Preparation for Research Report on
The 20 Greatest Engineering Achievements of the 20th Century

Purpose of Assignment
This assignment will help you familiarize yourself with some of the many disciplines and accomplishments of engineering and engineering technology. It will also introduce you to material that will serve as a basis for your research paper on the societal effects of engineering and technology.

Reading Assignment
On the web site of the American Society for Engineering Education (ASEE), you can find extensive material on what engineers do and the kinds of products and processes they develop. For this assignment, go to http://www.asee.org/precollege/engineering.cfm. This page has many links to interesting and useful information on engineering.

On this page, locate the section “The 20 Greatest Engineering Achievements of the 20th Century,” and click on the link at the end of the first paragraph in that section. This will take you to a brief synopsis of the 20 achievements, each with links to the history and timeline for that event. Read at least the brief summary for each accomplishment so you will be able to understand and contribute to the discussion we’ll have in class on September 12.

Next, choose three of the 20 achievements to look at in depth. Read the history and timeline for these three, considering the questions below. Take notes as you read. You might also want to get a head start on your research paper by looking at other materials on these three initial topics.

Questions to consider:
- What were the benefits and advantages resulting from this achievement?
- Who benefited from this achievement? Who didn’t?
- Were there any disadvantages or problems resulting from this achievement?
- Were there any environmental or ethical issues resulting from this event?
- What were / are the trade-offs made as a result of this achievement?
- How did this accomplishment change our culture or society? Think hard about this one!

Writing Assignment
Bring the notes you take on your readings to class September 12. In particular, you should have sufficient material on the three specific topics you looked at in depth to contribute to the class discussion. Please bring two (typed) copies of your notes so you can turn one copy in for credit.

After our discussion, we will divide into groups of three. This will be your team for researching and writing about one of the 20 achievements in depth, preferably one of the three you examined. This research paper will be four to five pages long, will include citations for your sources, and will need to have at least four sources beyond the ASEE page. These sources can include interviews with engineering faculty. The goal of this research paper will be to consider the significance and impact on society of engineering and technology activities, particularly one that you’re especially interested in.

Due dates and points: A handout with more details and expectations for this report will be given to you on September 12. A draft of the report will be due in class on September 22, and your team will give an oral presentation on your findings on September 26. The final report will be due October 1. This entire assignment—readings, notes, discussions, draft, oral presentation, and final paper—is worth 400 points.