APS1018 History and Philosophy of Engineering – Final Team Projects, Fall 2012

The Role of Engineers in Society: China versus the West

We chose a difficult but meaningful topic to discuss. Our focus is the role of engineers in China today and in the future. We tried to discuss it from two aspects; first we look at the similarities between the industrialization and development processes in China and the West. European and the US engineering development started 200 years before China's and encountered similar problems to those that China faces today. After we identified these similarities, we may conclude which problems are inescapable and how the West has responded to them. Second we ask about differences based on the culture, historical background, and national conditions. Aside from those problems that the West had similarly experienced, there are still many problems caused by China itself. In order to explain this problems which we believe are rooted in the Chinese culture, we paid much attention to societal events and explore the role engineers played therein.

Our discussion starts with the idea of setting up a "Nobel Prize in Engineering". By discussing this, we expect the reader to perceive the whole picture about why engineers do not have a high social status in most developed countries.

In the second section we list some revealing statistics about the role of engineers in society, in history and in today's China, and we analyze the differences between the roles of engineers in China and the West. In the third section we examine the history of China in chronological sequence with reference to events that have influence to today's engineering system, and present some analysis.

We address five questions that are most frequently asked about Chinese engineers; the answers will help readers to get a better understanding of Chinese engineers' role in society. In conclusion we predict the future role of Chinese engineers, in China and the West, and look for ways to apply each other's successful experience.