you goals :-** Dr. A. P. J. Abdul Kalam once said "It is a big crime to set small goals". As all of you have selected your carrier in engineering, some of you are clear with your goals but some still are in confusion what they really want in career. Identifying your goals takes some time and effort, but it is a truly the most important process in any successfully career.

**2. Work on strength and weakness :-** If you are really clear with your goal then start focusing on your strengths and weaknesses. Work over your weaknesses and try to improve them by each day. Your faculties will always help & guide you for career.

**3. Basic Necessities :-** To achieve your goals you need to learn and follow some basic aspects which are a key of successful peoples. You should have always stay with a positive attitude & remain focused, improve your communication skills, leadership skills and flexibility to the environment, apply strategic planning to achieve your short-term and long-term goals of life.

**4. Always have a learning attitude :-** Today in this world of rapid advancement one has lot of skills to learn & implement in daily life. Always love gaining new practical knowledge with theoretical knowledge as well. If you will improve knowledge and skills, opportunities will increase & also your value in your team and you'll be irreplaceable to your team.

I hope this article will help you at collage level as well as throughout your career.



**Mr. UMESH NANDE**

Senior Engineer  
(INDIAN OIL CORP. LTD.)  
GATE 2015 QUALIFIER  
BATCH :- 2011-2015

## AUTOMATIC SANITIZING TUNNEL

**Abstract :-** An AUTOMATIC SANITIZING TUNNEL is a tunnel equipped with misting nozzle, sanitizer pump, 500 L tank and sensors for automatic operation. This Tunnel is capable of sanitizing upto 800 people in one refill and energy consumption is as low as 1 unit a day. As it is sensor based the chances of loss is almost zero. A tube light is also installed inside the tunnel so that we can use it in night as well.

**Working :-** As a person enters the tunnel the sensor activates the relay switch which thereby turns the sanitizing pump on, sanitizing liquid from the 500 liters storage tank flow through pipes via pump and comes out from the misting nozzles. The pump used is a DC pump which has a battery backup system to make it portable even when power supply is not available.



**SAGAR SAHU**

6th Sem Mechanical



# EMERGING TRENDS IN MECHANICAL ENGINEERING

## DIRECT SPLASH FACE SHIELD

"Direct Splash Face Shield" is a **Personal Protective Equipment (PPE)** that is used by many workers (such as medical, dental, veterinary), which protects the facial area and associated mucous membranes like eyes, nose, mouth from splashes, sprays, and spatter of body fluids.

In this critical situation it can be a very effective device to protect oneself while serving the society. Generally, masks have been highly recommended as equipment of safety but now epidemiologists from the Iowa hospital, Tokyo suggests that face shield is better as compared to masks because they cover a greater surface area and forbids wearers from touching their face.

Most importantly, face shields are durable and can be cleaned after each use and used repeatedly.

### Exclusive Features:-

1. Excellent Visibility
2. Easy to Assemble
3. Light Weight
4. Comfortable fit
5. Adjustable elastic band



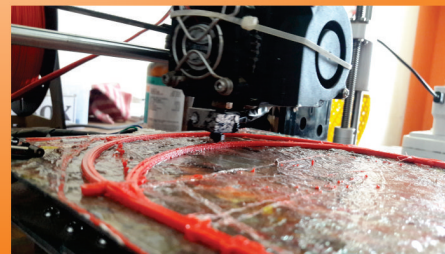
**PRASHANT YADU**

6th Sem. Mechanical



**SEEMANT SONI**

6th Sem. Mechanical



## INNOVATION AND PANDEMIC: FINDING THE SILVER LINING OF COVID-19

COVID -19 may be having a **devastating impact** on our industries, social lives and personal grooming standards, but it is also prompting an outpouring of creativity in other arenas. Well it reminds us of the inventions of the **Second World War** - when the **first digital computer and rocket technology** came to the fore. Not only it affected the world economy but also affected the routine of many. Businesses worldwide are feeling the changes, and **economists are predicting economic loss of hundreds of billions of dollars**. But still a silver lining is seen in increase in innovations. And No doubt in context of India, COVID-19 has catalyzed innovation by providing an environment for launching and testing new ideas.

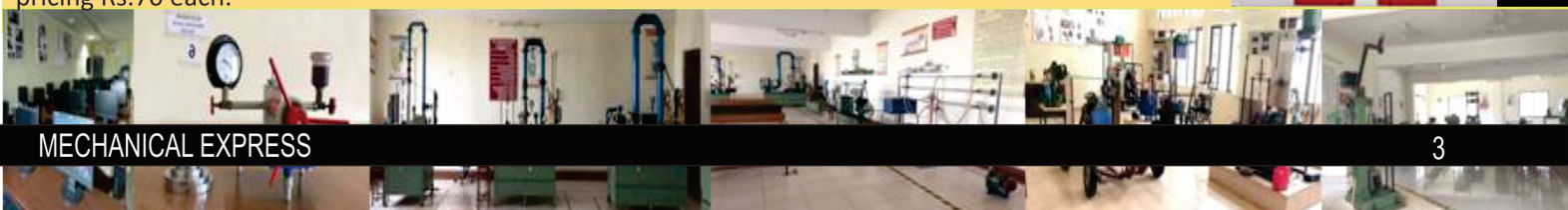
Some of the major innovations spotted were:

- 1. Drones For Sanitizing** – Two drones were developed by **IIT Guwahati**, one for disinfecting larger areas and another drone equipped with infrared camera which can help in thermal screening of groups without human intervention
- 2. Robots in Isolation Wards & Sanitizing - Asimov Robotics**, a startup company of Kerala says its **KARMibot** can help reduce both the burden on healthcare professionals as well as the risk of them being exposed to the virus and robots also sanitized people.
- 3. Mahindra's in-house affordable respiratory device(Ventilator)** - Following Dr.Goenka's (MD, Mahindra) announcement, two teams of Mahindra from Igatpuri & Mumbai came up with the first ventilator prototype within 48 hours with a cost of about Rs.7500 only with facilities like speed control etc.
- 4. Multi-feed Oxygen Manifold (MOM)** – Engg. Officers of Indian Navy at the Eastern Naval Dockyard, Visakhapatnam developed an innovative Portable Multi-feed Oxygen Manifold (MOM) which was assembled within 30 minutes during rapid trials at the INHS Kalyani. Portable MOM enables six patients to receive oxygen from one oxygen cylinder simultaneously.
- 5. Innovations of DRDO** - DRDO developed a washable suit and has passed the ASTM International standards & was widely tested by DRDO with each costing Rs 7,000. Five layer N99 masks with two layers of nano mesh with capacity of producing 10,000 masks per day pricing Rs.70 each.



**PRATEEK SHARMA**

8th Sem. Mechanical





# International Conference on Sustainable Research in Engineering Science and Management (ICSRESM - 2020)

## List of Achievers

1. Prof. Taranjeet Sachdev  
( Department of Mechanical Engineering )

Topic :- Performance enhancement of solar humidification dehumidification desalination system by the waste heat of household chimney.

2. Prateek Sharma, Nitesh Kumar, K. Sai Kumar, Laxmikant Verma  
( 8th Semester, Department of Mechanical Engineering )

Topic :- Design and fabrication of magnetic brakes with automation.



## National Service Scheme Camp 2020 ( 26 February, 2020 - 3 March, 2020)

### List of Volunteers

#### 8th Semester :-

1. Prateek Sharma (Group Leader 2019-20)
2. Nitesh Kumar

#### 4th Semester :-

1. Ayush Kosre
2. CH Kashi Vishwanath
3. Narayan Sen



## Personality & Presentation Skills Contest

### List of Participants

#### 8th Semester :-

1. Arun Kumar
2. K. Akash Rao
3. Md. Mukhtar
4. Prateek Sharma

#### 6th Semester :-

1. Anuj Kumar Singh
2. Jaspreet Singh Hanspal
3. Kunal Urkude
4. Piyush Pandey

#### 5. Sagar Sahu

6. Saurabh Singh
7. Shubham Sharma
9. Nidhi Sahu
10. Shivangi Sahu

#### 4th Semester

1. Monika Sahu
2. Ragib Imtiyaz
3. Balendra Mishra
4. Rohan Jaiswal

#### 5. Manish Sahu

6. Pulkit Nayak
7. Rahul yadav
9. T J Vikas
10. Diwakar Sahu
11. Kshitij Yadav
12. Ayush Kosre
13. Mokshita Verma
14. Jitesh Singh Rajput





WORKSHOP ON ARDUINO

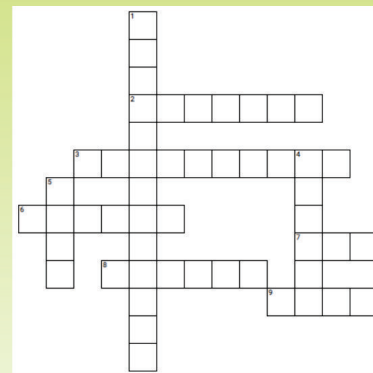
GATE QUALIFIERS



**MOINUDDIN ANSARI**  
BATCH :- 2015-2019  
GATE RANK :- 288



**NAVEEN RAI**  
BATCH :- 2016-2020  
GATE RANK :- 12014



DOWN

1. A clinical trial in which blood is transfused from recovered COVID-19 patients to a coronavirus patient.
4. May 12<sup>th</sup> is observed as International day of \_\_\_\_\_.
5. Try not to touch your \_\_\_\_\_ when you are out.

ACROSS

2. Recently \_\_\_\_\_ Setu Operation was launched by Indian Navy.
3. Government use \_\_\_\_\_ to stop the spread of contagious diseases.
6. Internet \_\_\_\_\_ is a joint programme launched by Google India and Tata Trusts for women.
7. Stay at a minimum distance of \_\_\_\_\_ feel apart.
8. Avoid large \_\_\_\_\_ of people.
9. \_\_\_\_\_ union ministry has launched CHAMPIONS Portal.

PLACEMENTS

NAME OF COMPANY	NAME OF STUDENTS
COLLABERA	PRATEEK SHARMA
	SHASHANK VERMA
DOUBTNUT	PRATEEK SHARMA
	CHANDRAPRAKASH VERMA
	HITESH DEWANGAN
TIOT SYSTEMS LIMITED	PRATEEK SHARMA