EE722  Aut 03  Homework 1.

Due:  Fri. Oct. 3

1. Read/skim the first few pages of the first 11 chapters in the Razavi Analog IC textbook. From your reading, write a key fact or observation for each chapter.

2. Select a block from each design domain in the Embedded System Design Domains diagram and describe the operation of the block and some of its performance issues.

3. Write down as many analog design issues as you can determine from the Wireless Sensor Node diagram.

4. Describe your decision procedure to determine how much of a signal processing operation is performed by analog blocks (before A/D) and how much signal processing is done in the DSP blocks. Refer to the Mixed Signal System diagram.

5. Review the Analog and VHDL-AMS paper. List which of the 15 op amp categories would also apply to an amplifier that used only a single input.

6. Briefly describe a design application of interest to you. List any mixed signal design issues, if any, in that application.