

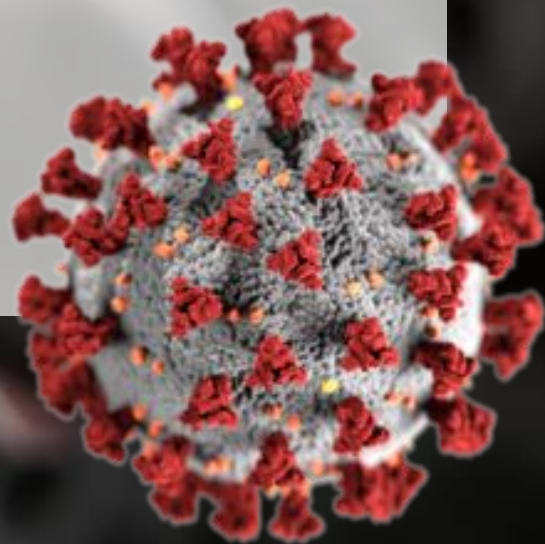


IIT KGP Researcher

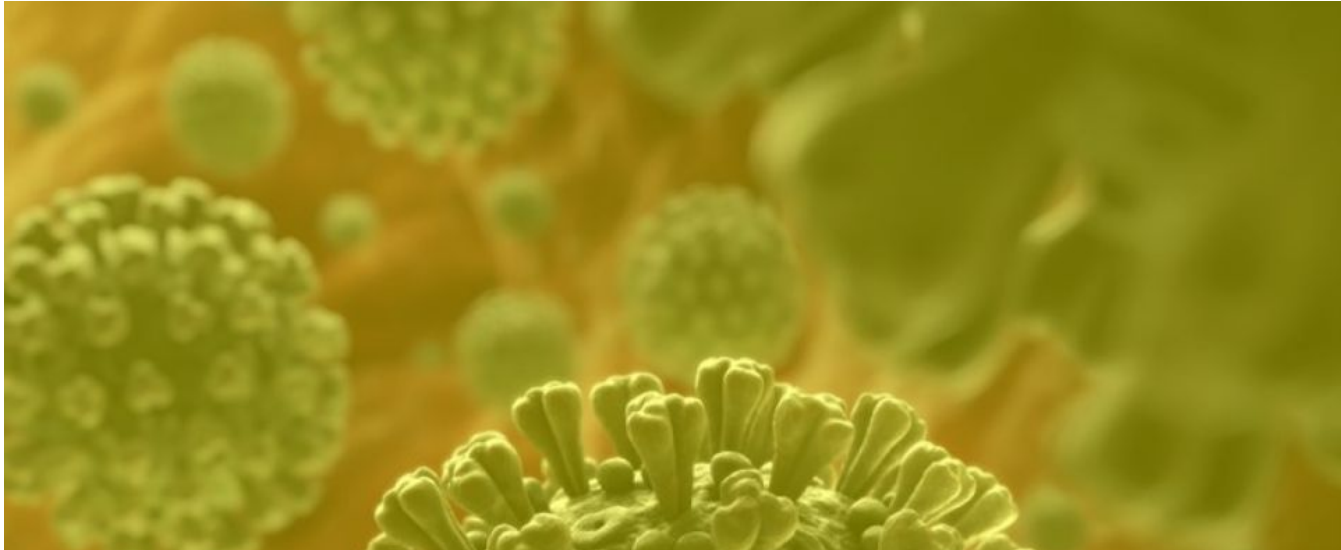
e-Newsletter, March 2020

COVID REVIEW

Special Issue on Covid -19



In this issue we have featured the work undertaken by various researchers and students at IIT Kharagpur related to COVID-19 healthcare and advisory



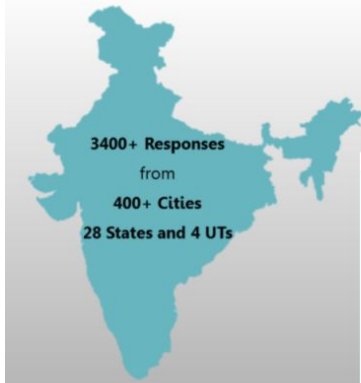
COVID-19 has brought the world to a standstill. With cases surging over 1200 infected and deaths crossing 30, by March 31, reports are coming in for India preparing for stage-III of the pandemic. The country has already announced a complete lockdown with special packages announced by the government to bolster healthcare facilities including medical equipment such as test kits, ventilators, hygiene products and even setting up of temporary COVID healthcare units. To support the billion-strong population during the lockdown, package has also been announced for free distribution of food and essential items. The giant players in Indian industries have extended their support to set up COVID hospitals or multiply ventilator production. Start-ups are coming up with prototypes of test kits and hygiene technologies. While all of these activities are picking up pace, IITs have engaged into product and process developments from preventive care to healthcare equipment to engaging people during lockdown. In this issue of IIT KGP Researcher we feature the work related to COVID-19 being undertaken by our researchers students and through projects.

~ Shreyoshi Ghosh, Managing Editor

Write to us at media@iitkgp.ac.in.

[Photo courtesy: WHO, Open sources, IIT KGP file photos]

IIT KGP Studies Explore COVID Lockdown



Researchers from the Ranbir and Chitra Gupta School of Infrastructure Design and Management and Dept of Civil Engineering at IIT Kharagpur have taken an initiative to carry out a study on travel and social distancing perspectives of Indian citizens during the recent outbreak of COVID-19. The study throws light on understanding people's preparedness in case of a lockdown, their travel behaviour and their perceptions during COVID-19 outbreak and assessing the impact of travel restrictions and social distancing on different aspects of life as per people's perceptions.

[Read More](#)

COVID Impact on Activity-Travel Patterns

The COVID-19 pandemic has resulted in significant changes in our day-to-day lives. Policies to overcome the crisis while minimizing the disruptions need a good understanding of how different people are changing their activity and travel patterns.

We, researchers at IIT KHARAGPUR and UNIVERSITY OF LEEDS are attempting to analyse such changes through the information gathered from the following online survey.

FEW IMPORTANT POINTS TO NOTE ABOUT THIS ONLINE SURVEY -

1. In the questionnaire, we seek your answers for 3 scenarios (a) activity-travel under existing COVID situation, (b) activity-travel under normal NON-COVID situation in the past, and (c) activity-travel under probable future COVID situations

In another joint study by the Ranbir and Chitra Gupta School of Infrastructure Design and Management and the University of Leeds, researchers are trying to look into how COVID-19 might change social activities and travel patterns. The team believes that policies to overcome the crisis, while minimizing the disruptions, need a good understanding of how different people are changing their activity and travel patterns. They are conducting a survey in this regard.

[Read More](#)

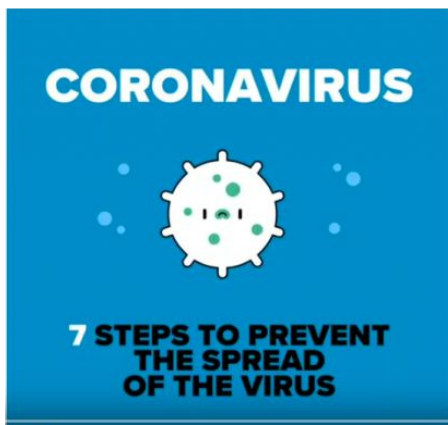


COVID-time Academics: Learning Never Stops

It has been almost 2 weeks since the teaching and learning at IIT Kharagpur have gone virtual. The Center for Educational Technology at the Institute has been using the online interface Webex for conducting classes across all levels of study. Many faculty members have been teaching online on digital platforms such as Swayam, MOOCs and DTH platform Swayam Prabha. The lectures have already been uploaded on the respective platforms for the current semester. Additionally live lectures are being carried out through WebEx.

[Read More](#)





[Get COVID Advisory in Your Language](#)

Vision Prabaho, a students group known for its environmental activities on the campus has taken up the responsibility to help common people understand the precautionary advisory issued by the World Health Organization (WHO) to counter COVID-19. The students have translated the WHO advisory in 15 Indian languages - Assamese, Bengali, Gujarati, Hindi, Kannada, Kashmiri, Malayalam, Marathi, Manipuri, Maithili, Naga, Odiya, Punjabi, Tamil and Telugu.

[Read More](#)



[Researchers make Hand Sanitizer for Local Use](#)

A team of researchers from IIT Kharagpur's School of Medical Science and Technology quickly developed an alcohol based hand rub following the present scenario of scarcity of hand sanitizers/ hand wash preparations in the market due to their heavy demand. The team created the formulation based on guidelines recommended by the World Health Organization. The Transport Section of the Institute has also developed another formulation.

[Read More](#)



[Face Shields for Healthcare Workers During Lockdown](#)

Prof. Santanu Dhara and Prof. Sangeeta Das Bhattacharya, researchers at the School of Medical Science and Technology at IIT Kharagpur have made a prototype to make face shields for healthcare workers from home during the lockdown. The face shield is an essential part of the personal protective equipment (PPE) required for healthcare workers taking care of patients with suspected COVID-19.

[Read More](#)

[NDLI Study Module during COVID-19 Lockdown](#)

IIT Kharagpur develops JEE Preparation Module on National Digital Library of India (NDLI) during COVID-19 Lockdown. Students can visit the NDLI website <https://www.ndli.gov.in/> or <https://ndli.iitkgp.ac.in/> or log on to the NDLI mobile application. A special module named 'Corona Outbreak: Study from Home' has been added to the website which contains a wide range of digital content including those preparing for competitive examinations like JEE Advanced. The repository contains NDLI Tutorial for JEE Advanced for 12 years and Practice Questions and Solutions for JEE Preparation. Content for JEE Mains for 5 years is expected to be made available soon.

[Read More](#)

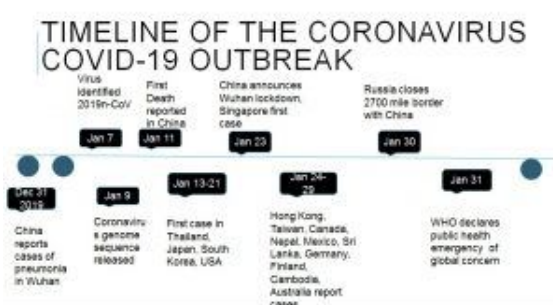
FIGHT BACK COVID 19
STUDY AT HOME

- ▶ School Books
- ▶ UG Engineering Content
- ▶ UG Science Study Material
- ▶ UG Other Disciplines Content
- ▶ Management Books
- ▶ Law Books

Free Resources

[ndli.gov.in](#)

National Digital Library of India | MHRD Ministry of Human Resource Development Government of India



[Public Health Concerns](#)

Prof. Sangeeta Bhattacharya talked about the threat to public health from COVID-19 and drew attention to the 'herd immunity' and ' R_0 ' numbers for COVID-19. 'How do you deal with a novel pathogen when there is no immunity in your population?' That is the question that we are grappling with now.

[Read More](#)

Invisible Leadership and the CoronaVirus Pandemic



IIT Kharagpur's Vinod Gupta School of Management assigned a Pandemic Case Study for Organizational Leadership education. The students will be studying the facts from diverse shades of leadership and understand the ethical issues connected to such situations as COVID-19 pandemic. They will also explore whether the Pandemic itself has acted as an invisible leader in enhancing work-life balance of people, cohabitation of species and environmental sustainability.

[Read More](#)

Kgp Hacks Corona



IIT Kharagpur's Undergraduate Students Council has launched KGP Hacks Corona, an initiative for the IIT KGP community to build software and data solutions aimed at tackling various challenges related to the COVID-19 pandemic.

[Read More](#)

*In challenging times, we learn something
incredibly precious*

GREEN INDOOR

22nd April
2020

e-celebration of
50th Earth Day'20

Individual Online Visual Arts Competition

Drawing, painting, sketching, poster, photo story, video and vlog

Submission deadline:
7th April, 2020

All students of IIT Kharagpur &
Campus school children from
class: I - XI

Prize &
Certificate will
be awarded

Contact:
media@iitkgp.ac.in
vision.prabaho@gmail.com



Organized by
IIT Kharagpur
&
Vision Prabaho





IIT KGP Researcher is brought to you by

Office of Media, Branding & Communications
Indian Institute of Technology Kharagpur

Email us: media@iitkgp.ac.in

Read Our Stories on

<https://kgpchronicle.iitkgp.ac.in>

Go Social with IIT KGP :

Facebook: @IIT.Kgp

Twitter: @IITKgp

Instagram: @iit.kgp