CIRCUITS & ELECTRONICS

B1	**CIRCUITS** Sinusoidal Steady State Analysis	"Electric Circuits," J. W. Nilsson & Susan A. Riedel,9th ed., Prentice Hall, Chapters 7 – 10.	Dr. Lakdawala
B2	**CIRCUITS** Circuit Analysis with the Laplace Transform	"Electric Circuits," J. W. Nilsson & Susan A. Riedel,9th ed., Prentice Hall, Chapter 13.	Dr. Lakdawala
B3	**ELECTRONICS**	"Microelectronic Circuits," A. S. Sedra and K. C. Smith,5th ed., Oxford Univ. Press, New York, 1998. Chapters: 2-5.	Dr. Namkoong

SYSTEMS, SIGNAL AND IMAGE PROCESSING

C1	**IMAGE PROCESSING**	"Digital Image Processing," R. C. Gonzalez and R. E. Woods, 3rd ed., Prentice Hall, 2007, Chapters 1 – 4.	Dr. Chen
C2	**DIGITAL SIGNAL PROCESSING** Discrete-Time System Analysis	"Linear Systems and Signals," B. P. Lathi, 2nd ed., Oxford, 2005, Chapters 3, 5.	Dr. Li
C3	**DIGITAL SIGNAL PROCESSING** Sampling and Fourier Analysis of Discrete-Time Signals and Systems	"Linear Systems and Signals," B. P. Lathi, 2nd ed., Oxford, 2005, Chapters 8, 9.	Dr. Li
C4	**CONTROL SYSTEMS**	"Control Systems Engineering," N. S. Nise, 6th ed., Wiley, 2011, Chapters 2 – 11, Secs. 12.1 – 12.2.	Dr. González
C5	**COMMUNICATION SYSTEMS**	"Fundamentals of Communication Systems," J. G. Proakis and M. Salehi, Pearson/Prentice-Hall, 2005. Chapters 1 – 7.	Dr. Popescu
C6	**COMMUNICATION NETWORKS**	Data Link Layer error detection and correction methods Sliding window protocols Multiple access protocols (Aloha variants, CSMA with CD/CA) Routing algorithms (Link State, Distance Vector, RIP, OSPF) TCP congestion control • "Computer Networks," A. S. Tanenbaum, Prentice Hall, 5th Ed., 2011, Sections 3.1 – 3.4, 4.1 – 4.2, 5.1 – 5.6, 6.2, 6.4, 6.5. • "Computer Networking: A Top-Down Approach," J. F. Kurose and K. W. Ross, 5th ed., 2010 Chapters 1, 3–5.	Dr. Xin

- Ch. 1. Microprocessor systems, microcontrollers and

F1   **MICROPROCESSORS**

- Ch. 1. Microprocessor systems, microcontrollers and

		CYBERSECURITY	
G1	**COMPUTER NETWORKS AND SECURITY**	"Computer Networking: A Top-Down Approach," J. F. Kurose and K. W. Ross, 8th ed., 2021, Chapters 7 and 8	Dr. Alsharif
G2	**CYBER DEFENSE FUNDAMENTALS**	"Introduction to Cryptography with Coding Theory", Wade Trappe and Lawrence C. Washington, Chapter 1-9	Dr. Wu
G3	**CYBER PHYSICAL SYSTEM SECURITY**	"Security in Computing", 5th edition, by Charles Pfleeger, Shari Lawrence Pfleeger, and Jonathan Margulies, Chapter 3-9	Dr. Wu
G4	**FOUNDATIONS OF CYBERSECURITY**	Set-UID Programs, Buffer Overflow Attack and Format String Vulnerability. "Computer Security- A Hands-on Approach", Wenliang Du, 1st Edition, Chapters 1, 4 and 6	Dr. Shetty
G5	**SECURITY AND PRIVACY OF EMBEDDED SYSTEMS**	E. A. Lee and S. A. Seshia, Introduction to Embedded Systems - A Cyber-Physical Systems Approach, Second Edition, by, MIT Press, 2017. Link to download pdf: https://ptolemy.berkeley.edu/books/leeseshia/	