I am writing to express my sincere interest in the Graduate Diploma program in Communications Engineering at Memorial University of Newfoundland. I am currently employed as a Technical Sales Personnel at Brisktrade Offshore Support Services, I have undergone comprehensive on-the-job training conducted by industry leaders such as TSC Subsea and Eddyfi Technologies.

In my role, I have been exposed to several advanced technologies for the inspection of onshore and offshore assets. Notable among these are phased-array ultrasonic tests, pulsed eddy current techniques, alternating current field measurement, and acoustic resonance tests. The common thread connecting these technologies lies in the intricate realm of digital signal processing, a domain I am eager to explore further.

My motivation to pursue a graduate diploma in Communications Engineering originates from the desire to deepen my understanding of digital signal processing and systems. The hands-on experience I have gained has fueled my curiosity, and I am confident that a comprehensive program at Memorial University of Newfoundland will provide the theoretical foundation and practical skills necessary for success in this field.

I hold a bachelor's degree in mechanical and production engineering, providing me with a foundation in mathematical techniques, which are considered prerequisites for the graduate diploma program in Communications Engineering. During my final year at Enugu State University of science and technology, I led a multidisciplinary team of 3 students in conceptualizing, designing, and prototyping of a power generating system using electromagnetic suspension. This compact model harnessed the principles of electromagnetic current induced on a wound copper because of linear motions of an electromagnet through the copper wire. Our project not only involved intricate engineering design but also required a comprehensive understanding of electromagnetic fields, mechanical dynamics, and energy conversion principles. My educational background, combined with my practical experience, positions me well to thrive in the academic challenges of the program.

Furthermore, I am keen on enhancing my educational capabilities to eventually pursue a graduate research program in subsea inspection techniques. The interdisciplinary nature of Communications Engineering, particularly its applications in subsea technologies, aligns perfectly with my long-term career goals.

In addition to my professional and academic experiences, I engage in extracurricular activities that showcase my commitment to technological advancement. I develop web applications and delve into image processing using Python’s OpenCV library. These activities not only reflect my passion for technology but also underscore my enthusiasm for understanding how digital signals are represented and processed.

As part of these extracurricular pursuits, I have gained informal knowledge of internet protocols and policies for handling data. I am excited about the prospect of integrating this practical

knowledge into the academic framework of the Communications Engineering program at Memorial University of Newfoundland.

In conclusion, I am confident that the Graduate Diploma program will provide me with the ideal platform to expand my knowledge, refine my skills, and contribute meaningfully to the field of Communications Engineering. I am also eager to contribute to and benefit from the vibrant academic community at Memorial University of Newfoundland.

Sincerely,

Nweke Oluoma Lesley