

## CV of the Researcher

Name: **Dr. Minal Chandra**

Nationality: Indian

[Google Scholar](#) (H-index: 5, Citations: 147)

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## EDUCATION

- **Doctor of Philosophy in Engineering (Ph.D.)** (*Awarded: 22/10/2020*)  
Academy of Scientific and Industrial Research (AcSIR),  
CSIR- Central Road Research Institute, India.  
Thesis Title: "*Integrated Travel Demand Modelling for Evaluation of Sustainable Transport System*"
- **Master of Technology (M.Tech.)**  
Transportation Engineering, 2012-2014 (**CGPA: 9.54**)  
Academy of Scientific and Industrial Research (AcSIR),  
CSIR- Central Road Research Institute, India.  
Thesis Title: "*Mode Choice Analysis Using Neuro- Fuzzy Model*"
- **Bachelor of Technology (B.Tech)**  
Civil Engineering, 2007-2011 (**Percentage: 86.20%**)  
School of Engineering,  
Cochin University of Science & Technology, India.  
Thesis Title: "*Stone Matrix Asphalt Stabilized with Polypropylene Fiber*"

## SCIENTIFIC PUBLICATIONS in PEER-REVIEWED INTERNATIONAL JOURNALS

- 1) Chandra, M.\* (2022), "Investigating the impact of policies, socio-demography and national commitments on electric-vehicle demand: Cross-country study", Journal of Transport Geography, Elsevier (*SCI*), Vol. 103, <https://doi.org/10.1016/j.jtrangeo.2022.103410>
- 2) **Minal\***; Ch. Ravi Sekhar and Errampalli Madhu, (2022), "Estimation of Value of Travel Time based on Mixed Land Use of Trip Origin and Destination", Case Studies on Transport Policy, <https://doi.org/10.1016/j.cstp.2022.04.009>
- 3) Saiyad, G., **Minal**, Kumar, R., Rathwa, D, (2022), "Exploring determinants of feeder mode choice behavior using Artificial Neural Network: Evidences from Delhi metro", Physica A: Statistical Mechanics and its Applications (*SCI*). <https://doi.org/10.1016/j.physa.2022.127363>
- 4) Bhatt, D., **Minal\***, (2022), "GIS and Gravity Model-Based Accessibility Measure for Delhi Metro", Iranian Journal of Science and Technology, Transactions of Civil Engineering (*SCI*). <https://doi.org/10.1007/s40996-021-00795-5>
- 5) **Minal\***; Ch. Ravi Sekhar and Errampalli Madhu (2021), "Multimodal Travel Choice Determinants in Context of Travel Time Reliability", ICE Proceedings Transport (*SCI*). DOI:<https://doi.org/10.1680/jtran.20.00091>

- 6) Saiyad, G., **Minal**, Kumar, R., Rathwa, D, (2021), "Assessment of Transit Accessibility Through Feeder Modes and Its Influence on Feeder Mode-Choice Behaviour", AJSE, <https://doi.org/10.1007/s13369-021-06082-9>
- 7) Saiyad, G., **Minal\***, Kumar, R., Rathwa, D, (2020), "Trips Generated by Rickshaw Pullers and Trip Rate for Cycle Rickshaws: A Case Study of Delhi", Transportation Research Procedia, Vol. 48, pp. 2296-2312, DOI: [10.1016/j.trpro.2020.08.287](https://doi.org/10.1016/j.trpro.2020.08.287)
- 8) **Minal\***, Ch., Ravisekhar, (2020), "Smart Cities Development in India", Bhartiya Vaigyanik Evam Audyogik Anusandhaan Patrika (BVAAP), Vol. 28(1), pp. 102-107. <http://nopr.niscair.res.in/handle/123456789/55126>
- 9) Chandra, S. and **Minal\***, (2019), "Challenges of Electric Vehicle Adoption in India", Indian Highways, Vol.47(8), pp.42-45  
URL:<https://drive.google.com/file/d/0B4ELJHaC7dzOY1NMQ2Jha2gzMENvRWtSWFZnOEREX0tiWkl3/view>
- 10) Deepika Bhatt, **Minal\***, A.U Ravi Shankar (2019), "Macro-Simulation Based Passenger Assignment Of Delhi Metro", International Journal for Traffic and Transport Engineering (IJTTE), Vol.9(2), pp.210 - 220  
DOI: [http://dx.doi.org/10.7708/ijtte.2019.9\(2\).07UDC](http://dx.doi.org/10.7708/ijtte.2019.9(2).07UDC)
- 11) **Minal\***; Gajrani, K.K and Ch. Ravi Sekhar, (2018), "Impact of road rationing on modal shift and transport sustainability in Delhi, India", ICE Proceedings Transport (**SCI**), DOI: [10.1680/jtran.18.00023](https://doi.org/10.1680/jtran.18.00023)
- 12) **Minal\***; Ch. Ravi Sekhar and Errampalli Madhu, (2018), "Development of Neuro-Fuzzy based Multimodal Mode Choice Model for Commuter in Delhi", IET Intelligent Transport Systems (**SCI**), Vol.13(2), pp. 243 – 251, DOI: [10.1049/iet-its.2018.5112](https://doi.org/10.1049/iet-its.2018.5112)
- 13) **Minal\*** and RaviSekhar, Ch., (2018), "Web Survey Data And Commuter Mode Choice Analysis Using Artificial Neural Network", International Journal for Traffic And Transport Engineering, Vol. 8(3): Pp. 359 – 371, DOI:[http://dx.doi.org/10.7708/ijtte.2018.8\(3\).08](http://dx.doi.org/10.7708/ijtte.2018.8(3).08)
- 14) **Minal\*** and Ch. Ravi Sekhar, (2016), "Commuter's Sensitivity in Mode Choice: an Empirical Study of New Delhi", Journal of Transport Geography, Elsevier (**SCI**), Vol 57C, 2016, Pp. 207-217  
<https://doi.org/10.1016/j.jtrangeo.2016.11.001>
- 15) Ch. Ravi Sekhar, **Minal\*** and Errampalli Madhu, (2016), "Multimodal Choice Modeling Using Random Forest Decision Trees", International Journal for Traffic And Transport Engineering, Vol 6(3), Pg.356-367, DOI: [10.7708/ijtte.2016.6\(3\).10](https://doi.org/10.7708/ijtte.2016.6(3).10)
- 16) **Minal\*** and Ch. Ravi Sekhar, (2014), "Mode Choice Analysis: The Data, The Models and Future Ahead", International Journal for Traffic and Transport Engineering, Vol 4(3), Pg.269-285. DOI:[http://dx.doi.org/10.7708/ijtte.2014.4\(3\).03](http://dx.doi.org/10.7708/ijtte.2014.4(3).03)
- 17) **Minal\*** and Ch. Ravi Sekhar, (2014), "Modeling Mode Choice Behaviour and Estimating Value of Travel Time of Commuters in Delhi", Urban Transport Journal, Vol 13, No.1, pg 67-77. [https://www.researchgate.net/publication/310600004\\_Modeling\\_Mode\\_Choice\\_Behaviour\\_And\\_Estimating\\_Value\\_Of\\_Travel\\_Time\\_Of\\_Commuters\\_In\\_Delhi](https://www.researchgate.net/publication/310600004_Modeling_Mode_Choice_Behaviour_And_Estimating_Value_Of_Travel_Time_Of_Commuters_In_Delhi)

*\*Corresponding Author*

#### SCIENTIFIC PUBLICATIONS in INTERNATIONAL CONFERENCES

- 18) Vansola, B.; **Minal**; Shukla, R.,(2021), "GIS Based Model for Optimum Location of Electric Vehicle Charging Stations", 8th International Conference On Transportation Systems Engineering And Management, NIT-Calicut, India, 26-27 August 2021.
- 19) Bhatt, D; **Minal** and Ravi Shankar, A.U. (2019), "Comparative Analysis of Delhi Metro Travel Demand Post Phase 2 Expansion", World Conference on Transport Research - WCTRS 2019 Mumbai 26-31 May 2019

- 20) Saiyad, G; **Minal** and Kumar, R (2019), "Trip generation and trip rate analysis for cycle rickshaws in Delhi: A step towards sustainable transportation", World Conference on Transport Research - WCTR 2019 Mumbai 26-31 May 2019
- 21) Bhatia, U., RaviSekhar, Ch., **Minal** and Errampalli, M., (2017), "Impact of Congestion Pricing On Mode Choice and Route Choice Behaviour: An Experimental Study of Delhi", Transport Research Board (TRB) Conference, January 2018, Washington D.C. (CD ROM)
- 22) **Minal** and Ch. Ravi Sekhar, (2014), "Mode Choice Analysis Using Generalized Nested Logit Model", Colloquium on Transportation Systems Engineering & Management, NIT-Calicut, India, May 2014

## AWARDS AND HONOURS

- ✓ **Government of India-Department of Science & Technology, AWSAR Award 2018:** The Ph.D. popular science story was chosen for AWSAR award 2018 of Rs 10,000 and a certificate of appreciation
- ✓ **Government of India-Department of Atomic Energy; Dr Homi Bhabha Hindi Vigyan Lekh Competition-2018,** conducted by **Bhabha Atomic Research Centre (BARC):** Won the Consolation Prize
- ✓ **1<sup>st</sup> prize** in Essay Writing Competition under "Swacchta Pakhwada" held at CSIR-CRRI-2018
- ✓ Secured II<sup>nd</sup> rank in entire Cochin University of Science and Technology at Undergraduate level (in Civil Engineering), 2011
- ✓ Secured 95.7 percentile in GATE 2012 examination.
- ✓ The Fellow is a CSIR-CRRI nominated member in the **Bureau of Indian Standards (BIS)** committee on "Transport & Logistics Services" - SSD-II-1

## RESEARCH EXPERIENCE

- ❖ **Senior Scientist,** **16/06/2020 - Present**  
Transport Planning Division  
Council of Scientific and Industrial Research -Central Road Research Institute (CSIR-CRRI)  
New Delhi, India -110025
  - Research Area: *Choice Modelling; Traveller Behaviour; Electric Mobility, Electric Vehicles, ITS; Multimodal transport; Transport Economics; Statistical Model Development; Travel Demand Modelling; Sustainable Transportation*
 (Details of Research Projects are detailed in the next section).
- ❖ **Scientist,** 15/06/2016 – 15/06/2020  
Transport Planning Division  
Council of Scientific and Industrial Research -Central Road Research Institute (CSIR-CRRI)  
New Delhi, India -110025
- ❖ **Trainee- Scientist,** 05/09/2012 - 14/06/2016  
Transport Planning Division  
CSIR-Central Road Research Institute  
New Delhi, India -110025
  - Assisted in Project "Development and Application of the Technologies for Sustainable Transportation (SUSTRANS)"
  - Writing reports and papers
- ❖ **Assistant System Engineer** 16/06/2011-16/08/2012  
Tata Consultancy Services, India
  - Underwent training for database management using SQL

## SPONSORED RESEARCH PROJECTS and MAJOR COLLABORATIONS

- 1) Development and Application of the Technologies for Sustainable Transportation (**SUSTRANS**), **WP Title:** Integration of Mass Transportation System Through Travel Demand Modelling Using Soft Computing Technique, 12th Five Year Plan Network Project (2012-2017)
- 2) MEGACITY LOGISTICS: Metric Tools & Measures for Sustainability (**MEGALOG**), Sponsor: World Bank; TU Delft, Netherlands and TNO Netherlands (2018-2019)
- 3) Multimodal Travel Demand Model for Evaluation of Sustainable Transport System, Sponsor: CSIR-CRRI (2017-2019)
- 4) Traffic Studies for Identified Intersections Improvements at Vadodara city, Sponsor: Vadodara Municipal Corporation (2018)
- 5) Traffic Study for Feasibility of Mineral Transportation from Gorabhurani- Sagasahi Iron Ore Mines, Sundargarh, Odisha, Sponsor: Essar Steel India Ltd. (2018)
- 6) Traffic Study for Estimating the Impact of Narayanposhi Iron Mines of AMTC on Koira Road, Odisha, Sponsor: M/S Aryan Mining & Trading Corporation Ltd (2019)
- 7) Quantification of the Reduction of Air Pollution Due to Vehicular Traffic on Eastern Peripheral Road, Sponsor: Department of Environment, Government of NCT Delhi (2018-2019)
- 8) Transportation and Traffic Study at Ghaziabad, Sponsor: Ghaziabad Development Authority (2019-2020)
- 9) Comprehensive Mobility Plan for Ahmedabad City, Sponsor: Ahmedabad City Police (Traffic) (2019-2020)
- 10) Traffic Study for Feasibility of Mineral Transportation due to Expansion of Guali Iron Ore Mine at Barbil Tahasil, Keonjhar, Odisha, Sponsor: The Odisha Mainlining Corporation Ltd, Government of Odisha (2021)
- 11) Development of Trip generation manual for Indian Cities, Sponsor: Council of Scientific and Industrial Research, India (*Ongoing*)
- 12) Development of Sustainable Integration Index (SII) for Public Transport Modes, Sponsor: Delhi Research Implementation and Innovation (DRIIV) of Delhi Science & Technology Cluster (*Ongoing*)
- 13) **Optimum Location of Charging Infrastructure for Electric Vehicles**, Sponsor: CSIR-CRRI (*Ongoing*)

## MASTER THESIS SUPERVISED

- Deepika Bhatt, “Macroscopic Simulation based Multimodal Transportation Planning: A case study of Delhi”, NIT Surathkal, Karnataka. (2018-2019)
- Gulnazbanu Saiyad, “Transit Accessibility based Feeder Mode Choice Modelling”, Faculty of Technology & Engineering, The M.S. University of Baroda, Baroda, (2018-2019)
- Binal Vansola, “Determination of Optimum Location of Electric Vehicle Charging Station for Urban area”, LD College of Engineering, Gujarat, (2020-2021)
- Manoj K.R., “Machine Learning Approach for optimization of EV charging location.” NIT Surathkal, Karnataka. (*Ongoing*)

## ORGANISATION of SCIENTIFIC MEETINGS/WORKSHOP/CONFERENCES

- In Organizing committee of National Hindi workshop – (2019) “**Contribution of Science and Technology in the Development of Infrastructure: Challenges of 21<sup>st</sup> Century**” held at CSIR- Central Road Research Institute, New Delhi jointly supported by **Ministry of Earth Sciences**.
- In Organizing committee of 2<sup>nd</sup> Conference on Transport Noise & Abatement Measures (**CTNAM-2018**) held at CSIR- Central Road Research Institute, New Delhi jointly supported by **WCTRS and European Noise Barrier Federation (ENBF)**, February 15<sup>th</sup> – 16<sup>th</sup>, 2018.

- In Organizing committee of the International Conference on “**Safe Riding Initiative**” conducted jointly by **TRAX** and CSIR- Central Road Research Institute at **CSIR- CRRI**, New Delhi, From April 12-13<sup>th</sup> April 2018
- In Organizing committee of the National Workshop on “**Impact of Road Condition On Fuel Consumption of Vehicles**” sponsored by Petroleum Conservation Research Association (GoI) at CSIR- Central Road Research Institute, New Delhi, 2018

## LANGUAGES and TECHNICAL SKILLS

**Languages:** **Hindi** (*Native*); **English** (*Full professional proficiency*)

**Computer Skills:** PC operator (MS Office, Internet), Windows, Mac, Nlogit, SPSS, Matlab, Weka, PTV-Visum, Python, QGIS

## OTHER SKILLS and COMPETENCES

Passionate about Science, Literature and History, Music, Traveling, Painting, Waste-to-art, Yoga, Sports (Badminton, Running)