

Masters Dissertation Ideas

- Friction model using different identification techniques.
- Friction model for multilayer soft tissue.
- Koopman theory for system identification.
- Check different successful models on Poddars data (e.g. Khadem).
- Retraction force modelling (initial plummet due to friction)
- Comparison of friction models
 - LuGre model
 - Dahl model
 - Relative velocity model
 - Stribeck model
- Axial forces as function of depth and insertion velocity $F = F(x, u)$ (surface)
- Identification using data from analytical models
- Compare ultrasound deformations with graphics

Extensions

- FEM and ML for online control