

Department Name: Civil Engineering, MANIT Bhopal (India)

Faculty Photograph	Faculty Profile
	Name: Dr. Pritikana Das Designation: Assistant Professor Qualification: B.Tech, M.Tech, PhD (IIT Roorkee) Research Area: Traffic Flow Modelling & LOS Parking Facilities, Traffic Safety, Proactive Safety Evaluation Email: pritikana.das@gmail.com Date of Birth - 21/03/1986

More Information\:

WORK EXPERIENCE

Assistant Professor

Since, March, 2020

Department of Civil Engineering,
MANIT, Bhopal

Scientist-C

March, 2017 to March 2020

CSIR-Central Road Research Institute, New Delhi

Contract Lecturer

July 2009 to December 2009

Department of Civil Engineering,
MANIT, Bhopal

EDUCATION

Ph. D in Transportation Engineering

Awarded on 24th September, 2017

Indian Institute of Technology Roorkee (IIT Roorkee)

Thesis Title: Pedestrian Flow Modelling and Development of Level of Service

M. Tech in Transportation Engineering

June, 2009

Maulana Azad National Institute of Technology Bhopal (**MANIT Bhopal**)

Dissertation: Pavement Performance Study for Four Lane Highways

B. Tech in Civil Engineering

June, 2007

National Institute of Technology Durgapur (**NIT Durgapur**)

ACADEMIC ACHIEVEMENTS

- GATE 2007
- UPPSC 2012 (Lecturer, Civil Engineering)
- Assistant Professor, 2012 (Govt. Engineering College Bharatpur)
- MHRD scholarship (2012-2016)

RESEARCH INTERESTS

- Traffic Flow Modelling & LOS
- Parking Facilities
- Traffic Safety
- Proactive Safety Evaluation

RESEARCH PAPERS PUBLISHED IN JOURNALS (SCI & Scopus indexed)

1. Parmar, J., Das, P., & Dave, S. (2022). "Identifying Perceived Level of Service of Off-street Parking for CBDs" Iranian Journal of Science and Technology Transactions of Civil Engineering (Manuscript Submitted)
2. Parmar, J., Das, P., & Dave, S. (2022). "Traffic congestion forecasting using multi layers deep neural network" Transportation Letters: the International Journal of Transportation Research. (Manuscript Submitted)
3. Parmar, J., Das, P., & Dave, S. (2021). A machine learning approach for modelling parking duration in urban land-use. Physica A: Statistical Mechanics and its DOI:10.1016/j.physa.2021.125873
4. Parmar, J., Das, P., & Azad, F., (2021). A Methodology of Evaluating Urban Parking System: Case Study of Delhi. European Transport\Trasporti Europei
5. Parmar, J., Das, P., & Dave, S. (2020), "Study on demand and characteristics of parking system in urban areas: A review" Journal of Traffic and Transportation Engineering DOI:10.1016/j.jtte.2019.09.003
6. Das, P., Advani, M., Parida, P., Parida, M., Singh, S.P. (2019), "Development of Land use based Pedestrian Level of Service in Indian Context", Trasporti Europei (2019) Issue 74, Paper n° 2.
7. Das, P., Parida, M. and Katiyar, V.K. (2017), "Macroscopic Pedestrian Flow Modelling Using Simulation Technique", International Journal of Traffic & Transport Engineering, Volume 8, Issue 2, DOI: 10.7708/ijtte.2018.8(2).02
8. Das, P., Parida, M. and Katiyar, V.K. (2015), "Pedestrian Stream Flow Modelling using Single and Multi Regime Concepts", European Transport, Issue 58, Paper no 3, ISSN 1825-3997.
9. Das, P., Parida, M. and Katiyar, V.K. (2015), "Analysis of interrelationship between pedestrian flow parameters using artificial neural network", Journal of Modern Transportation (Springer), 23 (4), 298-309, DOI 10.1007/s 40534-015-0088-9
10. Das, P., Parida, M. and Katiyar, V.K. (2014), "Review of Simulation Techniques for Microscopic Mobility of Pedestrian Movement", Trends in Transportation Engineering and

Application, STM Journal-2014.

11. Das, M Parida, K V. K. (2014). “Characteristics of Macro-level pedestrian Movement for Planning of Pedestrian Infrastructure” PInternational Civil Engineering Symposium-ICES’14, 306-315, 2014
12. Kishore, N., Das, P. and Parida, M. (2015), “Pedestrian Flow Characteristics around Bus Terminal, Dehradun”, Institute of Town Planners, India Journal, October – December, pp.18-30.

Journal papers in other refereed journals

13. Azad, F., Das, P., & Parmar, J., (2019). “Assessment of Fright vehicular movement on arterial road of Delhi for Safety of Road Users” International Journal for Traffic and Transport Engineering (IJTTE)
14. Das, P., Parida, M. and Katiyar, V.K. (2015), “Pedestrian Response to Road Traffic Noise for Medium Size City in India”, IJTTE, 5(3).
15. Tiwari, H., Das, P. and Bharti, A.K. (2012), “MATLAB Programming Solution for Critical and Normal Depth In Trapezoidal Channels”, International Journal of Engineering Research & Technology (IJERT), ISSN: 2278-0181, Vol. 1 Issue 8.

RESEARCH PAPERS PUBLISHED IN CONFERENCES AND PROCEEDINGS

1. Singh,D., Das, P., and Verma, V., 2022. Assessment of Pedestrian Safety at Urban Uncontrolled Intersections Using Surrogate Safety Measures: A Case Study of Bhopal City. (TPMDC)
2. Singh,D., Das, P. and Ghosh, P., (2022). A Review on Surrogate Safety Measure using Extreme Value Theory” (TPMDC)
3. Parvez, C, Das, P.and Singh,D., 2022. Proactive Safety Assessment at Unsignalized intersection Using Surrogate Safety Measures: A Case Study of Bhopal City. TPMDC
4. Bharti S, Das P, Rokade S, Parvez M. (2022). “Gap Acceptance Behaviour at Urban Uncontrolled Intersection; a Case Study of Bhopal City.” Presented at the 4th National Conference on Traffic Technology, organized on 03rd and 04th of March 2022 at CAPT, Bhopal, MP.
5. Singh, D., Das, P, (2022) “A Review on Surrogate Safety Measures in Safety Evaluation and Analysis” 6th Conference of Transportation Research Group of India (CTRG-2021). https://doi.org/10.1007/978-981-19-4204-4_7
6. Mahajan, C., Singh, D., Das, P, (2021). “Pedestrian Movement at an urban uncontrolled intersection: A case study of Bhopal”, 6th Conference of Transportation Research Group of India (CTRG-2021), DOI: 10.1007/978-981-19-3494-0_18

7. Das, P., (2021) A Review on Road Safety Evaluation using Surrogate Safety Measures. Conference: Recent Advances in Civil Engineering for Sustainable Development (RACESD-2021) At: MANIT Bhopal
8. J Parmar, P Das, F Azad, (2020). "Parking demand modelling using artificial neural network". NISCAIR-CSIR, India
9. Parmar Janak, Das, Pritikana, and Azad, Farhat (2019), "Evaluation of Parking Characteristics: A case study of Delhi", WCTR, Mumbai, India.
10. Parmar, J., Das, P. and Dave, S., (2019), "Development of Level of Service Criteria for Urban Car Parking System Using Clustering Techniques" 5th Conference of Transportation Research Group of India (CTRG-2019)
11. Parmar, J., Das, P. and Dave, Sanjay (2018), "A Case Study on Parking Demand and Supply Estimation", Indian Roads Congress-Young, VNIT Nagpur.
12. Das, P., Parida, M., Bhaskar, A. and Katiyar, V. K. (2014), "Optimization Technique for Pedestrian Data Extraction", International Conference on Transportation Planning and Implementation Methodologies for Developing Countries, 11th TPMDC. IIT Bombay, India. (Transportation Research Procedia 2015, ELSEVIER)
13. Das, P. Parida, M. and Katiyar, V.K. (2013), "Strategies for Improving Pedestrian Infrastructure in Urban Areas in India", 61st National Town and Country Planners Congress, pp. 343-352.
14. Dr. R. Shrivastava, S. Rokade, P. Das (2009), "Performance Study of Flexible Highway Pavement Constructed with Bituminous Cold Mix Technology", International conference on Pavement Engineering (ICPE)
15. Tiwari, H., Bhatia, A., Das, P. and Bharti, A.K. (2012) "Advance point-of-use household applications to check arsenic effect from drinking water in Pirpanti (Bhagalpur, Bihar) area to reduce Health risk", India Water Week, Vigyan Bhawan, New Delhi "Efficient Water Management: Challenges and Opportunities.

RESEARCH PAPERS PUBLISHED IN BOOK CHAPTER

1. M Kumar, K Kumar, P Das, (2021). "Study on road traffic congestion: A review", Recent Trends in Communication and Electronics, 230-240
2. Singh, D., Das, P, (2022) "A Review on Surrogate Safety Measures in Safety Evaluation and Analysis" 6th Conference of Transportation Research Group of India (CTRG-2021). https://doi.org/10.1007/978-981-19-4204-4_7
3. Mahajan, C., Singh, D., Das, P, (2021). "Pedestrian Movement at an urban uncontrolled

intersection: A case study of Bhopal”, 6th Conference of Transportation Research Group of India (CTRG-2021), DOI: 10.1007/978-981-19-3494-0_18

RESEARCH & DEVELOPMENT PROJECT

R & D projects (Completed)

4. “Development of Indian Highway Capacity Manual” CSIR Sponsored project (under the Twelfth Five Year Plan), 2012 to 2017, as Team member, Chapter 9 (Pedestrian facilities)
5. Assessment of Freight vehicular movement in Delhi and its planning for the safety of Road Users”, Sponsored by CSIR-CRRI, 2016-2018, as Team member. 6.80 Lakh
6. “Devising Novel Methods in Driver Testing”, Sponsored by CSIR-CRRI, as Team member.
7. Land-use based Parking Policy: A case study of Delhi, Sponsored by CSIR-CRRI, 9.25 Lakh, 2017-2019, as Principal Investigator.
8. Development of mobile application for supply chain and freight transportation management for farmers, Collaborative project with Sarvodaya Infotech Pvt. Ltd., 2018-2020, as Team member.
9. Development of Comprehensive Mobility Plan for Ahmedabad, Sponsored by Ahmedabad Traffic Police, 1.75 Crores, 2019-2020, as Team member

R & D projects (Ongoing)

1. “Proactive Safety Evaluation of Rural Roads: A Surrogate Safety Assessment” NRIDA/MoRD Sponsored project, 25.84 Lakh, as Co- Principal Investigator.
2. “Safety Evaluation of Urban Uncontrolled intersections using Surrogate Safety Measures” SEED money Grant, 5 Lacs, as Principal Investigator (Ongoing).
3. “Development of Trip Generation Manual for Indian Cities” Sponsored by CSIR-CRRI, 8.14 Lakh, as Nodal Principal Investigator.
4. “Performance Evaluation of Cement Concrete Pavement in Rural Roads” Sponsored by National Rural Infrastructure Development Agency (NRIDA), Ministry of Rural Development, Government of India as 21.70 Lakh. Co- Principal Investigator.

Consultancy Projects

1. Mix Design of M-25 for (Multistoried Residential Flats) Sarvadhram Housing Society Damkheda Kolar road Bhopal, M.P. State Co-operative Housing Federation Ltd, 22/7/2020, two Months, C-56, Type-II, Project cost: 23600/-, As PI.
2. Mix Design of M-30 grade cement concrete for Sewerage Treatment Plant at Group Centre CRPF Bhopal, M. P., 7/10/2020, C-132, Type-II, two months, Project cost: 23600/-, As PI.
3. Design of Cement Concrete Pavement at Kurawar Rajgarh M.P., 10/11/2021, Type-I, One month, Project cost: 1,18,000/-, as Co-PI.
4. Testing for ATC cum Technical Block and other allied work at Raja Bhoj Airport Bhopal, Airport Authority of India, T-78. As PI
5. Geometric Design of Suraj Nagar, Sakhi Dhaba and Neelbad intersections on Bhadbhada Road Bhopal, M.P. P.W.D., Type-I, Project cost: 8,85,000/-, 3 months, as Co-PI.
6. Core Testing: Construction of Smart Road Phase-2 (Row 45M, 12M wide) consisting of utility Ducts with Allied works under area based development Bhopal City.
7. Testing of Subgrade samples of the work Integrated Development Works Excluding External Electrification work Aerocity phase-1, 17/12/2021, BDA Bhopal.
8. Vetting of Design and Drawing of Godown in M.P. Zone-I, M/s D4D Infra Bhopal, Type-I, 15/11/22, 1 month, Project cost: 29,500/-
9. Checking of Pavement Crust Thickness for Balance of work of Rehabilitation and up-gradation of SidhiSinrauli from 82.400 to 187.993 KM section of NH-39 (Old NH-75E) length of 105.593km to four lane with paved sholder, M/s L.N.Malviya Infra Projects Pvt. Ltd. Type-I, 15/07/2022, Project cost: 59,000/-, as Co-PI.
10. Vetting of design and drawing of various OHT and UG SUMP etc., Type-I, 22/6/2022 Project cost: 29,500/- , as Co-PI.

ORGANIZED WORKSHOP/ SHORT TERM COURSE/ ETC.

1. “15-Days Road Safety Auditors Certification Course In Association with MoRT&H and IRC during 13th March-27th March, 2021, MANIT Bhopal”
2. “5-Days Training Programme on Road Safety of Rural Roads (28th February - 4th March, 2022), sponsored by National Rural Infrastructure Development Agency, Ministry of Rural Development, Government of India.
3. “5-Days Training Programme on Road Safety of Rural Roads”, 28th February - 4th March 2022, MANIT Bhopal, sponsored by NRIDA, New Delhi.
4. “5-Days Training Programme on Design of Flexible and Rigid Pavement”, 28th October - 1st November 2022, MANIT Bhopal, NRIDA, New Delhi.

5. 5-Days Training Programme on New Technology Initiatives in Rural Road including use of marginal material, 24th November- 28th November, 2022, MANIT Bhopal, NRIDA, New Delhi.

RESEARCH SUPERVISION

(a) PhD Supervision

1. Dungar Singh, 2020. "Safety Evaluation at Unsignalized Intersection using Surrogate Safety Measures"(Ongoing)
2. Saumya Annad, 2021. "Trip Generation Modelling" (Ongoing)

(b) PG Supervision

3. J. Parmar (2019) "Behavioural Modelling and Level of Service Criteria for Urban Parking Environment." (The Maharaja Sayajirao University of Baroda)
4. Dhruv Trivedi (2019), "Residential Car Parking Modelling: a case study of Ahmedabad."
5. Nitin Shukla (2019), "Evaluation of Parking Characteristics & Parking Demand Modelling." (Samrat Ashok Technological Institute, Bhopal)
6. Sangpriyadarshni Bharti (2021) "Gap Acceptance Behaviour at Urban Uncontrolled Intersection"
7. Vivek Kumar (2021) "Safety Evaluation at Urban Uncontrolled Intersection Under Mix Traffic Condition Using SSM"
8. Chetan Mahajan (2021) "A Study on Pedestrian Movement at Urban Uncontrolled Intersection"
9. Mohammed Parvez (2022) "Proactive Safety Assessment at Unsignalized T-intersection Using Surrogate Safety Measures: A Case Study of Bhopal City"
10. Subham Patle (2022) "Development of Pedestrian Safety Index at an Uncontrolled Intersection"
11. Hrishbh Chouhan (2022) "Qualitative and Quantitative Evaluation of Urban Car Parking System: A Case Study of Bhopal"
12. Vasu Verma (2022) "Assessment of Pedestrian Safety at Unsignalised Intersection Using Surrogate Safety Measures"
13. Binish sharma (2023) "Safety Assessment at 4 legged Urban Unsignalized Intersection using conflict techniques"
14. Rama Dhurwey (2023) "Development of trip generation model for Bhopal city."
15. Ankit sahu (2023) "Pedestrian Safety evaluation at mid block crossing on urban roads".

(C) UG Project Supervision

1. Shitala Prasad Maurya, Ravi Tiwari, Mahendra Tiwari, Mahendra Singh, Tanish Bhumarkara (2022) “A Study on Prosocial and Aggressive Behaviour of Indian Drivers”
2. Nidhi Borkar, Saloni Vaidya and Tushar, Analysis and Resolution of the problems in the prominent parking spots of Bhopal

OUTREACH ACTIVITY

1. 5-Days Training Programme on Road Safety of Rural Roads (28th October – 1st November, 2022). Expert Lecture on “**Design of Flexible and Rigid Pavement**”.
2. 5-Days Training Programme on Road Safety of Rural Roads (24th November - 28th November 2022). Expert Lecture on “**New Technology Initiatives in Rural Road including use of marginal material**”
3. 5-Days Training Programme on Road Safety of Rural Roads (28th February - 4th March, 2022). Expert Lecture on “**Traffic Calming Measure for Enhance Safety**”
4. 5-Days Training Programme on Road Safety of Rural Roads (28th February - 4th March 2022). Expert Lecture on “**Traffic Signs, Road Markings and Delineators**”
5. Training on “**Design of Pavement, Geometric, Small Bridge & Culverts**”, MPRRA Bhopal, January 2021. Expert lecture on “Highway Geometric Design for Rural Roads”
6. Madhya Pradesh Rural Road Academy Bhopal, 16 August 2021. Expert Lecture on “**Application of Coir-Textile for Soil Improvement for Performance Improvement of Roads in the state of M.P**”.
7. Emerging Tool for Design and Analysis of Sustainable Roads, STTP, VNR VJIET, Hyderabad, December 2020. Expert Lecture on “**Application of Soft-Computing Techniques in Transportation & Traffic Engineering**.”

MEMBERSHIP OF PROFESSIONALS / ACADEMIC BODIES

- Indian Road Congress (IRC)
- World Conference on Transport Research Society (WCTR)
- Indian Geotechnical Society Delhi Chapter
- Transportation Research Group of India (TRG)
- Indian Society of Technical Education (ISTE)
- State Technical Agency (STA) Member, PMGSY

DECLARATION

I hereby confirm that all the information provided above is correct to the best of my knowledge and I am fully responsible for all the details provided above.

Dr. Pritikana Das