The "Brant Scale of Engineering Ethics" is included to illustrate that as we progress as engineers, our level of accountability increases and our measured level of ethics also increases. That is not to say our ethics should increase, it is just our accountability for our ethics increases as we approach higher responsibility levels.

10.0　HOW DO YOU SOLVE ETHICAL DILEMMAS?

Again, from our working definitions, a dilemma is a forced choice between two or more choices that are equally bad.

In order to solve ethical dilemmas, there are three steps:

1. First, you must recognize what causes ethical dilemmas.

2. Second, recall your Core Ethical Values and the "Golden Rule" and be willing to follow them.

3. Third, consult your company and/or discipline Code of Ethics.

How do you recognize what causes ethical dilemmas? John C. Maxwell in his book, *There's No Such Thing As "Business" Ethics---There's Only ONE RULE For Making Decisions*, says there are five factors that most often come into play when someone compromises her/his ethics.

Maxwell's five factors are the five precursors of ethical violations or just the 5P's for short. The 5P's are predictors or warnings that alert us that ethical violations may be near.

What are the 5P's?

1. PRESSURE
Pressure comes in many forms. It can, and nearly always, involves money, either your money or the company's money. Money pressure is with you twenty-four hours a day, seven days a week. Pressure can also come in the form of performance, to do more, yourself, your department, your company. Sometimes schedule puts pressure on

engineers. Often there is pressure to just not tell the truth. These pressures, and the list is not all inclusive, cause breaches of ethics.

2. PLEASURE

Pleasure can be anything from adultery, to drinking, to drugs, to gambling, or anything in excess as Aristotle would view it. It is the "if it feels good, do it attitude" that will get you in trouble. Maxwell gives two ways to answer the pull of pleasure. The first key "is to run from temptation." He advises if you are susceptible to pleasure "that would tempt you to cross an ethical line, put yourself out of harm's way," avoid the temptation. Maxwell's "second key is to develop discipline." He says, "It's ironic, but to gain freedom, you need to contain your emotions with discipline. That takes character." Character and credibility go hand in glove. Once you have lost your credibility, you have lost yourself.

3. POWER

Here we are talking about the misuse or abuse of power. There is the worn-out phrase or cliché, "power corrupts, absolute power corrupts absolutely," but it is true. Maxwell reveals that "having power is like drinking salt water. The more you drink, the thirstier you get." It takes a special character to handle power well. The United States of America was founded on the principle that power would be divided between the three branches of government, judicial, executive, and legislative, and that no one man would hold all the power of the country.

4. PRIDE

Pride can be misinterpreted. When I played football and baseball in high school, we had pride in our uniforms, shoes were shined, and helmets were polished before every game. We had pride in our appearance. The military has pride in its appearance. I am not talking about that sense of pride. The dangerous pride is an exaggerated sense of self-worth to the detriment of others. It is the bigger house, better car attitude that gets people into trouble as well as into ethical violations.

5. PRIORITIES

A dictionary definition of priorities is a thing that is regarded as more important than another thing. However, that is not the way things often work. The thing demanding the most attention usually goes first.

Maxwell quotes Goethe, "Things that matter most must never be at the mercy of things that matter least." The question is what really matters to you? Once you have determined those things that really matter, you need to work at living them day by day.

The 5P's give a method of predictability of what is beginning to happen in an ethical sense. If you keep the 5P's in mind you are on your way to avoiding ethical dilemmas.

The first step in ethical dilemma solving is to learn and recognize the 5P's, then go to the second step of using your core values---Integrity, Honesty, Fidelity, Charity, Responsibility, and Self-discipline---and the Golden Rule, "do to others as you would have them do to you." Lastly, the third step, go to your company and/or discipline ethics code.

Most engineering disciplines have ethics codes. Different disciplines have ethics codes for example, Electrical Engineering-IEEE, Civil-ASCE, Mechanical-ASME; computer practitioners have the Software Engineering Code of Ethics and Professional Practice, the Association for Computing Machinery's Code of Ethics and Professional Conduct, the Australian Computer Society's Code of Ethics, the British Computer Society's Code of Conduct, and the Institute for the Management of Information Systems Code of Ethics; the Accreditation Board for Engineering and Technology (ABET) Code of Ethics; and numerous others.

Perhaps the most universal ethics code for engineering is the National Society of Professional Engineers' Code of Ethics for Engineers (NSPE) found at www.nspe.org/ethics/ . This code has also been translated into Spanish, French and German. The NSPE Ethics Code has some of the same requirements as state codes, which have the force of law behind them. The NSPE Ethics Code requires that safety, health, and welfare of the public shall be paramount; engineers should perform only in their areas of competence; shall be truthful; and shall be faithful agents or trustees. Many state codes of conduct have the same requirements.

WHAT DO YOU DO WHEN YOU HAVE THE ETHICS CODE?

"A true ethical code, like the code of baseball ethics, is an unspoken arrangement that loses its moral foundation as soon as someone tries to turn it into a set of laws. Instead, it reveals itself in the course of 'playing the game' (which is itself an expression that connotes living up to a high standard of behavior). When fans see the written regulations of the game enforced they are not seeing ethics at work. When they see major league players observing the rules of the game, the terms of their contracts, and the etiquette laid down by the league constitutions, they are not witnessing moral choices. Yet moral choices must still be made. Should a manager allow his team to run up the score in a lopsided game? Should a hitting champ sit out the last game of the season to protect his batting average?... The range of situations addressed by these questions cannot be entirely anticipated and codified. Yet it is through these choices that athletes...demonstrate their character, or what is sometimes called their heart."

"The example of baseball also shows that a written code can only approximate what an unwritten code can do. Because an unwritten code functions within a consensus of understanding, it represents a shared imperative to uphold certain agreed-upon standards. Where there is no such consensus, where some individuals feel that they are above the code, or where there are simply too many individuals who are oblivious to the difference between right and wrong, a written code is the only alternative (emphasis mine)."

Personal ethics is that unwritten rule, like baseball, by which you will be judged by others. How you play the game of life, will be marked by your ethics!

I would be remiss in not discussing the useful functions of ethical codes. Some of the useful functions are:

    1. Codes can be used to educate new people in an organization by providing guidelines of ethical responsibility based on past experience and continuing development of the code and introducing them to ethical problems peculiar to the organization or discipline.

    2. Codes can bracket areas of uncertainty.

    3. Codes may help prevent government regulation which can cause loss of productivity.

4. Codes can provide a basis or foundation to build upon. (Johnson & Johnson's code was written by its founder over 70 years ago, but was updated in 1979 to include "protecting the environment and natural resources" and again in 1987 to add employees' family responsibilities.)

5. Codes can describe the characteristics required of professionals.

6. Codes can describe employee's obligations to the company and the company's obligations to its employees.

7. Codes can emphasize the obeisance of law and regulations.

Ethics codes are helpful because they set out the rules and how the rules are enforced.   But, they do <u>not</u> set out the unspoken true moral foundation, character, or credibility of a person or organization.