



**Department of Computer Science & Engineering**  
**Microprocessor & Computer Architecture**  
**UNIT 2 Notes**

Class #	Topics to be Covered	Chapter Title / Reference Literature
1.	Introduction to Pipelining, 3 stage pipelining, 5 stage pipelining	Text Book T2 Section 4.1, 4.2
2.	Performance Analysis, Speed up Calculations.....etc	Text Book T1 <b>Appendix C-1</b>
3.	Introduction to Pipeline hazards, Structural Hazards	Text Book T1 <b>Appendix C-2</b>
4.	Data Hazards 1	Text Book T1 <b>Appendix C-2</b>
5.	Data Hazards 2	Text Book T1 <b>Appendix C-2</b>
6.	Control Hazard 1	Text Book T1 <b>Appendix C-2</b>
7.	Control Hazard 2 & Introduction to Branch Prediction	Text Book T1 <b>Appendix C-2</b>
8.	Branch Prediction 1	Text Book T1 <b>Appendix C-2</b>
9.	Branch Prediction 2	Text Book T1 <b>Appendix C-2</b>
10.	Branch Prediction 3	Text Book T1 <b>Appendix C-2</b>
11.	Performance Analysis, Speed up Calculations .....etc	Text Book T1 <b>Appendix C-2</b>

**Literature:**

Book Type	Code	Title & Author	Publication Info		
			Edition	Publisher	Year
Text Book	T1	Hennessy Patterson	Fifth Edition	MK Morgan Kaufmann	2012
Text Book	T2	ARM System on Chip, Steve Furber	Second Edition,	Pearson Education	2000
Text Book	T3	ARM System Developer's Guide	Reprint 2009	Elsevier	2009