



<b>CIRCUITS &amp; ELECTRONICS</b>			
<b>B1</b>	<b>CIRCUITS</b> Sinusoidal Steady State Analysis	“Electric Circuits,” J. W. Nilsson & Susan A. Riedel, 9 <sup>th</sup> ed., Prentice Hall, Chapters 7 – 10.	Dr. Lakdawala
<b>B2</b>	<b>CIRCUITS</b> Circuit Analysis with the Laplace Transform	“Electric Circuits,” J. W. Nilsson & Susan A. Riedel, 9 <sup>th</sup> ed., Prentice Hall, Chapter 13.	Dr. Lakdawala
<b>B3</b>	<b>ELECTRONICS</b>	“Microelectronic Circuits,” A. S. Sedra and K. C. Smith, 5 <sup>th</sup> ed., Oxford Univ. Press, New York, 1998. Chapters: 2-5.	Dr. Namkoong
<b>SYSTEMS, SIGNAL AND IMAGE PROCESSING</b>			
<b>C1</b>	<b>IMAGE PROCESSING</b>	“Digital Image Processing,” R. C. Gonzalez and R. E. Woods, 3 <sup>rd</sup> ed., Prentice Hall, 2007, Chapters 1 – 4.	Dr. Chen
<b>C2</b>	<b>DIGITAL SIGNAL PROCESSING</b> Discrete-Time System Analysis	“Linear Systems and Signals,” B. P. Lathi, 2 <sup>nd</sup> ed., Oxford, 2005, Chapters 3, 5.	Dr. Li
<b>C3</b>	<b>DIGITAL SIGNAL PROCESSING</b> Sampling and Fourier Analysis of Discrete-Time Signals and Systems	“Linear Systems and Signals,” B. P. Lathi, 2 <sup>nd</sup> ed., Oxford, 2005, Chapters 8, 9.	Dr. Li
<b>C4</b>	<b>CONTROL SYSTEMS</b>	“Control Systems Engineering,” N. S. Nise, 6 <sup>th</sup> ed., Wiley, 2011, Chapters 2 – 11, Secs. 12.1 – 12.2.	Dr. González
<b>C5</b>	<b>COMMUNICATION SYSTEMS</b>	“Fundamentals of Communication Systems,” J. G. Proakis and M. Salehi, Pearson/Prentice-Hall, 2005. Chapters 1 – 7.	Dr. Popescu
<b>C6</b>	<b>COMMUNICATION NETWORKS</b>	<p>Data Link Layer error detection and correction methods</p> <p>Sliding window protocols</p> <p>Multiple access protocols (Aloha variants, CSMA with CD/CA)</p> <p>Routing algorithms (Link State, Distance Vector, RIP, OSPF)</p> <p>TCP congestion control</p> <ul style="list-style-type: none"> <li>• “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.</li> <li>• “Computer Networking: A Top-Down Approach,” J. F. Kurose and K. W. Ross, 5th ed., 2010 Chapters 1, 3–5.</li> </ul>	Dr. Xin



## **COMPUTER SYSTEMS**

- Ch. 1. Microprocessor systems, microcontrollers and

### **F1 MICROPROCESSORS**

**CYBERSECURITY**

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