

EDUCATION

- **Doctor of Philosophy, Electrical and Computer Engineering** Sept 2023 – Present
University of Windsor, ON
- **Master of Applied Science, Electrical and Computer Engineering** May 2019 – Dec. 2021
University of Windsor, ON
- **Bachelor of Engineering, Electronics and Communication Engineering** Aug. 2014 – Apr. 2018
Anna University, India

EXPERIENCE

- **Doctoral Graduate Teaching and Research Assistant** Sept 2023 – Present
University of Windsor, ON
- **Research Assistant, Battery Management Systems Lab** Aug 2022 – Aug 2023
University of Windsor, ON
- **Master's Graduate Teaching Assistant** May 2019 – Dec 2021
University of Windsor, ON

PUBLICATIONS

- **Journals:**
 - **S. Sunil**, Saeed Mozaffari, Rajmeet Singh, Behnam Shahrrava and Shahpour Alirezaee. "Feature-Based Occupancy Map-Merging for Collaborative SLAM", *Sensors* 2023, 23(6), 3114, Mar. 2023
- **Conferences:**
 - **S. Sunil**, S. Sundaresan, P.Pillai, B. Balasingam. "Inverse Characterization of Open-Circuit Voltage for State-of-Charge Estimation of Batteries", *IEEE Transportation Electrification Conference and Expo*, Jun. 2023.
 - S. Sundaresan, **S. Sunil**, B. Balasingam, K. Pattipati. "Joint Estimation of Open Circuit Voltage And Equivalent Circuit Model Parameters Using State-Space Model Optimization", *IEEE Transportation Electrification Conference and Expo*, Jun. 2023.
 - **S. Sunil**, S. Sundaresan, P.Pillai, B. Balasingam. "Lidar-based Cooperative SLAM with different parameters", *International Conference on Mechanical Engineering and Robotics Research*, Dec. 2022.
 - **S. Sunil**, S. Sundaresan, B. Balasingam, K. Pattipati. "Novel Table-Based Kalman Filter for State of Charge Estimation of Batteries", *IEEE Electrical Power and Energy Conference*, Dec. 2022.
 - S. Sundaresan, **S. Sunil**, B. Balasingam, K. Pattipati. "Fast Offline Battery Capacity Estimation Approach with Performance Bounds", *IEEE Electrical Power and Energy Conference*, Dec. 2022.
 - **S. Sunil**, B. Balasingam, K. Pattipati. "State of Charge Estimation of Batteries Using Extended Kalman Filters: Insights into Performance Analysis and Filter Tuning", *IEEE Industrial Electronics Society Annual On-Line Conference*, Dec. 2022.
 - R. Dhaya, R. Kanthavel, T. Rajhen, M. Sudharsun and **S. Sunil**. "Resourceful and Proficient Exploitation of MDYMO in Mobile Ad hoc Networks", *International Conference on Innovative Research in Engineering and Science*, Jun. 2017.
- **Thesis:**
 - **S. Sunil**. "Heterogeneous Collaborative Mapping for Autonomous Mobile Systems", *University of Windsor, Canada*, Jan. 2022.

CERTIFICATION

- Lithium Battery Safety, Lion Technology Inc. Oct. 2023

EXTRACURRICULAR

- Department Intern (Engineers Canada accreditation), University of Windsor Oct. 2021 – Dec. 2021
- Sports Statistician, Windsor Lancers Football Nov. 2020 – Nov. 2021
- Residence Desk Services Assistant, University of Windsor Sep. 2019 – Apr. 2020
- Convocation Assistant, University of Windsor Oct. 2019
- Secretary, University of Windsor Indian Students Club Sep. 2019 – Sep. 2021