

Ankit R. Patel

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RESEARCH INTERESTS

Travel Behavior and Policy
Human Factors and Interaction
Socially Inclusive Transportation
Transport Psychology, Economics, and Infrastructure
User Experience (UX), User Interface (UI), and Human-Machine Interaction (HMI)

EDUCATION

University of Minho, Portugal Doctor of Philosophy (PhD) in Electronics and Computer Engineering	2018-Present
University of Mumbai, India Master of Technology in Electrical Engineering (Control Systems)	2009-2011
Hemchandracharya North Gujarat University, India Bachelor of Engineering in Electrical Engineering	1999-2003

RESEARCH EXPERIENCE

Researcher , During my tenure at the University of Minho, Portugal I led two projects related to the theme “Experience is Everything — Easy Ride” collaborated with Bosch Car Multimedia Portugal, S.A., and co-financed by the European Regional Development Fund (ERDF) through PORTUGAL 2020 — Operational Program for Competitiveness and Internationalization (COMPETE 2020).	2018-2021
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Project-I

The key focus of the project was to gather information through data collection and make quantitative data analysis to know about users' preferences for cognitive vehicles. By doing this, it will enhance to understand more on driver-vehicle interaction in the context of cognitive functions. The work was proven as an IEEE RTSI conference paper.

Project-II

The key focus of the project was on the socio-economic factors, regulations, and political influences, and explore how these factors impact on the performance of the city-transportation system. The work was proven as workshop paper has been selected at the University of Cambridge, UK.

1. **Ankit R. Patel**, Dhaval R. Vyas, and Rajesh S. Patel. "Making Resilient Transition Towards Net-Zero Freight Transport Process Easier Through Socio-Economic, Regulatory, and Political Factors: Case Study of Mahesana City in India." 9th International Workshop on Sustainable Road Freight (SRF), Cambridge, UK. **(Accepted)** Cambridge University 2022
2. **Ankit R. Patel**, Dhaval R. Vyas, Anilkumar Markana, and Raja Jayaraman. "A Conceptual Model for Integrating Sustainable Supply Chain, Electric Vehicles, and Renewable Energy Sources." In *Sustainability*, Vol. 14, No. 21, 14484, November 2022. <https://doi.org/10.3390/su142114484> MDPI 2022
3. **Ankit R. Patel**, Giovanni Tesoriere, and Tiziana Campisi. "Users' Socio-economic Factors to Choose Electromobility for Future Smart Cities." In Proceedings of the 22nd International Conference on Computational Sciences and Its Applications (ICCSA), Malaga, Spain, pp. 331-344. https://doi.org/10.1007/978-3-031-10542-5_23 Springer 2022
4. **Ankit R. Patel**, Gargi Trivedi, Dhaval R. Vyas, Adriana-Simona Mihaita, and Padmanaban Sanjeevikumar. "Framework for User-Centered Access to Electric Charging Facilities via Energy-Trading Blockchain." In Proceedings of the 24th International Symposium on Wireless Personal Multimedia Communications (WPMC), Okayama, Japan, pp. 1-6. <https://doi.org/10.1109/WPMC52694.2021.9700475> IEEE 2021
5. **Ankit R. Patel**, Flora Ferreira, Sergio Monteiro, Ana Carolina Silva, Wolfram Erlhagen, and Estela Bicho. "Prediction of Attitudes Towards Human-Centred Cognitive Vehicles Aware of Their Users' Routines and Preferences." In Proceedings of the 6th IEEE International Forum on Research and Technologies for Society and Industry (RTSI), Naples, Italy, pp. 194-199. <https://doi.org/10.1109/RTSI50628.2021.9597265> IEEE 2021
6. **Ankit R. Patel**, Flora Ferreira, Sergio Monteiro, and Estela Bicho. "Global Implications of Human Tendencies Towards Automated Driving and Human Driver Availability in Autonomous Vehicles." In Proceedings of the 22nd International Conference on Human-Computer Interaction (HCI), Copenhagen, Denmark, pp. 179-192. https://doi.org/10.1007/978-3-030-59987-4_13 Springer 2020
7. Flora Ferreira, Weronika Wojtak, Wolfram Erlhagen, Paulo Vicente, **Ankit R. Patel**, Sergio Monteiro, and Estela Bicho. "A Dynamic Neural Model for Endowing Intelligent Cars with the Ability to Learn Driver Routines: Where to Go, When to Arrive, and How Long to Stay There?" In Proceedings of the Towards Cognitive Vehicles Workshop at 2019 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Macau, China, pp. 15-18. **(Best Poster Paper Award)** <https://cogvehicles2019.github.io/index.html> IEEE 2019
8. **Ankit R. Patel**, Sahar Azadi, Mohammad Hossein Babaei, Nafiseh Mollaei, Kalpesh L. Patel, and Dharendra R. Mehta. "Significance of Robotics in Manufacturing, Energy, Goods and Transportation Sector in Internet of Things (IoT) Paradigm." In the Proceedings of 4th International Conference on Computing, Communication, Control and Automation (IC3A), Pune, India, IEEE 2018

- pp. 1-4.
[\[https://doi.org/10.1109/ICCUBEA.2018.8697488\]](https://doi.org/10.1109/ICCUBEA.2018.8697488)
9. **Ankit R. Patel**, Rajesh S. Patel, Navdeep M. Singh, and Faruk S. Kazi. "Vitality of Robotics in Healthcare Industry: An Internet of Things (IoT) Perspective." On the Internet of Things and Big Data Technologies in Next Generation Healthcare, Studies in Big Data, Vol. 23, Springer International Publishing AG, 2017, pp. 91-109.
[\[https://doi.org/10.1007/978-3-319-49736-5_5\]](https://doi.org/10.1007/978-3-319-49736-5_5) Springer 2017
 10. **Ankit R. Patel**, Dhaval R. Patel, and Rahul D. Sathvara. "Future Smart Home Using Intelligent Electronic Devices." In Proceedings of the 4th IEEE International Conference on Smart Energy Grid Engineering (SEGE), Oshawa, Canada, pp. 100-105.
[\[https://doi.org/10.1109/SEGE.2016.7589508\]](https://doi.org/10.1109/SEGE.2016.7589508) IEEE 2016
 11. Dhaval R. Vyas, Jyoti Ohri, and **Ankit R. Patel**. "Comparison of Conventional and Fuzzy Based Sliding Mode PID Controller for Robot Manipulator." In Proceedings of the 2013 IEEE International Conference on Individual and Collective Behaviors in Robotics (ICBR), Sousse, Tunisia, pp. 115-119.
[\[https://doi.org/10.1109/ICBR.2013.6729269\]](https://doi.org/10.1109/ICBR.2013.6729269) IEEE 2013
 12. **Ankit R. Patel**, Mahesh A. Patel, and Dhaval R. Vyas. "Modeling and Analysis of Quadrotor Using Sliding Mode Control." In Proceedings of the 44th IEEE International Southeastern Symposium on System Theory (erstwhile SSST, now SoutheastCon), Jacksonville, FL, USA, pp. 111-114.
[\[https://doi.org/10.1109/SSST.2012.6195140\]](https://doi.org/10.1109/SSST.2012.6195140) IEEE 2012
 13. **Ankit R. Patel**, Mahesh A. Patel, and Dhaval R. Vyas. "Variational Analysis and Sequential Quadratic Programming Approach for Robotics." In Proceedings of the 2nd International Conference on Computer, Communication, Control and Information Technology (C3IT), Hooghly, India, pp. 636-640.
[\[https://doi.org/10.1016/j.protcy.2012.05.102\]](https://doi.org/10.1016/j.protcy.2012.05.102) Elsevier 2012
 14. **Ankit R. Patel**, Ankit A. Patel, Mahesh A. Patel, and Dhaval R. Vyas. "Modeling and Simulation of Photovoltaic Based LED Lighting System." In *International Journal of Electrical and Computer Engineering*, Vol. 5, No. 1, 2011, pp. 75-79.
[\[https://publications.waset.org/13125/modeling-and-simulation-of-photovoltaic-based-led-lighting-system\]](https://publications.waset.org/13125/modeling-and-simulation-of-photovoltaic-based-led-lighting-system) WASET 2011
 15. **Ankit R. Patel**, Ankit A. Patel, Mahesh A. Patel, and Dhaval R. Vyas. "Variational Analysis Approach and Its Applications to Robotics." In Proceedings of the IEEE International Conference on Recent Advances in Intelligent Computational Systems (RAICS), Thiruvananthapuram, India, pp. 196-199.
[\[https://doi.org/10.1109/RAICS.2011.6069301\]](https://doi.org/10.1109/RAICS.2011.6069301) IEEE 2011
 16. Ankit A. Patel, and **Ankit R. Patel**. "Modeling of Hybrid Dynamical Systems — An Approach to Solve Complex Power Electronic Circuits." In Proceedings of the 3rd IEEE International Conference on Emerging Trends in Engineering and Technology (ICETET), Goa, India, pp. 418-421.
[\[https://doi.org/10.1109/ICETET.2010.60\]](https://doi.org/10.1109/ICETET.2010.60) IEEE 2010
 17. Mahesh A. Patel, **Ankit R. Patel**, Dhaval R. Vyas, and Ketul M. Patel. "Use of PWM Techniques for Power Quality Improvement." In *International Journal of Recent Trends in Engineering*, Vol. 1, No. 4, pp. 99-102.
[\[https://api.semanticscholar.org/CorpusID:15151154\]](https://api.semanticscholar.org/CorpusID:15151154) IJRTE 2009

EMPLOYMENT HISTORY

University of Jeddah, Kingdom of Saudi Arabia Lecturer in Electrical and Computer Engineering	Nov. 2015-Sept. 2017
Gujarat Power Engineering and Research Institute, India Assistant Professor in Electrical Engineering	July 2015-Nov. 2015
L. C. Institute of Technology, India Assistant Professor in Electrical Engineering	Dec. 2010-July 2015
L. C. Institute of Technology, India Lecturer in Electrical Engineering	Aug. 2008-Nov. 2010
S. S. Polytechnic College, India Lecturer in Electrical Engineering	Sept. 2006-Aug. 2008
Gujarat Energy Transmission Corporation Ltd. (GETCO), India Junior Engineer	Feb. 2006-Aug. 2006
L. C. Institute of Technology, India Ad-hoc Lecturer in Electrical Engineering	July 2005-Feb. 2006
Gujarat Electricity Board, India Graduate Engineering Trainee	Sept. 2003-Sept. 2004

TECHNICAL AND PERSONAL SKILLS

Technical Skills: SPSS, LaTeX, MATLAB, Tableau, JASP

Linguistic Proficiency: Gujarati, Hindi, and English

General Business Skills: Slow but steadily learner, Good presentation skills, Can write well organized and structured reports, Works well in a team

Passport: India

Hobby: Photography, Cooking, Traveling, Listening Music

ACADEMIC SERVICE

Editorial Advisory Board Members (EABM) / Technical Program Committee (TPC) / Publicity Chair (PC) / Track Chair (TC):

1. IEEE Transportation Electrification Conference and Expo (ITEC), Detroit, MI, USA.	TC	June — 2023
2. International Symposium on Green Technologies and Applications (ISGTA), Casablanca, Morocco.	PC	March — 2023
3. International Conference on Cybersecurity, Cybercrimes, and Smart Emerging Technologies (CCSET), Riyadh, Saudi Arabia.	TPC	February - 2023
4. Computational Intelligent Techniques for Green Smart Cities, Springer, 2021.	EABM	2021
5. International Conference on Information, Communication and Cybersecurity (ICI2C), Khoubribga, Morocco.	TPC	November-2021

Reviewer:

2017-Present

| **Journals** | Journal of Transport and Health (JTH), Energies, International Journal of Environmental Research and Public health, International Journal of Computing and Digital Systems (IJCDS), IAES International Journal of Robotics and Automation, IAES International Journal of Artificial Intelligence.

| **Conferences** | ITEC (2023), NordiCHI (2022), MuC (2022), ITEC+EATS (2022), TRB (2022), INTERACT (2021), CHI (2020-2023), OzCHI (2020), TRA (2020), ITS America (2019), WC-IFAC (2017)

| **Transportation Research Board (TRB) Committees** |

- Travel Behaviour and Values (AEP30)
- Transportation Demand Management (AEP60)

Invited Talks:

1. “Automated Driving: Where Are We, and What Are We Looking For?” (Sigma Institute of Engineering, Vadodara, India, March 2021)
2. “Communication in Undergraduate Research” (L. C. Institute of Technology, Mahesana, India, May 2014)

Academic Memberships:

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| 1. Institute of Electrical and Electronics Engineers (IEEE), USA | 2018-Present |
| 2. Association for Computing Machinery (ACM), USA | 2021-Present |
| 3. Swedish Cognitive Science Society (SweCog), Sweden | 2022-Present |

COURSES ATTENDED

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| “A Short Course on Modelling Transportation Supply and Demand-Supply Interactions” organized by Indian Institute of Technology, Madras | June/July 2022 |
| “Short Term Training Program on Electric Vehicles Technology” organized by Pandit Deendayal Energy University, India | April 2022 |
| “International Workshop on Research Methodology — An Engineering Approach” jointly organized by Bharath Institute of Higher Education and Research, India and Aurel Vlaicu University of Arad, Romania | February 2022 |
| “Summer School on AI-Enabled Mobility” organized by Technical University of Graz, Austria | September 2020 |
| “Spring School on Cognitive Modeling” organized by University of Groningen, Netherlands | April 2018 |

Currently having Schengen Residential Permit until December 2023.
Last updated in December 2022.