



Dr.Amardeep Boora

Assistant Professor (Sr. Grade)

Dept. of Civil Engineering

Jaypee University of Information Technology Waknaghat, H.P, India

Ph. - +91 – 9416803757, 7018896627

Email: amardeep@juit.ac.in , amardeepboora9@gmail.com

PERSONAL INFORMATION

- Date of Birth: November 18, 1987
- Marital Status: Married
- Nationality: Indian
- Religion: Hinduism
- Language known: Hindi, English, Haryanvi, Punjabi

ACADEMIC PROFILE

I. Doctor of Philosophy, Civil Engineering

Awarded

Specialization: Transportation Engineering

CGPA: 8.00

Indian Institution of Technology (IIT) Roorkee, Uttarakhand, India

Thesis Topic: Operational Performance Measures for intercity roads

Supervisor: Dr.Indrajit Ghosh (<http://www.iitr.ac.in/~CE/indrafce>)

II. Master of Technology, Civil Engineering

Graduation: April 2012

Specialization: Transportation Engineering

CGPA: 8.17

National Institute of Technology (NIT) Kurukshetra, Haryana, India

Thesis Topic: Effect of Fly Ash on CBR Value of Soil

Supervisor: Dr. S. N. Sachdeva

III. Bachelor of Technology, Civil Engineering

Graduation: March 2010

Maharishi Markandeshwar Engineering College, Mullana

Percentage: 62.95

Kurukshetra University Kurukshetra, Haryana, India

RESEARCH EXPERIENCE

A. IIT ROORKEE

Ph.D. Research

I. Identification of free flow condition on two-lane and multilane highways under heterogeneous traffic condition

- Evaluate previous guidelines proposed to identify the free flow condition across the world
- Proposed a new methodology by introducing new measure named as speed difference (SD) and using gap instead of headway between two consecutive vehicles.
- Methodology was also validated.

II. Identification of followers and non-follower on two-lane and multilane roads under heterogeneous traffic condition

- A non-linear model is developed to identify the follower and non-follower in the field easily.
- Model validation was done by selecting another study site.

III. Identification of performance indicators to evaluate the performance of two-lane and multilane highways.

- Previously proposed measures (i.e. average travel speed (ATS), follower density (FD) etc.) were examined.

IV. Assessment of level of service (LOS) ranges for two-lane and multilane highways under mix traffic condition

- By using different statistical analysis (i.e. clustering analysis etc.) in MATLAB, different ranges of LOS for two-lane and multilane highways were calibrated.

V. Project

- *Relationship between headway and speed on two-lane roads*

B. National Institute of Technology Kurukshetra

M.Tech

I. Consistency limit

- Plastic limit and liquid limit tests was done in the Civil Engineering lab.

II. Grain size distribution

- Wet sieve analysis

III. Modified proctor test was carried in the lab

IV. California bearing ratio test (CBR) was conducted in the lab

ACADEMIC EXPERIENCE

- Working for more than 3 years as an Assistant Professor at Jaypee University of Information Technology Waknaghat
- Dedicated 4 months teaching experience in Amity University Noida
- Dedicated worked as teaching assistant in NIT Kurukshetra for 4 months

ACADEMIC ACHIEVMENT

- MHRD Scholarship (January 2013 – November 2017)
- MHRD Scholarship (July 2010 – April 2012)
- Participated in the National Conference of Fifteen Years of PMGSY (August 6-7, 2016)
- Participated in workshop Indian Society for Construction Materials and Structures (ISCMS) (October 26-27, 2015).
- Participated in INDIAN GEOTECHNICAL CONFERENCE (IGC 2013) on Geotechnical Advances and Novel Geomechanical Application (GANGA) (December 22-24, 2013).
- Participated in a National conference on Civil Engineering Advancement and challenges (9-11 March, 2007)

EXTRA CURRICULUM ACTIVITIES

I. Working as a team

- Secure 1st place in departmental football tournament in IIT Roorkee
- Secure 1st place in volleyball tournaments in IIT Roorkee
- Runner up in volleyball tournaments in NIT Kurukshetra

AREA OF INTEREST

Traffic operation, Transportation studies, Urban Transport, Pedestrian behaviour and Highway material.

SKILLS/INTEREST

I. Software

- Microsoft office, Excel, MATLAB, SPSS

II. Interest

- Playing football, volleyball and cricket
- Travelling

LIST OF PUBLICATIONS

SCI Journals

1. **Boora, A;** Ghosh, I and Chandra, S. (2017) “A Novel Approach for Assessing the LOS for Two-Lane Intercity Highways under Heterogeneous Traffic Conditions.” Journal of Advanced Transportation, DOI: 10.1002/atr.1444. (**Impact factor – 1.8**)
2. **Boora, A;** Ghosh, I and Chandra, S. (2017) “Assessment of Level of Service Measures for Two-Lane Intercity Highways under Heterogeneous Traffic Conditions.” Paper ID - cjce-2016-0275, Canadian Journal of Civil Engineering.(**Impact factor – 0.635**)
3. **Boora, A;** Ghosh, I and Chandra, S. (2017) “What Characterises a Vehicle as "Follower" on Two - Lane Intercity Highways under Heterogeneous Traffic Conditions?” Journal of Transportation Engineering, Paper ID - TEENG-4052.(**Impact factor – 0.635**)
4. **Boora, A;** Ghosh, I; Chandra, S and K, Rani. (2017) “Measurement of free-flow conditions on multilane intercity highways under heterogeneous traffic conditions.” The South African Institution of Civil Engineering, Paper ID - 1678.(**Impact factor – 0.635**)
5. Rani, K., Suthar, M., Sihag, P. and **Boora A.** (2021) “Experimental investigation and prediction of strength development of GGBFS-, LFS- and SCBA-based green concrete using soft computing techniques.” Arab J Geosci 14, 2612. <https://doi.org/10.1007/s12517-021-08869-4>

Other Peer-reviewed Journals (SCOPUS)

1. Ghosh, I., Chandra, S., & **Boora, A.** (2013). “Operational performance measures for two-lane roads: an assessment of methodological alternatives.”*Procedia-Social and Behavioral Sciences*, 104, 440-448.
2. **Boora, A;** Ghosh, I. (2016) “Performance Indicator for Two-Lane Intercity Highways under Heterogeneous Traffic condition.” *Transportation ResearchProcedia*, DOI: 10.1016/j.trpro.2017.03.058.
3. **Boora, A;** Ghosh, I and Chandra, S. (2016) “Identification of Free Flowing Vehicles on Two-Lane Intercity Highways under Heterogeneous Traffic conditions.” *Transportation ResearchProcedia*, 21, 130-140.

4. **Boora, A;** Ghosh, I and Chandra, S. (2017) “Clustering Technique: An Analytical Tool in Traffic Engineering to Evaluate the Performance of Two-Lane Highways.” *European Transport*, 66(1).
5. Singh Preetpal, **Amardeep**, Ashok Kumar Gupta (2021). Sub-grade Characteristics of Clayey Soil incorporating Municipal Solid Waste Incineration Ash and Marble Dust. *Journal of Engineering, Design and Technology*, In Press (),
6. Singh P., **Boora A**, Ashok Kumar Gupta (2021). Geotechnical characteristics of clayey soil admixed with municipal solid waste incineration ash, cement and polypropylene fiber. *Innovative Infrastructure Solutions*, 6 (Article number: 193)
7. Kavita Rani, **Boora A**, Manoranjan Parida (2021). Statistical Analysis for Assessing the Built Environment Walkability of an Urban Area. *European Transport - Trasporti Europei*, 82 (June 2021)

Book Chapters

1. Shubham Sharma, **Amardeep** (2022). Mechanical Properties of Concrete Containing Plastic Fiber. In Gupta A.K., Shukla S.K., Azamathulla H, *Advances in Construction Materials and Sustainable Environment* (pp. 647-655). Singapore: Springer. [ISBN : 978-981-16-6556-1] .
2. **Amardeep**, Indrajit Ghosh, Satish Chandra, Kavita Rani (2022). Examination of Platooning Variables on Two-Lane Highways Having Mixed Traffic Situation. In Gupta A.K., Shukla S.K., Azamathulla H, *Advances in Construction Materials and Sustainable Environment* (pp. 95-110). Singapore: Springer. [ISBN : 978-981-16-6556-1] .
3. Kavita Rani, **Amardeep**, Manoranjan Parida (2022). Walkability Analysis of an Urban Area: Gender-Based and Combined Model Approach. In Gupta A.K., Shukla S.K., Azamathulla H, *Advances in Construction Materials and Sustainable Environment* (pp. 111-125). Singapore: Springer. [ISBN : 978-981-16-6556-1] .
4. **Amardeep**, Ankit Dharma (2022). State of Art: Review for Sustainable Application of Waste Material in Rigid Pavement. In Gupta A.K., Shukla S.K., Azamathulla H, *Advances in Construction Materials and Sustainable Environment* (pp. 127-141). Singapore: Springer. [ISBN : 978-981-16-6556-1] .
5. Sharma S., **Amardeep** (2022). Improving Highway Alignment Using Openroads Software. In Marano G.C., Ray Chaudhuri S., Unni Kartha G., Kavitha P.E., Prasad R., Achison R.J., *Proceedings of SECON'21 Structural Engineering and Construction Management* (Lecture Notes in Civil Engineering book series (LNCE, volume 171), pp. 539-550). : Springer, Cham. [ISBN : 978-3-030-80312-4] .

Conferences Held in Abroad

1. **Boora, A;** Ghosh, I and Chandra, S. (2016) “*Identification of Free Flow Condition on Two-Lane Intercity Highways under Heterogeneous Traffic conditions.*” 27th ARRB Conference 16-18 November 2016, Melbourne, Australia.
2. Rani, K; **Boora, A;** Bivina, G, R and Parida, M. (2017) “Which Factors Affect "Walkability" of Pedestrians on Sidewalk in Indian cities?” 12th International Conference of Eastern Asia Society for Transportation Studies, Ho Chi Min City, Vietnam.

Conferences Held in India

1. Boora, **A;** Rani, K and Ghosh, I. (2016) “Identification of free moving vehicles on single lane rural roads under heterogeneous traffic condition.” Paper ID – (H-2), National conference on fifteen years of PMGSY, 6-7 August 2016, Roorkee, India.
2. Unique Vaidya, **Amardeep** (2018). Effect of Waste Material on Properties of Bituminous Mix. Proceedings of the National Conference on Advanced Structures, Materials and Methodology in Civil Engineering [Dr. B.R. Ambedkar National Institute of Technology, Jalandhar, Pb. India. : 3-4 November, 2018], pp.-.. Google Citation
3. Mohit Thakur, **Amardeep** (2018). Utilization of Waste Materials in Construction of Cool Pavements: a review study. Proceedings of the National Conference on Advanced Structures, Materials and Methodology in Civil Engineering [Dr. B.R. Ambedkar National Institute of Technology, Jalandhar, Pb. India. : 3-4 November, 2018], pp.-.. Google Citation
4. Unique Vaidya, **Amardeep** (2018). Rural Road Construction by using Waste Material in Flexible Pavement. (Poster). Proceedings of the Himachal Pradesh Science Congress (HPSC 2018) [3rd : H.P. Council for Science, Technology & Environment (HIMCOSTE), Shimla and IIT Mandi : 22-23 October, 2018], pp.-.. Google Citation