

Chapter 2: Research

- **Research Defined**
- **Finding Sources**
- **Attribution**
- **Citations**
- **Chapter Outline**

Research Defined

- **Gather information sources related to the problem statement**
- **Scan summaries for relevant points**
- **Read in detail when connected to problem**
- **Learn key ideas for solving problem**
- **Explain ideas and solution in your own words**
- **Make citation of all sources used in thesis**

Finding Sources – 1 of 2

- **Traditional:**
 - **Books**
 - **Magazines or periodicals**
 - **Journals**
 - **Conference proceedings**
- **Electronic:**
 - **Email**
 - **Web sites**
 - **Soft copy of traditional sources**

Finding Sources – 2 of 2

- **Specific Google search**
 - **site:.edu**
 - **site:.gov**
 - **site:.am**
 - **site:-.com**
- **scholar.google.com**

- **Acknowledge all ideas from research sources:**
 - **Sample code from a forum**
 - **Tutorial articles on web sites**
 - **Programmer documentation pages**
- **Also acknowledge ideas from people:**
 - **Supervisor**
 - **Other students**
- **Failure to give proper attribution is plagiarism**

- **We are using the Turabian style for citations**
- **Visit our web site for links to the formats**
- **Separate styles for each kind of resource:**
 - **Book**
 - **Magazine**
 - **Web site**
 - **Letter**
 - **Email**

- **Document problem statement (1.3) research**
- **Sections should be organized based on the research direction**
- **Start by defining important terms as a base**
- **Move on to general system descriptions**
- **End with detailed analysis**

Example Research Outline

- **2.1 Definitions**
- **2.2 Network Considerations**
 - **2.2.1 Physical Network Parameters**
 - **2.2.2 General Network Protocols**
- **2.3 Reuse Technology**
 - **2.3.1 Frameworks**
 - **2.3.2 Design Patterns**
- **2.4 Design Algorithms**
 - **2.4.1 Communication Synthesis**
 - **2.4.2 Subsystem Integration**
- **2.5 Summary**

- **Write down research questions based on problem statement:**
 - **What do I need to learn?**
 - **What facts should I verify?**
- **Discuss these research topics with supervisor**
- **Begin research using Internet**
- **Keep records of all sources obtained**

- http://10.10.0.20/~j_kazarian/thesis.php