EXTENDED REALITY IN NANOTECHNOLOGY

Šarūnas Ščefanavičius[1], Raman Levoshka[2], IlseChristine Gebeshuber[2]

[1]Vilnius University
[2]Technical University of Vienna
sarunas.scefanavicius@ff.stud.vu.lt

Currently, nanotechnology faces a big problem that it is difficult to teach and learn because of the small size of the nanomaterials. Extended Reality offers a way to solve this problem. In my research during Erasmus studies at Technical University of Vienna, Austria me and my colleague Raman Levoshka developed three-dimensional models of nanomaterials and nanostructures using Augmented Reality (AR) to visualize the concepts better. The nanomaterials were chosen to be graphene, carbon nanotube, carbon buckyball and lastly to showcase the full potential of AR – Space Elevator. The models were created using Rhino and Grasshopper software, and visualized using Abode Aero software. This project aimed to implement Extended Reality into Nanotechnology to give more access to the study of nanomaterials. Additionally, it makes communication between researchers and consumers, professors and students, manufacturers and investors more accessible in terms of nanotechnology.