

PRESS RELEASE

IIT Hyderabad & IIT Bombay study changes in travel patterns due to COVID-19 crisis

More than 1,900 participants participated in the study via an online survey, which found that awareness about COVID-19 was higher in Tier-1 cities, compared with Tier-2 and Tier-3 cities

HYDERABAD, 2nd April 2019: Indian Institute of Technology Hyderabad and Indian Institute of Technology Bombay Researchers have studied the impact of COVID outbreak on daily commute during the transition phase between pre-lockdown and the lockdown period.

The researchers believe that the lockdown decision taken by the government has decreased risk of exposure to the coronavirus, due to decrease in crowded setting observed in public transport such as buses, metro and trains. This study is useful in understanding the decision-making behavior of commuters while selecting their preferred mode of transport during a pandemic like COVID-19.

The research team comprised Dr. Digvijay S. Pawar and Dr. Pritha Chatterjee, Assistant Professors, Department of Civil Engineering, IIT Hyderabad and Prof. Nagendra Velaga, Department of Civil Engineering, IIT Bombay, and Mr. Ankit Kumar Yadav, Research student, IIT Bombay.

This study analyzed travel and visit behaviour changes that occurred during third week of COVID-19 outbreak in Indian during pre-lockdown period. The data related to daily commute and visit behaviour was collected through an online questionnaire survey.

More than, 1,900 participants participated in the study. The researchers received a majority of their response from Tier-1 cities (63.6 percent) followed by Tier-2 (20.6 percent) and Tier-3 cities (15.8 per cent).

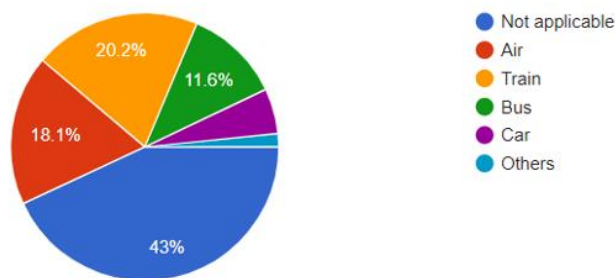
Emphasizing on the importance of the study in shaping relevant policies related to COVID-19, Dr. Digvijay S. Pawar said, *"Given the uncertainties in the minds of the commuters regarding their travel behaviour due to social distancing, it is important for policymakers and local transport authorities in general to understand the change in travel pattern."*

In Tier-1 cities, it was found that about 12 percent of the respondents switched from public to private mode during the third week of COVID-19. This modal shift was about 9 percent in Tier-2 cities and about 7 percent in Tier-3 cities. Moreover, nearly 48 percent of people said that they did not travel to work during the third week of March, whereas 28 percent had the same frequency of travel to work. When enquired about cancellation of trips between the cities using major mode of transportation, around 18

percent said they cancelled their flights whereas, 20 percent of respondents cancelled train journeys. **This indicates that the awareness about COVID-19 is higher in Tier-1 cities, followed by Tier-2 and Tier-3 cities.**

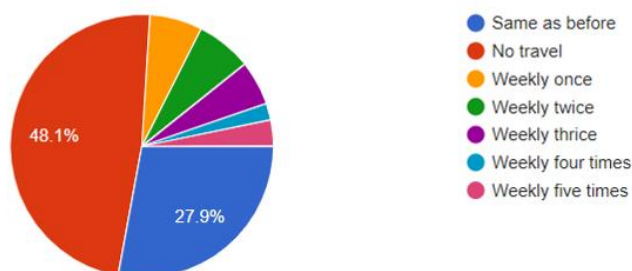
Elaborating on the upcoming studies being planned, Dr. Pritha Chatterjee said, “We are also trying to understand the effect of COVID-19 on transportation related emissions. The data on reduction in vehicle miles travelled and vehicle type will be used to quantitatively model the reduction in traffic related emissions.”

If your travel to different city was cancelled due to COVID-19, which major mode of transport was cancelled?



The respondents were also enquired about their safety perception towards the use of public and private modes of transport, where 93 percent said that private mode of transport is safer compared to the public mode.

Did your frequency of travel to work decrease in THIRD week of March during COVID-19 pandemic? If yes, how much?



The researchers recommended spreading more awareness about the ill-effects and spread of COVID-19, especially among the weaker sections of the society. The rapidly changing diaspora of this pandemic is a threat to public health and is making human life more challenging.

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About [IIT Hyderabad](#)

Indian Institute of Technology Hyderabad (IITH) is one of the six new Indian Institutes of Technology established by the Government of India in 2008. In a short span of around a decade, the institute built on an imposing 570-acre campus and has been ranked among the top ten institutes for four consecutive years in the [National Institute Ranking Framework \(NIRF\)](#) released by the Ministry of Human Resource Development (MHRD), Government of India. The Institute was also ranked #10 in the first edition of [Atal Ranking of Institutions on Innovation Achievements](#) (ARIIA) introduced this year by MHRD to systematically rank all major higher educational institutions and universities in India on indicators related to 'Innovation and Entrepreneurship Development' among students and faculties.

IIT Hyderabad has close to 210 full-time faculty, 2,855 students of whom 20 per cent are women, nearly 200 state-of-the-art laboratories and five research and entrepreneurship centers. The Institute has a strong research focus with more than Rs. 500 crore of sanctioned research funding while Ph.D. scholars account for about 30 per cent of total student strength. IITH students and faculty are at the forefront of innovation with more than 1,500 research publications and patent disclosures, 300 sponsored/consultancy projects and 50 industry collaborations. IITH has MoUs with 50 universities in the U.S., Japan, Australia, Taiwan and Europe. IITH has been pioneering change in pedagogy with fractal academic programs that atomizes course modules, encourage interdisciplinary learning spanning innovative technology, fundamental science, liberal arts and creative arts like photography, theatre and painting.

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