

Improving Mental Health Factor Via Virtual Reality

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Abstract

Soaring on long missions to Mars or whether to make the Moon an Industrial place for keeping the earth safe from pollution, the days are very near when we will need to send mass people as astronauts to space. Though the training period makes a human being stronger. Yet the lack of human presence and earthly environment can create so many mental challenges in such confined places. Moreover, we are living in such a time where our brain is continuously fed with “social media dopamine” and so much entertainment. In order to, make staying in space easier, the idea of keeping the astronauts entertained and providing them with an earthly environment with the help of VR can be a groundbreaking idea. Humanities are planning to conquer MARS in 2030. It is going to be the longest journey humanities ever had. This is the beginning of a series of long journeys for humanities in space. Such big steps have automatically generated challenges. One of the biggest challenges is keeping the astronauts' morale high and keeping them entertained on such long journeys in the lack of an earthly environment. So, our objective is to establish a comfort corner as earth through Virtual Reality. We are determined to create a platform that can provide some sort of relief with the existing technology of Artificial Intelligence and Virtual Reality.

Keywords

Virtual reality, Space, Space exploration and mental health in space.

Biography / Biographies

Rifah Tasnia currently I am an undergraduate student at Mathematics discipline, Khulna University. I participated IEOM Innovative Idea Competition on ‘Restore Our Planet by Sustainable Management’ entitled ‘Sustainable Alternative Meat Production: A shift towards ecologically balanced environment’ and there I achieved second place.

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Arpa Afrin Mim is currently an undergraduate student at Mathematics discipline, Khulna University. With great interest of research work she has participated in numerous Mathematics Olympiad competition and has been awarded for placing.

Dr. Md. Haider Ali Biswas is currently affiliated with Khulna University, Bangladesh as a Professor of Mathematics under Science Engineering and Technology School and he served as the Head of Mathematics Discipline from 2015 to 2018. Prof. Biswas obtained his B Sc (Honors) in Mathematics and M Sc in Applied Mathematics in the year 1993 and 1994 respectively from the University of Chittagong, Bangladesh, M Phil in Mathematics in the year 2008 from the University of Rajshahi, Bangladesh and PhD in Electrical and Computer Engineering from the University of Porto, Portugal in 2013. He has more than 22 years teaching and research experience in the graduate and post-graduate levels at different public universities in Bangladesh. He published Three Books, Seven Book Chapters and more than 200 research papers in the peer reviewed journals and international conferences. Prof. Biswas supervised (is supervising) more than 80 undergraduate students (Undergraduate Project Thesis), 30 MSc Students (MSc Thesis and Project Thesis), 3 MPhil Students and 5 PhD Students at Different Public Universities including Khulna University in Bangladesh. Prof. Biswas has worked at several R & D projects in home and abroad as PI and/or Researcher, particularly he conducted several research projects funded by Khulna University Research Cell, the Ministry of Science and Technology, Bangladesh, University Grants Commission of Bangladesh and The World Academy of Science (TWAS), Trieste, Italy. His present research interests include Dynamic Optimization, Optimal Control with Constraints, Nonsmooth Analysis, ODEs and Dynamical Systems, Mathematical Modeling, Inventory Model in Production Management, Mathematical Ecology, Environmental modeling and Climate change, Mathematical Biology and Biomedicine, Epidemiology of Infectious Diseases. Since the last ten years, Prof. Biswas has been working on the applications of mathematical models for designing and implementing those to real life problems, specially for the sustainable/optimal management under the changing environment due to global warming. He is the life/general members of several professional societies and/or research organizations like Bangladesh Mathematical Society (BMS), Asiatic Society of Bangladesh (ASB), Institute of Mathematics and its Applications (IMA), UK, European Mathematical Society (EMS) and Society for Mathematical Biology (SMB). Dr. Biswas is the founder member of Mathematical Forum Khulna and served as the General Secretary of the Forum in 2013-2015. Dr. Biswas organized several national and international seminars/workshops/conferences in home and abroad and he has been working as Editor/Member of editorial boards of several international peer-reviewed journals. Professor Biswas delivered more than 50 Talks as Keynote/Invited/Plenary/Panel Speaker at several international conferences/seminars/workshops in home and abroad. Professor Biswas was nominated as the Member of the Council of Asian Science Editors (CASE) for 2017-2020 and the Associate Member of the Organization for Women in Science for the Developing World (OWSD) since 2017. Recently, Professor Biswas has been elected as a Member of Executive Committee of Bangladesh Mathematical Society (BMS) for the year 2019-2021, and also nominated as the Associate Editor of the international journal GANIT- Journal of Bangladesh Mathematical Society (BMS) for the year 2019-2021. Dr. Biswas has been nominated as a Member of Executive Committee of the IEOM Society, Bangladesh Chapter and also serving as the Treasurer of the IEOM Society, Bangladesh Chapter. He is also serving as the Faculty Advisor of the IEOM Society Khulna University Chapter. Professor Biswas is presently serving as the President of Bangladesh Society for Mathematical Biology (BSMB) for the year 2019-2021.