MOTIVATON LETTER

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Respected Sir/Ma'am,

I would be delighted to be part of this workshop event of your Prestigious Institute. I have a strong background in Atmospheric Oceanic Science & Technology & Remote Sensing, which I studied in my Master's program, respectively. I also have the relevant experience working in Atmospheric General Circulation Model (WRF) & Regional climate model (REGCM4.3). I am currently working on project "***Prepare A Size Based Database of North Indian Ocean (NIO) Cyclones and Studying Their Metrological Characteristics Using Scatterometer Products Numerical by Models During Warming Climate Scenario***" an **Indian Space Of Research Organization (ISRO), Govt. of India** project.

I have attended the **ICIFTES 2020** International conference in **NIT Rourkela Odisha** during (10-12) February 2020and **SMART** Training Programme in **SAC –ISRO** Ahmedabad during (2-6) April 2018. I have completed a course on **"Hyperspectral Remote Sensing and its Applications"** held by the **Indian Institute of Remote Sensing (IIRS-ISRO)** outreach program at the National Institute of Technology Rourkela, Odisha from 18 September 2017 to 21 September 2017. I have also completed a course on **"Remote Sensing and Digital Image Analysis"** held by the **Indian Institute of Remote Sensing (IIRS-ISRO)** outreach program at the National Institute of Technology Rourkela, Odisha from 21 August 2017 to 15 September 2017. I have worked on Topic "Interaction of Urban Boundary Layer with Mesoscale Weather" a **Science and Engineering Research Board (SERB), Department of Science & Technology, Govt. of India** and also Worked on title "National Land Use Land Cover Analysis cycle" a **National Remote Sensing Centre (NRSC-ISRO)**.

I have completed my master's in the **Atmospheric Oceanic Science & Technology** program at Centre for Atmospheric Science, **Indian Institute of Technology Delhi (IIT DELHI), India.** I have done one year of research project during my Masters in Technology titled as *"*and I worked on my Master's Project in "**Deterministic state of Atmospheric fields of Indian monsoon circulation using Regional climate (REGCM4.3) model**" **IIT Delhi, India** from June 2012 to May 2013**.** I have also worked on a one-month project on "***Performance Improvement, and Emissions Reduction of Ethanol blended Gasoline Fueled Spark Ignition Engine using Different Compression Ratios***" during the 2013 Year.

I have presented a Paper "***A Preliminary study of aerosol -land-atmosphere interactions during Indian summer monsoon using regional climate model (IASTA-2012/ SESSION-II/O-143)*"** that published in BARC -IASTA 2012 book in International conference **IASTA (Indian Aerosol Science and Technology Association) 2012 in Bhabha Atomic Research Centre (BARC) Navi Mumbai.** I have attended a National Conference **(**3-5*Dec*-2012) "**Future Directions for Weather & Climate Research in the Tropics"** & presented the **Project Poster** in the **Open House at IIT Delhi** among the 500+ projects poster. I am confident enough that I would be able to reach up to the standards set by this position and contribute my part to the world of science and technology.

I was bitten by the engineering bug long before when I completed my high school. Likewise, I was able to place myself among the top 2% of more than a million aspirants for the prestigious **Chhattisgarh Swami Vivekanand Technical University, Bhilai, Chhattisgarh** qualifying All Indian Engineering Entrance Examination **(AIEEE**). I chose **Mechanical Engineering.** This is the field that perfectly blends my desirable academic flavors. I have done one month of internship from **SAIL, ACC, BRP** in 2008-2009 during my Bachelor in Engineering.

I was bitten by the engineering bug long before I completed my high school. Likewise, I was able to place myself among the top 1% of tens of thousands aspirants for the prestigious institute **RCET Bhilai, under Chhattisgarh Swami Vivekanand Technical University (CSVTU), Bhilai, Chhattisgarh**. I chose Mechanical Engineering branch there. In my third year of engineering, I worked on a major project named "***Modeling & Solution of Truss using Finite element method by ANSYS Software***." It is then when following this, I continued my quest and joined Masters of Technology is one of the prestigious institutes **Indian Institute of Technology Delhi, India (IITD),** by qualifying India's one of very competitive test called as Graduate Aptitude Test in

Engineering **(GATE**). I chose the ***Atmospheric Oceanic Science & Technology*** branch there**.** This is the field that perfectly blends my desirable academic flavors. There, I have learned subjects like Tropical meteorology, boundary layer, Remote Sensing, Global Information System (GIS), and Digital Image Processing, which caught my interest in continuing my carrier in the Oceanography & ArcGIS and its application. Following which I have started working on Prepare size base study in the North Indian Ocean (NIO) region project also where I dealt with from GIS and Spatial Analysis and its application part and Satellite Image Classification and feature mapping using LISS-III-IV like satellite images.

After the 'Introduction to basic topics in Atmospheric field' in my sophomore year, I learned the essential ideas of different Atmospheric field properties, computer processing, and all I started was to ferret out for the roots and basics of Atmosphere. Because of my fascination towards interdisciplinary environment, I was unable to restrict myself to a particular area, so I underwent for **practical training at Associated cement company (ACC)** after my second year and came across some exciting techniques like manufacturing cement ,Pollution control Transforming and Managing Wastes, water conservation ,greening of environment & environment protection etc. I also got acquainted with the Pollution control and Transforming and Managing Wastes system, which was the point of convergence of my training. By this short period of training, I understood the niceties involved in core & instrumentation as well as I got the experience to work as a team. By this period of work, I have followed the niceties involved in core & instrumentation as well as I got the experience to work as a team.

Because of my fascination towards the said discipline, I was unable to restrict myself and self-motivated, started working independently on "*Prepare A Size Based Database Of NIO Cyclones And Studying Their Metrological Characteristics Using Scatterometer Products Numerical by Models During Warming Climate Scenario*" an **Indian Space Of Research Organization (ISRO), Govt. of India** project to acquire more knowledge in this field. In this project, I am trying to preparing a Database of NIO TCs based on their size or radius of maximum wind by taking into account maximum sustained wind and vortex developed & observe the Track plot of cyclone. Predicting the NIO TCS & improving their predictability. Performing a compressive analysis based on the prepare database & predictability of North Indian Ocean (NIO) tropical cyclones (TCs) during the Warming climate scenario. In this way, I am now acquired with the qualities of working as an individual or as part of a team.

I have teaching experience in Engineering & Mathematics, physics to Bachelor of Engineering & Science's students for 4 year from 2013-2017.And on the related note, I also have worked as Subject Matter Expert (Mathematics) at Evelyn Learning Systems Pvt. Ltd. New Delhi. These endeavors of mine forged my leadership skills as well, which made me capable of working for a responsible role in a team too.

By working on all of the above-mentioned projects and tasks, I ended up having a strong knowledge of various satellite image analysis and processing software such as **MATLAB, ArcGIS, ENVI, ERDAS, QGIS, Pro-E** and languages such as **Shell, C ,Fortran, and Python**. With the strong handle on these software and programming languages, I can conveniently and efficiently work on **Grads, NetCDF, HDF data handling**, Arc GIS, ERDAS Spatial Analysis, or based technological applications.

The professional and personal difficulties I had overcome during my projects taught me so many lessons to manage the day to day problems and led me to become an intellectually flexible, innovative, and more efficient person altogether. I believe with these educational values that I possess, working with a prestigious institute such as yours will add more to it and expose me more to areas where GIS and Spatial Analysis are relevant and, in addition, put into practice what I have learned so far. This would enable me to work towards my future career in research within academia or industry and vastly improve job prospects. I have a cheerful and open-minded disposition and look forward to sharing and exploring new ideas.

I will be happy to furnish any additional information that you may need in support of my application. I thank you in advance for any consideration that you may have given to my request. Thank you very much for your time. I am looking forward to hearing from you soon.

Yours Sincerely,

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