

The main objective of the project is the launching of the workforce CERVA (Research in Virtual and Augmented Reality) as a nucleus of cutting-edge scientific and technological competence in the haptic research field, at international standards, as part of Ovidius University. The objective will be achieved by transferring the scientific and technical expertise from Dr. Felix G. Hamza-Lup, expert in the design and development of user interfaces with haptic-feedback (i.e. tactile retroaction) and their usage in medical training and patient rehabilitation, to the Ovidius University team. Specifically, the project is oriented towards simulation applications in the medical field, especially in surgeon training and applications for medical rehabilitation (e.g. motor rehabilitation of patients after strokes or other accidents which have affected the motor system).

The contribution of the project in meeting these objectives is:

1. To accelerate the activities of research-and-development and strengthen the knowledge the University can offer, through the development of expertise in the field of visual-haptic interfaces.
2. To attract young and highly qualified specialists (Ph.D, Ph.D supervisors) through the usage of haptic return in fields of intensive interest at international level (e.g. medical applications for surgeon improvement and patient rehabilitation).
3. To develop and improve training methods, particularly for external and internal surgery (especially for laparoscopic surgery), keeping in mind the future development of a Centre of Excellence in Simulation and Professional Training.