

Surendra Reddy Kancharla, Ph.D.

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Employment History

- 2021 – 📌 **Postdoctoral Research Assistant** Lyles School of Civil Engineering, Purdue University.
- 2019 – 2020 📌 **Senior Project Officer** Center for Industrial Consultancy and Sponsored Research, Indian Institute of Technology Madras.
- 2014 – 2019 📌 **Teaching and Research Assistant** Department of Civil Engineering, Indian Institute of Technology Madras.

Education

- 2013 – 2020 📌 **M.Tech. & Ph.D., Indian Institute of Technology Madras** in Civil Engineering.
Thesis title: *Vehicle Routing Problems in Sustainable Urban Freight Transport: Model Formulations and Solution Algorithms*
- 2009 – 2013 📌 **B.Tech. Sri Venkateswara University** in Civil Engineering.
Thesis title: *Web Based Civil Engineering Calculator.*

Research Publications

Journal Articles

- 1 Kancharla, S. R., & Ramadurai, G. (2020a). Electric vehicle routing problem with non-linear charging and load-dependent discharging. *Expert Systems With Applications*, 160, 113714.
🔗 doi:10.1016/j.eswa.2020.113714
- 2 Kancharla, S. R., & Ramadurai, G. (2020b). Simulated Annealing Algorithm for Multi Depot Two-Echelon Capacitated Vehicle Routing Problem. *European Transport*, (78).
- 3 Kancharla, S. R., & Ramadurai, G. (2019a). Multi-depot Two-Echelon Fuel Minimizing Routing Problem with Heterogeneous Fleets: Model and Heuristic. *Networks and Spatial Economics*, 19(3), 969–1005.
🔗 doi:10.1007/s11067-018-9437-7
- 4 Kancharla, S. R., & Ramadurai, G. (2018a). An Adaptive Large Neighborhood Search Approach for Electric Vehicle Routing with Load-Dependent Energy Consumption. *Transportation in Developing Economies*, 4(2), 10. 🔗 doi:10.1007/s40890-018-0063-3
- 5 Kancharla, S. R., & Ramadurai, G. (2018b). Incorporating driving cycle based fuel consumption estimation in green vehicle routing problems. *Sustainable Cities and Society*, 40, 214–221.
🔗 doi:10.1016/j.scs.2018.04.016

Conferences

- 1 Kancharla, S. R., & Ramadurai, G. (2019b). Simulated Annealing Algorithm For Multi Depot Two-Echelon Capacitated Vehicle Routing Problem. In *98th annual meeting of the transportation research board*, Washington D.C., USA.
- 2 Siddartha, M. M., Mahesh, S., Sripada, S. K., Kancharla, S. R., Devi, G., & Ramadurai, G. (2019). Estimating Emissions from Urban Freight Trips. In *15th world conference on transport research - wctr 2019*, Mumbai, India.

- 3 Kancharla, S. R., & Ramadurai, G. (2018c). Load Dependent Electric Vehicle Routing Problem With Time Windows Considering Nonlinear Charging Function. In *6th informs transportation science and logistics (tsl) society workshop*, Hong Kong.
- 4 Kancharla, S. R., & Ramadurai, G. (2018d). Multi-depot Electric Vehicle Routing Problem with Time Windows considering Non-linear Charging and Discharging. In *2018 annual meeting of the institute for operations research and the management sciences (informs)*, Phoenix, USA.
- 5 Ramadurai, G., Kancharla, S. R., & Manohar, M. (2018). Electric Future for Buses? Influence of Size, Battery Capacity, and Route Length. In *2018 informs international conference*, Taipei, Taiwan.
- 6 Kancharla, S. R., & Ramadurai, G. (2017a). An Adaptive Large Neighbourhood Search Approach for Electric Vehicle Routing with Load-dependent Energy Consumption. In *4th conference of the transportation research group of india*, Mumbai, India.
- 7 Kancharla, S. R., & Ramadurai, G. (2017b). Incorporating Driving Cycle Based Fuel Estimation For Green Vehicle Routing Problem. In *96th annual meeting of the transportation research board*, Washington D.C., USA.
- 8 Kancharla, S. R., & Ramadurai, G. (2016). Multi-depot Two Echelon Pollution Minimizing Routing Problem with Heterogeneous Vehicles. In *2016 annual meeting of the institute for operations research and the management sciences (informs)*, Nashville, USA.

Skills

Coding	Python, R, GAMS, \LaTeX , Java.
Transpo	PTV VISSIM, AIMSUN.
Web Dev	HTML, css, JavaScript.
Optimization	CPLEX, GUROBI.

Miscellaneous Experience

Awards and Achievements

2020	K. Ganesh and Meena Ganesh Scholarship for Entrepreneurship Development , Indian Institute of Technology Madras.
2019	Institute Research Award , Indian Institute of Technology Madras.
2015	Study visit grant to visit The University of Melbourne, Australia , Volvo Research & Educational Foundations (VREF), Sweden.
2014 – 2019	Merit-based monthly scholarship , Ministry of Human Resource Development, Govt. of India.
2012	2nd prize in paper presentation event as part of TRACE 2k12 (XIII National Level Student Technical Symposium) , RGM CET, Nandyala.
2011	3rd prize in paper presentation event as part of Tathva '11 (Techno Management Fest) , NIT Calicut.
2014 – 2015	Post Graduate department coordinator for Mentoring for individual TRansformation (MiTR) , Indian Institute of Technology Madras.
2011 – 2012	Civil Engineering Association Student Secretary , Department of Civil Engineering, K.S.R.M. College of Engineering.

References

Available on Request