

Figure 5.1 Series resistor–inductor circuit.

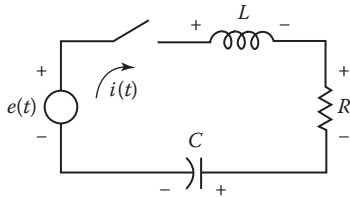


Figure 5.2 Series RLC circuit.

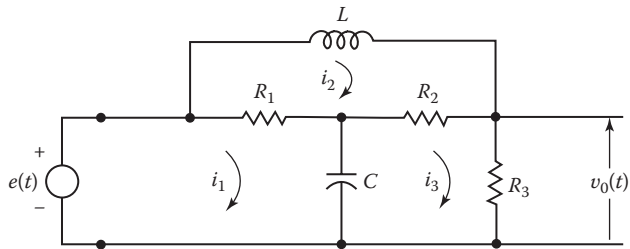


Figure 5.3 Multiloop network.

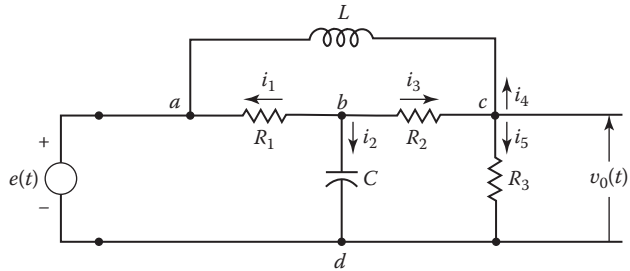


Figure 5.4 Multi-node network.

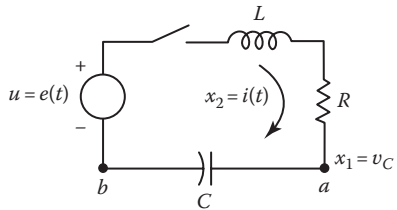


Figure 5.5 Series RLC circuit.

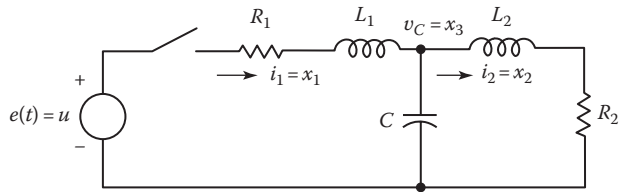


Figure 5.6 An electric circuit.

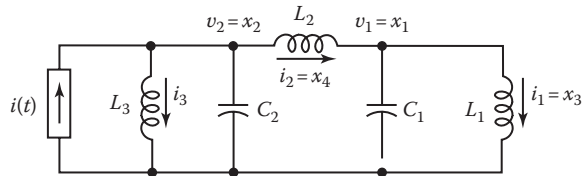


Figure 5.7 Electric circuit.

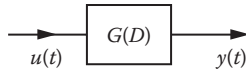


Figure 5.8 Block diagram representation of Figure 5.2.

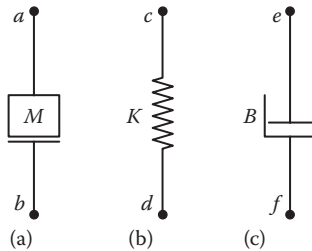


Figure 5.9 Network elements of mechanical translation systems (a–c).

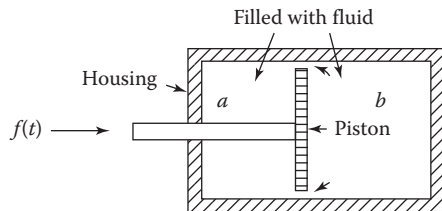


Figure 5.10 Construction of a dashpot.

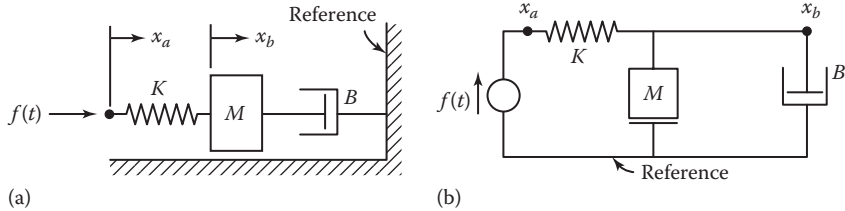


Figure 5.11 (a) Simple mass-spring-damper mechanical system; (b) corresponding mechanical network.

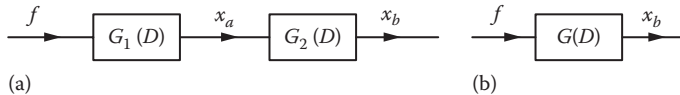


Figure 5.12 Block diagram representation of Figure 5.11: (a) detailed; (b) overall.

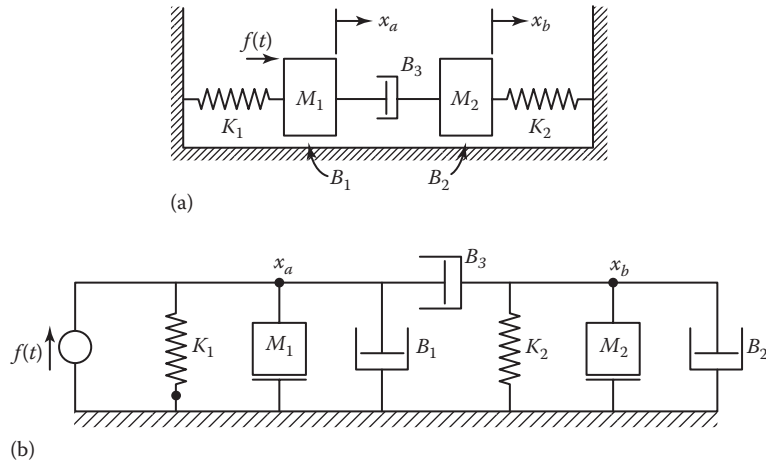


Figure 5.13 (a) Multiple-element mechanical system; (b) corresponding mechanical network.

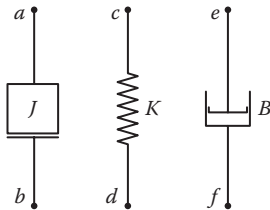


Figure 5.14 Network elements of mechanical rotational systems.

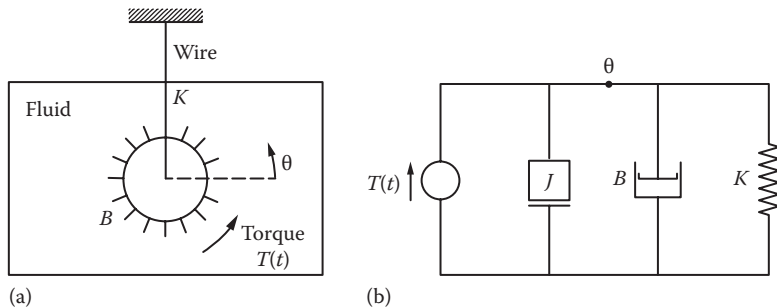


Figure 5.15 (a) Simple rotational system; (b) mechanical network.

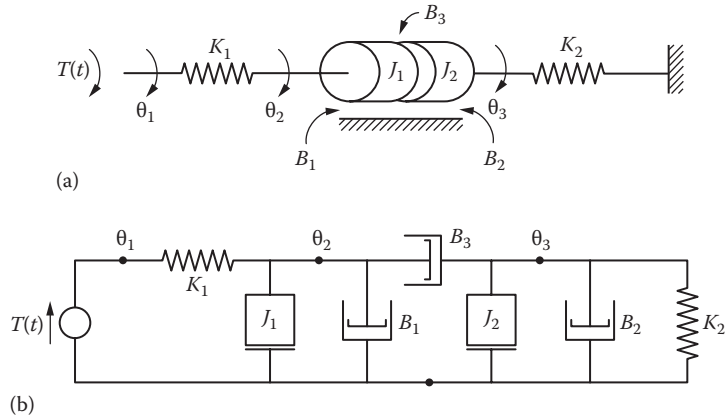


Figure 5.16 (a) Rotational system; (b) corresponding mechanical network.

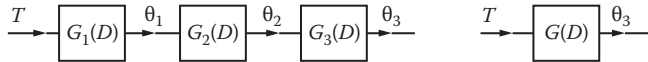


Figure 5.17 A detailed and overall block diagram representations of Figure 5.16.

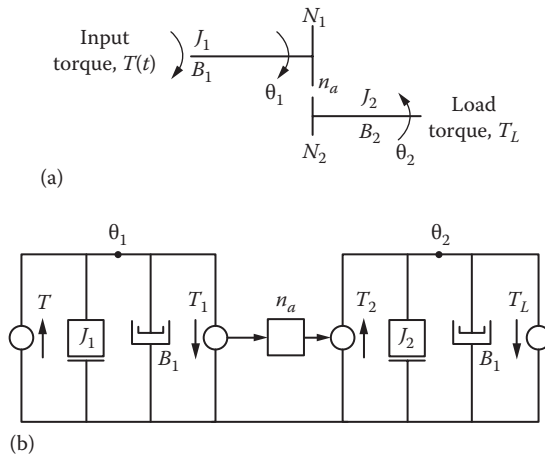


Figure 5.18 (a) Representation of a gear train; (b) corresponding mechanical network.

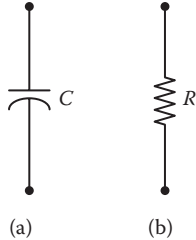


Figure 5.19 Network elements representing thermal systems.

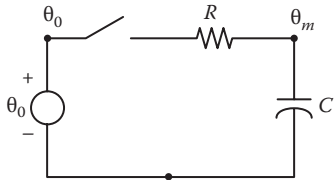


Figure 5.20 Simple network representation of a thermometer.

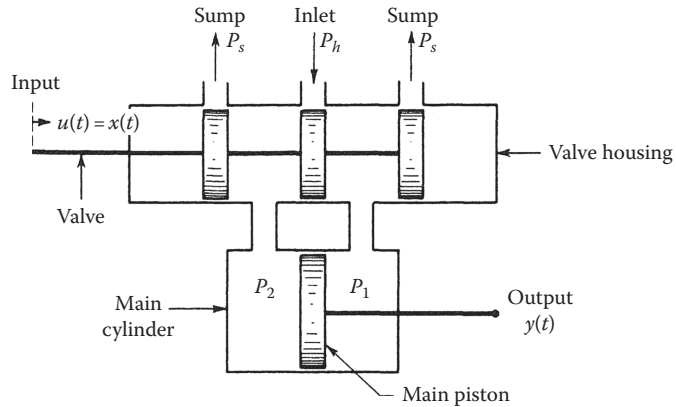


Figure 5.21 Hydraulic actuator.

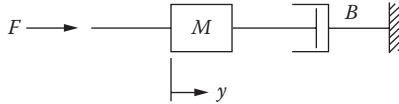


Figure 5.22 Load on a hydraulic piston.

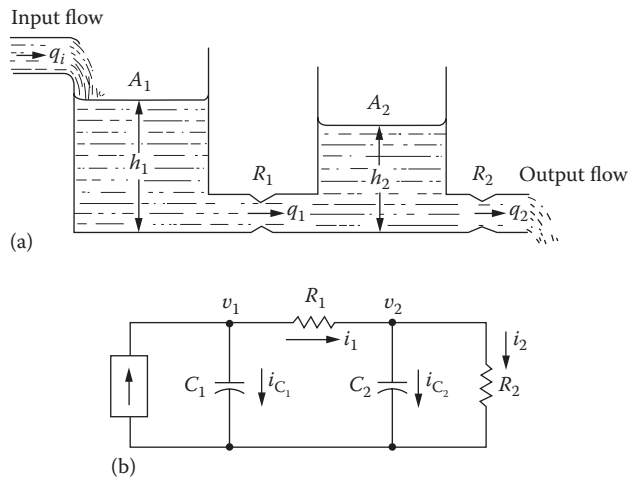


Figure 5.23 (a) A liquid level system and (b) its equivalent electrical analog diagram.

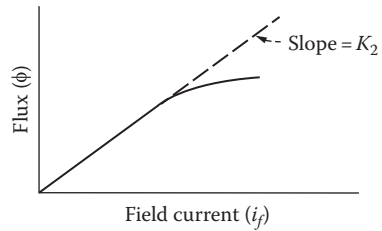


Figure 5.24 Magnetization curve.

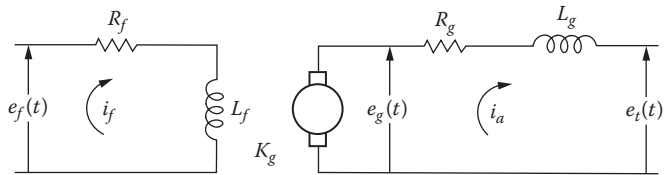


Figure 5.25 Schematic diagram of a generator.

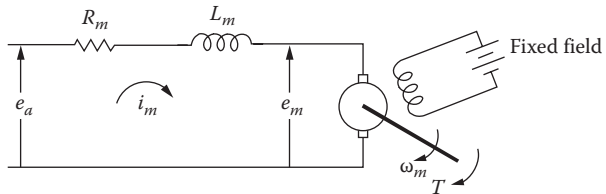


Figure 5.26 Circuit diagram of a dc motor.

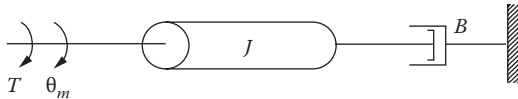


Figure 5.27 Inertia and friction as a motor load.

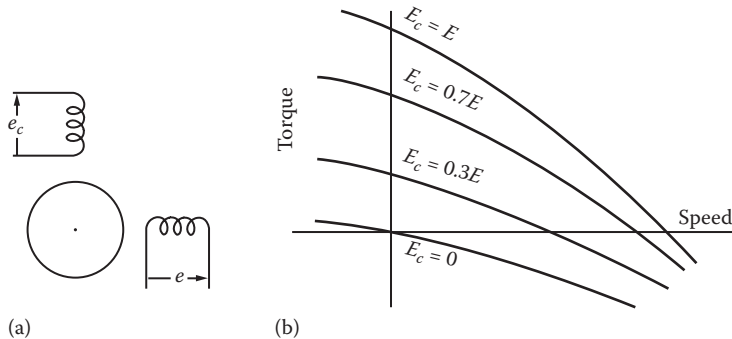


Figure 5.28 (a) Schematic diagram of a two-phase induction motor; (b) servomotor characteristics.

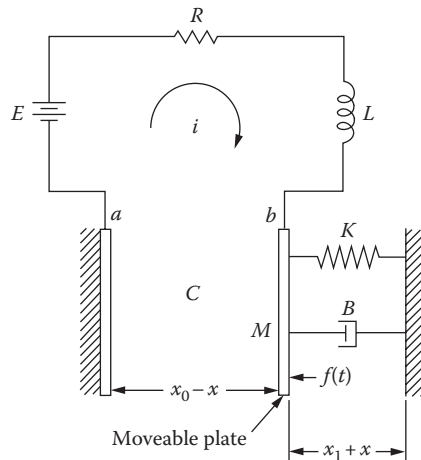


Figure 5.29 Electromechanical system with capacitive coupling.