Francesco Biondi, PhD

Associate Professor and Expert Witness

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Impact Overview

Research Impact Metrics[1]
Citations: 2,467 (1,827 since 2020)
H-index: 22 (20 since 2020)
i10-index[2]: 38 (35 since 2019)

Research Funding
Total funding at UWindsor: $905,693
Total Tri-Council funding: $554,293

Mentee Supervision
1 High School
47 Undergraduate
19 Masters + 6 Doctoral
5 Post-Graduate

Knowledge Mobilization
77 Peer-reviewed Publications
35 Conference Presentations
55 Media Publications

Appointments

2018– Present — **University of Windsor** (Ontario, Canada)
Associate Professor in the Dept. of Kinesiology (2021-Present)
WE-SPARK Health Institute Ambassador (2023-Present)
Research Chair in Human Factors (2023-2025)
Assistant Professor in the Dept. of Kinesiology (2018-2021)
Adjunct Assistant Professor in the Dept of Environmental Engineering (2019-Present)

2018 – Present — **Red Rock Human Factors Consulting**
Founder and Human Factors Consultant

2018 – Present — **University of Utah** (Salt Lake City, Utah, USA)
Adjunct Assistant Professor in the Dept. of Psychology

2016 – 2018 — **Department of Psychology, University of Utah** (Salt Lake City, Utah, USA)
Research Assistant Professor

2015 – 2016 — **Jaguar Land Rover** (England, UK)
HMI Engineer

Education

2012 – 2015 — **University of Padova (Italy)**
Doctorate in Psychological Science applied to Human Factors (cum laude)
Dissertation title: “Using Multimodal Warning Signals for Enhanced Drivers’ Braking Responses”

2012 – 2014 — **University of Utah (Utah, USA)**
Graduate Visiting Scholar

2009 – 2011 — **University of Padova (Italy)**
Master of Science in Cognitive Science
Thesis title: “Using the Dual-Task Interference Paradigm to investigate drivers’ distraction”

[1] Google Scholar. Accessed September 23rd, 2025
[2] the number of publications with at least 10 citations

2011 **KULeuven (Belgium)**
Visiting Master's Student

2006 – 2009 **University of Padova (Italy)**
Bachelor of Science in Experimental Psychology

Awards and Distinctions

2025 **Mourou-Strickland Mobility Program Fellow**
France-Canada bilateral cooperation and knowledge exchange by the France Embassy in Canada.
2023 **Excellence in Research Award**
University of Windsor' Vice-President Office of Research and Innovation
2023 **Research Chair in Human Factors**
University of Windsor's Office of Research and Innovation (2-year appointment)
2023 **Human Kinetics Research Award**
University of Windsor
2022 **WE-SPARK Health Initiative Ambassador**
WE-SPARK Health Institute
2016 **Frank Ely Best Paper of the Year Award**
Human Factors and Ergonomics Society
2015 **Europe Young Researcher Award**
Human Factors and Ergonomics Society European Chapter
2012 **Best Young Researcher**
Italian Association of Psychology

Awards for mentees under my supervision
2025 2025 Board of Governors Medal in Kinesiology
Recipient: Julie Webeck
2025 Ontario Graduate Scholarship – Master
Recipient: Julie Webeck
2024 NSERC Postgraduate Scholarship – Doctoral (PGS D).
Recipient: Prarthana Pillai
2024 Ontario Graduate Scholarship – Doctoral
Recipient: Prarthana Pillai
2024 SSHRC Postgraduate Scholarship-Masters (PGS M).
Recipient: Noor Jajo
2023 Ontario Graduate Scholarship – Master
Recipient: Praneet Sahoo
2023 Ontario Graduate Scholarship – Master
Recipient: Noor Jajo
2022 Excellence in G.A. Award with the Faculty of Engineering
Recipient: Prarthana Pillai, Master's student
2020 Mitacs research training award
Recipient: Prarthana Pillai, Master's student

Research Experience

2018 – Present Director of the Human Systems Lab at the University of Windsor. The HSLab hosts a cross-disciplinary research group with expertise in Psychology, Human-Machine Interaction, Machine Learning, and Ergonomics. The lab's mission is to further the understanding of how humans interact with machines, and measuring and predicting users' mental state when using vehicle, manufacturing, military, and computer applications. Lab's projects include: developing non-intrusive ocular and physiological systems for the detection of drivers' state; assessing driver interaction with autonomous vehicles; measuring the cognitive workload of interacting with manufacturing and military applications.

2016 – 2018 Research Assistant Professor at the University of Utah. I contributed to the development of the first-of-its-kind methodology for assessing visual and cognitive load of drivers during their interaction with infotainment and autonomous systems. I developed a novel scale for assessing the HMI of advanced assistance systems, and an innovative approach to predicting the distraction effect of voice interfaces.

2015 – 2016 HMI Engineer at Jaguar Land Rover. I contributed to the development and assessment of HMI for infotainment and automated driving systems. Projects that I contributed to aimed to develop safer and more effective HMI for multi-modal warning systems, haptic systems, and voice-based personal assistant. I helped develop systems that leveraged drivers' physiological and neural signals for the detection of fatigue and distraction.

2012 – 2014 PhD work. My dissertation investigated the effect that using multimodal signals for warning systems had on drivers' braking. I also contributed to the development and assessment of traffic calming measures to reduce speeding, and the assessment of the cognitive distraction of using infotainment systems.

Patents

2 Ayasodo, B., Biondi, F., & Singh, H (2020). Communication control apparatus and method (GB Patent No. GB2558669A), Great Britain, Priority Date - , Issued, Issue Date - January 01, 2020, Patent Number: GB2558669A.

1 Ayasodo, B., Biondi, F., & Singh, H. (2020). A virtual assistant for a vehicle which accounts for driver workload (GB Patent No. GB2558671A), Great Britain, Priority Date - , Issued, Issue Date - January 01, 2020, Patent Number: GB2558671A.

Peer-reviewed Research Publications

(* indicates trainees under my supervision)

Tijerina, L., Young, R., & Biondi F. (under review). Driver Distraction and Road Safety. In A. Smiley (Ed.). Human Factors In Driving Safety. Lawyers and Judges Publishing Company Inc.

77 Sahoo, P.*, & Biondi, F. (2026). On the effect of using an augmented reality laser projection operator guidance system on cognitive workload and assembly task performance. Applied Ergonomics.

76 Vasta, N.*, & Biondi, F. (2025). Art Immersion: Evidence for Attention Restoration in Museums. Consciousness and Cognition. https://doi.org/10.1016/j.concog.2025.103939

75 Sahoo*, P., Biondi, F. (2025). On the Effect of Laser Projection Operator Guidance on Cognitive Workload and Task Performance. Proceedings of the Annual Meeting of the Human Factors and Ergonomics Society. October 13-17, 2025, Chicago, IL, USA

74 Biondi, F., Bashir, V.*, Li, Y.*, & Horrobin, B. (2025). Driver distraction in school zones: A roadside observational study in Canada. Transportation Research: Part F

73 Li, Y.*, Sahoo*, P., Vasta, N.*, & Biondi, F. (2025). Stabilization Time after Mode Switch in Conditionally Automated Driving : Focusing on Drivers ' Cognitive Load and Visual Attention. Transportation Research Record. https://journals.sagepub.com/doi/10.1177/03611981251324207

72 Biondi, F., Sahoo, P.*, & Jajo, N.* (2025). Investigating the distraction potential of driving Tesla Autopilot Through a Construction Zone. Scientific Report

71 Vasta, N. *, & Biondi, F. (2025). Investigating The Effect Of Driving Partial Driving Automation On Cognitive Workload And Visual Behavior: A Meta-Analysis. Human Factors. https://doi.org/10.1177/00187208251323132

70 Vasta, N.*, Jajo, N.*, Graf, F., Zhang, L.*, & Biondi, F. (2025). Evaluating a Camera-Based Approach to Assess Cognitive Load During Manufacturing Computer Tasks. Electronics. https://doi.org/10.3390/electronics14030467

69 Biondi, F., Sahoo, P., & Cort, J. (2025). Measuring Automotive Workers' Cognitive Workload in the Real-World. Peer-reviewed report to Atlas Copco.

68 Sahoo, P.*, Bain. A., & Biondi, F. (2025). Investigating the interplay between cognitive workload and situation awareness during automated driving. Theoretical Issues in Ergonomics Science

67 Talukder N.*, Lee C., Kim, Y.H., Balasingam, B., Biondi, F. , Subramani, A., & Kim, M.E (2024). Effects of Integrated Takeover Request Warning with Personal Portable Device on Takeover Time and Post-takeover Performance in Level 3 Driving Automation. Journal of Safety Research

66 Biondi, F., Sahoo, P., & Cort, J. (2025). Measuring Automotive Workers' Cognitive Workload in the Real-World. Peer-reviewed report to Atlas Copco.

65 Jalal Eddine, R.*, Mulatti, C., & Biondi, F. (2024). On investigating drivers' attention allocation during partially-automated driving. Cognitive Research: Principles and Implications. https://doi.org/10.1186/s41235-024-00549-7

64 Biondi, F., McDonnell, A., Cooper, J., & Strayer, D. (2024). Using the ISO Detection response task to measure the cognitive load of driving four separate vehicles on two distinct highways. Transportation Research: Part F. https://doi.org/10.1016/j.trf.2024.02.013

63 Biondi, F. N., & Jajo, N.* (2024). On the impact of on-road partially-automated driving on drivers? Cognitive workload and attention allocation. Accident Analysis and Prevention. https://doi.org/10.1016/j.aap.2024.107537

62 Pillai P.*, Balasingam, B., Jaekel, A., & Biondi, F.N (2024). Comparison of concurrent cognitive load measures during n-back tasks. Applied Ergonomics. https://doi.org/10.1016/j.apergo.2024.104244

61 Biondi, F. N. (2024). Adopting stimulus detection tasks for cognitive workload assessment: some considerations. Human Factors. https://doi.org/10.1177/00187208241228049

60 Biondi, F. (2024). Are semi-autonomous vehicles dangerous? Journal of Transportation Law, Logistics, and Policy

59 Biondi, F. N., & Jajo, N.* (2023). Human Factors Assessment of On-Road L2 Driving: Recommendations for the implementation of partially-automated vehicles. Peer-reviewed report to the Ontario Ministry of Transportation.

58 Biondi, F. N., Horrey, W. J. , Donmez, B. (2023). Preface to the Special Issue on Assessment and Effectiveness of Driver Monitoring Systems. Human Factors. https://doi.org/10.1177/00187208231206073

57 Biondi, F. N., Pillai, P.*, Graf, F., & Balasingam, B. (2023). On Validating a Generic Camera-Based Blink Detection System for Cognitive Load Assessment. Cognitive Computation and Systems. https://doi.org/10.1049/ccs2.12088

56 Biondi, F. N., McDonnell, A., Jajo, N. *, Balasingam, B., & Strayer, D. (2023). Vigilance decrement during on-road partially-automated driving across four systems. Human Factors. https://doi.org/10.1177/00187208231189658

55 Jajo, N.*, & Biondi, F. N. (2023). Using Detection Response Task and NASA-TLX to Measure the Difference in Cognitive Workload Between Partially Automated Mode and Manual Mode: An On-Road Study. Annual Meeting of the Human Factors and Ergonomics Society. October 23-27, 2023, Washington, DC, USA. https://doi.org/10.1177/21695067231193689

54 Biondi, F. N., Graf, F., Pillai, P.*, & Balasingam, B. (2023). On Validating a Generic Video-based Blink Detection System for Cognitive Load Detection. Proceedings of the Annual Meeting of the Human Factors and Ergonomics Society. October 23-27, 2023, Washington, DC, USA. https://doi.org/10.1177/21695067231192924

53 Biondi, F. N., Graf, F., & Cort, J. (2023). Testing Pupil Size as a Possible Alternative Metric of Physical Fatigue in Automotive Manufacturing Tasks. Proceedings of the Annual Meeting of the Human Factors and Ergonomics Society. October 23-27, 2023, Washington, DC, USA. https://doi.org/10.1177/21695067231192895

52 Biondi, F. N., Graf, F., Cort, J. (2023). On the potential of pupil size as a metric of physical fatigue during a repeated handle push/pull task. Applied Ergonomics. https://doi.org/10.1016/j.apergo.2023.104025

51 Biondi, F. N., Saberi, B.*, Graf, F., Cort, J., Pillai, P.*, Balasingam, B. (2023). Distracted Worker: Using pupil size and blink rate to detect cognitive load during manufacturing tasks. Applied Ergonomics. https://doi.org/10.1016/j.apergo.2022.103867

50 Lopetrone, E. *, & Biondi, F. (2022). Proceedings of the Annual Meeting of the Human Factors and Ergonomics Society. October 10-13, 2022, Atlanta, GE, USA

49 Biondi, F. (2022). On Cognitive Freedom: a Commentary on the Role in Human Factors. Proceedings of the Annual Meeting of the Human Factors and Ergonomics Society. October 10-13, 2022, Atlanta, GE, USA

48 Pillai, P. *, Balasingam, B., & Biondi, F. (2022). Using Signal-to-Noise ratio to Explore the Cognitive Cost of the Detection Response Task. Proceedings of the Annual Meeting of the Human Factors and Ergonomics Society. October 10-13, 2022, Atlanta, GE, USA. https://doi.org/10.1177/1071181322661481

47 Lopetrone, E.*, & Biondi, F (2022). On the effect of COVID-19 on drivers' behavior: a survey study. Transportation Research Record. https://journals.sagepub.com/doi/full/10.1177/03611981221103866

46 Pillai, P.*, Balasingam. B., Kim, Y. H., Lee, C., & Biondi, F (2022). Eye-Gaze Metrics for Cognitive Load Detection on a Driving Simulator, IEEE Transactions on Mechatronics. https://doi.org/10.1109/TMECH.2022.3175774

45 Horrey, W. J., Cooper, J. M., Cort, J. A., Biondi, F, Strayer, D. L., Horrey, W. J., ... & Brown, S. D. (2021). Erratum to the Special Section: Measuring Cognitive Workload in Human Factors". Human Factors, 63(6), 1125-1125. https://doi.org/10.1177/00187208211042627

44 Saberi B.*, Graff. F., Cort, J., & Biondi, F (2021). A Cognitive Workload Toolkit for Ergonomic Professional. Proceedings of the Annual Meeting of the Human Factors and Ergonomics Society.

43 Biondi, F, Strayer, D. L., Horrey, W. J., Cooper, J. M., & Cort, J. A. (2021). Preface to the Special Section on Measuring Cognitive Workload in Human Factors. Human Factors, 63(6), 1121-1124. https://doi.org/10.1177/00187208211039453

42 Biondi, F, & Balasingam, B. (2021). Human Factors of Automated Driving Systems: A Compendium of Lessons Learned. International Journal of Human Factors and Ergonomics. https://doi.org/10.1504/IJHFE.2021.116066

41 Ramakrishnan P.*, Balasingam B., and Biondi F. (2021). Cognitive load estimation for adaptive human-machine system automation. In Learning Control: Applications in Robotics and Complex Dynamical Systems, (D. Zhang & B. Wei, ed.), Springer. https://doi.org/10.1016/B978-0-12-822314-7.00007-9

40 Biondi, F (2020). Automation confusion: mental models for safe vehicle adoption. Ergonomics in Design. https://doi.org/10.1177/1064804620982711

39 Pillai, P. *, Ayare, P. *, Balasingam, B., Milne, K., & Biondi, F (2020). Response Time and Eye Tracking Datasets for Activities Demanding Varying Cognitive Load. Data in Brief, 33, 106389. https://doi.org/10.1016/j.dib.2020.106389

38 Rossi, M., Gastaldi, M., Orsini, F. *, Biondi, F., & Mulatti, C. (2020). A driving simulator study exploring the effect of different mental models on ADAS system effectiveness. In: Augmented Reality, Virtual Reality, and Computer Graphics, (L. T. De Paolis & P. Bourdot, ed.), Springer.

37 Strayer, D. Getty*, F.Biondi, J. Cooper (2020). The Multitasking Motorist and the Attention Economy. In: Human Capacity in the Attention Economy, Paul Atchley & Sean Lane. APA publisher. https://doi.org/10.1007/978-3-030-58465-8_7

36 Biondi, F. N., Balasingam, B., & Ayare, P. * (2020). On the Cost of Detection Response Task Performance on Cognitive Load. Human Factors. https://doi.org/10.1177/0018720820931628

35 Biondi, F N., Cacanindin, A. *, Douglas, C. *, & Cort, J. (2020). Overloaded and at Work: Investigating the Effect of Cognitive Workload on Assembly Task Performance. Human Factors. https://doi.org/10.1177/0018720820929928

34 Campbell, J.L., Tignor, S., Biondi, F., Lingham, V. (2020). Meeting the Information Needs of The Road User. Transportation Research Board. Retrieved from http://onlinepubs.trb.org/onlinepubs/centennial/papers/AND20-Final.pdf

33 Biondi, FN., Rossi, R., Gastaldi, M., Orsini, F*., & Mulatti, C. (2020). Precision teaching to improve drivers' lane maintenance. Journal of Safety Research, 72, 225-229. https://doi.org/10.1016/j.jsr.2019.12.020

32 Geitner, C. *, Biondi, F., Skrypchuk, L., Jennings, P., & Birrell, S. (2019). The comparison of auditory, tactile, and multimodal warnings for the effective communication of unexpected events during an automated driving scenario. Transportation Research Part F: Traffic Psychology and Behaviour, 65, 23-33. https://doi.org/10.1016/j.trf.2019.06.011

31 Rossi, R., Gastaldi, M., Biondi, F., Orsini, F*., De Cet, G. *, & Mulatti, C. (2019). Effect of driver mental model on ADAS effectiveness: a driving simulator case study. Proceedings of the 2019 Road Safety & Simulation Conference. https://doi.org/10.1007/978-3-030-58465-8_7

30 Biondi, FN., Getty, D. *, Cooper, J.M., & Strayer, D.L. (2019). Examining the effect of infotainment auditory-vocal systems' design components on workload and usability. Transportation research part F: traffic psychology and behaviour 62, 520-528. https://doi.org/10.1016/j.trf.2019.02.006

29 Biondi, F, K. Jeong, & I. Alvarez (2019). Human-System Cooperation in Automated Driving. Int. J. of Human-Machine Interaction, 917-918. https://doi.org/10.1080/10447318.2018.1561793

28 Biondi, F, Alvarez, I., & Jeong, K. A. (2019). Human–vehicle cooperation in automated driving: A multidisciplinary review and appraisal. International Journal of Human–Computer Interaction, 35(11), 932-946. https://doi.org/10.1080/10447318.2018.1561792

27 Strayer, J. Cooper, R. Goethe*, M. McCarty*, D. Getty*, & F. Biondi (2019). Assessing the visual and cognitive demands of in-vehicle information systems. Cognitive Research: Principles and Implications, 4, 18. https://doi.org/10.1186/s41235-019-0166-3

26 Strayer, J. Cooper, R. Goethe*, M. McCarty, D. * Getty, Wheatley*, C.L., Motzkus, * C. J., Goethe, R.M. *, F. Biondi, & Horrey, W.J. (2019). Visual and Cognitive Demands of CarPlay, Android Auto, and Five Native Infotainment Systems. Human Factors, 61(8), 1371-1386. https://doi.org/10.1177/0018720819836575

25 Biondi, F N., Getty, D. *, Cooper, J. M., & Strayer, D. L. (2019). Examining the effect of infotainment auditory-vocal systems' design components on workload and usability. Transportation research part F: traffic psychology and behaviour, 62, 520-528. https://doi.org/10.1016/j.trf.2019.02.006

24 Biondi, F, Getty, D. *, McCarty, M. *, Goethe, R. *, Cooper, J. M., & Strayer, D. L. (2018). The Challenge of ADAS Assessment: A Scale for the Assessment of the HMI of Advanced Driver Assistance Technology. Transportation Research Record Journal of the Transportation Research Board, 1-38. https://doi.org/10.1177/0361198118773569

23 Sanbonmatsu, D. M., Strayer, D. L., Yu, Z., Biondi, F, & Cooper, J. M. (2018). Cognitive underpinnings of beliefs and confidence in beliefs about fully automated vehicles. Transportation research part F: traffic psychology and behaviour, 55, 114-122. https://doi.org/10.1016/j.trf.2018.02.029

22 Getty, D. *, Biondi, F., Morgan, S. D., Cooper, J. M., & Strayer, D. L. (2018). The effects of voice system design components on driver workload. Transportation research record, 2672(37), 94-100. https://doi.org/10.1177/0361198118777382

21 Biondi, F., Cooper, J. M., & Strayer, D. L. (2018). Using a User-Independent Approach for Automotive Human–Machine Interface Assessment. Sage Research Methods. SAGE Publications Ltd. https://doi.org/10.4135/9781526431585

20 Strayer, D. L., Cooper, J. M., McCarty*, M. M., Getty*, D. J., Wheatley, C*. L., Motzkus*, C. J., ... & Biondi, F. (2018). Visual and Cognitive Demands of Using Apple's CarPlay, Google's Android Auto and Five Different OEM Infotainment Systems. AAA Foundation for Traffic Safety. https://aaafoundation.org/wp-content/uploads/2018/06/AAA-Phase-6-CarPlay-Android-Auto-FINAL.pdf

19 Wheatley, C. L*., Esplin, J. *, Loveless, S. M*., Cooper, J. M., Biondi, F., & Strayer, D. L. (2018). Performance and Workload Trends: The Effects of Repeated Exposure to "High" Demand Tasks. In Proceedings of the Human Factors and Ergonomics Society Annual Meeting (Vol. 62, No. 1, pp. 6-10). Sage CA: Los Angeles, CA: SAGE Publications. https://doi.org/10.1177/1541931218621002

18 Biondi, F. N., Lohani, M., Hopman, R. *, Mills, S. *, Cooper, J. M., & Strayer, D. L. (2018). 80 MPH and out-of-the-loop: effects of real-world semi-automated driving on driver workload and arousal. In Proceedings of the human factors and ergonomics society annual meeting (Vol. 62, No. 1, pp. 1878-1882). Sage CA: Los Angeles, CA: SAGE Publications. https://doi.org/10.1177/1541931218621421

17 Biondi, F., Goethe, R. *, Cooper, J., & Strayer, D. (2017). Partial-autonomous frenzy: Driving a level-2 vehicle on the open road. In International Conference on Engineering Psychology and Cognitive Ergonomics (pp. 329-338). Springer, Cham. https://doi.org/10.1007/978-3-319-58475-1_25

16 Rossi, R., Gecchele, G., Gastaldi, M., Biondi, F., & Mulatti, C. (2017). An advanced driver assistance system for improving driver ability. Design and test in virtual environment. In 2017 5th IEEE International Conference on Models and Technologies for Intelligent Transportation Systems (MT-ITS) (pp. 509-513). IEEE.IEEE. https://doi.org/10.1109/MTITS.2017.8005725

15 Strayer, D. L., Biondi, F., & Cooper, J. M. (2017). Dynamic workload fluctuations in driver/non-driver conversational dyads. Proceedings of the Ninth International Driving Symposium on Human Factors in Driver Assessment. https://pubs.lib.uiowa.edu/driving/article/id/28403/download/pdf/

14 Biondi, F., & Skrypchuk, L. (2017). Use your brain (and light) for innovative human-machine interfaces. In Advances in Human Factors and System Interactions (pp. 99-105). Springer, Cham. https://doi.org/10.1371/journal.pone.0245191

13 Biondi, F., Leo, M. *, Gastaldi, M., Rossi, R., & Mulatti, C. (2017). How to drive drivers nuts: effect of auditory, vibrotactile, and multimodal warnings on perceived urgency, annoyance, and acceptability. Transportation Research Record: Journal of the Transportation Research Board, (2663), 34-39. https://doi.org/10.3141/2663-05

12 Strayer, D. L., Cooper, J. M., Goethe, R*. M., McCarty, M. M. *, Getty, D. *, & Biondi, F. (2017). Visual and Cognitive Demands of Using In-Vehicle Infotainment Systems. AAA Foundation for Traffic Safety. https://aaafoundation.org/wp-content/uploads/2017/11/VisualandCognitive.pdf

11 Biondi, F. (2017). Driven to Distraction. The Ergonomist. November-December 2017 (pp.12-13)

10 Biondi, F., Strayer, D. L., Rossi, R., Gastaldi, M., & Mulatti, C. (2017). Advanced driver assistance systems: Using multimodal redundant warnings to enhance road safety. Applied ergonomics, 58, 238-244. https://doi.org/10.1016/j.apergo.2016.06.016

9 Sanbonmatsu, D. M., Strayer, D. L., Biondi, F., Behrends, A. A., & Moore, S. M. (2016). Cell-phone use diminishes self-awareness of impaired driving. Psychonomic bulletin & review, 23(2), 617-623. https://doi.org/10.3758/s13423-015-0922-4

8 Biondi, F., Coleman, J. R., Cooper, J. M., & Strayer, D. L. (2016). Average heart rate for driver monitoring systems. International journal of human factors and ergonomics, 4(3-4), 282-291. https://doi.org/10.1504/IJHFE.2016.083521

7 Biondi, F., Turrill, J. M., Coleman, J. R., Cooper, J. M., & Strayer, D. L. (2015). Cognitive Distraction Impairs Drivers' Anticipatory Glances: An On-Road Study. Proceedings of the Eight International Driving Symposium on Human Factors in Driver Assessment. https://pubs.lib.uiowa.edu/driving/article/id/28568/download/pdf/

6 Strayer, D. L., Turrill, J., Cooper, J. M., Coleman, J. R., Medeiros-Ward, N., & Biondi, F. (2015). Assessing cognitive distraction in the automobile. Human factors, 57(8), 1300-1324. https://doi.org/10.1177/0018720815575149

5 Rossi, R., Gastaldi, M., Gecchele, G., Biondi, F., & Mulatti, C. (2014). Traffic-Calming Measures Affecting Perceived Speed in Approaching Bends: On-Field Validated Virtual Environment. Transportation Research Record: Journal of the Transportation Research Board, (2434), 35-43. https://doi.org/10.3141/2434-05

4 Biondi, F., Rossi, R., Gastaldi, M., & Mulatti, C. (2014). Beeping ADAS: Reflexive effect on drivers' behavior. Transportation research part F: traffic psychology and behaviour, 25, 27-33. https://doi.org/10.1016/j.trf.2014.04.020

3 Strayer, D. L., Cooper, J. M., Turrill, J., Coleman, J., Medeiros-Ward, N., & Biondi, F. (2013). Measuring cognitive distraction in the automobile. AAA Foundation for Traffic Safety. https://aaafoundation.org/measuring-cognitive-distraction-automobile/

2 Rossi, R., Gastaldi, M., Biondi, F., & Mulatti, C. (2013). Warning sound to affect perceived speed in approaching roundabouts: Experiments with a driving simulator. Procedia-Social and Behavioral Sciences. https://doi.org/10.1016/j.sbspro.2013.10.609

1 Rossi, R., Gastaldi, M., Biondi, F., & Mulatti, C. (2012). Evaluating the impact of processing spoken words on driving: experiments with driving simulator. Transportation Research Record: Journal of the Transportation Research Board, (2321), 66-72. https://doi.org/10.3141/2321-09

Conference Presentations

(* indicates trainees under my supervision)

35 Biondi, F., & Bashir, V. (2025). Bigger isn't better: Investigating the effect of vehicle type and environmental factors on driver distraction in school zones in Ontario. School Zone Safety Symposium. November 13th. Mississauga, Ontario.

34 Biondi, F., Vasta, N.*, & Sahoo, P. * (2025). Cognition and Art: A Mental Gym for Depleted Brains. Chimczuk Museum Invited Speaker Series.

33 Vasta, N. *, & Biondi, F. (2025). Effect of Partially Automated Driving on Mental Workload, Visual Behaviour and Engagement in Non-Driving Related Tasks: A Meta-Analysis. Annual Meeting of the Europe Chapter of the Human Factors and Ergonomics Society. April 9-11. Bologna, Italy

32 Mahmoodzadeh, M. *, Sunil, S. Pillai, P., Biondi, F., Strayer, D., Cooper, J., McDonnell, A., & Balasingam, B. (2025). Temporal Analysis of Cognitive Workload During Manual and Partial Driving Automation Based on the Detection Response Task. 34th IEEE International Symposium in Industrial Electronics. Toronto, ON. June 20-23.

31 Biondi, F. (2025). Prevalence of Distracting Activities Between Manual and Partially Automated Driving. 2025 Ontario Road Safety Forum. Toronto, ON. April 4.

30 Monk, S., Woodruff, S. *, & Biondi, F. (2025). Stepping Into The Future: A Narrative Review Of Wearable Technologies In Motor Rehabilitation. Annual Conference of the WE-SPARK Health Institute, Windsor, ON. March 22.

29 Bashir, V.*, & Biondi F. (2025). An Analysis of Distracted Driving in School Zones: An Observation and A Survey Study in Southwestern Ontario. Annual Meeting of the Canadian Association of Road Safety Professionals. Quebec City, QB. May 20-23.

28 Biondi F., & Bashir, V.* (2025). Determining the Effect of Partially Automated Driving Systems on Drivers' Behavior. Annual Meeting of the Canadian Association of Road Safety Professionals. Quebec City, QB. May 20-23.

27 Jajo, N.* & Biondi, F. (2024). Investigating changes in cognitive workload and glance allocation during partially automated driving in construction zones . Driver Distraction and Inattention Conference. Ann Arbor, MI. October 22-24.

26 Biondi, F. & Jajo, N.* (2024). Impact of tesla autopilot driving on drivers' cognitive workload and glance allocation. Driver Distraction and Inattention Conference. Ann Arbor, MI. October 22-24.

25 Biondi, F. (2024). Invited Panelist on the topic of Using Technology to Better Understand User Needs and Behaviors in the Safe System Approach. Annual Conference of the Transportation Association of Canada. Vancouver, BC.

24 Biondi, F., McDonnell, A., Cooper, J., & Strayer, D. (2024). Using the ISO Detection Response Task to measure the cognitive load of driving four separate vehicles on two distinct roadways. Annual Meeting of the Transportation Research Board. Washington, DC, US.

23 Pillai, P. *, Balasingam, B., & Biondi, F. (2023). Model-Based Estimation of Mental Workload in Drivers Using Pupil Size Measurements. 2023 IEEE/ASME International Conference on Advanced Intelligent Mechatronics

22 Pillai, P. *, Balasingam, B., & Biondi, F. (2021).Kalman Filtering to Track Changes in Pupil Size for Automated Driving Systems. IEEE Vehicular Technology Conference (VTC Fall 2021), online.

21 Rossi, R., Gastaldi, M., DeCet *, M., Mulatti, C., & Biondi, F. (2020). A driving simulator study exploring the effect of different mental models on ADAS system effectiveness. SALENTO AVR 2020, Lecce, Italy.

20 Biondi, F. (2019). Human-Machine Interface Workshop. TRB Annual Meeting, Washington DC, USA.

19 Rossi, R., Gastaldi, M., Orsini, F*., , Mulatti, C., & Biondi, F. (2019). Improving drivers' lateral control using a precision teaching-based system: A driving simulator study. TRB Annual Meeting, Washington DC, USA.

18 Biondi, F. (2019). The Disengaged Driver. TRB Annual Meeting, Washington DC, USA.

17 Rossi, R., Gastaldi, M., Orsini, F. *, , Mulatti, C., & Biondi, F. (2019). A Precision Teaching- Based System for Enhancing Driver's Control of Vehicle Lateral Variability. TRB Annual Meeting, Washington DC, USA.

16 Biondi, F., (2017). HMI in Autonomous Driving. Int. Conf. on Engineering Psychology, Vancouver, BC, Canada

15 Geitner, C. *, Birrell, S., Skrypchuk, L., Biondi, F., & Jennings, P. (2017). Research knows best, but how to communicate distraction measures practically in an industrial context. Driver Distraction and Inattention Conference.

14 Biondi, F., Coleman, J. R., Cooper, J. M., & Strayer, D. L. (2017). Heart rate detection for driver monitoring systems. TRB Annual Meeting, Washington DC, USA.

13 Biondi, F., Leo. *, M., Gastaldi, M., Rossi, R., & Mulatti, C. (2017). How to drive drivers nuts: effect of auditory, vibrotactile, and multimodal warnings on perceived urgency, annoyance, and acceptability. TRB Annual Meeting, Washington DC, USA.

12 Biondi, F. (2016). HMI for Driving Automation. Annual Meeting of the Applied Human Factors and Ergonomics Society. Orlando, FL, USA

11 Behrends, A.A., Sanbonmatsu, D.M., Strayer, D.L., Biondi, F., & Moore, S.M. (2015). CellPhone Use Diminishes SelfAwareness of the Adverse Effects of Cell PhoneUse. Annual meeting of the Society for Personality and Social Psychology. Long Beach, CA, USA

10 Biondi, F., Strayer, D.L., Dews (2015). Autonomous vehicle: are you aware of them? Conference of Human Factors and Ergonomics Society Europe chapter, Lisbon, Portugal

9 Biondi, F. (2015). ADAS: redundant warnings speed up drivers' reaction. Conference of Human Factors and Ergonomics Society Europe chapter, Lisbon, Portugal

8 Biondi, F., & Strayer, D. (2014). Does cognitive distraction alter the way we anticipate hazards on the roadway? 28th International Congress of Applied Psychology, Paris, France

7 Biondi, F., Strayer, D., Rossi, R., Gastaldi, M., & Mulatti, C. (2014). Advanced driver assistance systems: are they really safe? Measuring and reducing the impact of warnings on drivers? distraction. 28th International Congress of Applied Psychology, Paris, France

6 R. Rossi, M. Gastaldi,, F. Biondi, C. Mulatti (2014). Effectiveness of traffic calming measures at dangerous intersections: a validation and a simulated study. TRB Annual Meeting, Washington DC, USA.

5 Rossi, R., Gastaldi, M., Biondi, F., & Mulatti, C. (2013). Effects on lateral measures in affecting drivers' perceived speed. 4th International Conference on Road Safety and Simulation, Rome, Italy

4 Rossi, R., Gastaldi, M., Biondi, F., & Mulatti, C. (2013). Oppel-kundt illusion and lateral optic flow manipulation in affecting perceived speed in approaching roundabouts: experiments with a driving simulator. TRB Annual Meeting, Washington DC, USA.

3 Biondi, F. & Mulatti, C. (2012). Stroop: the loneliness of the target (and the distractor). XVIII Congresso nazionale dellAssociazione Italiana di Psicologia, Chieti, Italy

2 Rossi, R., Gastaldi, M., Biondi, F., & Mulatti, C. (2013). Warning sound to affect perceived speed in approaching roundabouts: Experiments with a driving simulator. Padova, Italy

1 Rossi, M. Gastaldi, F. Biondi, C. Mulatti (2012). Evaluating the impact on driving of the processing of spoken words: Experiments with a driving simulator. TRB Annual Meeting, Washington DC, USA.

Invited Speaker

22 Biondi, F., & Jajo, N. (2025). Effect of AI Use on Cognition in Risk-Prone Occupation. Invited Speaker to the Human Factors in Control – Canada May 2025 Webinar.

21 Biondi, F. (2025). Human Factors Risks of Partially Automated Driving. Jaguar Land Rover Human Factors Journal Club.

20 Biondi F. (2024). Invited Panel Discussion on Using Technology to Better Understand User Needs and Behaviors in the Safe System Approach. Transportation Association of Canada Annual Conference. September 22-25, 2024. Vancouver, B.C., Canada.

19 Biondi F. (2023). Distracted driver: the fil rouge between cell phone use and semi-autonomous driving. Presentation to the board of the Canadian Automobile Association.

18 Biondi F. (2023). Measuring the cognitive workload & user experience of telehealth users. WE-SPARK Think Tank series.

17 Biondi F. (2023). Human Factors of Automated Driving. CSA – Canada Standards Association.

16 Biondi F. (2022). Multitasking: The Hidden Connection between Elon Musk's Lies and Zoom Fatigue. University of Windsor's Human Kinetics' Invited Speaker Series.

15 Biondi F. (2022). Cognitive Ergonomics: Developing a toolkit for cognitive load assessment in manufacturing. Atlas Copco's invited speaker series, Sweden

14 Biondi F. (2021). Multitasking: The Hidden Connection between Elon Musk's Lies and Zoom Fatigue. Human Kinetics Distinguished Speakers Series, Windsor, Ontario, Canada

13 Biondi F., (2021). Physiological Measure Detection for Mental State Monitoring. WESPARK Think Tank

12 Biondi F., (2020). The Importance of User Understanding of New Car Feature. iNAGO sponsored webinar

11 Biondi F., (2020). Challenges of Autonomous Driving. Online Webinar

10 Biondi F. (2019). Attention economy in a multitasking world. Windsor-Essex Ergonomics Working Group's Speaker Series

9 Biondi, F. (2019). New HMI, Old Challenges - A New HMI Assessment for Modern In-Vehicle Technology. Car HMI:UX Redefined, Detroit, MI, USA

8 Biondi F. (2018). The Human Factors in Autonomous Driving. The Cross-Border Institute's Speaker Series

7 Biondi F. (2017). Bringing the User Back into the Equation. Write the Docs & Utah Product Designer Association.

6 Biondi, F. (2017). Fatigue and Distraction Monitoring Systems for Autonomous Vehicles. Car HMI:UX Redefined, Detroit, MI, USA

5 Biondi, F. (2017). The Surprising Distraction Potential of New Vehicle Interfaces. Annual Distracted Driving Summit, Norfolk, VA, USA

4 Biondi, F. (2017).Taking the user out of the equation: A toolkit for user-independent assessments of automotive HMI. Car HMI:UX Redefined, Detroit, MI, USA

3 Biondi F. (2017). Human Interaction with Automated Vehicles. Utah State Legislators Symposium on Automated Vehicles, Logan, UT, USA

2 Biondi F. (2015). Who's driving the selfdriving car and what for? Jaguar Land Rover Research Conference, Coventry, UK

1 Biondi F. (2015). Multimodal warnings: what, when and why? Jaguar Land Rover Research Conference, Coventry, UK

Media Presence

(includes appearances in all media outlets)

55 Windsor Star (2025). 'Just a bad mix' — Why are there so many distracted drivers in Windsor-Essex?

54 AM800 (2025). Dan McDonald's City Building Segment on School Zone Safety.

53 CJOB Winnipeg (2025). Is driver distraction getting worse?

52 DailyNews (2025). About 20 per cent of drivers caught distracted, new study finds.

51 CBC News (2025). One in five local drivers are distracted behind the wheel, says new University of Windsor study.

50 Windsor Star (2025). Seeking stress relief, peace of mind? — Visit a museum, University of Windsor study says.

49 CTV News (2025). 1 in 5 Windsor drivers found to be distracted, study shows.

48 CTV News (2025). Downtown Windsor celebrates Free Comic Book Day with comics, costumes and a mental health boost.

47 DailyNews (2025). Study links museum visits to improved mental clarity.

46 The Logic (2025). Tired of waiting, self-driving car makers are doing their own safety tests

45 CBC (2024). Cognitive Restoration in Visiting Museums. Windsor Morning

44 CTV (2024). Distracted driving study to focus on school zones and elevated-risk areas

43 Windsor Star (2024). Windsor police, UWindsor team up to battle distracted drivers

42 The Conversation (2024). Human error may have contributed to the Key Bridge disaster — changing our approach to design can help reduce accidents

41 The Conversation (2023). Since Tesla recalled its vehicles in 2023, there have been 20 accidents and investigators are asking why

40 CBC (2023). Some drivers 'tune out' on the road when using semi-autonomous vehicles, early study data suggests

39 Windsor Star (2023). Survey finds nearly 70 per cent afraid of self-driving vehicles

38 Windsor Star (2023).Preliminary findings of University of Windsor study shows driver assistance systems reduces attentiveness.

37 AM800 (2023). Autonomous Driving Study at UW

36 CBC (2023).UWindsor study finds drivers distracted while driving semi-autonomous cars

35 CTV (2023).Drivers in semi-autonomous vehicles more likely to tune out behind the wheel, according to report

34 Windsor Star (2023).Autonomous driving systems worsen driver attentiveness ? UWindsor study

33 AM800 (2023). Drivers In Semi-Autonomous Vehicles Are More Likely To Tune Out Behind The Wheel

32 The Conversation (2023). Tesla recalls over two million vehicles, but it needs to address confusing marketing

31 CityNews (2023). Mike Farwell Show

30 The Conversation (2023). Companies oversell the self-driving capabilities of their cars, with horrific outcomes

29 CTV (2023). University of Windsor data reveals how drivers use automated driving systems

28 CTV (2023). Risks of autonomous driving

27 Globe and Mail (2023). Mixed messaging: Drivers using Tesla's Autopilot spend less time looking at road, study shows

26 The Conversation (2023).Tesla recalls over two million vehicles, but it needs to address confusing marketing

25 Deseret News (2022). The road to driverless cars is looking hopeless

24 The Conversation (2022).Smart devices can now read your mood and mind, leading to a new set of concerns about technology and consent

23. Windsor Star (2022). Driving behaviour deteriorated during COVID pandemic, study shows

22 AM800 (2022). AM 800 Dan MacDonald Show

21 The Conversation (2022).Drivers of self-driving cars can rely too much on autopilot, and that's a recipe for disaster

20 630 CHED (2022 Risks of self-driving cars

19 AM800 (2021). Uwindsor Researcher And Windsor Police Team Up For Distracted Driving Study

18 Globe and Mail (2021). When it comes to automated driving, passenger vehicles may take a backseat to freight transport

17 Shaye Ganam Show (2021). Why we still don't have self-driving cars on the roads in 2021

16 The Conversation (2021). Why we still don't have self-driving cars on the roads in 2021

15 The Conversation (2021). Zoom fatigue and distracted driving share a common problem: Multitasking

14 The Morning News Show (2021). The COVID-19 push for more automation

13 The Conversation (2021). COVID-19 has fuelled automation — but human involvement is still essential

12 Windsor Star (2021). Dream of autonomous vehicles crashes into reality of driving challenges

11 CTV (2020). Uwindsor profs study how people relate to "driver assist" systems

10 PRWeb (2020). iNAGO Corporation and ABC Technologies Announce Partnership to Create a Fully Interactive and "Intelligent" In-Car Experience

9 Windsor Star (2020). Province selects University of Windsor for autonomous vehicle study

8 The Conversation (2020). Who's to blame when a self-driving car has an accident?

7 CKGL 570 News (2020). Radio interview on CKGL 570 News

6 CBC (2019). UWindsor researchers studying potential dangers of semi-autonomous cars

5 CBC (2019). Auto Car Cognition

4 National Post (2019). A user's guide to self-driving cars

3 National Post (2019). Human-centred design can help reduce accidents like the recent Ethiopian Airlines Boeing 737

2 Deseret News (2018). Self-driving cars are coming, but not soon enough

1 Science Daily (2013). Hands-free talking and texting are unsafe for drivers, study shows.

University Service

University of Windsor

2025 – Present	University of Windsor Senate
2025	Hiring committee for the Tenure-Track Teaching Intensive Assistant Professor - Department of Kinesiology, University of Windsor.
2024	Hiring Committee for the Associate Dean of Research and Graduate Studies in the Faculty of Human Kinetics, University of Windsor.
2023	Faculty of Human Kinetics Equity, Diversity and Inclusion committee
2022 – 2023	University of Windsor Internationalization Think Tank
2022 – 2024	University of Windsor Senate
2022	Faculty of Human Kinetics Hiring Committee
2021 – 2023	University Research Data Management Advisory Group
2020 – 2021	Kinesiology Undergraduate Committee
2020 – 2020	Faculty of Human Kinetics Graduate Mentorship Award
2019 – 2021	Human Factors and Ergonomics Certificate Development Committee

Grant Capture

2025 – 2026 **SSHRC/Horizon Europe: Program in Support of EU/Canada Research Collaborations**. PATH - Promoting Accessible Transportation for Horizon. PI: Francesco Biondi, Funds obtained: $39,006.

2024 – 2025 **Ontario's Center for Research Excellence in Musculoskeletal Disorders** Seed Grant. Effectiveness of Exoskeletons in Reducing Workplace Injuries in the Nursing Population. Co-Applicant: Francesco Biondi, Funds obtained: $12,500

2024 – 2027 **NSERC Alliance**. Eye-Tracking Based Diagnostic System in Vision Therapy
Co-Applicant: Francesco Biondi, Funds obtained: $40,000

2024 – 2026 **NSERC Alliance + Mitacs Accelerate**. Validating novel methods for assessing the cognitive load of using Atlas Copco's tools and workstations.
PI: Francesco Biondi, Funds obtained: $90,000

2024 – 2026 **SSHRC Partnership Engage Grant**. Partnering with the Windsor Police Service to measure the prevalence of distracted driving in Windsor, ON
PI: Francesco Biondi, Funds obtained: $24,960

2023 – 2025 **University of Windsor Research Chair** for the Faculty of Human Kinetics.
PI: Francesco Biondi, Funds obtained: $40,000

2022 – 2025 **NSERC Alliance**. Tools and Algorithms for Safety Evaluation and Improvement of Autonomous Vehicles. Co-Applicant: Francesco Biondi. Funds obtained: $84,000

2022 – 2027 **NSERC Discovery Grant**. Drivers' cognitive load detection through ocular metrics classification for the development on Driver Monitoring Systems. PI: Francesco Biondi. Funds obtained: CA$ 192,500

2022 **UWindsor Internal Funds**. Purchasing of a 2022 Tesla Model 3 for Research Purposes. PI: Francesco Biondi, Funds obtained: CA$ 65,000

2021 – 2022 **WE-SPARK Health Institute**. Developing A Machine Vision Eye- Blink Detection Application For The Monitoring Of Zoom Fatigue. PI: Francesco Biondi, Funds obtained: CA$ 9,900

2021 – 2022 **SSHRC Partnership Engage Grant**. Translating Atlas Copco's Cognitive Ergonomics Toolkit For Remote Cognitive Load Assessments. PI: Francesco Biondi, Funds obtained: CA$ 25,000

2021 – 2022 **Mitacs**. Low Cost Eye-Tracking Data Analytic System for Vision Therapy. Co-PI: Francesco Biondi, Funds obtained: CA$ 15,000

2021 – 2022	**Ontario's Center for Research Excellence in Musculoskeletal Disorders** Seed Grant. The Effect of Visual Workload on Cognitive Load and Physical Performance in a Simulated Manufacturing. PI: Francesco Biondi, Funds obtained: CA$ 9,500
2020 – 2022	**UWindsor Xcelerate Program**. Data Fusion Strategies for Improved Human Computer Interaction in Autonomous Systems. Co-PI: Francesco Biondi, Funds obtained: CA$ 25,000
2020 – 2023	**Ontario Ministry of Transportation**. Real-World ADAS Assessment. PI: Francesco Biondi, Funds obtained: CA$ 98,500
2020	**Mitacs**. Development and Assessment of Cognitive Workload Toolkit for Atlas Copco Operators in Manufacturing. PI: Francesco Biondi, Funds obtained: CA$ 15,000
2020	**UWindsor SSHRC Explore Grant**. Exploring the effect of increasing cognitive workload on work-related physical performance. PI: Francesco Biondi, Funds obtained: CA$ 4,900
2020	**Ontario Center of Excellence**. User Testing of iNAGO's Smart Cockpit. PI: Francesco Biondi, Funds obtained: CA$ 24,600
2020	**NATO Innovation Hub**. Innovation Challenge – Top 5 Finalist, Co-Investigator: Francesco Biondi
2019 – 2021	**SSHRC Insight Development Grant**. Effect of partially automated driving on driver cognitive load: developing warning strategies to minimize collision risk. PI: Francesco Biondi, Funds obtained: CA$ 58,827
2019	**Ontario Center of Excellence**. User Testing of iNAGO's Automotive Assistant. PI: Francesco Biondi, Funds obtained: CA$ 24,600
2019	**AAA Foundation for Traffic Safety** (sub-contract). Evaluation of Partially-Automated Vehicles. PI: Francesco Biondi, Funds obtained: US$ 6,000
2016 – 2018	**AAA Foundation for Traffic Safety.** Evaluation of Cognitive and Visual Workload in Vehicles. Co-Investigator: Francesco Biondi. Funds obtained: US$3,863,906
2016 – 2018	**University of Utah Foundation**, Spectral EEG and Driver Physiology to Monitor Driver Mind-Wandering, PI: Francesco Biondi, Funds obtained: US$ 25,000
2015 – 2016	**EPSRC iCASE**, Haptic Interfaces for Autonomous Vehicles, PI: Francesco Biondi, Funds obtained: GB £ 35,000

Mentoring

Undergraduate (N=45)

- 1 High School
- 19 Department of Kinesiology, University of Windsor
- 14 Department of Electrical and Computer Engineering, University of Windsor
- 12 Department of Psychology, University of Utah

University of Windsor

Year	Name	Project
2025	Ramneek Brar	Cognitive Ergonomics of Exoskeleton
2025	Maeve Craig	Effect of genAI on memory retention
2025	Elaf Burhan	Investigating Inattentional Deafness in Aviation
2025	Devin Beneteau	Cognitive Ergonomics of Exoskeleton
2025	Kennedy Costello	Laser Operator Guidance with Atlas Copco
2025	Ahmad Munin	Leveraging AI tools for driver distraction detection
2025	Kennedy Costello	Investigating cognitive restoration in museums
2025	Angelina Bashir	Distraction potential of driving automation
2025	Asher Cliff-Afemari	Distraction potential of driving automation
2025	Julie Israel	Human factors of exoskeleton use in nursing
2024	Ryan Yim	Investigating cognitive restoration in museums
2024	Devin Beneteau	Neurophysiological markers of attention
2024	Peter Conlon	UWindsor Neurophysiological markers of attention
2024	Sam Dunn	UWindsor Investigating Cognitive Relaxation with EEG

2024	Angelina Bashir	Driver distraction with Windsor Police Service
2024	Legolas Zhang	High School Machine Vision for Distraction Detection
2024	Diana Al Debs	UWindsor Driver Distraction in Autonomous Driving
2023	Daniel Hodare	UWindsor Driver Distraction in Autonomous Driving
2023	Valentina Bashir	Driver Distraction in Autonomous Driving
2023	Dylan Revenberg	Driver Distraction in Autonomous Driving
2023	Tom Lavasseur	Noise Reduction for Manufacturing Workers
2022	Dario Morle	UWindsor Machine Learning for Driver State Detection
2022	Eric Tieu	Machine Learning for Driver State Detection
2022	Manveer Aujla	Machine Learning for Driver State Detection
2021	Connor Ajersch	Machine Learning for Driver State Detection
2021	Gian Favero	UWindsor Machine Learning for Driver State Detection
2021	Matthew Dunne	Machine Learning for Driver State Detection
2021	Rebecca Balestra	Cognitive Workload during Manufacturing Tasks
2021	Steven Caro	UWindsor Machine Learning for Driver State Detection
2021	Nate Saddy	UWindsor Cognitive Workload during Manufacturing Tasks
2020	Jayshree Srinivas	Machine Learning for Driver State Detection
2020	Minwar Khan	UWindsor Machine Learning for Driver State Detection
2020	Noblejit Uppal	UWindsor Machine Learning for Driver State Detection
2020	Shahir Jamil	UWindsor Machine Learning for Driver State Detection
2020	Soby Minhas	UWindsor Machine Learning for Driver State Detection
2020	Tara Ahmadi	UWindsor Machine Learning for Driver State Detection
2020	Zorain Khan	UWindsor Machine Learning for Driver State Detection
2019	Angela Cacanindin	Mental Effort in Assembly Tasks
2019	Ahmad Zaitoun	Mental Effort in Assembly Tasks
2019	Caitlyn Douglas	Mental Effort in Assembly Tasks

University of Utah

2018	Camille Wheatley	Measuring Cognitive Distraction in the Automobile
2018	Conner Motkus	Measuring Cognitive Distraction in the Automobile
2017	Douglas Getty	Measuring Cognitive Distraction in the Automobile
2017	Rachel Goethe	Measuring Cognitive Distraction in the Automobile
2017	Sydney Loveless	Measuring Cognitive Distraction in the Automobile
2014	Chris Kirk	Measuring Cognitive Distraction in the Automobile
2014	Hairin Kim	Measuring Cognitive Distraction in the Automobile
2014	Jace Fowles	Measuring Cognitive Distraction in the Automobile
2013	Jacob Acharte	Measuring Cognitive Distraction in the Automobile
2013	Peter Dang	Measuring Cognitive Distraction in the Automobile
2013	Zhengui Yu	Measuring Cognitive Distraction in the Automobile

Masters (N=18)

- 9 Department of Kinesiology, University of Windsor
- 6 Department of Electrical and Computer Engineering, University of Windsor
- 2 Department of Psychology, University of Windsor
- 1 Department of Computer Science, University of Windsor
- 1 Department of Psychology, University of Padova

University of Windsor

Year	Name	Project
2025-	Simrandeep Punjabi	Exploring the human factors of wearable technology
2025-	Julie Webeck	Human Factors of Exoskeleton Use
2023-26	Noor Jajo	Effects of chat GPT use on memory retention
2023-26	V. Bashir	Measuring Driver Distraction in Windsor, ON
2023-	T. Lavasseur	Mental Workload of Exoskeleton Use
2022-24	Rim Addine	Situation Awareness in Autonomous Driving
2022-24	Praneet Sahoo	fNIRS for Cognitive Workload Assessment
2022-24	Mobina Mah.	Heart Rate Detection for Mental Workload Assess.
2022-23	Obi Nindu	Voice Recognition for Mental Workload Assessment
2022-23	S. Kavousi	Driver Distraction Detection
2022	A. Baboo	Redesign of Lab's Website
2021-23	E. Lopetrone	Driver Distraction Trends during COVID-19
2021-22	C. Motzkus	Driver Distraction Detection
2020-22	S. Abdollahi	Mental Fatigue in Manufacturing Tasks
2020-22	B. Saberi	Guidelines for Cognitive Workload Detection
2019-20	B. Taylor	UX investigation of Inago's User Interface

2019-21	P. Ramhakr.	Cognitive Workload Detection
2018-20	P. Ayare	Cognitive Workload Detection

University of Padova

2013-14	M. Leo	Multimodal Warnings for Car Use

Doctoral (N=6)

- 2 Department of Kinesiology, University of Windsor
- 1 Department of Electrical and Computer Engineering, University of Windsor
- 2 Department of Civil Engineering, University of Padova
- 1 Department of Engineering, University of Warwick

University of Windsor

Year	Name	Project
2025-	Noor Al Azary	Human Factors of Wearables in Clinical Populations
2023-	Yujin Li	Modeling Drivers' Cognitive Workload
2022-	P. Pillai	Machine Learning for Distraction Detection

University of Padova

2019-20	F. Orsini	Designing Warnings for Vehicle Interfaces
2019-20	G. De Cet	Designing Warnings for Vehicle Interfaces

University of Warwick (England, UK)

2015-16	C. Geitner	Multimodal Warnings for Vehicle Systems

Post-graduate (N=5)

- 1 Post-Doc, Department of Kinesiology, University of Windsor
- 3 Post-Graduate Full-Time Research Associate, Department of Kinesiology, University of Windsor
- 1 Post-Graduate Full-Time Research Associate, Department of Electrical and Computer Engineering, University of Windsor

University of Windsor

Year	Name	Project
2024-	Praneet Sahoo	VR solutions for Atlas Copco
2024-25	Nicola Vasta	Driver Distraction in Autonomous Driving
2022-24	Noor Jajo	Assessing Driver Distraction in the Real-World
2021-22	P. Pillai	Machine Learning for Distraction Detection
2021	Noor Azari	Assessing Driver Distraction in the Real-World

Graduate Committee Membership

Year	Name	Level	Affiliation	Role
2025	Olivier Arseneau	Masters	University of Windsor Dept. of Kinesiology	Chair
2025	Baldassa Andrea	Doctorate	University of Padova Dept. of Engineering	External Examiner
2025	Sam Monk	Doctorate	University of Windsor Dept. of Kinesiology	Internal Examiner
2025	Sam D'Agostino	Doctorate	University of Windsor Dept. of Kinesiology	Chair
2025	Emmy Wang	Masters	University of Windsor Dept. of Psychology	External Examiner
2024	Jiming Bai	Doctorate	University of Nottingham at Dingbo (China)	External Examiner
2024	Hareim Hassan	Doctorate	University of Windsor Dept. of Political Science	Chair
2024	Nicola Vasta	Doctorate	University of Padova(Italy)	External Examiner
2023	Alexander Thorpe	Doctorate	University of New South Wales (Australia)	External Examiner
2024	Catherine Bosyj	Masters	University of Windsor Dept. of Psychology	External Examiner
2023	Katherine Matchett	Masters	University of Windsor Dept of Psychology	External Examiner
2023	Rebecca Balestra	Masters	University of Windsor Dept. of Kinesiology	Internal Examiner
2022	Jarrod Smith	Masters	University of Windsor Dept. of Kinesiology	Internal Examiner
2021	Joe Kagumba	Masters	University of Windsor Dept. of Kinesiology	Internal Examiner
2021	Smantha Monk	Masters	University of Windsor Dept. of Kinesiology	Chair
2021	Kyle Bezaire	Masters	University of Windsor Dept. of Kinesiology	Chair
2020	Mallak Hamatto	Masters	University of Windsor Dept. of Kinesiology	Internal Examiner
2018	Spencer Castro	Masters	University of Utah	Internal Examiner

TEACHING EXPERIENCE

Courses Taught

Undergraduate Level

2022 – Present	Measurement and Evaluation, University of Windsor. Delivered to ~160 2nd year undergraduate students
2019 – Present	User Experience for Ergonomics, University of Windsor Delivered to ~40 4th year undergraduate students
2019 – Present	Cognitive Ergonomics, University of Windsor Delivered to ~40 4th year undergraduate students
2019	Neuroscience for Ergonomics, University of Windsor
2019	Human Factors and Work Performance, University of Windsor
2017	Cognitive Psychology, University of Utah
2017	Human Factors and Ergonomics, University of Utah

Graduate level

2021 – Present	Quantitative Analysis in Kinesiology, University of Windsor Delivered to ~15 Masters and PhD students
2020 – Present	RStudio for Experimental Research, University of Windsor Delivered to ~15 Masters and PhD students

Professional Development Activities

2021 – Present	Undergraduate Certificate in Human Factors and Ergonomics, Department Kinesiology, University of Windsor
2020 – Present	Annual Human Factors and User Experience Career Panel, Department of Kinesiology, University of Windsor

PROFESSIONAL SERVICE & MEMBERSHIPS

Grant/Scholarship Evaluation

2025	Adjudicator for the Canada Foundation for Innovation John R. Evans Leaders Fund 2025 call
2025	Reviewer for WE-SPARK Health Institute IDEA grants
2025	Poster reviewer for the 2025 WE-SPARK Annual Meeting.
2024	Adjudicator for the European Research Council Consolidator Grants 2024 - E7 Panel (Systems and Communication Engineering). European Union
2023	Reviewer for the Ontario Research Fund – College Fund. Ontario.
2022-2023	Reviewer for NSERC Discovery Grant Reviewer in group 1509 - Civil, Industrial and Systems Engineering. Canada.
2022-2023	Reviewer for NSERC Discovery Horizon Reviewer. Canada.
2021-2022	Reviewer for University of Windsor's Student Award Committee. Canada.
2018	Panelist for National Science Foundation Expert. USA.

Editorial Services

2024 – 2027	Chair of the International Association of Ergonomics and Human Factors (IEA)'s Transport Ergonomics and Human Factors (TEHF)
2024 – 2025	Editorial Board for the Special Issue on Human Factors and AI on the Human Factors journal
2024	Moderator for HFES Titans Session on Joel Warm
2023 – 2024	Chair of the HFES Webinar Committee
2022 – Present	Editor of the journal Frontiers in Psychology – Cognition
2022 – Present	Associate Editor of the journal Human Factors
2020 – Present	Associate Editor of the journal Transportation Research Record
2019 – Present	Associate Editor of the Int. Journal of Human Factors and Ergonomics
2018 – 2021	Editorial Board Member of the Special Issue on Cognitive Workload Assessment of the Journal Human Factors
2017 – 2019	Associate Editor of the Special Issue on Autonomous Driving of the International Journal of Human-Computer Interaction

Scientific Advisory Board

2024 – 2027	Board of Directors of the Canadian Association of Road Safety Professionals
2022 – Present	Committee Member of the TRB Standing Committee on Human Factors of Vehicles — ACH30
2020 – Present	Advisory Council of Partners for Automated Vehicle Education (PAVE)
2020 – Present	Committee member of Safety and Human Factors Standards Steering Committee - Society of Automotive Engineers
2020 – Present	Committee member of SAE Driving Automation Systems Committee (TEVSHF4)
2020 – Present	Member of the Standards Council of Canada. ISO/TC TC22 SC39. Ergonomics
2022 – 2023	Co-organizer of the Computer-Human Interaction's AutoUI Conference
2019	Board member of the International Conference on Driver Distraction and Inattention

2019	Co-organizer of the TRB Workshop of Autonomous Driving
2019	Editorial Board Member of the 10th International Driving Symposium
2018 – 2022	Committee Member of the TRB ANB50 committee on Alcohol, Other Drugs, and Transportation
2018 – Present	Committee member of the Windsor-Essex Road Safety Working Group
2018 – Present	Committee Member of the TRB ACH40 committee on Human Factors of Infrastructure Design
2018	Co-organizer of the annual meeting of the Ontario Biomechanics Conference
2017	Co-organizer of the AAA Foundation of Traffic Safety annual meeting
2017	Co-organizer of the Int. Conf. on Engineering Psychology
2016	Co-organizer of the annual meeting of the Applied Human Factors and Ergonomics Society

Reviewer for Peer-Reviewed Publications

2020 – Present	Scientific Report
2019 – Present	Ergonomics
2018 – Present	Applied Ergonomics
2017 – Present	Human Factors
2017 – Present	Int. Journal of Human-Computer Interaction
2017 – Present	Journal of Advanced Transportation
2016 – Present	Journal of Cognitive Engineering and Decision Making
2016 – Present	Accident Analysis and Prevention
2016 – Present	Transportation Research Part F

Affiliation with non-academic organizations

2020 – Present	Rotary Club International
2018 – 2019	Windsor Youth Homeless Shelter
2016 – 2018	Volunteers of America