

KSCSTE - National Transportation Planning and Research Centre (NATPAC), an institution of Kerala State Council for Science, Technology and Environment (KSCSTE) is a premier R & D institution in the country which works on multi – modal system of transportation covering road, rail, water, air etc.

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# TransPedia Research Talk #38

## An Activity-Travel Pattern Generator for developing country: An Application of Machine Learning and Natural Language Processing

### ABOUT THE TALK SERIES

NATPAC has been conducting a series of technical talks 'TransTech Talk Series', since February 2023, where industry experts and eminent researchers come together to discuss the latest advancements, challenges, and innovations in the field of transportation.

**TransPedia Research Talk Series** is yet another unprecedented and distinctive endeavor from NATPAC, envisioned to promote research for shared benefits, by disseminating knowledge on diverse topics from cutting-edge technologies to sustainable solutions. Desirably this also brings out a platform for young researchers across the globe to connect and interact to better shape the future of research and development in transportation.

### ABOUT THE TALK #38

The talk presents an innovative approach to predicting Daily Activity Patterns (DAPs) by integrating direct activity sequence recognition with Natural Language Processing (NLP)-based sequence matching. Using weekday and weekend activity-travel diary data from households in Bidhannagar, India, the study examines interdependencies among activities across multiple days. Further, the talk explores the influence of online activities, socio-economic characteristics, built-up areas, and neighbourhood attributes, providing deeper insights into household interactions and activity-travel behaviour in developing countries.

## Dr. Suchismita Nayak

**Assistant Professor, Department of Planning and Allied, School of Planning and Architecture, Bhopal**



Dr. Suchismita Nayak completed her Ph.D titled "A Daily Activity-Travel Simulator for India Incorporating Multiday and Spatio-Temporal Interdependencies" from IIT Kharagpur in 2024 under the guidance of Prof. (Dr.) Debapratim Pandit. Her research areas include activity-based modelling, travel behavior analysis, urban and transportation policy research, as well as sustainable and emerging architectural practices.

### JOIN US:

**24.11.2026, 11:00 AM IST**

**https://tinyurl.com/Transpedia38**

### Attendees

Transportation Professionals, Engineers, Urban Planners, Researchers, Industry Experts, Policymakers, Students, and anyone enthusiastic about the future of transportation.

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*Don't miss out on this opportunity to delve into the realm of transportation innovation. Join us for insightful conversations, connect with fellow industry professionals, and be part of shaping the future of transportation.*