## Bharatesh Chakravarthi, Ph.D.,

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## **Cover Letter**

Dear Professor, May 18, 2022

I am writing to apply for the faculty position in your institution as advertised on your university website. I am currently a research scholar at Virtual Environments Lab, Department of CG/VR, the graduate school of Advanced Imaging Science, Chung-Ang University, Seoul. I completed Ph.D. degree requirements on May 2022. Therefore, I am highly interested in obtaining faculty position at your esteemed institution, where I can contribute to its focus on teaching, research and development.

My research practice at Virtual Environments Lab (2018-Till date) and five years of working as an assistant professor at engineering education institutes (2013-2018) have prepared me to be an influential researcher in your research group. In consultation with Prof. Chai Young Ho, my doctoral dissertation investigates the proxemics-based pervasive interaction for wide-area and high-speed serial motion recognition. During my research, I developed an indigenous platform to synthesize realistic and kinematically valid human motion. Furthermore, an intuitive 3D visualization tool called Motion-Sphere was designed and developed to recognize and analyze various human activities. This work was made publicly available over GitHub to the user community.

In addition to my dissertation research, I was acquainted with real-time motion capture systems such as Xsens MTw Awinda and Perception Neuron to create a sensing environment. In addition, I have worked on setting up an Open-Source platform for human pose tracking and estimation using a heterogeneous sensor system. I have also been a part of projects related to visualization, 3D character animation, human motion estimation, analysis, reconstruction, and activity recognition. Simultaneously, I was fortunate to publish and present a few of my novel works in journals and conferences. I also aspire to continue timely research publications. Given an opportunity, I plan to continue and grow further with your support and guidance.

During my career, I have involved myself in open-source contributions, research article reviews, technical talk delivery, project mentoring for undergraduate students, and consistent participation in various technical skill development programs. These practices have always led me to be on a learning curve and have built my confidence to take up new challenges and research assignments.

It would be an excellent opportunity to join your reputed research group to further shape my career alongside eminent peers. Therefore, I am enclosing my curriculum vitae for your consideration. If you require any additional information or documents, I will be happy to provide them.

Sincerely, Bharatesh Chakravarthi