



# Luyang Hou

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*"Das Geheimnis des Erfolges liegt in der Beständigkeit des Ziels." – Benjamin Disraeli*  
*"The secret of success lies in the consistency of the goals." – Benjamin Disraeli*

## Working Experience

- Beijing University of Posts and Telecommunications** Research Associate Professor Beijing, China  
School of Computer Science (National Pilot Software Engineering School) 2023.1 - Now  
• Research Team: Prof. Aiguo Fei (Academician of Chinese Academy of Engineering), Prof. Li Wang
- Chinese Academy of Sciences (CAS)** Visiting Scholar Beijing, China  
Institute of Semiconductors 2022.6 - 2022.9  
• Supervisor: Prof. Weijun Li
- Concordia University** Research Associate Montréal, Canada  
Concordia Institute for Information Systems Engineering (CIISE) 2022.3 - 2022.12  
• Supervisor: Dr. Jun Yan
- The University of British Columbia** Postdoctoral Research Fellow Vancouver, Canada  
MÉRIDALABS, Faculty of Applied Science 2021.1 - 2022.2  
• Supervisor: Prof. Walter Mérida, Fellow of Canadian Academy of Engineering

## Education

- Concordia University** Montréal, Canada  
Ph.D., information and System Engineering 2016.9 - 2020.12  
• Supervisors: Prof. Chun Wang, Dr. Jun Yan
- Dalian University of Technology** Dalian, China  
M.E.SC., Mechanical Engineering (Micro-ElectroMechanical System Engineering) 2013.9 - 2016.6  
• Supervisor: Prof. Yanjun Shi
- Henan Polytechnic University** Jiaozuo, China  
BACHELOR OF ENGINEERING, Machine Design Manufacture and Automation 2009.9 - 2013.6

## Research Focus

- **AI theory:** Operations research, mechanism design, reinforcement learning, smart contract, Machina Economicus
- **Energy Internet:** Hydrogen-solar energy system, energy management, vehicle-grid interaction, packetized energy, edge computing
- **Smart command & scheduling:** Across-realm energy and information system, emergent resource allocation, mobile charging
- **Carbon neutral model:** National energy and cost model, hydrogen and heavy-duty fuel cell vehicle, supply chain planning
- **Co-simulation platform:** HELICS-based simulator, energy market planning, energy prosumers

## Projects

- Modelling, operating, and optimization for integrated energy systems** Vancouver, Canada  
MÉRIDALABS (Prof. WALTER MÉRIDA) 2021.1 - 2022.3  
• Next generation solar-hydrogen energy system planning, two-stage stochastic optimization, LSTM forecasting  
• Hydrogen supply chain planning and policy evaluation for heavy-duty transport in British Columbia, Canada  
• Electricity market, integrated energy system, simulation, HELICS simulator, with *Concordia University*

- Blockchain facilitated packetized energy framework, machina economicus paradigm, with *Santa Clara University, Concordia University*
- Energetic modeling of car share fleet, real-world dataset analysis, data-driven charging scheduling, with *EVO car share, Vancouver*
- Canada energy and cost model, data & economic analysis, with *Innovative Breakthrough Energy Technologies (IBET)*

#### Funding

- Natural Resources Canada, NRCan Research Project, Electric Vehicle and Infrastructure Development (EVID) program, No. EVID-1026, 2016.4-2022.3 (Phase I)
- Institute for Breakthrough Energy Technologies (iBET), National Energy and Cost Model, 2021.11 -2022.2
- Company project: EVO Car Share Electrification Plan and Charging Cost Modeling, 2021.1-2021.12

### Electric vehicle (EV)-grid interaction and advanced mechanism design

Montréal, Canada

LAB OF DISTRIBUTED SYSTEM ENGINEERING (DR. CHUN WANG) LAB OF CYBER-PHYSICAL SYSTEMS & SECURITY (DR. JUN YAN)

2016.9 - 2020.12

- Optimization and scheduling, game theory, and reinforcement learning with applications to distributed EV charging scheduling
- Mathematical modelling for EV charging scheduling problems: mixed-integer linear programs
- Combinatorial auction design: iterative bidding; incentive-compatible auction, simultaneous multi-round auction
- Dynamic auction design and scheduling algorithm for EV charging: Java-CPLEX API
- Multi-agent reinforcement mechanism design for pricing-driven demand response of EVs, AnyLogic simulation

#### Funding

- FRS, Market based mechanisms for electric vehicle charging, VE0177, 2018.4-2020.10
- Natural Sciences and Engineering Research Council of Canada (NSERC), No. N01858, Optimizing electric vehicles for intelligent and resilient smart grids, 2018.2-2020.
- Natural Sciences and Engineering Research Council of Canada (NSERC), No. N01677, Negotiation and interaction models in Cyber physical systems, 2016.9-2018.01

### Coordinated planning and scheduling for intelligent manufacturing systems

Dalian, China

INSTITUTE FOR ENGINEERING MACHINERY (DR. YANJUN SHI)

2013.9-2016.6

- Optimization and coordination of manufacturing system in multi-agent environments
- Co-evolutionary optimization framework, multi-objective optimization, meta-heuristic algorithms, and surrogate model
- Mathematical programming for layout and planning of tandem Automatic Guided Vehicle (AGV) systems
- AGV routing and RFID sensor deployment for logistics systems in smart plant
- iSight united simulation: integration of MATLAB and ANSYS for multi-objective optimization on parameters of gas turbine
- AGV system: data management for integrated navigation control, real-time scheduling for AGVs

#### Funding

- The National Natural Science Foundation of China, Integrated Optimization Method for Flexible Workshop Facility Layout and AGV Path Planning with Loading Constraints, No. 61304206, 2014.1-2016.12

## Publications

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### Selected Publications (\* Corresponding Author)

- [1] **Luyang Hou\***, Jun Yan, Chun Wang and Leijiao Ge, "A Simultaneous Multi-Round Auction Design for Scheduling Multiple Charges of Battery Electric Vehicles on Highways", *IEEE Transactions on Intelligent Transportation Systems*, vol. 23, no. 7, pp. 8024 - 8036, 2021.5. DOI: 10.1109/TITS.2021.3075202. (Top, IF: 9.551)
- [2] **Luyang Hou\***, Chun Wang and Jun Yan, "Bidding for Preferred Timing: An Auction Design for Electric Vehicle Charging Station Scheduling", *IEEE Transactions on Intelligent Transportation Systems*, vol. 21, no. 8, pp. 3332-3343, Aug. 2020. (Top, IF: 9.551)
- [3] **Luyang Hou**, Jane Dong, Omar E. Herrera, Walter Mérida, "Two-Stage Energy Management for Hydrogen-Electric Microgrids with Vehicle-to-Grid and Power-to-Gas", *International Journal of Hydrogen Energy*, vol. 48, no. 5, pp. 2013-2029, Jan. 2023. (Top, IF: 7.139).
- [4] **Luyang Hou\***, Yuanliang Li, Jun Yan, Chun Wang, Li Wang, and Biao Wang, "Multi-Agent Reinforcement Mechanism Design for Dynamic Pricing-Based Demand Response in Charging Network", *International Journal of Electrical Power & Energy Systems*, vol. 147, pp. 1--10, 2023 (IF: 5.659).
- [5] **Luyang Hou**, Omar E. Herrera, Walter Mérida, "Charging Scheduling and Energy Management for Mobile Chargers in A Grid-Interactive Transportation System", submitted to *Journal of Energy Storage*, 2023.3. (IF: 8.907) (In Press).
- [6] **Luyang Hou\***, Jun Yan and Chun Wang, "An Incentive-Compatible Combinatorial Auction Design for Charging Network Scheduling of Battery Electric Vehicles", *Journal of Integrated Design & Process Science*, vol. 24, no. 2, pp. 75-92, 2020. DOI: 10.3233/JID200007.
- [7] **Luyang Hou\***, Shuai Ma, Jun Yan, Chun Wang, and Jia Yuan Yu, "Reinforcement Mechanism Design for Electric Vehicle Demand Response in Microgrid Charging Stations", in *2020 International Joint Conference on Neural Networks (IJCNN'20)*, pp. 1-8. IEEE, 2020.3. (CCF-C)

### Book Chapters

- [1] **Luyang Hou\***, Jun Yan, Yuankai Wu, Chun Wang, Tie Qiu, "Machina Economicus: A New Paradigm for Prosumers in the Energy Internet of Smart Cities", in the *Next-Generation Cities Encyclopedia*, Next-Generation Cities - Build and Natural Environment, Vol.3. 2023.1 (Book chapter)

[2] **Luyang Hou\***, Chun Wang and Jun Yan, "Electric Vehicle Charging Scheduling in Green Logistics: Challenges, Approaches and Opportunities", in the *Sustainable City Logistics Planning: Methods and Applications* - vol.2, ed. Anjali Awasthi, Katarzyna Grzybowska, Nova Publisher. 2019.5. (Book chapter)

[3] Janfizza Bukhari, Abhishek G Somanagoudar, **Luyang Hou\***, Omar E. Herrera, Walter Mérida, "Zero-Emission Delivery for Logistics and Transportation: Challenges, Research Issues, and Opportunities", Invited Book Chapter–*The Palgrave Handbook of Global Sustainability: Chapter 110. Green Logistics and Transportation*, pp. 1-21, 2022.9. [https://doi.org/10.1007/978-3-030-38948-2\\_107-1](https://doi.org/10.1007/978-3-030-38948-2_107-1) (Book chapter).

## Other Publications

[1] Yuanliang Li, **Luyang Hou**, Hang Du, Jun Yan, Yuhong Liu, Mohsen Ghafouri, Peng Zhang, "PEMT-CoSim: A Co-Simulation Platform for Packetized Energy Management and Trading in Distributed Energy Systems", *IEEE International Conference on Communications, Control, and Computing Technologies for Smart Grids (IEEE SmartGridComm'22)*, 2022.10.

[2] Zhuangcheng Liu, **Luyang Hou\***, Yanjun Shi, Xiaojun Zheng, and Hongfei Teng, "A co-evolutionary design methodology for complex AGV system," *Neural Computing and Applications*, vol.28, no.4, pp.959-974, 2018 (IF: 5.13).

[3] **Luyang Hou\***, Leijiao Ge, Biao Wang, Xuanyuan Wang, Lianming Xu, Li Wang, "Research on the integrated energy system and the electricity market towards new prosumers", *Integrated Intelligent Energy*, vol.44, no.12, pp.40-48, 2022.

[4] **Luyang Hou\***, Chun Wang, "Optimal Power Management for The Integrated Multiple Energy Carrier System", in *2022 Canadian Conference on Electrical and Computer Engineering (CCECE'22)*, pp. 60-65, Sep.2022. (DOI: 10.1109/CCECE49351.2022.9918326)

[5] Yuanliang Li, **Luyang Hou**, Jun Yan, Yuhong Liu, Mohsen Ghafouri, Peng Zhang, "A Two-Stage Packetized Energy Trading and Management Framework for Virtual Power Plants", IEEE Power & Energy Society General Meeting (*PESGM*), 2023.1 (Accepted)

[6] **Luyang Hou**, Julián Alberto Fernández-Orjuela, Omar E. Herrera, Walter Mérida, "Electrifying a Car Sharing Fleet Using Public Charging Infrastructure", *Green Energy and Intelligent Transportation*, 2023.2. (In Press)

[7] Sun Bing, Jing Ruipeng, Zeng Yuan, Ge Leijiao, **Luyang Hou**, "A quick carrying capacity evaluation method of smart distribution network for distributed generation", *Journal of Modern Power Systems and Clean Energy*, 2022.9 (Accepted) (IF: 4.469).

[8] **Luyang Hou\***, Jun Yan and Chun Wang, "Accommodating More Users in Highway Electric Vehicle Charging through Coordinated Booking: A Market-Based Approach", in *2019 IEEE 23rd International Conference on Computer Supported Cooperative Work in Design (CSCWD'19)*, 2019, pp. 476–481. (CCF-C)

[9] **Luyang Hou\*** and Chun Wang, "Market-Based Mechanisms for Smart Grid Management: Necessity, Applications and Opportunities", in *2017 IEEE International Conference on Systems, Man, and Cybernetics (SMC'17)*, 2017, pp. 2613–2618. (CCF-C)

[10] **Luyang Hou**, Zhuangcheng Liu, Yanjun Shi, and Xiaojun Zheng, "Optimizing machine assignment and loop layout in tandem AGV workshop by co-evolutionary methodology," in *2016 IEEE 20th International Conference on Computer Supported Cooperative Work in Design (CSCWD'16)*, 2016, pp. 263-268. (CCF-C)

[11] Hua Zhang, **Luyang Hou\***, and Guosong Wei. "A Kriging Model-based Approximation Technique for Predictive Design", *Applied Mechanics and Materials*, vol. 733, pp. 871-875. 2015.

[12] Zihui Zhang, Xueyan Sun, **Luyang Hou**, Wang Chen, and Yanjun Shi, "A Cooperative Co-Evolutionary Multi-Agent System for Multi-objective Layout Optimization of Satellite Module", in *2017 IEEE International Conference on Systems, Man, and Cybernetics (SMC'17)*, 2017, pp. 147–151. (CCF-C)

[13] Yanjun Shi, **Luyang Hou**, Xueyan Sun, and Yaohui Pan, "Sensors Deployment in Logistics System by Genetic Invasive Weed Optimization," in *International Conference on Internet and Distributed Computing Systems (IDCS'16)*, 2016, pp. 381-392.

[14] Yanjun Shi, **Luyang Hou**, and Xiaojun Zheng, "Solving workshop layout by hybridizing invasive weed optimization with simulated annealing," in *2015 IEEE 19th International Conference on Computer Supported Cooperative Work in Design (CSCWD'15)*, 2015, pp. 484-488. (CCF-C)

[15] **Luyang Hou\***, Yanjun Shi, and Xiaojun Zheng, "Hybridizing Invasive Weed Optimization and Simulated Annealing Algorithm for High-Dimensional Function Optimization," in *International Conference on Advanced Materials Research (ICAMR'14)*, 2014, pp. 1436-1439.

[16] Jianbin Wang, **Luyang Hou**, Wei Li and Xiaojun Zheng, "Simulating an AGV Scheduling in Job Workshop for Optimal Configuration," in *International Conference on Advanced Materials Research (ICAMR'14)*, 2014, pp. 1562-1565.

## Working Papers

[1] Min Yan, Li Wang, **Luyang Hou**, Liang Li, Lianming Xu, and Jie Wu, "A Hierarchical Contract Design for Energy Trading and Computation Scheduling in Energy Internet", submitted to *IEEE Internet of Things Journal*, 2022.10 (Under Review)

[2] Li Wang, Sixuan Liu, Pengfei Wang, Lianming Xu, **Luyang Hou**, and Aiguo Fei, "Electric Vehicle-Facilitated Load Restoration for Urban Coupled Traffic-Power Network: An Across-Realm Cooperative Multi-Agent Reinforcement Learning Framework", submitted to *IEEE Network*, 2023.2. (Under Review)

[3] Leijiao Ge, Hangxu Liu, Jun Yan, Bing Sun, Yuanzheng Li, and **Luyang Hou**, "A Novel Distributed PV Data Virtual Collection with Continuous-Binary Denoising Auto-Encoders", *IEEE Transactions on Smart Grid*. 2023.3 (Revision Submitted)

[4] Li Wang, **Luyang Hou\***, Sixuan Liu, Zhu Han, and Jie Wu, "Reinforcement Contract Design for Vehicular-Edge Computing Scheduling and Energy Trading via Deep Q-Network with Hybrid Action Space", *IEEE Transactions on Mobile Computing*. 2022.12 (Under Review)

[5] Yuerong Tong, Lina Yu, Weijun Li, Jingyi Liu, **Luyang Hou**, Linjun Sun, and Min Wu, "Fitting Curves with Fractional Implicit Polynomials: A PSO-Assisted Monomial Combination Optimization Framework", submitted to the *Visual Computer*, 2022.12 (Under Review)

[6] Changshuo Wang, Xin Ning, **Luyang Hou**, Liping Zhang, Weijun Li, "Brain-inspired Topological Feature Representation Method based on Mixed Entropy and Attention", submitted to *IEEE Transactions on Systems, Man and Cybernetics: Systems*, 2022.9 (Under Review)

[7] Zaiyang Yu, Liping Zhang, **Luyang Hou**, Changshuo Wang, Weijun Li, and Xin Ning, "MV-TransReID: 3D Multi-View Transformer Network for Occluded Person Re-identification", submitted to *2023 International Joint Conferences on Artificial Intelligence (IJCAI)*. 2022.12 (Under Review)

[8] Bingxin Tian, Li Wang, Liang Li, Lianming Xu, **Luyang Hou**, and Aiguo Fei, "Collaborative Computation Offloading for Photovoltaic Power

Prediction in Energy Internet: A Similarity-Aware Stable Matching Approach”, submitted to *IEEE Internet of Things Journal*. 2022.12 (Under Review)

[9] Xin Ning, **Luyang Hou**, “MV-ReID: 3D Multi-view Transformation Network for Occluded Person Re-Identification”, submitted to *IEEE International Conference on Computer Vision (ICCV)*. 2023.2 (Under Review)

[10] Guoqiang Wu, Xin Ning, **Luyang Hou\***, Hengmin Zhang and Achyut Shankar, “Three-dimensional Softmax Mechanism Guided Bidirectional GRU Networks for Hyperspectral Remote Sensing Image Classification”, submitted to *Signal Processing*, 2023.2 (Under Review)

[11] Qinghong Guo, Renzong Lian, Kuo Ma, **Luyang Hou**, Yuankai Wu, “Adapting Energy Management Strategies for Hybrid Electric Vehicles in Dynamic Driving Cycles through Recurrent Policy”, submitted to *IEEE International Conference on Systems, Man, and Cybernetics (SMC'17)*, 2023.4. (Under Review)

[12] **Luyang Hou\***, Yuanliang Li, Jun Yan, Yuhong Liu, and Mohsen Ghafouri, “An Iterative Double Auction and Co-Simulation Platform Design for Packetized Energy Trading of Prosumers in the Residential Microgrid”. (In Preparation)

[13] **Luyang Hou\***, Li Wang, Jun Yan, Leijiao Ge, “Auction-Facilitated Trading and Power Management for Energy Prosumers in Multi-Energy Market”, *IEEE Transactions on Energy Markets, Policy and Regulation*. (In Preparation)

[14] Jun Jiang, Yuanliang Li, **Luyang Hou**, Jun Yan, and Yuhong Liu, “Deep Reinforcement Learning-Based Bidding Strategies for Prosumers Trading in Double Auction-Based Transactive Energy Market”. (In Preparation)

[15] Bingxin Tian, Li Wang, **Luyang Hou**, Lianming Xu, and Aiguo Fei, “Heterogeneous Multi-Agent Reinforcement Learning Framework for Across-Realm Energy and Computing Coordination in A Regional Energy Internet”. (In Preparation)

## Degree Thesis

[Doctoral] **Luyang Hou**, “Advanced Mechanism Design for Electric Vehicle Charging Scheduling in the Smart Infrastructure”, Ph.D. thesis, **Concordia University**, Supervisors: Dr. Chun Wang and Dr. Jun Yan, 2020.11.

[Master] **Luyang Hou**, “Research on Several Key Issues and Solutions of Planning and Design for AGV System”, Master thesis, **Dalian University of Technology**, Supervisor: Dr. Yanjun Shi, 2016.9.

## Funds

- 2023.1-2026.12, **National Natural Science Foundation of China** (General Program): Smart distribution network state sensing and adaptive control technology considering the characteristics of multiple types of power, 650K RMB
- 2023.1-2023.12, **IEEE Blockchain Transactive Energy (BCTE)**: blockchain-integrated packetized energy
- 2016.4-2022.3, **Natural Resources Canada, NRCan**: Electric Vehicle and Infrastructure Development (EVID) program, No. EVID-1026, (Phase I)
- 2021.11 -2022.2, Canada Institute for Breakthrough Energy Technologies (iBET): National Energy and Cost Model, C\$30K
- 2021.1-2021.12, EVO Car Share, Vancouver Canada: EVO Car Share Electrification Plan and Charging Cost Modeling, C\$50K
- 2018.2-2020.6, **Natural Sciences and Engineering Research Council of Canada** (NSERC), N01858, Optimizing electric vehicles for intelligent and resilient smart grids, C\$120K
- 2016.9-2018.01, **Natural Sciences and Engineering Research Council of Canada** (NSERC), N01677, Negotiation and interaction models in Cyber physical systems, C\$100K
- 2014.1-2016.12, **National Natural Science Foundation of China (Youth Program)**, Integrated Optimization Method for Flexible Workshop Facility Layout and AGV Path Planning with Loading Constraints, No. 61304206, 300K RMB

## Awards

- 2020 **Concordia Accelerator Award**, School of Graduate Studies, Concordia University Canada
- 2017-2018 **Doctoral In-course Awards**, Concordia Institute for Information Systems Engineering, Concordia University Canada
- 2016-2020 **International Tuition Award of Excellence**, Gina Cody School of Engineering and Computer Science, Concordia University
- 2015 **Baosteel Education Award: Outstanding Student Award**, Baosteel Education Foundation, Baosteel Co. Ltd. (Total 5 students awarded in Dalian University of Technology) China
- 2013-2016 **Graduate Award**, School of Mechanical Engineering, Dalian University of Technology China
- 2012 **National Encouragement scholarship**, Henan Polytechnic University China

## Services

- 2022 **Program Committee (PC) Member**, The 35th Canadian Conference on Artificial Intelligence (Canadian AI'22), Toronto, Ontario, Canada
- 2022 **Program Committee (PC) Member**, The 25rd IEEE International Conference on Computer Supported Cooperative Work in Design (CSCWD'22), Hangzhou, China
- 2021 **Program Committee (PC) Member**, The 34th Canadian Conference on Artificial Intelligence (Canadian AI'21), Vancouver, British Columbia, Canada
- 2019 **Program Committee (PC) Member**, The 23rd IEEE International Conference on Computer Supported Cooperative Work in Design (CSCWD'19), Porto, Portugal
- 2017-Now **IEEE Member**, The Institute of Electrical and Electronics Engineers Membership, S'17-M'21
- 2020.11-Now **Vice President**, Golden Panda International Association – Non-Profit Organization, Canada
- 2016-2020 **Employment Service Manager**, Chinese Information Technology Association of North America (CITANA) – Non-Profit Organization, Montréal, Canada

- 2019 **Volunteer**, 2019 International Conference on Autonomous Agents and Multiagent Systems (AAMAS'19), Montréal, Canada
- 2019 **Volunteer**, ACM/IEEE Cyber-Physical Systems and Internet-of-Things Week, Montréal, Canada

## Paper Review

### PEER-REVIEWED JOURNAL

- IEEE Transactions on Intelligent Transportation Systems
- IEEE Transactions on Systems, Man and Cybernetics: Systems
- Applied Energy
- Energies
- Transportation Research Part D: Transport and Environment
- IET Collaborative Intelligent Manufacturing
- Advanced Engineering Informatics
- International Journal of Production Research
- Journal of Intelligent Manufacturing
- AIMS Energy Journal
- Industrial Robot
- Evolutionary Intelligence

### PEER-REVIEWED CONFERENCE

- IEEE International Conference on Systems, Man, and Cybernetics (IEEE - SMC)
- IEEE International Conference on Computer Supported Cooperative Work in Design (IEEE - CSCWD)
- International Joint Conference on Neural Networks (IJCNN)
- Canadian Conference on Artificial Intelligence (Canadian AI)
- IEEE International Conference on Autonomous Systems (IEEE - ICAS)
- International Conference on Mechanical, Electric and Industrial Engineering (MEIE)

## Skills

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<b>Programming</b>	Python, Java, MATLAB, CPLEX, MySQL
<b>Optimization</b>	CPLEX, Gurobi, MATLAB, Optimization Programming Language (OPL)
<b>Simulation</b>	HELICS, AnyLogic, MATLAB, iSight, Ansys
<b>Office</b>	LaTeX, Visio, Word, Excel, PowerPoint
<b>Language</b>	Mandarin (Native proficiency), English (Professional proficiency), German (Elementary proficiency)

## Talks

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- **Ph.D. Thesis Defense** *Montréal, Canada*  
Topic: "ADVANCED MECHANISM DESIGN FOR ELECTRIC VEHICLE CHARGING SCHEDULING IN SMART INFRASTRUCTURE"  
2020.11 Ph.D. Oral Defense in CIISE, Concordia University
- **International Joint Conference on Neural Networks (2020), online presentation** *Montréal, Canada*  
Topic: "REINFORCEMENT MECHANISM DESIGN FOR ELECTRIC VEHICLE DEMAND RESPONSE IN MICROGRID CHARGING STATIONS"  
2020.7
- **Seminar presentation** *Montréal, Canada*  
Topic: "MARKET-BASED CHARGING SCHEDULING FOR ELECTRIC VEHICLES: FROM MANUAL MECHANISM DESIGN TO AUTOMATED MECHANISM DESIGN" 2020.4
- **Proposal presentation** *Montréal, Canada*  
Topic: "ADVANCED MECHANISM DESIGN FOR ELECTRIC VEHICLE CHARGING SCHEDULING IN SMART INFRASTRUCTURE" 2019.12
- **IEEE CSCWD'19, online presentation** *Montréal, Canada*  
Topic: "ACCOMMODATING MORE USERS IN HIGHWAY ELECTRIC VEHICLE CHARGING THROUGH COORDINATED BOOKING: A MARKET-BASED APPROACH" 2019.5
- **Invited Talk at Course INSE 6260: Software Quality Assurance** *Montréal, Canada*  
Topic: "ELECTRIC VEHICLE CHARGING: TECHNOLOGY, EQUIPMENT AND NETWORK" 2018.1
- **IEEE SMC'17 presentation** *Banff, Canada*  
Topic: "MARKET-BASED MECHANISMS FOR SMART GRID MANAGEMENT: NECESSITY, APPLICATIONS AND OPPORTUNITIES" 2017.10
- **Comprehensive presentation** *Montréal, Canada*  
Topic: "MARKET-BASED MECHANISMS FOR ELECTRIC VEHICLE CHARGING IN SMART GRID" 2017.10
- **International Conference CSCWD'16** *Nanchang, China*  
Topic: "OPTIMIZING MACHINE ASSIGNMENT AND LOOP LAYOUT IN TANDEM AGV WORKSHOP BY CO-EVOLUTIONARY METHODOLOGY"  
2016.5