ABHILASH CHANDRA SINGH

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EDUCATION

PhD Candidate, Transportation Engineering *2019 - present*
Imperial College London
Committee: Aruna Sivakumar (advisor), Dan Graham (internal examiner)

MS, Transportation Engineering *2016 - 2017*
The University of Texas at Austin
Committee: Chandra Bhat (advisor), Stephen Boyles (examiner)

BTech, Civil Engineering *2012 - 2016*
Indian Institute of Technology Bombay
The Cooper Union for the Advancement of Science and Art
Committee: Tom Mathew (advisor), Raaj Ramsankaran

RESEARCH

Theoretical and applied econometrics; Choice modelling; Transportation systems engineering and planning

HONOURS

Imperial College Global Fellowship (Germany) *UK, 2022*
Turing Scheme Research Award *UK, 2022*
Department Dixon Scholarship *UK, 2019 - 2023*
Wellcome Trust Scholarship *UK, 2019 - 2023*
Professional Development Award *Texas, 2018*
Texas District Student Fellowship *Texas, 2017*
Graduate fellowship *Texas, 2016-2018*
University of Alberta Research fellowship *Canada, 2015*
IITBAA-NY Chapter exchange scholarship *New York, 2014*
IIT JEE rank 1,321 out of 1,000,000 *India, 2012*
State Mathematics Olympiad Rank 19 out of 1,000,000 *India, 2010*

PAPERS

15. Watanabe H. and **A.C. Singh**. A probit instrumental variable model for addressing endogeneity in multinomial choice and its choice set formation (working paper).

14. Singh, A.C., A. Sivakumar and R. Moeckel. Semi-compensatory probabilistic model for residential location choices (working paper).

13. Singh, A.C., F. Guo, A. Sivakumar and A. Gough. Incorporating the impacts of air pollutants and exposure to crime into accessibility-based planning: A London Case Study (working paper).

12. Singh, A.C., A. Faghih-Imani, A. Sivakumar, Y. Xi and E. J. Miller. Joint estimation of Accessibility measures and Multi-modal frequency of trips to account for endogeneity effects (working paper).

11. Singh, A.C., A. Sivakumar. Accessibility in the Era of Big Data and Emerging Technologies (working paper).

11. Singh, A.C., A. Sivakumar. Semi-compensatory probabilistic model for residential location choices. 7^{th} International Choice Modeling (ICMC), Reykjavik, Iceland, May 2022.

10. Singh, A.C., H. Bouscasse, A. Sivakumar. Psychosocial Factors associated with Intended Use of Automated Vehicles: A Latent-Class and Latent-Variable Analysis. 9^{th} Symposium of the European Association for Research in Transportation (hEART), Lyon, France, February 2021.

9. Singh, A.C., K.C. Abel, J.W. Hutchinson, K.M. Faust, and C.R. Bhat. Food Access for Low Income Individuals. Session on Highlights from the 2017 NHTS Data Workshop. 98^{th} Annual Meeting of the Transportation Research Board, Washington, DC, January 2019.

8. Singh, A.C., K.C. Abel, J.W. Hutchinson, K.M. Faust, and C.R. Bhat. Predictive Food Desert Simulation Modelling to increase Food Access in Underserved Communities. National Household Travel Survey (NHTS) Data for Transportation Applications Workshop in Washington, DC in August 2018.

7. Singh, A.C., P. Lavieri, T. Kim, C.R. Bhat, and R.M. Pendyala. Evaluating the Effects of Consumer's Perceptions of Safety and Productive Use of Time on the Intention to Adopt Autonomous Vehicle Technology. 15th International Conference on Travel Behaviour Research, Santa Barbara, California, July 2018.

6. Bouscasse H., **A.C. Singh**, S. Astroza, C.R. Bhat. Modeling Simultaneous Choices in Transportation. Rencontres Francophones Transport-Mobilité (RFTM), Lyon, June 2018.

5. Copperman R., J. Lemp, T. Rossi, **A.C. Singh**, C.R. Bhat, R.M. Pendyala, S. Khoeini, S. Astroza. Adapting an Existing Activity Based Modeling Structure for the New York Region. 2018 TRB Innovations in Travel Modeling Conference, June 2018.

4. Singh, A.C., S. Astroza, V.M. Garikapati, R.M. Pendyala, C.R. Bhat, and P.L. Mokhtarian (2018), Quantifying the Relative Contribution of Factors to Household Vehicle Miles of Travel. Transportation Research Part D, Vol. 63, pp. 23-36.

3. Singh, A.C., S. Astroza, V.M. Garikapati, R.M. Pendyala, and C.R. Bhat. Quantifying the Contribution of Various Factors to Household Vehicle Miles of Travel. 97th Annual Meeting of the Transportation Research Board, Washington, DC, January 2018.

2. Singh, A.C., L. Yang, and M. Al-Hussein. Predicting the Energy Output for Solar PV Systems: A Statistical Analysis. University of Alberta Research Experience (UARE) Poster Symposium, Edmonton, Alberta, July 2015

1. Yang L., E.K. Salim, **A.C. Singh**, H. Awad, H. Yu, M. Gül, and M. Al-Hussein. Integrating solar PV systems into residential buildings in cold-climate regions. University of Alberta Research Experience (UARE) Poster Symposium, Edmonton, Alberta, July 2015

INVITED/ CONFERENCE TALKS

10. "Semi-compensatory probabilistic model for residential location choices" TU Berlin Kai Nagel's Lab, July 2022

9. "Semi-compensatory probabilistic model for residential location choices" ICMC, May 2022

8. "Theoretical and Applied Choice Modelling" ASDA, March 2022

7. "Incorporating the impacts of air pollutants and exposure to crime into accessibility-based planning: A London Case Study." WSTLUR, Sep 2021

6. "Exploring and quantifying the effect of weather on sales." The Alan Turing Institute, July 2021

5. "Psychosocial Factors associated with Intended Use of Automated Vehicles: A Latent-Class and Latent-Variable Analysis." hEART, Feb 2021

4. "Food Access for Low Income Individuals." TRB, Jan 2019

3. "Evaluating the Effects of Consumer's Perceptions of Safety and Productive Use of Time on the Intention to Adopt Autonomous Vehicle Technology." IATBR, July 2018

2. "Quantifying the Contribution of Various Factors to Household Vehicle Miles of Travel." TRB, Jan 2018

1. "Integrating solar PV systems into residential buildings in cold-climate regions." UARE,

July 2015

REPORTS

1. Boyles, S. D., C. Bhat, J. Duthie, N. Jiang, F. Dias, E. Jafari, V. Pandey, **A.C. Singh**, and C. Yahia. (2017) Methods for Improving Consistency between Statewide and Regional Planning Models. Texas Department of Transportation Report FHWA/TX-17/0-6900-1.

TEACHING EXPERIENCE

Imperial College London

Transport Demand and Economics (CIVE70016) *2022*

Advanced Transport Modelling (CIVE97126) *2020, '21, '22*

SERVICE

Steering Committee Member: Imperial Network of Excellence

Sustainability through Life Cycle Approaches *2021 - present*

Urban Systems Lab, Imperial College London

Seminar series with over 12 international guest speakers *2021 - present*

Mentor

The AMOS Bursary *2021 - 2022*

Techlabs London *2021 - 2022*

Department Academic Mentorship Program (DAMP)

Provided one-on-one counseling and teaching to sophomore students at Indian Institute of Technology Bombay *2015 - 2016*

Reviewing Activities:

Journal of Transport and Land Use *2022 - present*

Transportation *2021 - present*

Transportmetrica A: Transport Science *2021 - present*

World Symposium on Transport and Land Use Research *2021*

Transportation Research Record *2019 - present*

WORK EXPERIENCE

Senior Data Scientist, ASDA Business Services, UK *2021-2022*

Data Science Researcher, The Alan Turing Institute, UK *Summer 2021*

Research Assistant, Imperial College London, UK *2019-2021*

Research Assistant, Center for Transportation Research, Texas *2016-2019*

Research Assistant, ItalConsult & MOTC Qatar, remote *2017-2018*

Research Intern, Hindustan Construction Company, India *2015*

Research Intern, University of Alberta, Canada *Summer 2015*

Research Intern, Indian Institute of Management Lucknow, India *Summer 2014*