Name: Justice Allotey Pappoe **Affiliation:** Egypt-Japan University of Science and Technology

Report on Stay at the International Research Center for Space and Planetary Environmental Science (i-SPES), Kyushu University, Japan

My stay at the International Research Center for Space and Planetary Environmental Science (i-SPES), Kyushu University, Japan, lasted for three months, from March to May 2025. During this time, I was privileged to participate in various academic, cultural, and exploratory activities. These activities enriched my research skills and allowed me to build strong professional connections while enjoying the serene beauty of Japan.

The main objective of my visit to i-SPES was to study the spatio-temporal characteristics of Pc1 geomagnetic pulsations using the Magnetic Data Acquisition System (MAGDAS). The research aimed to understand the propagation and global distribution of Pc1 waves. I employed advanced techniques such as wavelet-based analysis for effective study of the Pc1 waves in the time-frequency domain and developed an automatic detection algorithm for Pc1 waves. Interesting results were obtained from the study which are currently being compiled to be submitted to a peer-reviewed journal for publication.

During my stay I had the privilege to visit the Kuju (KUJ) magnetometer observatory with Mr. Shuji Abe, and Mr. Teiji Uozumi. At the KUJ magnetometer observatory, we performed maintenance and extracted recorded data from the magnetometer, which aided in our research at i-SPES.

I did many activities during my free time, notably including riding a bicycle through the beautiful city of Fukuoka and visiting the sea to experience the refreshing breeze. In addition, I enjoyed different Japanese cuisines from the ever-tasteful sushi to the delicious breads in Japan, this was an incredible culinary experience. I also had the opportunity to visit the city of Osaka. I really enjoyed the strong Japanese cultural heritage of this city.

A special thanks and gratitude go to JSPS KAKENHI Grant Number JP12345678 which supported the living expense during my stay at Kyushu University and Professor Akimasa Yoshikawa for his mentorship, support, and guidance throughout my stay at i-SPES. He shared with me a lot of personal experiences on both professional and personal levels. I am also very thankful to Ms. Goto Kayo for her assistance throughout my stay, her sacrifices, and her efforts to make sure I am always safe and comfortable at i-SPES are highly appreciated. My special thanks go to Mr. Vincent Miranda Topacio and Mr. Girgis Kirolosse for teaching me a lot of beautiful places in Japan. Finally, I am grateful to all the members at i-SPES for their warm hospitality and friendliness, which made my stay both enjoyable and memorable.



Dinner with the members at i-SPES



Visit to the KUJ Mag. observatory