**THE UNIVERSITY OF BRITISH COLUMBIA**

***Curriculum Vitae for Faculty Members***

 **Date**: *15/Sept/2018* **Initials**: GRL

**1.** **SURNAME**: LOVEGROVE **FIRST** **NAME**: Gordon **MIDDLE NAME (S)**: Richard

**2.** **DEPARTMENT/SCHOOL:** *School of Engineering*

**3.** **FACULTY:**  Applied Science

**4.** **PRESENT RANK**: Associate Professor **SINCE**: *1 / July / 2012*

**5.** **POST-SECONDARY EDUCATION**

|  |  |  |  |
| --- | --- | --- | --- |
| **University or Institution** | **Degree** | **Subject Area** | **Dates** |
| University of British Columbia  | PhD | Civil / Road Safety Engineering\* | May 2006 |
| Capilano College | Dipl. | Public Administration | May 1998 |
| Simon Fraser University | MBA | Public Policy | August 1993 |
| University of British Columbia  | M.Eng. | Municipal Engineering | May 1988 |
| University of British Columbia  | B.A.Sc. | Civil Engineering | May 1982 |

\* Community-Based, Macro-Level Collision Prediction Models, Research Supervisor: Dr. Tarek Sayed, P.Eng.

5A. **Special Professional Qualifications**

Fellow - Institute of Transportation Engineers, Canada, Ontario, Research (since September 2007)

Professional Engineer - APEGBC, Canada (since September 4, 1985)

Vice President | Technical Programs | Canadian Society for Civil Engineering

Chair | Sustainable Development Committee | Canadian Society for Civil Engineering

Member | Sustainability Committee | Institute of Transportation Engineers

Member | Committee on Sustainability | American Society of Civil Engineers

5B. **Continuing Education / Training**

Healthy Housing Workshop, City of Kelowna, May 8, 2018

Housing Needs Research Symposium, UBC Okanagan, March 27, 2018

Transportation Research Board (TRB), Human Factors Workshop, January 2018, Washington DC.

High Speed Rail Seminar, University of Nevada Las Vegas, ARIZONA, December 2017, USA.

Passenger - Railway Engineering Education Seminar (P-REES), APTA, Los Angeles, 07/15/17

UBCO Learning Conference, UBCO Centre for Teaching & Learning (CTL), 04/05/17

Railway Engineering Education Seminar for Faculty, University of Illinois, Urbana-Champaign, 07/12/16

UBCO Learning Conference, UBCO Centre for Teaching & Learning (CTL), 05/05/16

Transportation Research Board (TRB), Roundabout Design seminar, January 2013, Washington DC.

Railway Engineering Education Symposium (REES), Overland Park, KS, USA, June 11-13, 2012.

UBCO Learning Conference, UBCO Centre for Teaching & Learning (CTL), 05/03/12

Railroad Track Alignment Design, American Railway Engineering and Maintenance-of-Way Association (AREAM), Minneapolis, September 21-23, 2011

Copyright Compliance for Professors, CTL, September 1, 2011

D.A.T.E. Topic: Living Up to Expectations, UBCO Centre for Teaching & Learning (CTL), August 31, 2011

Large Class Strategies, UBCO CTL, August 30, 2011.

Supporting Graduate Students with Their Writing, UBCO CTL, August 23, 2011.

Faculty Instructional Skills Seminar, UBCO CTL, August 17-19, 2011.

Bicycle Facility Design Course, Canadian Institute of Transportation Engineers, Kamloops, May 13, 2011

Successful Instructional Strategies, UBCO Centre for Teaching & Learning, Nov 5, 2010

Popular Culture in the Classroom: Engaging Our Students, UBCO CTL, September 3, 2010

Turnitin, UBCO Centre for Teaching & Learning, September 2, 2010

Introduction to Practical Railway Engineering, AREMA, Los Angeles, June 10-12, 2010

How Do I Get The Students To Do The Readings? UBCO Centre for Teaching & Learning, Aug 26, 2009

Panel: Successful Instructional Strategies, UBCO Centre for Teaching & Learning, August 31, 2009

Reflecting on Your Teaching, UBCO Centre for Teaching & Learning, August 27, 2009

Annual Conference, APEGBC, Kelowna, October 13, 2008

Team-Based Learning, UBCO Centre for Teaching & Learning, August 1, 2008

Teaching & Learning Conference, UBCO, May 2, 2007

6. **EMPLOYMENT RECORD**

*(a) Prior to coming to UBC*

|  |  |  |
| --- | --- | --- |
| **University, Company or Organization** | **Rank or Title** | **Dates** |
| UBC Vancouver (non-faculty, see 13.c) | Director of Transportation Planning | 11/97 – 06/05 |
| City of Kelowna | Transportation Planner | 04/96 -- 11/97 |
| Township of Langley | Transportation Engineer | 07/91 – 04/96 |
| City of Vancouver | Assistant Transportation Engineer | 12/88 – 06/91 |
| City of Vancouver | Special Projects Engineer | 05/82 – 11/88 |

*(b) At UBC*

|  |  |
| --- | --- |
| **Rank or Title** | **Dates** |
| Associate Professor | Jul. 2012 to date |
| Assistant Professor | Jun. 2007 to Jun. 2012 |
| Honorary Assistant Professor | Jun. 2005 to May 2007 |
| Sessional Lecturer | Jan. 2001 to Apr. 2001 |

*(c) Date of granting of tenure at UBC: July 1, 2012*

**7. LEAVES OF ABSENCE**

|  |  |  |
| --- | --- | --- |
| **University, Company or Organization****at which Leave was taken** | **Type of Leave** | **Dates** |
| University of British Columbia | Study Leave | July 1, 2014 to June 30, 2015 |

8. **TEACHING**

*(a) Areas of special interest and accomplishments*

Teaching is mission-critical to my job. It is also one of the primary reasons I became a professor, as it helps fulfill my passion to mentor. I consider it a privilege to teach and mentor our next generation of engineers and leaders using an approach that integrates theory, experiential learning, and the latest research on course topics. My student evaluations reflect this integrated approach to create a stimulating learner-centered environment. My expertise comes from over 20 years of experience in project management, transportation engineering and planning, policy development, and sustainable development, including both junior engineering (analytical) and senior engineering (leadership) responsibilities. I continually work at improving my teaching skills drawing on the latest pedagogical research, technology, student evaluations, and peer evaluations, as well as through professional development opportunities offered at UBCO’s Center for Teaching and Learning (CTL) and one-on-one consultations with my colleagues and mentors.

I have taught undergraduate courses to our 1st, 2nd, 3rd, and 4th year students, as well as graduate level courses. Students are engaged via prompt feedback to questions and comments, as well as in-class individual and group presentations, debates and discussions. Applying theory to these hands-on, problem-based study group and team-based learning exercises are critical extensions of the lecture via peer learning and group problem solving. Moreover, I recognize that the practise of professional engineering and applying knowledge to solve societal problems requires creativity and peer reviewing. Hence, I also seek to instil in my students the necessary confidence to brainstorm and explore creative solutions by bringing real-world engineering problems from my past and current professional experience and networks into the classroom. These techniques are meant to not only engage my students, but also to deepen their understanding, and extend their memory retention, and, to ultimately benefit them in their future graduate and professional careers.

The results of my efforts have come to fruition, based on improving student and peer evaluations of my teaching. Dr. John Mitchell, Senior Professor in the UBC Okanagan Faculty of Education (an award winning university professor, and my Faculty Mentor) feels that I am “among the best teachers” he has worked with at UBC Okanagan. Detailed peer reviews of my teaching are contained in my Teaching Dossier.

*(b) Courses Taught at UBC (Legend below)*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Session** | **Course** | **Total****Scheduled** | **Class** | **Total Hours Taught per Course** |
|  | **Number** | **Hours** | **Size** | **Lectures** | **Tutorials** | **Labs** | **Other** |
| 2001W T2 | CIVIL 441 | 3-0-0 | 15 | 37.5 |  |  |  |
| 2005W T1 | APSC 172 | 3-0-0 | 65 | 37.5 | 6 |  |  |
|  | APSC 170 | 3-1-0 | 65 |  | 26 |  |  |
| 2005W T2 | APSC173 | 3-0-0 | 65 | 37.5 | 6 |  |  |
|  | APSC 170 | 3-0-0 | 65 |  | 26 |  | 2 guest lectures |
| 2006W T1 | APSC 172 | 3-0-0 | 50 | 37.5 | 6 |  |  |
|  | APSC 170 | 3-1-0 | 105 |  | 26 |  |  |
|  | APSC 174 | 3-1-0 | 105 |  | 100 (4 sect’s) |  |  |
| 2006W T2 | APSC173 | 3-0-0 | 50 | 37.5 | 6 |  |  |
|  | APSC 170 | 3-0-0 | 105 |  | 26 |  | 2 guest lectures |
|  | APSC 171 | 3-1-1 | 25 |  | 52 (2 sect’s) |  |  |
| 2007W T1 | APSC 257 | 3-1-0 | 23 |  | 26 |  |  |
| 2007W T2 | APSC 170 | 3-1-0 | 130 |  | 52 (2 sect’s) |  | 1 guest lecture |
|  | APSC 171 | 3-1-1 | 25 |  | 52 (2 sect’s) |  |  |
|  | ENGR 305 | 3-0-0 | 50 | 37.5 |  |  |  |
|  | ENGR 335 | 3-0-0 | 25 | 37.5 |  |  |  |
| 2008W T1 | APSC 257 | 3-1-0 | 23 |  | 52 (2 sect’s) |  |  |
|  | ENGR 331 | 0-0-3 | 20 |  |  | 26 |  |
| 2008W T2 | APSC 170 | 3-1-0 | 150 |  |  |  | 1 guest lecture |
|  | APSC 171 | 3-1-1 | 25 |  | 52 (2 sect’s) |  |  |
|  | ENGR 305 | 3-0-0 | 65 | 37.5 |  |  |  |
|  | ENGR 335 | 3-0-1\* | 35 | 37.5 |  | 13 |  |
| 2009W T1 | SUST 100 | 3-0-0 | 35 |  |  |  | 1 guest lecture |
|  | APSC 172 | 3-1-0 | 150 | 37.5 | 60 (5 sect’s) |  |  |
|  | ENGR 534 | 2-0-2 | 2 | 24 |  | 24 |  |
| 2009W T2 | ENGR 305 | 3-0-0 | 100 | 37.5 |  |  | 1 guest lecture |
|  | ENGR 335 | 3-0-1\* | 50 | 37.5 |  | 13 |  |
| 2010W T1 | APSC 172 | 3-1-0 | 146 | 37.5 | 60 (5 sect’s) |  |  |
|  | ENGR 505 | 3-0-0 | 6 | 37.5 |  |  |  |
| 2010W T2 | ENGR 305 | 3-0-0 | 115 | 37.5 |  |  |  |
|  | ENGR 335 | 3-0-1\* | 65 | 37.5 |  | 13 |  |
| 2011W T1 | ENGR 505 | 3-0-0 | 6 | 37.5 |  |  |  |
| 2011W T2 | ENGR 335 | 3-0-1\* | 68 | 37.5 |  | 13 |  |
|  | IGS 507 | 3-0-0 | 8 | 37.5 |  |  | Team taught seminar |
| 2012W T1 | APSC 257 | 3-0-0 | 200 | 37.5 |  |  |  |
|  | ENGR 505 | 3-0-0 | 1 | 37.5 |  |  |  |
|  | ENGR 535 | 3-0-1\* | 3 | 37.5 |  | 13 |  |
| **Session** | **Course** | **Total****Scheduled** | **Class** | **Total Hours Taught per Course** |
|  | **Number** | **Hours** | **Size** | **Lectures** | **Tutorials** | **Labs** | **Other** |
| 2012W T2 | ENGR 335 | 3-0-1\* | 56 | 37.5 |  | 13 |  |
|  | ENGR 534 | 3-0-1\* | 1 | 37.5 |  | 13 |  |
| 2013W T1 | ENGR 435 | 3-0-1\* | 17 | 37.5 |  | 13 |  |
|  | ENGR 535 | 3-0-1\* | 5 | 37.5 |  | 13 |  |
| 2013W T2 | ENGR 505 | 3-0-0 | 6 | 37.5 |  |  |  |
|  | ENGR 534 | 3-0-1\* | 1 | 37.5 |  | 13 | Weekly seminars |
| 2014W T1 | On Study Leave  |
| 2014W T2 | On Study Leave |
| 2015W T2 | ENGR 335 | 3-0-1\* | 71 | 37.5 |  | 13 |  |
|  | ENGR 435 | 3-0-1\* | 18 | 37.5 |  | 13 |  |
| 2016S T1 | ENGR 449 | 3-0-1\* | 16 | 37.5 |  | 13 |  |
| 2016W T1 | ENGR 435 | 3-0-1\* | 17 | 37.5 |  | 13 |  |
|  | ENGR 437/537 | 3-0-1\* | 23 | 37.5 |  | 13 |  |
| 2016W T2 | ENGR 305 | 3-0-0 | 270 | 37.5 |  |  |  |
| 2017S T1 | ENGR 449 | 3-0-1\* | 15 | 37.5 |  | 13 |  |
| 2017W T1 | ENGR 435 | 3-0-1\* | 15 | 37.5 |  | 13 |  |
| 2017W T1 | ENGR 598L | 3-0-1\* | 3 | 37.5 |  | 13 | Weekly seminars |
| 2017W T2 | ENGR 335 | 3-0-1\* | 88 | 37.5 |  | 13 |  |
| 2017W T2 | ENGR 305/505 | 3-0-0 | 150 | 37.5 |  |  | Weekly grad seminars |
| 2018S T1 | ENGR 449 | 3-0-1\* | 15 | 37.5 |  | 13 |  |
| 2018S T2 | ENGR 598X | 3-0-0 | 23 | 37.5 |  |  | 1 week course; attended by UG, Grad, industry |
| 2018W T1 | ENGR 437/537 | 3-0-1\* | 16 | 37.5 |  | 13 |  |

*Legend:*

|  |  |
| --- | --- |
| APSC 170: Fundamentals of Engineering Practise | ENGR 331: Civil Engineering Lab |
| APSC 171: Introduction to Electrical & Computer Engineering | ENGR 335: Transportation Engineering |
| APSC 172: Engineering Analysis I – Differential Calculus | CIVIL 441: Transportation Planning (taught at UBC Vancouver as a sessional lecturer) |
| APSC 173: Engineering Analysis II – Integration Calculus | ENGR 435: Transportation Systems Engineering |
| APSC 174: Statics & Dynamics | ENGR 505 / 598C: Social Cost Benefit Analysis |
| APSC 257: Environment, Technology & Society | ENGR 534: Road Safety Planning |
| ENGR 305: Engineering Economics | ENGR 437/537 (old # 535): Railway Systems Engineering (course # changed & cross-listed) |
| IGS 507(201): Perspectives in Sustainability, Interdisciplinary Graduate Studies, College of Graduate Studies |
| ENGR 449: Special Topics in Civil Engineering (the School’s inaugural Go Global course, to Delft, NL) |
| ENGR 598L: IHSPM: Interactive High-Level Safety Planning Model: Development & Application of Community-Based Macro-Level Collision Prediction Models  |
| ENGR 598X: Hydrail: Hydrogen Fuel-Cell / Battery Hybrid Locomotive Power System Theory and Design |

*(c) Graduate Students Supervised at UBC*

|  |  |  |  |
| --- | --- | --- | --- |
| **Student Name** | **Program** | **Year** | **Supervisory Role**(supervisor, co-supervisor, committee member) |
|  |  | **Start** | **Finish** |
|  |  |  |  |  |
| MASc Supervision |  |  |  |  |
| Bidoura Khondaker 1 | MASc | Sept 2005 | May 2007 | Co-Supervisor |
| Elham Boozarjomehri2 | MASc | Sept 2007 | Jun 2009 | Supervisor |
| Jianchen (James) Sun3 | MASc | Sept 2007 | Jun 2009 | Supervisor |
| Ahsan Alam 4 | MASc | Sept 2008 | Dec 2010 | Supervisor |
| Feng (Vicky) Wei5 | MASc | Sept 2008 | Sept 2012 | Supervisor |
| Ellen Morrison6 | MASc | May 2011 | Sept 2015 | Supervisor |
| Abdul Masoud7 | MASc | Sept 2013 | May 2015 | Co-Supervisor |
| Hegazi Mohammed8 | MASc | Sept 2014 | Dec 2016 | Co-Supervisor |
| Adam Lee9 | MASc | May 2015 |  | Supervisor |
| Vipul Garg10 | MASc | Sept 2017 |  | Supervisor |
| Md Ovi11 | MASc | Sept 2017 |  | Supervisor |
|  |  |  |  |  |
| PhD Supervision |  |  |  |  |
| Craig Hostland1 | PhD | Sept 2009 | Sept 2015 | Co-Supervisor |
| Farhad Faghihi2 | PhD | May 2014 |  | Supervisor |
| Esraa Jamal3 | PhD | Sept 2015 |  | Supervisor |
| Abdul Masoud4 | PhD | Sept 2016 |  | Co-Supervisor |
| Hegazi Mohamed5 | PhD | May 2018 |  | Supervisor |

**MASc Thesis titles**

1. Sustainable Road Safety: Transferability of Macro-level CPMs from the GVRD to the City of Kelowna
2. Sustainable Road Safety: Promotion of an alternate transport mode - Okanagan Valley Electric Rail
3. Sustainable Road Safety: Development, Transference and Application of Community-Based Macro-Level Collision Prediction Models
4. Quantifying the Road Safety Benefits of Sustainable Transportation: Transit
5. Sustainable Road Safety: Community-Based Macro-Level Collision Prediction Models of Increased Bicycle Use in the Regional District of Central Okanagan
6. Sustainable Transport Safety: ComPASS Case Study of a Community UPass in Kelowna, BC, Canada
7. Sustainable Transport Safety: A Review of Barriers to, and Promising Engineering Tools for, Promoting Safer Bicycling and Walking in Canadian Communities
8. The Assessment of On-Board Clean Hybrid Energy Storage Systems For Railway Locomotives and Multiple Units
9. Sustainable Transport Safety: Using an Instrumented Probe Bicycle to Assess and Model Bicycle Riders’ Perceived Comfort and Safety
10. IHSPM: Interactive High-Level Safety Planning Model – Web-based software development & Kelowna BC Case Study
11. SMARTer Growth Design Guide: Case Study Applications in Dhakka, Bangladesh and Kelowna, Canada

**PhD Thesis titles**

1. Sustainable Home Environments: Proactively Addressing Sickness-Related Damp and Moldy Environments to Reduce the Impact on the BC Health Care System
2. Sustainable Transport Safety: Application of Dynamic Artificial Neural Network Approach to Conduct Road Safety Analysis and Collision Predictino Model Development – Case Study: City of Kelowna, BC, Canada
3. Sustainable Transport Safety: Business Case for Passenger Rail in Kuwait Urban Area
4. SMARTer Growth Design Guide: Tools to Assess and Design Safer, Healthier, Greener, Desired, Sustainable Quality of Life in Neighborhoods around the world
5. HYDRAIL: Retrofit of Southern Rail of BC Yard Switcher ‘Green Goat’ Locomotive

 *(d) Continuing Education Activities*

1. July 2018 – Organizer: Hydrail Industry Briefing Conference, July 30 to Aug 2, 2018, Kelowna, BC.
2. May 2017 – Presenter: Flipping LARGE Classrooms Using Clickers: The Engineering Economics Experience, UBCO 13th Annual Learning Conference, Engaging Every Learner, May 3 & 4, 2017.
3. Jun 2016 – Organizer & Convenor: International Vision Zero Workshop, Kelowna, BC; Guest Lecturers were Dr Divera Twisk and Dr Marjan Hagenzieker, leading researchers from SWOV.
4. Mar 2015 – *Road Safety Planning: New Tools to Address the Road Safety Epidemic*, on-line webinar, Institute of Transportation Engineers (ITE), Washington, DC, USA.
5. Sept 2014 – *Primer on the Global Road Safety Epidemic*, International Standards Organization (ISO), on-line webinar for young professionals, Zurich, Switzerland.
6. Feb 2014 – Organizer & Convenor: International Road Safety Workshop on SPF Development & Use, Kelowna, BC, Guest lecturer was Dr Ezra Hauer, UoT Professor Emeritus, pre-eminent expert in field.
7. May 2013 – Engineer Speak: Collaboration Between Public Health, Planning, and Engineering Practitioners to Improve Safety for All, on-line webinar for the PHAC, Ottawa, ON.
8. May 2012 – *Promoting Safer Walking and Biking Across Canada: Promising Practises from Canadian Municipalities*, on-line webinar for the Public Health Agency of Canada (PHAC), Ottawa, ON.
9. Aug 2011 - Co-Panellist: Mentoring Graduate Students, Centre for Teaching & Learning, UBCO Teaching Expo, Kelowna, BC.
10. Jun 2011 - *Introduction to Practical Railway Engineering: Modules 1 (Overview), 6 (Track-Train Dynamics), 12 (Construction), and 13 (Structures) of 17*, American Railway Engineering and Maintenance-of-Way Association (AREMA), Denver, Colorado, USA.

*(e) Visiting Lecturer (indicate university/organization and dates)*

1. Feb 2016 - In Pursuit of Sustainable Communities (= A Sustainable Desired Quality of Life), UC Davis Transportation Research Centre, Davis, California, USA.
2. May 2015 - Road Safety Planning: Tools & Techniques for Practitioners, HiT4Med Workshop, Naples, Italy.
3. Mar 2015 – *Community-Based, Macro-level Collision Prediction Models*, University of Naples, Frederico II, Naples, Italy.
4. Nov 2014 – *Sustainable Transport Safety: Quantified*, Dutch Traffic Safety Research Institute (SWOV), The Hague, NL.
5. May 2014 – *Sustainable Transport Safety: Theory, Development, and Application of Community-Based, Macro-Level Collision Prediction Models*, Tongji University, Shanghai, China.
6. May 2014 – *Sustainable Transport Safety: Fused Grid Neighborhoods*, Tongji University, Shanghai, China.
7. Feb 2013 - *Promoting Safer Use of Engineered Infrastructure by Vulnerable Road Users*, Webinar for Public Health Association of Canada, University of Ottawa, ON.
8. Jun 2011 - *Opportunities & Challenges: Assimilating Sustainability into traditional civil & environmental engineering education to enhance existing programs & achieve successful CEAB accreditation*, School of Mechanical Engineering, Faculty of Engineering, University of Victoria.

*(f) Other*

*Graduate Directed Studies*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Session** | **Course** | **Total****Scheduled** | **Class** | **Total Hours Taught per Course** |
|  | **Number** | **Hours** | **Size** | **Lectures** | **Tutorials** | **Labs** | **Other** |
| 2007W T1 | APSC 598A | 2\*-0-0 | 2 | 12 |  |  | Bi-weekly 2 hours |
| 2007W T2 | APSC 598C | 2\*-0-0 | 2 | 12 |  |  | Bi-weekly 2 hours |
| 2008W T1 | APSC 598L | 2\*-0-0 | 2 | 12 |  |  | Bi-weekly 2 hours |
| 2008W T2 | APSC 598C | 2\*-0-0 | 2 | 12 |  |  | Bi-weekly 2 hours |
| 2010W T1 | ENGR 598M | 3-0-1\* | 4 | 37.5 |  | 13 |  |
| 2011W T1 | ENGR 598M | 3-0-1\* | 2 | 37.5 |  | 13 |  |
| 2013W T2 | ENGR 598F | 2\*-0-0 | 1 | 12 |  |  | Bi-weekly 2 hours |
| 2014S T1 | ENGR 598S | 3\*-0-0 | 2 | 18 |  |  | Bi-weekly 3 hours |
| 2015W T2 | IGS 520A | 2-0-0 | 1 | 24 |  |  |  |
|  |  |  |  |  |  |  |  |

***Directed Studies Title:***

APSC 598A: Road Safety Planning

APSC 598C: Social Cost Benefit Analysis

APSC 598L: Sustainable Building Materials

ENGR 598M: Railway Systems Engineering

ENGR 598F: High Speed Rail Research in Design

ENGR 598S: Issues in Sustainable Transport Safety

IGS 520A: Social Cost Benefit Analysis & Business Case Development

*Other Student Projects Supervisor*

|  |  |  |  |
| --- | --- | --- | --- |
| **Student Name** | **Program** | **Year** | **Supervisory Role**(supervisor, co-supervisor, committee member)**)** |
|  |  | **Start** | **Finish** |
|  |  |  |  |  |
| Undergraduate RAs |  |  |  |  |
| Greg Cockburn | NSERC USRA1 | May 2008 | Aug 2008 | Supervisor |
| Ska-Hiish Manuel | NSERC USRA2 | May 2008 | Aug 2008 | Supervisor |
| Lizzie Brown | NSERC USRA3 | May 2009 | Aug 2009 | Supervisor |
| Dave Sonmor | NSERC USRA4 | May 2011 | Aug 2011 | Supervisor |
| Jeff Bulmer | NSERC DG5 | May 2016 | Aug 2016 | Supervisor |
| John Rozema | NSERC DG6 | May 2016 | Aug 2016 | Supervisor |
| Justin Choi | NSERC DG7 | May 2016 | Aug 2016 | Supervisor |
| Evan Hansen | NSERC USRA8 | May 2017 | Aug 2017 | Supervisor |
| Nathan Harvey | NSERC Engage9 | May 2017 | Aug 2017 | Supervisor |
| Zarahraad Feroz | NSERC Engage9 | May 2017 | Aug 2017 | Supervisor |
| Kara Mayer | BCCC10 | May 2017 | Aug 2017 | Co-Supervisor |
| Kashmira Kaushik | BCCC10 | May 2017 | Aug 2017 | Co-Supervisor |
|  |  |  |  |  |
| International Interns |  |  |  |  |
| Snigdha Mothukuri | IIT Internship1 | May 2013 | July 2013 | Supervisor |
| Sudatta Mohanty | IIT Internship2 | May 2016 | July 2014 | Supervisor |
| Bernardo de Oliveira | SWB Brazil3 | May 2013 | Aug 2013 | Supervisor |
| Jessivaldo Santos | SWB Brazil4 | May 2013 | Aug 2013 | Supervisor |
| Mariah Aragao | SWB Brazil5 | May 2013 | Aug 2013 | Supervisor |
| Thiago Silveira | SWB Brazil6 | May 2014 | Aug 2014 | Supervisor |
| Samantha Plateel | SWOV, NL7 | Oct 2014 | May 2015 | Co-supervisor |
|  |  |  |  |  |
| UBCO Work Study  |  |  |  |  |
| Luis Dias | Work Study1 | Oct 2013 | Aug 2014 | Supervisor |
| Teuta Hoti | Work Study2 | Oct 2013 | Aug 2014 | Supervisor |
| Trevor Demerse | Work Study3 | Oct 2013 | Aug 2014 | Supervisor |
| Luis Dias | Work Study4 | Oct 2014 | Dec 2015 | Supervisor |
| Tyler Reid | Work Study5 | Dec 2014 | Apr 2015 | Supervisor |
| Trevor Demerse | Work Study6 | Oct 2014 | Apr 2015 | Supervisor |
| Victoria You | Work Study7 | Oct 2014 | Aug 2015 | Supervisor |
| David Rowswell | Work Study8 | Feb 2015 | Aug 2015 | Supervisor |
| Jeff Bulmer | Work Study8 | May 2017 | Aug 2017 | Supervisor |
| Travis Worthing | Work Study8 | May 2017 | Aug 2017 | Supervisor |
|  |  |  |  |  |
| Capstone Projects |  |  |  |  |
| Brett Meston, Danny Trommelen, Stefan Vali | SoE Capstone Design1 | Sept 2009 | April 2010 | Supervisor |
| Greg Cockburn, David Cresswell, and Melissa Kober | SoE Capstone Design2 | Sept 2009 | April 2010 | Supervisor |
| Devon Marriott, Liz McPhail, Ian Roth, Jason Warkentin | SoE Capstone Design3 | Sept 2010 | April 2011 | Supervisor |
| Danny Grant, Ellen Morrison, Kelly Bullivant, Tyson Salo | SoE Capstone Design4 | Sept 2010 | April 2011 | Supervisor |
| Scott Robbins, Greg Moorehouse | SoE Capstone Design5 | Sept 2011 | April 2012 | Supervisor |
| Dave Sonmor, Tyler Smith, Jordan Smith | SoE Capstone Design6 | Sept 2011 | April 2012 | Supervisor |
| Luke Friesen, Sandra Kelly, Alex Schuirmann, Cody Marwood | SoE Capstone Design7 | Sept 2012 | April 2013 | Supervisor |
| Jeff Wright, Jade Jordan, Darrell Smaile, Timothy Li | SoE Capstone Design8 | Sept 2012 | April 2013 | Supervisor |
| Shashiprabha Bandara, Emery Best, Saqlain Memon | SoE Capstone Design9 | Sept 2013 | April 2014 | Supervisor |
| Justin Choi, Shaun Prodanuk, Victoria You, Chibuzo Nwakaeze  | SoE Capstone Design10 | Sept 2015 | April 2016 | Supervisor |
| Jason Lammers, Dwayne Cybak, Shaun Rohleder, Allison  | SoE Capstone Design11 | Sept 2016 | April 2017 | Supervisor |
| Nathan Harvey, Carlos Bautista, Simon Bentley | SoE Capstone Design12 | Sept 2016 | April 2017 | Supervisor |
| David Rowswell, Jeff Bulmer, Travis Worthing, Kento | CoCS Capstone Design13 | Sept 2016 | April 2017 | Supervisor |

**Undergraduate Student Researcher Projects:**

1. Sustainable Road Safety: Okanagan Valley Railway
2. Sustainable Road Safety: Economic Analysis
3. Passive Solar Hot Water Space Heating & Domestic Hot Water Systems
4. Glenmore ComPASS
5. Sustainable Transport Safety: IHSPM module programming & beta 1.0 – computer scientist
6. Sustainable Transport Safety: IHSPM module programming & beta 1.0 – civil engineer
7. Sustainable Transport Safety: Instrumented Probe Bicycle (IPB) field testing & IPB 2.0 development
8. STS Research Lab: Interactive High-Level Safety Planning Model
9. ArroWhere safety vest redesign for user comfort and safety
10. Public perceptions & barriers to increased cycling in the Okanagan Valley

**International Interns:**

1. Sustainable Transport Safety: ComPASS
2. Sustainable Transport Safety: Instrumented Probe Bicycle micro-processing
3. Sustainable Transport Safety: Expert System Software Programming
4. Sustainable Transport Safety: Interactive On-line Human Interface Programming for an expert system
5. Sustainable Transport Safety: Web site redesign and update
6. Sustainable Transport Safety: Instrumented Probe Bicycle experiment design
7. Pedelecs and Instability of the Elderly during Mounting Manoeuvres

**UBCO Work Study:**

1. Sustainable Transport Safety: Instrumented Probe Bicycle hardware development
2. Sustainable Transport Safety: Webmaster, on-line resource system development
3. Sustainable Transport Safety: Interactive High-Level Safety Planning Model algorithm development
4. Sustainable Transport Safety: Instrumented Probe Bicycle sensors and data micro-processing
5. Sustainable Transport Safety: Instrumented Probe Bicycle sensors and data micro-processing
6. Sustainable Transport Safety: Interactive High-Level Safety Planning Model human interface programming
7. Sustainable Transport Safety: Webmaster, on-line resource system development
8. Sustainable Transport Safety: Interactive High-Level Safety Planning Model (IHSPM) data module programming

**Capstone Design Projects:**

1. Kelowna Transit Bus Stops: Preliminary Design
2. Kelowna Transit Plan: Strategic Network Design
3. Kelowna Transit Bus Stops: Design Validation
4. Kelowna Transit Plan: Route Plan Design
5. Kelowna General Hospital TDM Plan
6. Sustainable Glenmore ComPASS Project: Stated Preference Survey
7. The City of Vernon East Hill Neighborhood Active Transport Plan
8. The City of Kelowna Fused Grid Neighborhood Retrofit Design
9. Westminster Highway Pedestrian & Bicycle Safety Improvements, Richmond, BC
10. Design & Prototyping of Industry Ready Instrumented Probe Bicycle
11. Design of University Way Pedestrian Mall at UBCO
12. ArroWhere Equipment Inc safety vest design using UBCO STS Research Lab IPB
13. STS Lab: IHSPM – Interactive High-level Safety Planning Model

*Guest Lectures in other UBC courses*

|  |  |  |
| --- | --- | --- |
| **Session** | **Course** | **Title** |
|  |  |
| 2005W | APSC 170 | Sustainable Communities Planning & Design |
|  |  | Sustainable Road Safety |
| 2006W | APSC 170 | Sustainable Communities Planning & Design |
|  |  | Sustainable Road Safety |
| 2007W | APSC 170 | Sustainable Communities Planning & Design |
|  | SUST 100 | Sustainable Communities Planning & Design: An Engineer’s Perspective |
| 2008W | APSC 170 | Sustainable Communities Planning & Design |
|  | SUST 100 | Sustainable Communities Planning & Design: An Engineer’s Perspective |
| 2009W | APSC 170 | Sustainable Communities Planning & Design |
|  | SUST 100 | Sustainable Communities Planning & Design: An Engineer’s Perspective |
| 2010W | APSC 170 | Sustainable Communities Planning & Design |
|  | SUST 100 | Sustainable Communities Planning & Design: An Engineer’s Perspective |
| 2016W | ENGR 335 | Transportation Engineering: Road Safety Planning |
| 2018W | GEOG 491D | Sustainability, Planning and the Political Process in the Okanagan |

***Legend:***

1. APSC 170: Fundamentals of Engineering Practise & Design
2. SUST 100: Sustainability: People, Place, and Process
3. ENGR 335: Introduction to Transportation Engineering

**9. SCHOLARLY AND PROFESSIONAL ACTIVITIES**

I am proud to be a charter member of the UBC School of Engineering in Kelowna, having been involved in its planning and development since 2004. At that time, it was an entirely new four-year undergraduate and graduate (MEng, MASc, PhD) mechanical, civil, electrical engineering program, with only six faculty members. Our combined efforts invested in recruitment, curriculum, teaching, and accreditation have resulted in significant successes since then:

* Our first BASc, MASc, and PhD graduates in 2010
* Full CEAB accreditation granted in 2010, and again in 2013
* Faculty contingent recruitment and growth from to over 50 members
* One of the largest and fastest growing faculties on the UBCO campus
* Our new School of Engineering Building (EME) completed in Summer 2011
* My new Sustainable Transport Safety Research Lab outfitted and functional since Spring 2012
* Numerous members of our faculty being recognized with local, national, and international awards

*(a) Areas of special interest and accomplishments*

Generally, my research focuses on development and application of improved empirical tools that planners and engineers can use to facilitate more sustainably healthy, green, affordable, and safe land use and transport (e.g. models related to walking, cycling, transit, e-rail, and SMARTer Growth (Fused) Grid neighborhood design). These critical success factors have a global relevance toward a quality of life that is sustainable, desirable, and within the earth’s carrying capacity. It is a focus that is empowered by my personal passions, supported with my leading evidence-based research, and proven throughout my professional engineering career.

I often must explain what sustainability means. The terms sustainability, sustainable (or resilient) communities, and sustainable development are often interchanged, and have been defined and used in many different contexts by many different experts. I rely on the original Brundtland Report definition (Our Common Future, 1987) - "sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" - augmented by a system-based, interdisciplinary engineering approach and other more recent research. For example, I employ Peter Senge et al’s *The Necessary Revolution* (2008), and Paul Hawkens et al’s *Natural Capitalism* (2010) to critique the many ways that engineers must contribute in our pursuit of more sustainable communities, with social cost-benefit analyses and other engineering case studies on how to balance competing economic, environmental and social priorities. Our Professional Engineering Code of Ethics obligates us to take a leadership role in evaluating the effects of our engineering activities on society, via a triple bottom-line approach.

This area of research involves many and complex issues, so I also seek to reach other non-engineering disciplines and the public by contributing to and writing books, and promoting teaching and research collaborations in support of sustainable communities. Using my CFI/NSERC funding and facilities, I have been relatively successful in my pursuit of increased networks of influence and research collaborations. Sustainable Transport Safety (STS) is an emerging field of proactive road safety engineering research that seeks to evaluate and identify potential safety problems during the planning and design stages of land use and transportation projects. Until recently, empirical tools were not available to allow this proactive approach. My world-first research in this area has resulted in several world firsts, including:

* Development and application Community-Based, Macro-Level Collision Prediction Models (CPMs), using Generalized Linear Regression Modelling techniques that statistically associate road collision data with socio-demographic, land use and transportation system data.
* Published guidelines for CPM use by road safety planners and engineers, which allows for existing and planned communities to be evaluated, analyzed, and improved, to reduce road collision risk.
* Collision Prone Neighbourhoods can now be identified and addressed far in advance of traditional ‘Black Spot’ road safety improvement programs, and using *less* data.
* The SMARTer Growth (Fused) Grid Neighborhood design, with 60% fewer road collisions versus those built using conventional designs.
* Development of an on-line, interactive, web-based tool (IHSPM) to promote technology transfer for practitioners world-wide.
* Development and application of an Instrumented Probe Bicycle, equipped with various sensors that allows for modelling of user comfort and safety perceptions, to promote improved infrastructure design.

My research has been published in the following research journals: Accident Analysis & Prevention (Elsevier), Canadian Journal of Civil Engineering (CSCE), Journal of Transportation Engineering (ASCE), Journal of Materials in Civil Engineering (ASCE), and Transportation Research Record (TRB). My research has also been published in my two books, as well as contributions in chapters of several others.

*(b) Research or equivalent grants*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Granting****Agency** | **Subject** | **COMP** | **$****Per** **Year** | **% $ to Candi- date** | **Year** | **Principal****Investigator** | **Co-Investigator****(s)** |
|  |
| NSERC Engage | Locomotive on-board electric retrofit: Using the UBCO STS lab's unique locomotive electric power management research expertise to solve Southern Railway of BC (SRY) design problem. | C | 25,000 | 100% | 2018 | Lovegrove |  |
| Transport Canada Clean Rail | The Hardware in the Loop Simulation of Hydrogen Fuel Cell Battery Hydrid Powertrains Under Real Railway Duty Cycles | C | 25,000 | 100% | 2018 | Lovegrove |  |
| UBCO Invited International Distinguished Visitor Fund | Peter J. van RijnMarc VerheijenFrom Rotterdam, NL | C | $5,000 | 100% | 2017 | Lovegrove |  |
| NSERC Engage  | A design problem: using the UBCO STS research lab unique IPB safety research technology to solve AWEI's bicyclist safety vest re-design problem | C | 25,000 | 100% | 2017 | Lovegrove |  |
| SoE Research Support | Unspecified | NC | 5,000 | 100% | 2017 | Lovegrove |  |
| NSERC Discovery Grant | Sustainable Transport Safety: Tools to Proactively Evaluate Communities & Move Loss of Life Toward Vision Zero | C | Total of: 120,00024,00024,00024,00024,00024,000 | 100%100%100%100%100% | 20162017201720182019 | Lovegrove |  |
| Canadian Institute of Health Research (CIHR) | Evaluation of speed limit changes in British Columbia | C | Total of:249,662124,831124,831 | 4%4% | 20162017 | Jeff Brubacher | LovegroveM. AshbridgeP. BrasherH. ChanN. ShuurmannI. Pike |
| City of Kelowna | Springfield Road Corridor Safety Management | NC | 25,000 | 100% | 2015 | Lovegrove |  |
| NSERC Engage | Sustainable Transport Safety: Instrumented Probe Bicycle to improve data quality for community-based, macro-level Collision Prediction Model development and application | C | 25,000  | 100% | 2014 | Lovegrove |  |
| CFI – Infrastructure Operating Fund (IOF) | Operating Funds for SRS Research Lab | C | Total of: 27,637 9009002,7005,4008,1009,637 | 100%100%100%100%100%100% | 20132014 2015201620172018 | Lovegrove |  |
| Portland State University | Initiative for Bicycle Pedestrian Innovation - Fellowship | C | 900 | 100% | 2013 | Lovegrove |  |
| City of Kelowna | Glenmore ComPASS – Phase 2 Pilot Project | NC | 5,250 | 100% | 2012 | Lovegrove |  |
| Provincial Climate Action Secretariat | Glenmore ComPASS – Phase 2 Pilot project | NC | 6,500 | 100% | 2012 | Lovegrove |  |
| UBCO (Sustainable Communities) | Glenmore ComPASS | C | 10,000 | 100% | 2011 | Lovegrove | B. Momer  |
| NSERC (Discovery Grant) | Sustainable Road Safety Engineering Research Program: Community-Based, Macro-Level Collision Prediction Models | C | Total of:101,50020,30020,30020,30020,30020,300 | 100%100%100%100%100% | 2008 2009201020112012 | Lovegrove |  |
| CFI (Leaders Opportunity Fund) & BCKDF (BC Knowledge Development Fund) | The Sustainable Road Safety Research Lab: A Facility to develop & use community-based, macro-level collision prediction models | C | Total of:$253,604 207,80811,44911,44922,898  | 100%100%100%100% | 2009 201020112012 | Lovegrove |  |
| CMHC (External Research Program) | In pursuit of sustainable neighbourhood development patterns: the next step – a road safety evaluation of road network patterns, including CMHC’s fused grid network pattern | C | Total of:25,00012,50012,500 | 100%100% | 2008 2009 | Lovegrove |  |
| ICBC (Road Safety Research Program) | Safety Planning Evaluation of Arterial Corridors in the City of Vancouver using Macro-Level Collision Prediction Models | NC | Total of:30,00015,00015,000 | 100%100% | 2007 2008 | Lovegrove |  |

*(c) Research or equivalent contracts*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Granting** **Agency** | **Subject** | **COMP** | **$****Per** **Year** | **% $ to Candi- date** | **Yrs** | **Principal****Investigator** | **Co-Investigator****(s)** |
| Transport Canada Clean Rail | EZ - HELP | C | 25,000 | 100% |  | Lovegrove |  |
| Canadian Institute of Transportation Engineers (CITE CLASP) | A Review to Identify Successful Active Transport Infrastructure Engineering Practises & Barriers | C | 26,000 | 100% | 2014 | Lovegrove |  |
| Public Health Agency of Canada | Review of Canadian Promising Practises in Promoting Safe Use of Roads and Pathways for Vulnerable Road Users (VRUs) | C | 25,000  | 100% | 2012  | Lovegrove | P. Barss |
| BC Ministry of Transport & Infrastructure (Service contract) | Before and After Road Safety Assessment of Experimental Electronic Bicycle Advisory Sign | NC | 3,943.75 | 100% | 2011 | Lovegrove |  |
| City of Whitehorse (Service contract) | Sustainable Land Use & Transportation: Case Studies | NC | 7,200 | 100% | 2007 | Lovegrove |  |
| Okanagan Partnership(Service Contract) | Okanagan Valley Quest Model: Transportation Database construction | NC | 6,000 | 100% | 2006 | Lovegrove |  |
| UBCO AVP Facilities (Service Contract) | Business Case Development for a Multi-modal Sustainable Transportation Corridor in the City of Kelowna | NC | 7,500 | 100% | 2006  | Lovegrove |  |
| UBCO (Faculty Start-Up) | Community-Based, Macro-Level CPMs  | NC | 30,000 | 100% | 2005  | Lovegrove |  |
| TransLink (Infrastructure Grant) | Research, design, and installation of a ‘Bike Box’ at UBC Vancouver | C | 15,000 | 100% | 2004 | Lovegrove |  |
| Prov. of BC (Cycling Infrastructure Program) | Planning, design, and installation of bicycle lanes at UBC Vancouver | C | 120,000  | 100% | 2004 | Lovegrove |  |
| Federation of Canadian Municipalities (Green Municipal Enabling Fund) | ComPASS Feasibility Study: An on-campus demonstration project, and a GVRD-wide phone survey | C | 125,000  | 100% | 2003 | Lovegrove |  |
| Prov of BC (Youth Employment Program) | U-Pass: Research, planning, and program implementation | C | 40,000 | 100% | 2001  | Lovegrove |  |
| Prov. of BC (Greening Communities Fund) | UBC Community Cart Loaner Program: Research, Planning, & Program Implementation | C | Total of: 35,500 17,75017,750 | 100%100% | 2001 2002 | Lovegrove |  |
| Human Resources Canada (E-Team) | UBC Bicycling Programs: Research, Planning & Program Implementation | C | 25,000 | 100% | 2000 | Lovegrove |  |
| Prov. of BC (Cycling Network Program) | University Boulevard Transit & Bicycle Facility: Research, Planning, Design, & Construction | C | 137,500  | 100% | 1999 | Lovegrove |  |
| TransLink (Infrastructure Grant) | Research & Installation of Bicycle Racks on UBC route 99 B-Line Buses | NC | 25,000  | 100% | 1998 | Lovegrove |  |

*(d) Invited Presentations*

International

1. Feb 2017 – Development & Application of Community-based, Macro-level CPMs in the HSM, National Academies of Science, NCHRP 17-81, Washington, DC, USA
2. Jan 2015 – *Incorporating Road Safety Planning into the Highway Safety Manual*, Transportation Research Board (TRB) User Liaison Technology Facilitation Committee UNB 25, Washington, DC, USA
3. Jan 2014 - *Expert System Development for Community-Based, Macro-level Collision Prediction Models: 2nd Edition of Highway Safety Manual*, ITE Transportation Safety Council Executive Meeting, Washington DC.
4. Aug 2012 - *Fused Grid Land Use & Transportation planning & design*, Seminar for Runhouse Urban Planning & Design Co., Ltd., Chongqing, China.
5. Apr 2012 - *Sustainable Transport Safety: Fused Grid Neighborhoods*, City Planning Commission, Chongqing, China.

National/Provincial

1. Nov 2012 - *Fused Grid Patterns: In Pursuit of Sustainable Communities & Improved Quality of Life*, 2012 Modular and Offsite Construction (MOC) Summit, Edmonton, AB.
2. Oct 2007 - *Sustainable Transportation*, Sustainable Communities Charrette, Whitehorse, Yukon.
3. Oct 2007 - *Sustainable Communities*, Sustainable Communities Charrette, Whitehorse, Yukon.
4. Feb 2001 - *The Economics of Transportation Demand Management: State of the Debate*, Ministry of Transportation / BC Transportation Finance Authority Retreat, Richmond, BC.

Regional/Local

1. Apr 2016 – *Transportation & Health: Building Healthy Communities to promote active transport*, co-panelist, hosted by MLA Norm Letnick, Lake Country, BC, Canada.
2. Mar 2014 - *Railway Engineering Teaching & Research at UBC Okanagan*, Kettle Valley Railway Society AGM, Summerland, BC.
3. Mar 2012 - *ComPASS: Climate Action in the Glenmore Community*, presented at the Thompson-Okanagan Climate Action Exchange, UBC Okanagan.
4. Sept 2011 - *ComPASS: Investigating Kelowna’s Sustainable Transportation Solution*, UBC Community Days 2011 Research Presentation, Kelowna, BC.
5. Oct 2011 - *Innovation Partnerships: The New SRS Research Lab*, Consulting Engineers of BC, Kelowna Chapter AGM, BC.
6. May 2010 - Sustainable Communities: How do we get there from here? Bohemian Cafe, Kelowna, BC.
7. Mar 2009 - *Sustainable Transportation*, Sustainable Communities Charrette, Prince George, B.C..
8. Dec 2008 - Sustainable Communities & Transportation: Recommendations for RTAC, Presented to the Thompson Okanagan Regional Transportation Advisory Committee (RTAC), which reports to the Provincial Minister of Transportation.
9. Sept 2008 - *Bicycling: Why & Why not?* UBCO Bicycling Exposition, Kelowna.
10. May 2008 - *Sustainable Road Safety: Reality or Oxymoron?* UBC Okanagan Celebrate Research Week, Kelowna, Canada.

*(e) Other Presentations*

1. Feb 2013 - *Making Effective Technical Presentations*, UBCO Engineering Sorority, Kelowna.
2. Jan 2012 - *ComPASS: Moving Forward Toward Sustainable Communities*, presented at the Public Forum on “"Let's talk Change and Solutions", hosted by Occupy Kelowna and the Council of Canadians, Okanagan College, Kelowna.
3. Oct 2011 - ComPASS: Investigating Kelowna’s Sustainable Transportation Solution, Rutland Residents’ Association, Kelowna, BC.
4. Mar 1990 - Vancouver's New Seaside Bicycle Route, Canadian Institute of Transportation Engineers (CITE), Annual Meeting, Victoria, BC.

*(f) Other*

1. Nov 2013 - *Sustainable Communities: An Engineer’s Perspective*, UCM Guest Speaker Program, UBC Okanagan, Kelowna.
2. Mar 2012 - *Kelowna Climate Action Plan Workshop*, Laurel Packing House Public Forum, Kelowna.
3. Jan 2012 - *Lakeshore Drive Active Transportation Corridor Design*, Stakeholder Workshop, Kelowna.
4. May 2011 - *Climate Action Stakeholder Workshop*, Kelowna.

*(g) Conference Participation*

1. Jun 2018 – Member, Technical Program, International Hydrail 2018 conference
2. Jun 2018 – Chair, Technical Program, CARSP national conference
3. Jan 2018 – Bicycle & Transport Statistics Committees, TRB, Washington, DC, USA
4. Sept 2017 – Member, Technical Program, ICSC conference
5. Jun 2017 – co-Chair, Technical Program, CSCE national general conference
6. Jun 2016 - Chair, Technical Program, CITE national conference
7. Jan 2016 - Organizer & Chair, *Bicycle Research Needs Workshop*, TRB, Washington, DC, USA
8. Sep 2015 - Member, Technical Committee, *International Cycling Safety Conference,* Hannover, DE
9. Nov 2014 - Member, Technical Committee, *ICSC*, Gothenburg, Sweden
10. Nov 2013 - Organizer, panellist, moderator, *Building Sustainable Communities (BSC) Conference*, Kelowna, BC, Canada
11. Jun 2012 - Organizer, participant, *Railway Engineering Education Symposium* (REES), Overland Park, KS, USA
12. Mar 2012 - Facilitator, Transportation Issues, *Thompson-Okanagan Climate Action Exchange*, UBCO, Kelowna, BC
13. Feb 2012 - Organizer, panellist, moderator, Building Sustainable Communities (BSC) Conference, Kelowna, BC, Canada
14. Sep 2011 - Participant & Technical Committees, AREMA 2011 Annual Conference in conjunction with Railway Interchange 2011, Minneapolis, Minnesota, USA
15. Sep 2011 - Peer Reviewer & Presenter, 3rd International Conference on Road Safety and Simulation (RSS2011), Indianapolis, Indiana, USA
16. June 2008 – Present - Organizer, Peer Reviewer, Moderator & Presenter, Canadian Association of Road Safety Professionals (CARSP), Annual Conferences, Canada.
17. Jan 2006-Present - Presenter, Moderator & Technical Committees, Transportation Research Board, Annual General Meetings, Washington, DC., USA
18. 2005-Present – Executive member, Organizer, Presenter & Moderator, Canadian Institute of Transportation Engineers (CITE), Annual Meetings, Quad Meetings, Interior BC Chapter.
19. Jun 2004 - The UBC U-Pass Program, Centre for Climate Change Conference, Edmonton, Alberta.

**10. SERVICE TO THE UNIVERSITY**

*(a)* Areas of special interest and accomplishments

1. July/August 2018 – Organized and hosted UBCO’s first Hydrail mini-conference/graduate course that connected UBC researchers with industry, government, and students to identify research collaboration opportunities. This has resulted in Dr Lovegrove being invited to become part of the faculty’s Hydrogen from renewables for fuel cell/ battery hybrid transportation research cluster Emminence application being led by Dr Joshua Hoffricther.
2. June 2016, 2017, 2018 – Developed and delivered the UBC Faculty of Applied Science’s 1st Go Global study abroad course, ENGR 449: Sustainable Community Planning & Design, whereby we live in Holland for 1 month, and meet with community planners, engineers, and change leaders to better understand and experience a sustainable quality of life in SMARTer Growth development patterns.
3. March 2018 – Hosted UBCO’s 1st Housing Research Symposium, in partnership with UBCO School of Management, Nursing, and Urban Studies, in response to Kelowna Housing needs strategy, to connect UBC researchers with industry, government, and other stakeholders and identify knowledge gaps that UBC researchers can fill. This has resulted in Dr Lovegrove being invited to be the technical lead on a Homelessness research cluster Emminence Fund application, led by Dr John Graham.
4. Sept 2015 – Initiated discussions with UBCO Campus Planner Anthony Haddad upon his arrival to UBCO, towards partnering with our School of Engineering to have transportation engineering students under my supervision assist with conceptual and preliminary design of campus transportation facilities – transit exchange, intersection configurations, pedestrianization of University Way – as part of ENGR 335 (Transportation 1) and ENGR 425 (Transportation Systems Design).
5. Jun 2007 – Initiated discussions with DVC Dr Doug Owram and his successors, on a possible UBCO Staff/Faculty U-Pass. Formed ad hoc group with Parking, Sustainability Office, Media Relations, DVC Office staff to conduct on-line staff/faculty surveys and analyze results, towards possible launch as parking technology improves. It appears majority support for unlimited access transit pass plus up to 10 days parking; discussions continue with current DVC and Finance staff. Current DVC has now authorized planning for September 2020 implementation.
6. Jun 2005 – Initiated improved UBCO bicycle facilities on campus, and bicycle routes to campus with then UBCO Provost Dr Alla Abd-El-Aziz. Campus bike share program, repair tools, and club space have been obtained through my initiative and advice to various Administrative and AVP Students office. Campus bike access continues to be an issue, and is under discussions with current DVC.

 *(b) Memberships in committees, including offices held and dates*

*Department/School*

Civil Curriculum Committee, 2017-2018

Undergraduate Awards Committee, 2017-2018

Calculus Boot-Camp, 2015

Master of Ceremonies, SoE ApSc Graduating Class Galas, 2010 through 2013.

SoE Calculator Policy, co-author with Ahmad Rteil, Yang Cao, 2013

SoE Mathematics Policy, co-author with Julian Cheng, Yang Cao, Wayne Broughton, 2013

Recruitment Committee, Civil Engineering, 2011/2012.

Year 2 Hovercraft Design Competition Judge, April 3, 2012

Peer Reviewer for UBCO SoE faculty members – 2009 – Present

*Faculty*

Student Recruitment Event, Ontario Science Centre, Toronto, ON, April 21, 2012.

Convocation Mace Bearer, June 9, 2011.

UBC Applied Science Recruitment Video – featured faculty member, October 2009.

*University*

UBC VP HR Search Committee, member, 2017

UBCO United Way Campaign, Airplane Pull, team member, Kelowna Airport, BC, May 11, 2012.

UBCO Interdisciplinary Graduate Studies (IGS), IGS 507: Practical Sustainability, course co-developer and contributing lecturer, 2011 - Present

UBCO Senate, 2008 – 2011

UBCO IGS, Sustainability Theme Moderator, 2010

UBC Okanagan Working Group, President’s Sustainability Advisory Committee, 2008 – 2010

UBCO Centre for Teaching & Learning Mentoring Program, 2005 - 2007

UBC Sustainability Tri-Mentoring Program, 2004 - 2005

UBC Association of Administrative & Professional Staff, 1999 – 2005 (President 2004/05)

Graduate Thesis external examiner

*(c) Other service, including dates*

Thesis examination committees

**11. SERVICE TO THE COMMUNITY**

*(a) Memberships on scholarly societies, including offices held and dates*

1. National Academy of Sciences, 2016 – present
	1. NCHRP 17-81 panel member, incorporating road safety planning into the HSM
	2. NCHRP 17-84 panel member, development of pedestrian and bicycle CPMs for the HSM
	3. NCHPR 17-87 panel member, counting pedestrians for CPMs for sustainable communities
2. Canadian University Transportation Educators Forum, 2010 – present
	1. Charter member
3. Association for the Advancement of Sustainability in Higher Education (AASHE), On-line Transportation Group Moderator, 2003 – 2005
4. Canadian Society of Civil Engineers (CSCE), Member, 2012 – Present
	1. Vice-President (2018), Technical Programs
	2. Chair (as of 2016), Sustainable Development Committee
	3. Member, Review Panel on Adoption of Envision as a Canadian Infrastructure Rating System

*(b) Memberships on other societies, including offices held and dates*

1. RoadSense BC, Task Force to Implement BC Road Safety Strategy, 2015 - Present
	1. Chair, Safer Roads & Communities working group
	2. Member, Data & Research working group
2. Canadian Association of Road Safety Professionals (CARSP), 2015 – Present
	1. Member, Board of Directors
	2. Member, Finance Committee
	3. Member, LAC for 2018 annual conference in Victoria, BC
	4. ARSP Student Scholarship Committee
3. Institute of Transportation Engineers, (F), Washington, D.C., Member since 1989, Fellow since 2006
	1. President, BC Interior Chapter, 1996-1997, 2008 – 2010
	2. Past-President, BC Interior Chapter
	3. Board Member, BC Interior Chapter
	4. Student scholarship committee
	5. Safety Council, and Sustainability Committee member
4. Environmental Education Action Program Society (EEAP), Board of Directors, 2012 – Present
5. American Railway Engineering & Maintenance-of-Way Association (AREMA), 2010 – Present
	1. Member, Committee 24: Education & Outreach
	2. Member, Committee 16: Economics
	3. Student Scholarship committee
6. Okanagan Car Share Co-Op, 2012 - 2013
	1. Founding member, Board of Directors,
7. Vancouver Cooperative Auto Network, 2000 – Present, Director 2003 - 2005
8. WestMount Community Association, Kelowna, BC, 2013 – Present
	1. Charter Board Member
9. Okanagan Partnership’s Transportation Flagship, Co-chair, 2006 - Present
10. BC Cycling Coalition, 2015 - Present
	1. Director on the Board
11. Western Canada Traffic Association, Director, 1988 – 1997
12. Fresh Outlook Foundation, Director, 2008 – Present
13. SMART Growth BC, Director, 2008 – 2010
14. Member, TAC Student Scholarship, Review Committee, 2009 – Present

*(c) Memberships on scholarly committees, including offices held and dates*

1. Standards Council of Canada (SCC), Canadian Advisory Committee (CAC), International Standards Organization (ISO), Technical Committee # 241 (TC241) (Road Safety) – 2008 - Present
2. Transportation Research Board, Washington, DC, USA, 2006-Present
	1. Member, ABJ80: Committee on Statistical Methods
	2. Member, ANB20: Committee on Bicycles
3. Central Okanagan Transportation Modelling & Analysis Committee, 2006 – 2008

 *(d) Memberships on other committees, including offices held and dates*

*(e) Editorships*

1. Sustainability Journal, Special Edition on Sustainable Transport Safety, Winter 2018
2. Canadian Society of Civil Engineers, Special Edition of CIVIL magazine, on CSCE 2017 Annual Conference theme of Sustainable Infrastructure, technical editor, Summer 2017 edition.
3. Canadian Society of Civil Engineers, Special Edition of CIVIL magazine, on Sustainable Development, co-editor with Edwin Tam, Winter 2014 edition.

*(f) Reviewer (journal, agency, etc. including dates)*

*Tenure & Promotion Reviews*

*Grant Proposals*

1. UBC CFI Office, 2017
2. Postgraduate Scholarships (NSERC), 2011 – Present
3. Discovery Grants (NSERC), 2009 – Present

Scientific Review Panels *(50+ reviews; minimum 10 per year)*

1. Safety Science: Accident Analysis & Prevention (Elsevier), 2010 – Present
2. Journal of Urban Planning and Development (ASCE), 2010 – Present
3. Journal of Transportation Safety & Security (STC), 2009 - Present
4. Canadian Journal of Civil Engineering (CSCE), 2005 – Present
5. Transportation Research Record (TRB), 2001 – Present

Manuscripts

1. Jan 2015/17 - *Sustainable Community Engineering*, ASCE Book to promote best practises in civil engineering that promote more sustainable communities and engineering infrastructure

*(g) External examiner (include universities and dates)*

1. November 30, 2012 Lukman Sarker, BIOL MSc Defense, UBCO, Kelowna, BC

*(h) Consultant (indicate organization and dates)*

1. CN Rail, Montreal, QC, Expert Witness, July 2018 to present
2. DA Watt Consulting Group Ltd, University of Calgary TDM Plan, Senior Advisor, April to October, 2012 (volunteer, in return for donation to UBCO School of Engineering)
3. BC Auditor General, Audit of the BC Ministry of Transportation & Infrastructure Road & Bridge Maintenance Program, Transportation and road safety engineering consultant, 2009 – 2010 (paid)
4. City of Prince George, Sustainable Communities Charrette, Sustainable transportation, March 5, 2009 (volunteer in return for donation to UBCO School of Engineering)
5. City of Whitehorse, Sustainable Communities Charrette, Sustainable transportation, October 22, 2007 (volunteer, in return for donation to UBCO School of Engineering)
6. CitiWest Engineering Consultants, Sustainable Transport Senior Design Advisor, Fall/Winter 2001

*(i) Other service to the community*

1. M.Eng. Supervision
	1. Olakunle Williams, Sept 2012 to May 2014
2. Judge, School District 23 Science Fair, Okanagan College, February 23, 2012.
3. Interview with Jesse Jackson, on UBC Vancouver U-Pass: History and Next Steps, for his Masters thesis, UBC School of Community and Regional Planning, December 12, 2011.
4. Interview with Ashley Viens on Proposed streetcars in downtown Vancouver, Journalism Student Assignment Interview, Langara College, October 4, 2011.
5. Rutland Senior Secondary School, Career Life Programs, Grade 12 Graduation Project Presentation, Community Review Panelist, Kelowna, BC, 2010 to Present
6. UBC Okanagan Engineering Undergraduate Society, faculty resource, 2006 - Present
	1. UBCO Student Toastmasters Clubs, faculty sponsor
	2. Engineers Without Borders, student club chartering
	3. Hair for Care, cancer fundraiser
	4. Concrete “E”, project advisor
	5. CITE Student Chapter, faculty sponsor
	6. AREMA Student Chapter, faculty sponsor
7. School of Engineering Student Recruitment Presentations, 2006 – 2008
8. UBC O Create Student Orientations, 2006 - Present
9. UBCO Bicycling Coalition, 2006 - Present
10. UBC-V and UBC-O Toastmasters Clubs, 1998 - Present
11. Science World, Scientists in the Schools, 1984 - 1988

**12. AWARDS AND DISTINCTIONS**

*(a) Awards for Teaching*

*(b) Awards for Scholarship*

1. Institute of Transportation Engineers, International Meeting, August 2010, **“**Best Student Paper Award” – co-recipient with my PhD student. Published in conference proceedings as **Wei, F.**, Lovegrove, G. (2010) Boundary Effects in Developing Macro-level CPMs: A Case Study of City of Ottawa, ITE Annual Meeting, Vancouver, BC, Canada.
2. Transportation Research Board, Annual General Meeting, January 2008, Safety Data, Analysis and Evaluation Committee (ANB20), “Best Paper Award” – co-recipient with my PhD supervisor. Published as Lovegrove, G. & Sayed, T (2008) Using Macro-Level Collision Prediction Models to Enhance Traditional Reactive Road Safety Improvement Programs, Journal of the Transportation Research Board, Transportation Research Record No. 2019, pp. 73 – 82.

*(c) Awards for Service*

1. HASTe BC (2013), School Travel Champion, nominated, www.hastebc.org
2. Annual CITE Section Activities Awards (2006, 2007, 2008, 2009, 2010) Jointly with the Greater Vancouver ITE Section, BC Interior Chapter, and UBC Student Chapter.
3. Quality & Productivity Award (2008) from CAUBO (Canadian Association of University Business Officers) – co-recipient for work done with UBC Sustainability Office to promote, plan and implement more sustainable operations on the UBC Vancouver campus.
4. CITE Bill Curtis Memorial Award (2004), Best Transportation Project in BC, co-recipient as UBC team leader on planning, design, approvals, implementation of the *UBC U-Pass Program*.

*(d) Other Awards*

1. City of Kelowna (2017) Civic Awards: Environmental Champion (Individual category, top 3 finalist)

2. ITE Coordinating Council Best Project Award (2014) co-recipient for work to research and develop *Recommended Practise on School Location & Site Planning*, Washington, DC, USA.

**13. OTHER RELEVANT INFORMATION (Maximum One Page)**

(a) Other Supervision of UBC Student Research

Graduate Committees

1. Rahman, N (2014-2016) Developed models to assist the City of Kelowna to evaluate alternative policy scenarios and select the one(s) that help the City meet its 2040 GHG emissions targets, UBCO School of Engineering, MASc committee
2. Jamal, E (2013-2015) ASSESSING PUBLIC TRANSPORTATION OPTION AS A POTENTIAL SOLUTION TO THE TRANSPORTATION CHALLENGES IN THE STATE OF KUWAIT, UBCO School of Environmental Science (IGS), MASc committee.
3. Loeb, J. (2011 – 2013) Comparative Evaluation of Urban Blasting Safety Regulations, UBCO School of Engineering, MASc committee
4. Amirali Mehdizadeh, (2011 – 2013) Risk Assessment for Small Earth Dams, UBCO School of Engineering, PhD committee
5. Bianchini, F. (2011 – 2013) Green Roofs, UBCO School of Engineering, MASc committee
6. Aguilar, G. (2009 – 2012) Construction Real Time Information and Communication System for Safety (C-RTICS2), UBCO School of Engineering, MASc committee

Undergraduate

1. Wong, P., Shah, S., Mamon, W. (2002 - 2004) *Traffic Analyses and Transportation Demand Management Audits of Proposed UBC Development Projects*, UBC TREK Program Centre, Vancouver.
2. Sims, J. and Jackson, J. (2001) *Options to increase ridesharing at the UBC Vancouver campus*, UBC TREK Program Centre, Vancouver.
3. Hoffman, V. (2001) *The feasibility of GHG emissions trading for the University of British Columbia Point Grey campus*, Geography directed studies (SEEDS) course co-supervision, Vancouver.
4. Jackson, J. (1999) *The UBC TREK Program Centre’s Strategic Transportation Plan: Its potential for success or failure at the UBC Vancouver campus*, UBC TREK Program Centre, Vancouver.

(b) UBCO Internal Grants

School of Engineering Research Tools (SERT)

1. 2016: $8,000 - Instrumented Probe Bicycle, shared 50% with Dr Ahmed Idris
2. 2014: $8,000 – Video Data Collection (MioVision), shared 50% with Dr Ahmed Idris

(c) Professional Engineering (Relevant Industry experience)

1. UBC Director of Transportation Planning, UBC TREK Program Centre, Nov 1997 to Jul 2005

* Development and implementation of UBC’s award-winning U-Pass Program.
* Supervised up to 20 staff and students at any one time; established TREK ([www.trek.ubc.ca](http://www.trek.ubc.ca))

2. Transportation Planner, City of Kelowna, Apr 1996 to Oct 1997

* City liaison on major regional transportation planning and studies, including: 1) Okanagan Valley Transportation, 2) Regional Growth Management Plan, and 3) Okanagan Floating Bridge

3. Transportation Engineer, Township of Langley, Aug 1991 - Apr 1996

* Member of the Township’s trails review committee, responsible for co-development of the Province’s first “Shared Use” Trail Master Plan for equestrians, pedestrians and bicyclists.
* Member of staff steering committee on development of the Province’s first roadway maintenance standards for “Country Roads”, rural roads which, due to their scenic, cultural and/or heritage significance, warrant special maintenance standards to preserve their “country road” feel
* Township liaison with internal and external agencies, new agencies, residents, and other stakeholders on major transportation studies and projects, including: 1) Township Transportation Plan, 2) GVRD Transport 2021, 3) GVRD Bicycle Task Force, 3) Transit Service.

4. Assistant Transportation Engineer, City of Vancouver, Jan 1989 - Jun 1991

* Provided report references to the Vancouver Traffic Commission, Finance & Priorities Committee, Bicycle Advisory Committee, and City Council.
* City liaison with internal and external agencies, news agencies, residents, and other stakeholders on major transportation projects, including the 1) Provincial Cassiar Connector urban freeway ($70 million), and 2) Port Roadway Connector overpass ($15 million).
* Lead engineer on major transport project public consultation.

5. Project Engineer, Special Projects Branch, City of Vancouver, May 1982 - Dec 1988

* Project manager for planning, design, development and commissioning of many small (<$200,000) and large (>$10 million) special projects, including:
	+ The City’s first solid waste transfer station and household hazardous waste recycling depot ($10 million)
	+ A study of landfill compaction methods, which led to a 30 year extension in the useful life of the City’s Burns Bog Landfill
	+ Responsible for plan, design, and budget budget, and construction of the City’s first major city-wide commuter/recreational route bikeway, the Seaside Bicycle Path, connecting Stanley Park to UBC Vancouver, & Expo 86
	+ Land use development and engineering services for City-owed lands on False Creek and Fraser River.

**THE UNIVERSITY OF BRITISH COLUMBIA**

***Publications Record***

**SURNAME**: Lovegrove **FIRST** **NAME**: Gordon **Initials**: GRL

 **MIDDLE NAME (S)**: Richard **Date**: Sept 15, 2018

**Those publications considered to be of primary importance are indicated by an asterisk.**

**1. REFEREED PUBLICATIONS**

 *(a) Journals*

Notes

* My research on sustainable road safety appears to be reaching a wider audience, as no less than 13 papers presented at the January 2012 meeting of the Transportation Research Board (www.trb.org, the pre-eminent international conference in my research field) have cited my research papers over 20 times, and 267 times since then.
* I have denoted with an asterisk (\*) those publications that have been cited over 20 times.
* Percentage of my contributions is provided in superscript when a co-author from UBC is involved.
* Names of my supervised students and PDFs are shown with **bold** letters.
* Importance of order of authors varies from one field to another. However, when I co-author a paper with students, second or last position in the authorship is in general more important. When I co-author a paper without any student first or second position is generally important.

Submitted

1. Montella A, Chiaradonna S, Miheil A, Lovegrove G, Nunziante P (2017) Sustainable complete streets design criteria and case study in Naples, Italy, International Journal of Sustainable Transportation, under revision following first review. (95%)
2. **Hegazi, Mohamed**, Gordon Lovegrove, and Loic Markley (2018). "The computational simulation of hydrogen fuel cell / battery hybrid propulsion dynamics for railway vehicles: A case study." IET Electrical Systems in Transportation.
3. **Faghihi F**, **Liegmann A**, Lovegrove G (2018) Emergent Road Safety Tool: Comparison of Dynamic Artificial Neural Network with Traditional ARIMA Method for Collision Prediction Models, Transportation Research Board, Washington, DC, USA, January.
4. **Jamal E**, Scott D, Idris A, Lovegrove G (2018) INVESTIGATING SOCIAL, CULTURAL AND DEMOGRAPHIC FACTORS OF COMMUTERS’ MODE CHOICES IN KUWAIT CITY & SURROUNDING URBAN AREAS: Towards Developing a More Sustainable Transportation System, Sustainability Journal, Special Edition on Sustainable Transport Safety, Received: 11 September 2018

Accepted for Publication

1. Brubacher J, Chan H, Erdelyi S, Lovegrove G, **Faghihi F** (2018) Road Safety Impact of Increased Rural Highway Speed Limits in British Columbia, Canada, Sustainability Journal, Special Edition on Sustainable Transport Safety, Received: 22 August 2018

In Press

Published

1. **Platteel S**, Twisk D, Lovegrove G (2017) An experiment on rider stability while mounting: Comparing middle-aged and elderly cyclists on pedelecs and conventional bicycles, Accident Analysis & Prevention, [www.elsevier.com/locate/aap](http://www.elsevier.com/locate/aap), available on-line since Jan 24, 2017, 8 pages, Elsevier, Amsterdam, NL.
2. **Hostland C**, Lovegrove G, Roberts D (2015) Sustainable Home Health: An Integrated Approach to address Mold-Related Indoor Air Quality and Illness, International Journal of Engineering Technology and Scientific Innovation, Volume:01,Issue:02, November, www.ijetsi.org, pp 102-121, MIT, India.
3. **Hostland C**, Lovegrove G, Roberts D (2015) Economic Justification for Proactive Remediation of Private Homes of High-Use Asthmatics, International Journal of Engineering Technology and Scientific Innovation, Volume:01,Issue:02, November, www.ijetsi.org, pp 122-141, MIT, India.
4. **Masoud A, Lee A, Faghihi F**, Lovegrove G (2015) Building Sustainably Safe and Healthy Communities with the Fused Grid Development Layout, NRC Press, Canadian Journal of Civil Engineering, 42: 1063–1072, October 5.
5. **Hostland C**, Sadiq R, Lovegrove G, Roberts D (2015) HEALTH2: An Environmental Assessment Lay Tool for Home Health, Canadian Journal of Civil Engineering, 42(4), 241-249.
6. Birdsall M, Lovegrove G. (2014) Feature Article: Making the Case for Proactive Safety in Long-range Transportation Planning, Interview with Dr Gordon Lovegrove, ITE Journal, 85(1), 45-47.
7. Lovegrove G (2014) Curitiba: Transformation into Sustainability (Lovegrove G, Tam E, Ed.), Canadian Civil Engineer (CIVIL), 31(5), 12-16
8. Brown D, Lovegrove, G, Tam E. (2014) How to Operationalize Sustainability in Civil Engineering Practice (Lovegrove G, Tam E, Ed.), Canadian Civil Engineer (CIVIL), 31(5).
9. **\*Wei, F.** and Lovegrove, G. (2013) An empirical tool to evaluate the safety of cyclists: Community based, macro-level collision prediction models using negative binomial regression. Accident Analysis & Prevention, 61 (2013) 129-137.
10. **Sun, J.** & Lovegrove, G. (2012), Comparing the road safety of neighbourhood development patterns: traditional versus sustainable communities, Canadian Journal of Civil Engineering, 40(1): 35-45.
11. **Jenkins Swan, A.**; Rteil, A. and Lovegrove G. (2011) Sustainable Earthen and Straw Bale Construction in North American Buildings: Codes and Practice, American Society of Civil Engineers(ASCE) Journal of Materials in Civil Engineering, V.23, No. 6, pp. 866-872.
12. **Wei, F.**, and Lovegrove, G. (2012) Sustainable road safety: A new (?) neighbourhood road pattern that saves VRU lives, Accident Analysis & Prevention (AAP), Elsevier, 44 (1), 140 – 148, January.
13. **Khondakar, B.**, Sayed, T., and Lovegrove, G. (2010) Transferability of Community-Based Collision Prediction Models for Use in Road Safety Planning Applications, ASCE [Journal of Transportation Engineering](http://cedb.asce.org/cgi/WWWdisplay.cgi?168586), Vol. 136, No. 10, October 2010, pp. 871-880.
14. Lovegrove, G.R., Lim, C., and Sayed, T. (2010) Community-Based, Macrolevel Collision Prediction Model Use with a Regional Transportation Plan, ASCE Journal of Transportation Engineering, Vol. 136, No. 2, pp. 120-128, February 2010.
15. \*Lovegrove, G.R. and Sayed, T. (2007) Using Macro-Level Collision Prediction Models to Enhance Traditional Reactive Road Safety Improvement Programs, Transportation Research Record No 2019, Journal of the Transportation Research Board pp. 73 - 82.
16. \*Lovegrove, G.R. and Sayed, T. (2006) Using Macro-Level Collision Prediction Models in Road Safety Planning Applications, Transportation Research Record No 1950, August 2006, pp. 73 - 82.
17. \*Lovegrove, G.R. and Sayed, T. (2006) Macro-Level Collision Prediction Models for Evaluating Neighbourhood Traffic Safety, Canadian Journal of Civil Engineering, 33:5, May 2006, pp. 609 – 621.

*(b) Conference Proceedings*

Accepted

1. **Faghihi F**, **Liegmann A**, Lovegrove G (2018) Emergent Road Safety Tool: Comparison of Dynamic Artificial Neural Network with Traditional ARIMA Method for Collision Prediction Models, Transportation Research Board, Washington, DC, USA, January.

Published

1. **Faghihi F**, Lovegrove G (2018) Application of Dynamic (Time Series) Artificial Neural Network Approach to Develop Collision Prediction Models: Case Study in City of Kelowna, Canada, Transportation Research Board, Washington, DC, USA, January.
2. Perks A, Lovegrove G, Mulligan C, Tam E, and Khan A (2017) Rising Above Routine Practice, International Conference on Sustainable Infrastructure, American Society of Civil Engineers, New York, NY, USA, October.
3. **Lee A**, Lovegrove G (2017) Predicting cyclists' perception of safety and comfort using ordinal logit regression modelling, International Cycling Safety Conference (ICSC), Davis, California, USA, Sept.
4. **Jamal E**, Lovegrove G (2017) The Economic Case for Metro Passenger Rail in Kuwait, Annual General Conference of the Canadian Society of Civil Engineers (CSCE), Vancouver, BC, June.
5. **Jamal E,** Lovegrove G (2017) Investigating social, cultural, and demographic factors of commters' mode choice: case study of the State of Kuwait, International Conference, ITE, Toronto, ON, July.
6. **Faghihi F**, Lovegrove G (2017) Dynamic Artificial Neural Network to Improve Road Traffic Safety Studies, CSCE General Conference, Vancouver, BC, June.
7. **Dalo S**, Lovegrove G (2017) Prospective integration of sustainability-oriented assessment tools into one holistic Sustainable Community engineering project rating system, CSCE General Conference, Vancouver, BC, June.
8. **Masoud A**; Idris A (75%); Lovegrove G (25%) (2017) Modelling the Influence of Fused Grid Neighborhood Design Principles 1 on Active Transportation Use: Part 1 – Street Connectivity, Transportation Research Board, January 2017, Washington DC, USA
9. Lovegrove, G (2016) Road Safety Research at UBCO: What’s new on the Sustainably Safer Systems Approach? Annual RoadSafeBC Conference, Ministry of Attorney General, Vancouver, BC.
10. **Hegazi, M**; Lovegrove, G (30%); Markley, L (70%), SIZING AND PERFORMANCE EVALUATION THROUGH SIMULATION OF HYBRID LITHIUM ION BATTERY / SUPERCAPACITOR POWERTRAINS FOR RAILWAY PROPULSION—CASE STUDY: KING'S CROSS to NEWCASTLE, UK, Canadian Society for Mechanical Engineering International Congress, June 2016, Kelowna, BC
11. **Lee A**, Lovegrove G (2016) Cycling Research at UBC Okanagan, Annual Conference of the Canadian Institute of Transportation Engineers, Kelowna, BC, June.
12. Lovegrove, G. (2016) A Feasibility Study of Short Line Semi-High Speed Electric Railway in Canada: Case Study of Okanagan Valley Railway, Annual Conference of the Canadian Institute of Transportation Engineers, Kelowna, BC, June.
13. **Faghihi F**, Tripathi M, Khan A, Wollin F, Lovegrove G (2016) Effectiveness of applying ITS integrated with ‘5E’ approach to support Complete Streets: Case study Springfield Road Kelowna, BC, Annual Conference of the Canadian Institute of Transportation Engineers, Kelowna, BC, June.
14. **Faghihi F**, Quaye K, Boase P, Connerty D, Collins J, Lovegrove G (2016) Road Traffic Safety Management Systems (ISO 39001): What it is and what it means for you, Annual Conference of the Canadian Association of Road Safety Professionals (CARSP), Halifax, NS, June.
15. Perks, A; Mulligan, C; Lovegrove, G, A Profession in Transition - A Call to Action for Civil Engineering, Canadian Society of Civil Engineering, June 2016
16. Montella A, Chiaradonna S, Claudi de Saint Mihiel A, Lovegrove G, Nunziante P. (2016) Sustainably complete streets’ design criteria: Accommodating all users while also meeting health, safety, and environment priorities, Annual Meeting of the Transportation Research Record, Washington, DC, Jan.
17. **Platteel S**, Twisk D, Lovegrove G. (2015) Pedelecs and Instability of the Elderly during Mounting Manoeuvres, Proceedings, International Cycling Safety Conference 2015, 15-16 September 2015, Hannover, Germany
18. Wang X, You S, Lovegrove G. (2015) Classifying Road Network Patterns using Topologic and Geometric Metrics, The Transportation Research Board (TRB), Annual General Meeting, Washington, DC, January.
19. **Lee A, Dias L, Mohanty S, Carvalho T**, Lovegrove G. (2014) Using Instrumented Probe Bicycles to Develop Bicycle Safety and Comfort Prediction Models, The International Cycling Safety Conference 2014, Trondheim, Sweden, November.
20. **Mohanty S, Lee A, Carvalho T, Dias L**, Lovegrove G. (2014) A Global Review of Current Instrumented Probe Bicycle (IPB) Technology and Research, The International Cycling Safety Conference 2014, Trondheim, Sweden, November.
21. Perks A, Lovegrove G, Khan A, Brown D, Tam E. (2014) Operationalizing Sustainability in Civil Engineering Practise, Annual Meeting of the Canadian Society of Civil Engineers (CSCE) 2014, General Conference, May.
22. **Hostland C**, Sadiq R, Lovegrove G, Roberts D. (2014) Environmental modelling for residential health effects for mold and dampness, Canadian Society of Civil Engineers (CSCE) 2014 Environmental Specialty Conference.
23. **Masoud A**, Lovegrove G. (2014) Investigating the Engineer's Role in Making Canadian Communities Healthier by Design of Infrastructure to Promote Active Transportation, Annual Conference of the Canadian Institute of Transportation Engineers.
24. **Mothukuri S**, Lovegrove G. (2014) Promoting Safe Use of Roads and Pathways for Active Transportation - A Review of Canadian Promising Practices, In Safer Roads; Healthier Communities 24th Canadian Multidisciplinary Road Safety Conference June.
25. **Morrison, E**., and Lovegrove, G. (2013) ComPASS: Results of Phase 2 Pilot Study, CITE AGM, Calgary, AB, April 2013.
26. **Morrison, E.**, and Lovegrove, G. (2013) The Economics of Electrifying North American Railways. The TRB AGM, Washington, DC, January 2013.
27. Lovegrove, G., Kortegast, P., Siddiqui, F. (2012) Safety Innovation: Automated Electric Cycle Warning Sign, 1st Canadian Trial Application9th International Transportation Specialty Conference, [Canadian Society for Civil Engineering](http://csce2012.ca/), Edmonton, AB, Canada, June.
28. **Wei, F., Alam, A.** and Lovegrove, G. R. (2012) The Factors Influencing Bicycle Use and Road Safety [Canadian Society for Civil Engineering](http://csce2012.ca/) Conference, the 9th International Transportation Specialty Conference, Edmonton, AB, Canada, June.
29. **Swan, A.J.**, Rteil, A., and Lovegrove, G. (2012)Engineering Properties of Stabilized Compressed Earth Blocks*,* [Canadian Society for Civil Engineering](http://csce2012.ca/) Conference, 3rd International Structural Specialty Conference, Edmonton, AB, Canada, June.
30. **Morrison, E.S., Sonmor, D.**, and Lovegrove, G. (2012) Engineering More Sustainable Neighbourhood Transportation Choices: The Glenmore ComPASS Case Study, [Canadian Society for Civil Engineering](http://csce2012.ca/) Conference, The 9th International Transportation Specialty Conference, Edmonton, *A*B, Canada*,* June.
31. Lovegrove, G., Kortegast, P. (2012) Safety Innovation: Automated Electric Cycle Warning Sign, 1st Canadian Trial Application, [Velo-City](http://csce2012.ca/) Bicycling Conference, Vancouver, BC, Canada*,* June 2012.
32. Lovegrove, G., and Barss, P. (2012) Review of Canadian Promising Practises in Promoting Safe Use of Roads and Pathways for Vulnerable Road Users, [Velo-City](http://csce2012.ca/) Bicycling Conference, (Velo-City 2012), Vancouver, BC., Canada, June 2012.
33. **Sun, J., Wei, V.,** Lovegrove, G. (2012) Sustainable road safety: Design features of the new neighbourhood road pattern that saves VRU lives, The International Workshop on “Safety, Sustainability and Future Urban Transport”, Transportation Research and Injury Prevention Programme (TRIPP), Indian Institute of Technology (ITT), Delhi, India, 9-12 March 2012.
34. **Roth, I., Morrison, E., Boozarjomehri, E.**, and Lovegrove, G. (2012) Moving away from Diesel and towards All-Electric Locomotives in North America: Planning & Logistics of Ultra-Capacitor/Battery Technology, The Joint Railway Conference – 2012 (JRC 2012): Technology to Advance the Future of Rail Transport, Philadelphia, Pennsylvania, USA, April 17-19, 2012.
35. **Wei, F.**, Lovegrove, G. (2011) Collision Prediction Models Used for Evaluating the Safety of Cyclists at Community-based Level, The 3rd International Conference on Road Safety and Simulation (RSS), September 14-16, 2011, Indianapolis, Indiana, USA.
36. **Wei, F., Alam, A.** & Lovegrove, G. (2011) Macro-level Collision Prediction Models related to Bicycle Use. ICTIS 2011: Multimodal Approach to Sustained Transportation System Development—Information, Technology, Implementation. The 1st International Conference on Transportation Information and Safety (ICTIS), Wuhan, China, June 30-July 2, 2011, ASCE Conf. Proc. doi:10.1061/41177(415)168.
37. **Boozarjomehri, E.** & Lovegrove, G.R. (2010) Freight Demand Forecast for a Proposed Railway in Canada with New Approach to Freight Rail Assignment, 2010 Joint Rail Conference, American Society of Mechanical Engineers (ASME), April 27-29, 2010, Urbana, Illinois, USA.
38. **Swan, A.** & Rteil, A. & Lovegrove, G. (2010), Sustainable Construction Materials: Current Construction Practices, Concerns and Limitations, Annual Conference of the Canadian Society of Civil Engineers (CSCE): Engineering a Sustainable World, June 10-12, 2010, Winnipeg, MB, Canada.
39. **Wei, F.** & Lovegrove, G. (2010) Sustainable road safety: A new (?) neighbourhood road pattern that saves VRU lives, Vulnerable Road User Conference, Jerusalem, Israel, June 2010.
40. Lovegrove, G. (2010) Sustainable Road Safety: A New Neighbourhood Road Pattern, 16th World Meeting of the International Road Federation, Lisbon, Portugal, May 25, 2010.
41. **Wei, F.**, Lovegrove, G. (2010) Quantifying the Road Safety Benefits of Increased Bicycle Use in North America, 20th Canadian Multidisciplinary Road Safety Conference, Niagara Falls, Ontario, June 6-9, 2010
42. **Wei, F.**, Lovegrove, G. (2010) Boundary Effects in Developing Macro-level CPMs: A Case Study of City of Ottawa, Annual Conference of the Canadian Institute of Transportation Engineers, August 8-11, 2010, Vancouver, BC, Canada. Won best student paper award.
43. **Sun, J.** & Lovegrove, G.R. (2010) Using Macro-Level Collision Prediction Models to Evaluate the Safety Level of Neighbourhood Road Network Patterns, 89th Annual Meeting of the Transportation Research Board, Washington, DC. January 21, 2010.
44. **Khondaker, B.**, Sayed, T. and Lovegrove, G. (2009) Transferability of Community-Based, Macro-Level Collision Prediction Models Between Different Time-Space Regions for Use in Road Safety Planning Applications, 88th Annual Meeting of the Transportation Research Board, Washington, DC, January 13, 2009.
45. **Sun, J.**, **Cockburn, G.,** Lovegrove, G., and Pump, J. (2009) Community-Based Macro-Level Collision Prediction Models for Evaluating Road Safety Levels of Left-Turn and On-Street Parking Restrictions on Major Urban Corridors, 88th Annual Meeting of the Transportation Research Board, Washington, DC, January 10, 2009.
46. **Boozarjomehri, E**., **Manuel, S., Cockburn, G.,** and Lovegrove, G. (2009) A Feasibility Study of Short Line Semi-High Speed Electric Railway in Canada: Case Study of Okanagan Valley Railway, 88th Annual Meeting of the Transportation Research Board, Washington, DC, January 11, 2009.
47. Lovegrove, G., Lim, C. and Sayed, T. (2009) Using Macro-Level Collision Prediction Models to Conduct a Road Safety Evaluation of a Regional Transportation Plan, 88th Annual Meeting of the Transportation Research Board, Washington, DC, January 10, 2009.
48. \*Lovegrove, G. & Litman, T. (2008) Using Macro-Level Collision Prediction Models to Evaluate the Road Safety Effects of Mobility Management Strategies: New Empirical Tools to Promote Sustainable Development, 87th Annual Meeting of the Transportation Research Board, Washington, DC, January 14, 2008.
49. Lovegrove, G.R. and Sayed, T. (2007) Using Macro-Level Collision Prediction Models to Enhance Traditional Reactive Road Safety Improvement Programs, 86th Annual Meeting of the Transportation Research Board, Washington, DC. [Best paper award], January 15, 2007.
50. Lovegrove, G.R. and Sayed, T. (2006) Using Macro-Level Collision Prediction Models in Road Safety Planning Applications, 85th Annual Meeting of the Transportation Research Board, Washington, DC, January 15, 2006.

*Conference Proceedings (Abstracts Refereed)*

1. **Mohamed H**, Lovegrove G, Markley L (2018) The influence of battery bank sizing on fuel cell efficiency in series fuel cell battery hybrid intercity passenger railway vehicles: the case study of the Intercity 125, Hydrail 2018, Rome, Italy, June.
2. **Morrison E, Zhou A**, Lovegrove G (2017) Sustainable Community Planning: Lessons Learned from the Dutch, Building Sustainable Communities Conference, November 23, 2017, Kelowna, BC.
3. **Masoud A**, Harris G, Lovegrove G (2017) CoHousing: What it is, Why it works, How to get it started, Building Sustainable Communities Conference, November 23, 2017, Kelowna, BC.
4. Momer B, Idris A, Lovegrove G (2017) SMARTer Growth: Case Studies from around the world, Building Sustainable Communities Conference, November 23, 2017, Kelowna, BC.
5. **Sun, J.**, **Cockburn, G**., Lovegrove, G., and Pump, J. (2009) Community-Based Macro-Level Collision Prediction Models for Evaluating Road Safety Levels of Left-Turn and On-Street Parking Restrictions on Major Urban Corridors, Presented at the 19th Canadian Multi-Disciplinary Road Safety Conference, Saskatoon, Canada, June 8, 2009.
6. **Sun, J**., **Boozarjomehri, E., Cockburn, G**., and Lovegrove, G. (2009) Effectiveness Of Transferred Community-Based, Macro-Level Collision Prediction Models In Road Safety Improvement Programs, Presented at the 19th Canadian Multi-Disciplinary Road Safety Conference, Saskatoon, Canada, June 8, 2009.
7. **Boozarjomehri, E.** and Lovegrove, G. (2009) Community-Based, Macro-level Collision Prediction Models for Evaluating Safety Benefits and Costs of the Highway-related Projects, Presented at the 19th Canadian Multi-Disciplinary Road Safety Conference, Saskatoon, Canada, June 8, 2009.
8. **Boozarjomehri, E.** and Lovegrove, G. (2009) A Feasibility Study of Short-Line Semi-High Speed Electric Railways in Canada: Case Study of Okanagan Valley Railway. Presented at ITE Quad Conference, Vancouver, Canada, May 1, 2009.
9. Lovegrove, G. (2008) Sustainable Road Safety, Canadian Institute of Transportation Engineers (CITE), Annual Conference, Victoria, Canada, April 29, 2008.
10. Lovegrove, G. (2008) Sustainable Road Safety, Canadian Association of Road Safety Professionals (CARSP), Annual Conference, Whistler, Canada, June 10, 2008.
11. Lovegrove, G. (2006) The elephant in the room – social sustainability in a bottom line world: Teaching and research at UBC Okanagan on Sustainability to protect ourselves and future generations, Association for the Advancement of Sustainability in Higher Education (AASHE), Tempe, Arizona, October 5, 2006.
12. Lovegrove, G.R. & Sayed, T. (2005) Macro-Level Collision Prediction Models for Evaluating Neighbourhood Traffic Safety, Presented at the Canadian Association of Civil Engineers Annual Meeting, Ottawa, ON, June 5, 2005.
13. Lovegrove, G. & Sayed, T. (2005) Community-Based, Macro-Level Collision Prediction Models, CITE Vancouver Quad Meeting, Vancouver, BC, April 8, 2005.
14. Lovegrove, G. (2004) ComPASS: Community U-Pass Program at UBC, American Association of University Administrators Annual Meeting, Vancouver, BC, June 28, 2004.
15. Lovegrove, G. (2003) Sustainable Transportation Program at the University of British Columbia, AASHE Conference, Portland, Oregon, May 31, 2003.
16. Lovegrove, G. (2001) The UBC Strategic Transportation Plan: A Model of Sustainable Transportation, CITE Vancouver Quad Meeting, Seattle, Wa, April 5, 2001.
17. Litman, T. & Lovegrove, G. (2000) UBC U-Pass: A Business Case, www.trek.ubc.ca, Vancouver, BC. Presented at the annual conference of the Canadian Institute of Transportation Engineers (CITE), April 2000, Montreal, Quebec, June 28, 2000.
18. Lovegrove, G. & Peters, F. (1995) Speed Zone Study, Western Canada Traffic Association (WCTA) and Canadian Institute of Transportation Engineers (CITE) Annual meetings, Victoria, BC.
19. Lovegrove, G. (1990) Vancouver's New Seaside Bicycle Route, CITE Annual Meeting, Victoria, BC, July 2, 1990.

*(c) Other*

**2. NON-REFEREED PUBLICATIONS**

*(a) Journals*

1. L. & Lovegrove, G. (2012) Leading the Move to More Sustainable Community Travel Habits: Glenmore ComPASS, SHIFT Magazine UBCO Sustainability Office, June 2012.
2. Kelowna Capital News (2011) UBCO Research Study: Sustainable Glenmore Community ComPASS, March 20, 2011.
3. CBC (2010) UBCO SRS Research Lab, September 7, 2010, [www.cbc.ca/technology/story/2010/08/31/f-traffic-safety-british-columbia.html]
4. Globe & Mail (2010) UBCO SRS Research Lab September 6, 2010
5. Mortenson, B. & Lovegrove, G. (2010) UBCO SRS Research Lab UBC EXCHANGE July 2010, [www.ubc.ca]
6. Okanagan Life Magazine (2008) A Jolt from the Blue . . . the future of our Valley, Jan/Feb 2008 edition, pps. 24 – 50. [www.okanaganlife.com].

*(b) Conference Proceedings*

1. **Mohammed H**, Markley L, Lovegrove G. (2015) Real Time Single Train Simulator, AREMA 2015, Chicago, Illinois, USA, September.
2. Lovegrove G. (2015) Safer neighborhood & street layouts. BC Road Safety Strategy 2015 Conference: “What Causes Safety?” Vancouver, BC, September.
3. Wemple E, Lovegrove G. (2015) Conversation Circle: The Future of Predictive Safety Analysis in Transportation Planning, Annual Meeting of the Institute of Transportation Engineers, Hollywood, Florida, USA, August.
4. **Sun, J.** & Lovegrove, G. (2012) Fused Grid Patterns: In Pursuit of Sustainable Communities & Improved Quality of Life, 2012 Modular and Offsite Construction (MOC) Summit, Edmonton, AB, November
5. Lovegrove, G. (2011) The UBCO SRS Research Lab, CITE BC Interior Chapter Conference, UBC, Kelowna, BC, April.
6. Lovegrove, G. (2006) Bicycling: Why & Why not? UBCO Bicycling Exposition*,* Kelowna, BC, September.
7. Neufeld, A., Crawford, P. & Lovegrove, G. (1993) Community Connections: Planning Document for a Municipal Trails Network, WCTA Annual conference, Saskatoon, Saskatchewan, June.
8. Neufeld, A., Lovegrove, G. & Crawford, P. (1993) Community Connections: Planning Document for a Municipal Trails Network, Recreation & Parks Association of British Columbia Annual Meeting, Whistler, B.C., May.

*(c) Other*

Newsletters

1. **Morrison, E.** (2013) Community Transportation Pass (ComPASS): Pilot Study in Kelowna, British Columbia, Transportation Talk, CITE Newsletter, Toronto, ON, Canada, p. 1, 8-9.
2. CARSP (2013) The Safety Network: University researchers, Newsletter of the Canadian Association of Road Safety Professionals (CARSP) Issue 1, pages 6 – 8,, www.carsp.ca.
3. Lovegrove, G.R. (2008) The Need for Transportation Engineering Education, contributor to Institute of Transportation Engineers, Education Council Newsletter, Washington, DC.

Technical Reports

1. Province of BC (2017) Module 1 Community Road Safety Resource Manual, editor, contributor, RoadSafeBC, Victoria, BC, 50 pages.
2. Province of BC (2016) Where the Rubber Meets the Road: Reducing the Impact of Motor Vehicle Crashes on Health and Well-being in BC, Provincial Health Officer’s Annual Report, Office of the Provincial Health Officer (P.R.W.Kendall ed.), BC Ministry of Health, Victoria, BC, Canada. 229 p.
3. Lovegrove G. (2015) Sustainably Safer Transport: Planning Safer Communities, BC Coroner (Ed.). In BC Coroner Child Death Panel British Columbia, Canada: BC Coroner.
4. **Hegazi, M.** Lovegrove, G Markley, L. (2015) Emission Zero Hybrid Electric Locomotive Propulsion: EZ-HELP, Prepared for Transportation Development Centre of Transport Canada, Ottawa, Canada, p. 43.
5. Lovegrove G. (2015). Fragkokklisias Street, Marousi, Greece – Safety Study & Conceptual Re‐Design, Technical University of Athens, Greece.
6. Lovegrove G. (2015). Egaleo Safer Routes to School: Summary Report, Technical University of Athens, Greece.
7. **Masoud A**, Lovegrove G (2014) Investigating the Engineer’s Role: Making Canadian Communities Healthier By Encouraging Active Transportation, Report for the Canadian Institute of Transportation Engineers, UBCO Sustainable Transport Safety Research lab, Kelowna, BC.
8. **Masoud A**, Lovegrove, G (2014) A Review of the Healthy Development Index (HDI): What it is supposed to do; what it does; and, ways to improve it, Report for the Canadian Institute of Transportation Engineers, UBCO Sustainable Transport Safety Research lab, Kelowna, BC.
9. Lovegrove G, **Demerse T** (2014) Synthesis Light: Environmental Scan of Knowledge-Based Systems on Road Safety Planning, Report for the Institute of Transportation Engineers, Transportation Safety Council, UBCO Sustainable Transport Safety Research lab, Kelowna, BC.
10. Lovegrove G, Swanson A, Finn N, Drdul R (2013) University of Calgary TDM Plan, DA Watts & Associates, Calgary, Alberta, Submitted Jan 2, 2013, 45 pages.
11. ITE Traffic Engineering Council (2013) ITE Informational Report: School Site Planning, Design, and Transportation, Washington DC. (co-author, Council member). July 1, 169 pages.
12. De Vries, J., Barss, P. & Lovegrove, G. (2012) Promoting Safe Use of Roads & Pathways for Vulnerable Road Users: A Review of Canadian Promising Practises, Report prepared for the Public Health Agency of Canada, Kelowna, BC. (P-I) (GRL contribution 90%). [http://www.ubc.ca/okanagan/engineering/\_\_shared/assets/VRU\_Research\_Report29372.pdf], Submitted March 28, 2012, 78 pages
13. **Hostland, C.**, Johnson, J., Roberts, D., Lovegrove, G. (2012) Sustainable Indoor Environments: Addressing consequential sickness from indoor mould exposure utilizing policy to effect change in the provision of health care, Report submitted January 13th, 2012 on-line to Provincial Select Standing Committee on Health Sustainability, Province of British Columbia, Victoria, BC. (GRL contribution 40%) [http://www.leg.bc.ca/cmt/39thparl/session-4/health/index.asp], 89 pages
14. **Morrison, E.** & **Sonmor, D.** & Lovegrove, G. (2011) Sustainable Glenmore Community Research: ComPASS Phase 1 Report, September 2011. Prepared for the City of Kelowna, Kelowna, BC. 95 pages. (P-I) (Dr. Momer of UBCO Geography Department contribution 10%) [http://www.ubc.ca/okanagan/engineering/\_\_shared/assets/], ?? pages
15. Lovegrove, G. (2010) Technical Review of Final Audit Report: BC Ministry of Transportation & Infrastructure (MOTI) Road & Bridge Maintenance Contract Specifications, April 2010. Prepared for the BC Auditor General, Victoria, BC, 12 pages. (P-I)
16. **Sun, J.** & Lovegrove, G. (2009) Using Community-Based, Macro-Level Collision Prediction Models to perform a road safety evaluation of the Fused Road Safety Pattern, March 2009. Prepared for the Canada Mortgage & Housing Corporation (CMHC), 125 pages. (P-I)
17. **Sun, J.** & Lovegrove, G. (2008) Using Community-Based, Macro-Level Collision Prediction Models to perform a road safety evaluation of unsignalized intersections along arterial corridors, December 2008. Prepared for the Insurance Corporation of British Columbia (ICBC), 40 pages. (P-I)
18. Lovegrove, G. & Litman, T. (2008) Using Macro-Level Collision Prediction Models to Evaluate the Road Safety Effects of Mobility Management Strategies: New Empirical Tools to Promote Sustainable Development, (co-P-I) (www.vtpi.org), 25 pages.
19. Lovegrove, G. (2007) Social Cost-Benefit Analysis of the Central Okanagan Multi-modal Corridor: Interim Report, Prepared for the City of Kelowna, UBC Okanagan, Kelowna, Canada, 13 pages. (P-I)
20. Lovegrove, G. (2005) 18 Month U-Pass Program Review: Final Report, UBC TREK Program Centre, UBC Vancouver. ([www.trek.ubc.ca](http://www.trek.ubc.ca)), 148 pages. (co-P-I)
21. Drdul, R., and Lovegrove, G. (2004) Transportation Status Report, UBC TREK Program Centre, UBC, Vancouver, BC, 62 pages. (co-P-I)
22. Drdul, R., Mustel, J., and Lovegrove, G. (2004) ComPASS Feasibility Study: Final Demonstration Project Report, UBC TREK Program Centre, UBC, Vancouver, BC, 117 pages. (co-P-I)
23. Denike, K. and Lovegrove, G. (2004) The 2004 UBC Transportation Survey, UBC TREK Program Centre & UBC Geography Department, (www.trek.ubc.ca/research/surveys), 122 pages. (co-P-I)
24. Drdul, R., Leicester, G., and Lovegrove, G. (2003) UBC Campus Transit Plan Report, UBC TREK Program Centre, UBC, Vancouver, BC, 176 pages. (co-P-I)
25. Denike, K. and Lovegrove, G. (2003) The 2003 UBC Summer U-Pass Survey, UBC TREK Program Centre & UBC Geography Department, (www.trek.ubc.ca/research/surveys), 6 pages. (co-P-I)
26. Frantz, J. (2003) Greenhouse Gas Emission Baseline: Students, Faculty & Staff Commuting to UBC, Graduate research assistant project for the UBC TREK Program Office, (Professional engineering over-sight by Dr. Lovegrove), 18 pages.
27. Denike, K. and Lovegrove, G. (2002) The 2002 UBC Transportation Survey, UBC TREK Program Centre & UBC Geography Department, (www.trek.ubc.ca/research/surveys), 95 pages. (co-P-I)
28. Drdul, R., and Lovegrove, G. (2001) Transportation Data Collection Summary Report, UBC TREK Program Centre, UBC, Vancouver, BC, 42 pages. (co-P-I)
29. Denike, K., Murphy, A., and Lovegrove, G. (2000) The 2000 UBC Transportation Survey, UBC TREK Program Centre & UBC Geography Department, ([www.trek.ubc.ca/research/surveys](http://www.trek.ubc.ca/research/surveys)), Vancouver, B.C., 27 pages. (co-P-I)
30. Litman, T. & Lovegrove, G. (1999) UBC U-Pass: A Business Case, UBC TREK Program Centre, www.trek.ubc.ca, Vancouver, BC, 21 pages. (co-P-I)
31. Lovegrove, G. (1999) UBC Strategic Transportation Plan, 1st edition, University of British Columbia (www.trek.ubc.ca/research/), Vancouver, BC, 62 pages. (P-I)
32. Denike, K. and Lovegrove, G. (1998) The 1998 UBC Transportation Survey, Joint research project of the UBC TREK Program Centre and the UBC Geography Department, Vancouver, BC., ([www.trek.ubc.ca/research/surveys](http://www.trek.ubc.ca/research/surveys)), 64 pages. (co-P-I)
33. Township of Langley (1993) Community Connections: Planning & Design Policy for a Pedestrian, Equestrian, Wheeler Shared-Use Trails Network, co-author, Langley, BC, Canada, 75 pages.

User Manuals

1. **Garg G, Ovi M**, Lovegrove G (2018) IHSPM User Guide, Sustainable Transportation Safety Research Lab, UBCO, Kelowna, BC,
2. **Masoud A**, Lovegrove G (2015) i-THRIVE On-line User Manual, Sustainable Transportation Safety Research Lab, UBCO, Kelowna, BC, http://engineering.ok.ubc.ca/faculty/gordonlovegrove/STS\_lab/i-THRIVE.html

3. **BOOKS**

*(a) Authored*

1. Province of BC (2017) BC Community Road Safety TOOLKIT: Module 1, Protecting people who walk and cycle, editor Neil Arason, RoadSafe BC, Victoria, BC (co-authored, accepted), 32 pages

2. Wright R, Kelly W (Eds.) (2017) Engineering for Sustainable Communities: Principles and Practices, American Society of Civil Engineers (ASCE), Washington, DC, USA (co-authored, accepted), 215 pps

3. Grammenos F, Lovegrove G. (2015). Remaking the City Street Grid - A Model for Urban and Suburban Development (Grammenos F, Lovegrove G, Ed.). McFarland, N.C., USA, 207 pages.

4. \*Lovegrove, G. (2007) Road Safety Planning: New Tools for Sustainable Road Safety and Community Development, VDM Verlag Dr. Müller, Berlin, Germany. 218 pages.

*(b) Edited*

* Lovegrove, G. (2012) ENGR 335 Course Pack: Introduction to Transportation Engineering, School of Engineering, Kelowna, BC. (Notes, examples, assignments, labs, practise exams for the entire course), 300 pages

*(c) Chapters (contributor)*

1. Paul Schepers, Gord Lovegrove, Marco Helbich (2018) Chapter 19: Urban form and road safety: public and active transport enable high levels of road safety, in Integrating Human Health into Urban and Transport Planning: A Framework, Springer Publishers, Mark Nieuwenhuijsen and Haneen Khreis Ed.
2. Lovegrove G, et al. (2017). Part 1 Achieving and Maintaining a Sustainable Civilization, Wright R, Kelly W (Eds.), Engineering for Sustainable Communities: Principles and Practices, American Society of Civil Engineers (ASCE), Washington, DC, USA
3. **Wei, F. & Sun, J.** & Lovegrove, G. (2013) Sustainable Road Safety: Neighborhood Patterns That Save Lives? Published in Safety, Sustainability, and Future Urban Transport, Mohan, Dinesh, editor Eicher Goodearth Pvt Ltd, Delhi, India, pages 163-182, features my sustainable road safety analyses research on Fused Grid Street Network.
4. AREMA Committee 16 (Economics) (2013) Chapter 16 Railway Economics Part 1 - Railway Location, Robataille S (Ed.), AREMA Manual of Railway Engineering (2 ed.), pp. 1-17
5. Toor, W. & Havlick, S. (2004) Transportation & Sustainable Campus Communities, Island Press, Chapter 5 features a case study of the UBC TREK Program Centre, based on several interviews with Dr. Lovegrove. 28 pages.

**4. PATENTS**

**5. SPECIAL COPYRIGHTS**

**6. ARTISTIC WORKS, PERFORMANCES, DESIGNS**

1. May 1982 - UBC Engineering Undergraduate Society, Beer Mug Logo Design Award
2. May 2010 - UBC Applied Science Engineering Recruitment Video, featured faculty member
3. Sept 2010 - CKNW 980 Radio Interviews (2010) – SRS Research Lab & Vancouver City Pender Street Bicycle Lane issues, Jon McComb Show
4. Jun 2011 - Sustainable Glenmore Community Research: ComPASS Study – Phase 1, In-studio radio Interview, CBC Morningside, Kelowna, BC, June 2011.
5. Jun 2011 - Sustainable Glenmore Community Research: ComPASS Study – Phase 1, Telephone radio Interview, AM 1150 News, Kelowna, BC, June 2011.
6. Feb 2012 - Interviewed and subsequently featured in the Kelowna Capital News Thursday Edition by Opinion Columnist Paul Hergott, titled Simple first step for driving safety: Walk to work, http://www.kelownacapnews.com/opinion/138978489.html.
7. Mar 2012 - Sustainable Glenmore Community Research: ComPASS Study – Phase 2 (Pilot Program), In-studio radio Interview, CBC Morningside, Kelowna, BC.
8. May 2013 - The Benefits of Bike to Work Week Promotional Events, In-studio radio Interview, CBC Morningside, Kelowna, BC.
9. Jul 2013 - Canadian Railway Regulations, a series of short radio interviews with local CBC Radio morning stations across the country from 6 a.m. until 9 a.m. ET, CBC Radio Syndication
10. Oct 2015 – The Next Big Thing: Fused Grid Neighborhoods save lives and quality of life, UBCO Media
11. Jan 2016 – The Sustainable Transport Safety Research Lab: Bicycle Research, UBCO Media.

**7. OTHER WORKS**

**8. WORK SUBMITTED**

**9. WORK IN PROGRESS (including degree of completion)**

Several SoE and UBCO faculty collaboration opportunities have broadened my research focus from strictly road safety, and into sustainable community land use and building systems areas to meet emerging global challenges, as follows:

* Sustainable Land Use and Transportation Systems, Dr Bernard Momer - an innovative sustainable transportation program, ComPASS to facilitate a permanent shift by residents of existing communities to more sustainable transportation habits.
1. **Morrison, E.**, Momer, B., Lovegrove, G. Sustainable Glenmore Community Research: ComPASS, Intended Journal: Journal of Urban Planning and Development, American Society of Civil Engineers (80%)
2. **Masoud, A.**, Idris, A., Lovegrove, G. Estimates on the Reductions in Emissions and Road Crashes upon implementation of a Kelowna ComPASS program.
* Sustainable Railway Technology, Dr Loic Markley, Dr Joshua Brinkerhoff, Dr Omar Carrera – Several collaborative topics are being pursued to transition North American freight railway technology from inefficient, energy-intensive, carbon-based technology, into more globally competitive, innovative and sustainable operations targeting low-cost gateway technologies using ultra-capacitor/fuel-cell/battery hybrid powered locomotives that fit within existing North American operating envelopes and regulations. Our research cluster in partnership with a BC company (confidential) continue to pursue research funds to research and develop a Hydrail that relies on natural gas, fuel cell, and all-electric drive transmission technology as a cleaner and safer alternative to current rail and pipeline transport technologies. Previously, the BC Ministry of Energy & Mines, Innovative Clean Energy (ICE) Program collaborated with the NSERC Collaborative Research Development (CRD) grant program. In our initial application (2016) we were one of the top ranked applications, with only one (UBCO) application chosen due to program funding limits.
* Impact of Transport Vibrations on Human Health, Dr Hadi Mohamedi – This builds on our joint research, and will involve an industry partner in design of SMART seat technology.
* Design Manual for SMARTer Growth Grid Neighborhood, Dr Mahmudur Fatmi, Dr Ahmed Idris – together we are supervising one PhD student (Masoud) and one MASc student (Ovi) to operationalize this research.
1. **Jamal E,** Idris A, Lovegrove G (2018) The Economic Feasability of a Metro Rail system for Kuwait City, Intended Journal: Transportation Research Board (30%)
2. **Masoud A, Ovi M**, Idris A, Fatmi M, Lovegrove G (2019) SMARTer Growth Grid Neighborhood Design Guide, intended journal: Canadian Journal of Civil Engineering. (10%)
* National Cooperative Highway Research Program (NCHRP) is a collaborative research program of the US National Academies of Science (NAS), US Federal Highway Administration (FHWA), Transportation Research Board (TRB), and the American Association of State Highway Transportation Officials (AASHTO) to address emerging research needs. I have been directly involved as the main co-author (out of a total of three co-authors) of two Research Needs Statements (RNS) submitted to these agencies. A critical success factor to getting projects approved for NCHRP funding, after the initial TRB committee vetting, is to obtain sponsor support at the US state department of transport level (DOT), such that it is endorsed and highly ranked by the AASHTO Research Needs Committee. In both cases, the RNS that I co-authored and as part of my initiative to get road safety planning (RSP) into the Highway Safety Manual (HSM) were approved for funding, and I now sit on the Steering Committee for each project:
1. NCHRP 17-84: Pedestrian and Bicycle Safety Performance Functions for the Highway Safety Manual, total funding of $500,000 over two years.
2. NCHRP 17-81: Incorporating Road Safety Planning in the Highway Safety Manual, total funding of $400,000 over two years.

As a result of leading the development of road safety planning tools for the HSM, and by virtue of being a world expert in this research, it is my goal to leverage industry partnerships and international collaborations toward NSERC CRD and other funding.

* Study Leave Collaborative Outputs – I studied at SWOV, NL July to Nov 2014; TUA, GR, Dec 2014 to Feb 2015; and UoNaples, IT, Mar to May 2015, all related to transport safety research. All have resulted in important collaborative partnerships, networks, and initiatives related to my IPBs, complete streets design, school safety, cycling/ped safety. Moreover, it has led at least in part directly to my recent NSERC Engage grant, wherein I have been approached by ArroWhere Equipment, Inc (AWEI), to use my first-in-Canada IPBs to help solve their safety vest design problem. One paper has been published so far (2017), and a second submitted, with several others in the works, including:
1. Shoji T, Lovegrove G (2018) Integrating Communication with Conspicuity to Enhance Vulnerable Road User Safety: Case Study of Preliminary ArroWhere Detection System: Part 1 – Theory; intended journal: CJCE (95%)
2. Shoji T, Lovegrove G (2018) Integrating Communication with Conspicuity to Enhance Vulnerable Road User Safety: Case Study of Preliminary ArroWhere Detection System: Part 2 – Applications; intended journal: CJCE (40%)

Other work underway related to my current research includes:

1. **Bulmer J, Rozema J**, Lovegrove G IHSPM: The Interactive High-Level Safety Planning Model, beta version 1.0 (40%)