

- **Writing system equations**
- **solution of differential equations**
- **Laplace transform**
- **system representation**
- **control-system characteristics**
- **root locus frequency response**
- **closed-loop tracking performance based on the frequency response**
- **root-locus compensation - design**
- **frequency-response compensation design**
- **control-ratio modelling**
- **design - closed-loop pole-zero assignment (state-variable feedback)**
- **parameter sensitivity and state space trajectories**
- **sampled-data control systems**