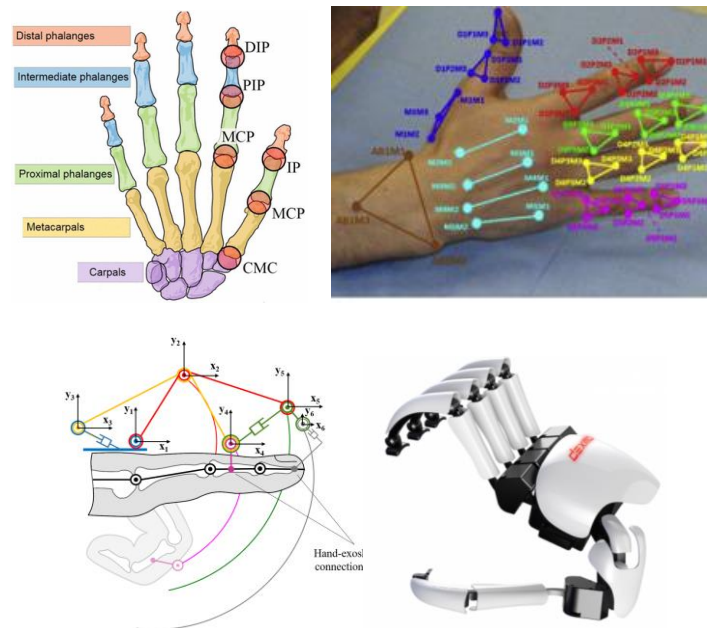


Diplomarbeit/Studienarbeit

„Analysis and design of haptic glove structure adaptive to various hand sizes “



Summary:

Hand exoskeletons, that provide feedback to the hand for various purposes (i.e. medical applications, immersive haptic experiences in VR/AR, force enhancement, etc.) experience various challenges. Here, the problem to solve is its adaptability to different hand sizes. Here, the student will be required to perform a prior research of the human hand size variability, the existing solutions for it, and study the possibility of a exoskeleton/glove structure that may adapt to such wide range. For this goal, the student may perform simulations where different exoskeleton structures, with different sizes, are analysed for each case. Although some ideas are already considered for such design, the student may provide its own ideas and implement them for such analysis and design. Alongside the kinematic analysis, force capabilities of such design, would be highly advised. Therefore, students with a theoretical mechanic/robotics background are suitable for this project.

Supervision by the Chair of Acoustics and Haptics

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