

# PATEL JAY

## Contact

1333 South Park  
Street,  
Apt 1019, Halifax,  
NS-B3J 2K9

## Website

patel999jay.github.io

## Contact No

+1 902-818-8034

## Email:

jay.patel.in@ieee.org  
patel.jay@dal.ca

## Languages

English,Hindi,  
Gujarati(M.T)

## Programming Languages

♥Python, C, C++,  
Embedded C,  
HTML, WordPress, XML,  
CSS,  
L<sup>A</sup>T<sub>E</sub>X

## Engineering Tools

♥Matlab, CST, NS-3,  
NS-2, HFSS, Bellhop,  
ROS, Antenna Magus,  
FEKO, SAP

## DOCTORAL

♥Underwater Acoustic  
communication,  
RF/Microwave system,  
CMOS-MEMS, Analog  
MOS Design

## GRADUATE

♥RF & Microwave,  
Antenna Engineering,  
Digital Logic Design,  
Micro-controller,  
Micro-processor,  
Statistical signal  
Analysis, Advance Digital  
Communication.

## Experience

|           |   |                            |
|-----------|---|----------------------------|
| 2018-Now  | <b>Dalhousie University</b><br><i>student IT Technician</i>   | MedIT, Faculty of Medicine |
| 2018-Now  | <b>Dalhousie University</b><br><i>Teaching Assistant</i>  | Faculty of Engineering     |
|           | <ul style="list-style-type: none"> <li>• ECED 6575 (Underwater Acoustic Engineering)</li> <li>• ECED 4502 (Signal Processing)</li> <li>• MECH 3900 (systems-I)</li> <li>• ECED 3500 (Signal Analysis)</li> <li>• ECED 3511 (Communication systems)</li> </ul> |                            |
| 2016-2017 | <b>Parul Institute of Technology</b><br><i>Assistant Professor in Dept. of Electronics and Communication Engineering</i>  | Faculty of Engineering     |
| 2015-2016 | <b>Bombardier Transportation India Pvt. Ltd</b><br><i>Methods Engineer</i>  | Savli, Vadodara, India     |

## Education

|           |   |                                  |
|-----------|---|----------------------------------|
| 2018–2021 | <b>PhD</b> in Electrical & Computer Engineering(3.75/4 GPA)   | Dalhousie University             |
| 2014–2016 | <b>M.Engg</b> in Electronics & Comm. Engineering(8.99/10 CPI) | Gujarat Technological University |
| 2014–2010 | <b>B.Engg</b> in Electronics & Comm. Engineering(8.02/10 CPI) | Gujarat Technological University |

## License

|      |                             |                       |
|------|-----------------------------|-----------------------|
| 2018 | <b>Engineer-in-Training</b> | Engineers Nova Scotia |
|------|-----------------------------|-----------------------|

## Patent

|        |   |  |
|--------|---|--|
| Mar-20 | <b>Low cost design of UHF Antenna for roof mounted vehicular &amp; Heavy-duty applications</b><br>Government of India |  |
|        | <ul style="list-style-type: none"> <li>• Official Journal of the Patent Office (Date:March 20, 2020)</li> </ul>       |  |

## Projects

|           |   |
|-----------|---|
| 2018-2022 | <b>CDMA-based multi-domain communication network for marine robots</b><br>Thales R&D & Dalhousie University |
| 2018-2019 | <b>DND IDEaS research project</b><br>Cellula Robotics and Dalhousie University                              |
| 2015-2016 | <b>QNGR (Queensland New Generation Rolling Stock)</b><br>Bombardier Transportation India                    |
| 2015-2016 | <b>DMRC (Delhi Metro Rail Corporation Ltd)</b><br>Bombardier Transportation India                           |
| 2015-2016 | <b>Antenna development for Metro Trains</b><br>Bombardier Transportation and GTU                            |
| 2013-2014 | <b>Automatic inspection system using Image Processing</b><br>VTalent Global Pvt Ltd and GTU                 |

## Publications

|        |   |  |
|--------|---|--|
| Sep-20 | <b>Underwater channel characterization for shallow water multi-domain communications</b>                              | International Conference on Underwater Acoustics-ICUA'20                                     |
| Aug-20 | <b>Live RF Image Transmission Using OFDM with RPi and PlutoSDR</b>  | IEEE Canadian Conference on Electrical and Computer Engineering-CCECE'20                     |
| Oct-19 | <b>CDMA-based multi-domain communication network for marine robots</b>  | 14th ACM International Conference on Underwater Networks Systems-WUWNET'19                   |
| Jun-19 | <b>Collaboration of multi-domain marine robots towards above and below-water characterization of floating targets</b> | IEEE International Symposium on Robotic and Sensors Environments ROSE-19                     |
|        | • Best Student Paper Award at ROSE-2019.  |  |
| Jul-16 | <b>Book on Roof Mounted UHF Antenna for Auto motives</b>  | LAP LAMBERT Academic Publishing  |
| Apr-16 | <b>Development of Low Profile antenna for Point-to-Train Communication</b>  | 7th National Level Conference on Emerging Vistas of Technology (NCEVT-2016),Parul University |
| Mar-16 | <b>Design and Simulation of Roof mounted low profile UHF antenna for Auto motives</b>                                 | IEEE International Conference on Wireless Communications, Signal Processing and Networking   |
| Jan-16 | <b>Review Paper on Design and Simulation of UHF antenna for Roof mounted vehicular and Heavy Duty Applications</b>    | Indian Journal of Technical Education  |

## References

References can be provided upon request.

## Achievements

|           |   |  |
|-----------|---|--|
| 2018-2021 | <b>NSERG &amp; Thales R&amp;D Grant Receiptant</b>  | Intelligent System Lab, Dalhousie University |
|           | • Received funding for Doctoral thesis.   |  |
| 2018-2019 | <b>Director of Engineering, Architecture and Planning</b>   | DAGS   |
|           | • Elected as Director Engineering, Architecture and Planning of Dalhousie Association of Graduate Students and International student Life Committee Member-Dalhousie University for term 2018-2019.   |  |
| 2018-2019 | <b>IEEE Student branch, PES &amp; HKN chapter Chair</b>   | IEEE Dalhousie University Student Branch     |
|           | <ul style="list-style-type: none"> <li>• Received funding for the project under PES Member-Driven Initiative Program from IEEE.</li> <li>• IEEE HKN Member and Chair of IEEE Dalhousie University SB.</li> <li>• Active Volunteer in IEEE Atlantic Canada Section.</li> </ul>   |  |
| 2014-2017 | <b>IEEE Student branch and PES chapter Chair</b>  | IEEE PU Student Branch                       |
|           | <ul style="list-style-type: none"> <li>• Member of Technical Advisory Committee in IEEE 2018 International Conference On Power,Energy,Control and Transmission Systems.</li> <li>• IEEE PU PES Student branch stood at 28 Highest Performing SB PES chapter all over the world and received token of appreciation from IEEE PES.</li> <li>• Received funding from IEEE for the project under PES Member-Driven Initiative Program.</li> <li>• Volunteered for 4 years in IEEE Gujarat PES Student Section.</li> </ul> |  |