

5G VR Rehabilitation for Multiple Esclerosis

Objective: Patients with multiple sclerosis improve their physical condition when they perform physical and cognitive rehabilitation on a daily basis. Therefore, through 5G, Edge Computing and VR technologies, an immersive experience has been developed in which they can perform the rehabilitation exercises defined by medical specialists, but in an innovative, social and, above all, motivating way that increases their adherence to treatment.

Description:

In collaboration with the team specialized in multiple sclerosis of the La Princesa Hospital, a collection of conventional rehabilitation exercises has been transferred to virtual reality in fantastic scenarios, of medieval castles or exotic beaches, in order to test the usability of this technology and also its effects on the treatment of multiple sclerosis patients.

Thanks to 5G connectivity and Edge Computing, it is possible to carry out these gamified rehabilitation sessions in an immersive, multi-user and collaborative environment, so that the patient can access different virtual rooms where they can carry out their rehabilitation together with other patients, even being able to carry out collaborative exercises among them, under the supervision of a rehabilitation professional who directs the session. This makes it possible to carry out an all-in-one rehabilitation session in person or remotely from their homes. The application runs on Edge Computing to ensure low latency in multi-user access, which is essential for implementing exercises that require coordination between users, such as picking up a virtual object and giving it to another user.



[Video](#)