

# Suggested Reading

## Contents

- 1 Blogs, Websites, and on-line Books
  - 2 Textbooks
    - ◆ 2.1 Digital Wireless Communications
    - ◆ 2.2 Digital Signal Processing (DSP)
    - ◆ 2.3 Software Defined Radio (SDR)
    - ◆ 2.4 Radio Frequency (RF) Electronics/Systems
    - ◆ 2.5 Amateur Radio and ARRL
  - 3 Academic and Conference Papers
- 
- "Wireless Pi" Blog by Dr Qasim Chaudhari
  - "The Scientist and Engineer's Guide to DSP" (free book)
  - "Complex to Real" Blog
  - "DSP Related" Blog
  - "Mathematics of the DFT" (free book)
  - "Introduction to Digital Filters" (free book)
  - NI Application Note "What is I/Q Data?"
  - "Quadrature Signals: Complex, But Not Complicated" by Richard Lyons
  - "Quadrature Signals: Complex, But Not Complicated" by Richard Lyons
  - Free SDR Book from The MathWorks
  - GNU Radio Suggested Reading
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- Guide to Wireless Communications (3rd Edition) by Jorge Olenewa  
<https://www.amazon.com/Guide-Wireless-Communications-Jorge-Olenewa/dp/1111307318/>
  - Wireless Communications: Principles and Practice (2nd Edition) by Theodore S. Rappaport  
<https://www.amazon.com/Wireless-Communications-Principles-Practice-2nd/dp/0130422320/>
  - Wireless Communications from the Ground Up: An SDR Perspective (2nd Edition) by Qasim Chaudhari  
<https://wirelesspi.com/>  
<https://wirelesspi.com/book/>  
<https://www.amazon.com/gp/product/1729732232/>
  - Digital Communications: Fundamentals and Applications (2nd Edition) by Bernard Sklar  
<https://www.amazon.com/Digital-Communications-Fundamentals-Applications-2nd/dp/0130847887/>
  - Digital Communications (5th Edition) by John Proakis, Masoud Salehi  
<https://www.amazon.com/Digital-Communications-5th-John-Proakis/dp/0072957166/>
  - Digital and Analog Communication Systems (8th Edition) by Leon W. Couch  
<https://www.amazon.com/Digital-Analog-Communication-Systems-8th/dp/0132915383/>
  - Digital Communication Systems Engineering with Software-Defined Radio by Alexander Wyglinski, Di Pu  
<https://www.amazon.com/Digital-Communication-Engineering-Software-Defined-Communications/dp/1608075257/>
  - Cognitive Radio Communications and Networks: Principles and Practice by Alexander Wyglinski, Maziar Nekovee, Thomas Hou  
<https://www.amazon.com/Cognitive-Radio-Communications-Networks-Principles/dp/0123747155/>
  - Modern Digital and Analog Communication Systems (4th Edition) by B. P. Lathi, Zhi Ding  
<https://www.amazon.com/Digital-Communication-Electrical-Computer-Engineering/dp/0195331451/>
  - Digital Communication (3rd Edition) by John R. Barry, Edward A. Lee, David G. Messerschmitt  
<https://www.amazon.com/Digital-Communication-John-R-Barry/dp/0792375483/>
  - Digital Communications with Emphasis on Data Modems: Theory, Analysis, Design, Simulation, Testing, and Applications by Richard W. Middlestead  
<https://www.amazon.com/Digital-Communications-Emphasis-Data-Modems/dp/0470408529/>
  - Introduction to Analog and Digital Communications (2nd Edition) by Simon Haykin, Michael Moher  
<https://www.amazon.com/Introduction-Analog-Digital-Communications/dp/0471432229/>
  - Wireless Communications (2nd Edition) by Andreas F. Molisch  
<https://www.amazon.com/Wireless-Communications-Andreas-F-Molisch/dp/0470741864/>
  - Introduction to Wireless Digital Communication: A Signal Processing Perspective by Robert W. Heath Jr.  
<https://www.amazon.com/Introduction-Wireless-Digital-Communication-Perspective/dp/0134431790/>
  - Communications Receivers: Principles and Design (4th Edition) by Ulrich L. Rohde, Jerry C. Whitaker, Hans Zahnd  
<https://www.amazon.com/Communications-Receivers-Principles-Design-Fourth/dp/0071843337/>

- Synchronization in Digital Communication Systems by Fuyun Ling, John Proakis  
<https://www.amazon.com/Synchronization-Digital-Communication-Systems-Fuyun/dp/110711473X/>
- Understanding Digital Signal Processing (3rd Edition) by Richard G. Lyons  
<https://www.amazon.com/Understanding-Digital-Signal-Processing-3rd/dp/0137027419/>
- Discrete-Time Signal Processing (3rd Edition) by Alan V. Oppenheim, Ronald W. Schaffer  
<https://www.amazon.com/Discrete-Time-Signal-Processing-3rd-Prentice-Hall/dp/0131988425/>
- Digital Signal Processing (4th Edition) by John G. Proakis, Dimitris K Manolakis  
<https://www.amazon.com/Digital-Signal-Processing-John-Proakis/dp/0131873741/>
- Digital Signal Processing in Modern Communication Systems by Andreas Schwarzinger  
<https://www.amazon.com/Digital-Signal-Processing-Communication-Systems/dp/0988873508/>
- Digital Signal Processing 101: Everything You Need to Know to Get Started (2nd Edition) by Michael Parker  
<https://www.amazon.com/Digital-Signal-Processing-101-Second/dp/0128114533/>
- Think DSP: Digital Signal Processing in Python by Allen B. Downey  
<https://www.amazon.com/Think-DSP-Digital-Signal-Processing/dp/1491938455/>
- Software-Defined Radio for Engineers by Travis F. Collins, Robin Getz, Di Pu, and Alexander M. Wyglinski  
<https://www.analog.com/en/education/education-library/software-defined-radio-for-engineers.html>
- Software Receiver Design: Build your Own Digital Communication System in Five Easy Steps by C. Richard Johnson Jr, William A. Sethares, Andrew G. Klein  
<https://www.amazon.com/Software-Receiver-Design-Digital-Communication/dp/0521189446/>
- Software Defined Radio using MATLAB & Simulink and the RTL-SDR by Robert W Stewart, Kenneth W Barlee, Dale S W Atkinson  
<http://www.desktopsdr.com/>  
<https://www.amazon.com/Software-Defined-MATLAB-Simulink-RTL-SDR/dp/0992978718/>
- RF Microelectronics (2nd Edition) by Behzad Razavi  
<https://www.amazon.com/Microelectronics-Communications-Engineering-Technologies-Rappaport/dp/0137134738/>
- Wireless Receiver Design for Digital Communications (2nd Edition) by Kevin McClaning  
<https://www.amazon.com/Wireless-Receiver-Digital-Communications-Telecommunications/dp/1891121804/>
- Microwave and RF Design of Wireless Systems by David M. Pozar  
<https://www.amazon.com/Microwave-Rf-Design-Wireless-Systems/dp/0471322822/>
- The ARRL 2018 Handbook for Radio Communications  
<http://www.arrl.org/arrl-handbook-2018>  
<https://www.amazon.com/ARRL-Handbook-Radio-Communications-Softcover/dp/1625950713/>  
<https://www.amazon.com/ARRL-Handbook-Radio-Communications-Hardcover/dp/1625950721/>
- Software Defined Radio: for Amateur Radio Operators and Short Wave Listeners by Andrew Barron  
<https://www.amazon.com/Software-Defined-Radio-Operators-Listeners/dp/1534992421/>
- An Introduction to HF Software Defined Radio: SDR for Amateur Radio Operators by Andrew Barron ZL3DW  
<https://www.amazon.com/introduction-Software-Defined-Radio-Operators/dp/1500119938/>
- Spectrum Sensing on LTE Femtocells for GSM Spectrum Re-Farming Using Xilinx FPGAs
- Ship Detection with DVB-T Software Defined Passive Radar
- <https://wiki.gnuradio.org/index.php/AcademicPapers>
- <http://ieeexplore.ieee.org/Xplore/home.jsp>