

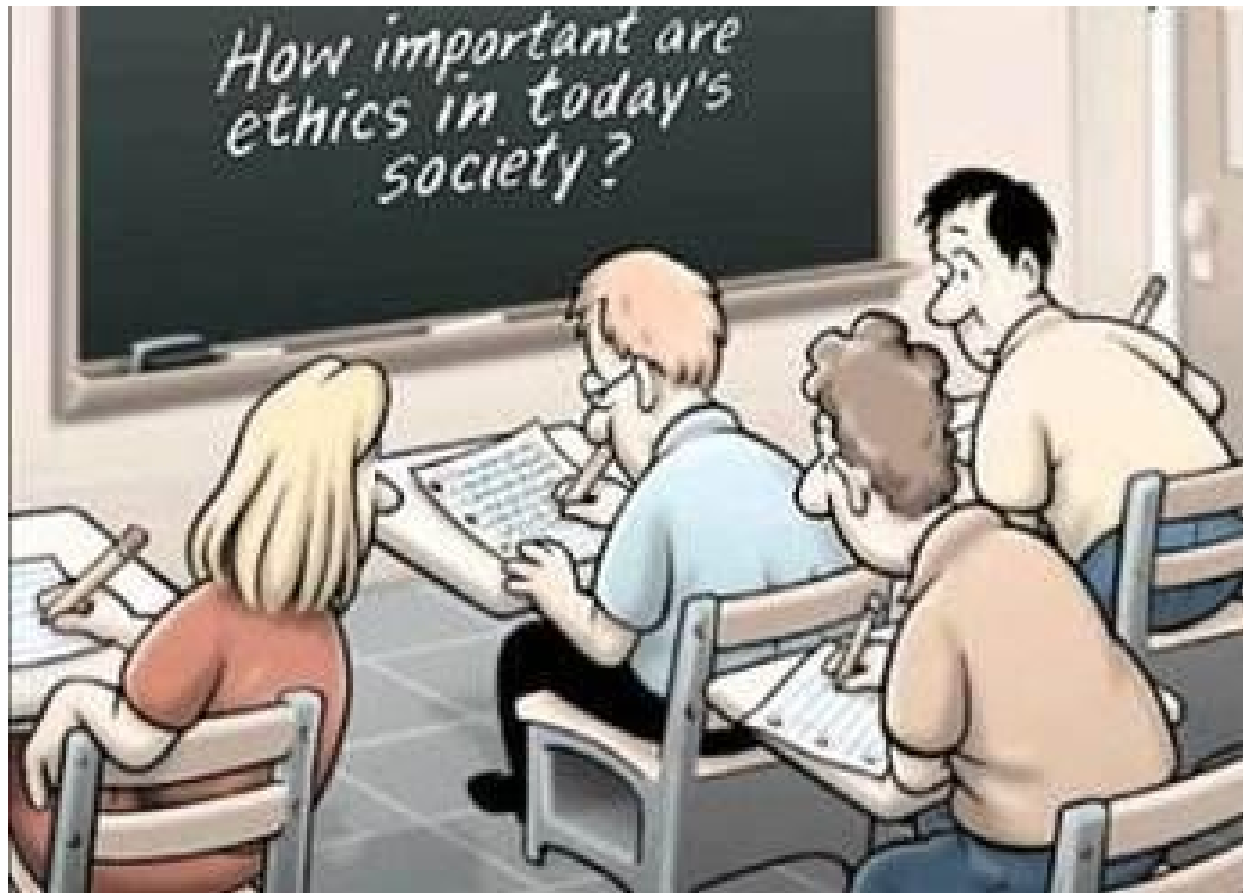


FACULTY OF ENGINEERING  
DEPARTMENT OF CHEMICAL ENGINEERING

# ***INTRODUCTION TO CHEMICAL ENGINEERING CEN 101***

***Assoc.Prof.Dr. Hakan KAYI***

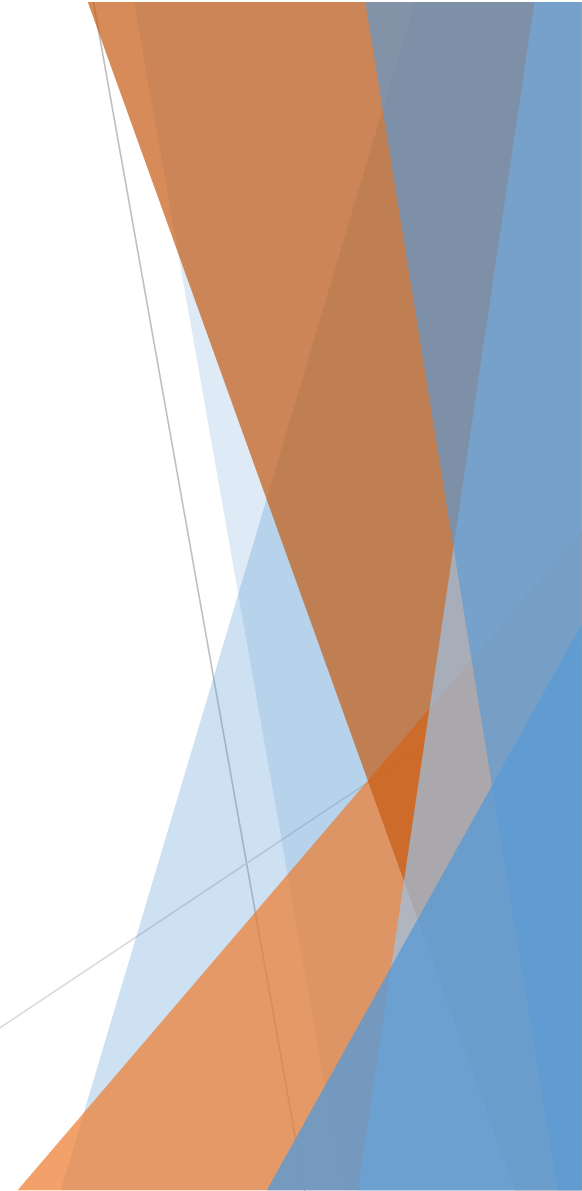
# ETHICS




We are in need of ethical awareness because;

*"From a good decision can benefit millions, while an unethical one can damage our future."*

<http://www.globalethics.org>



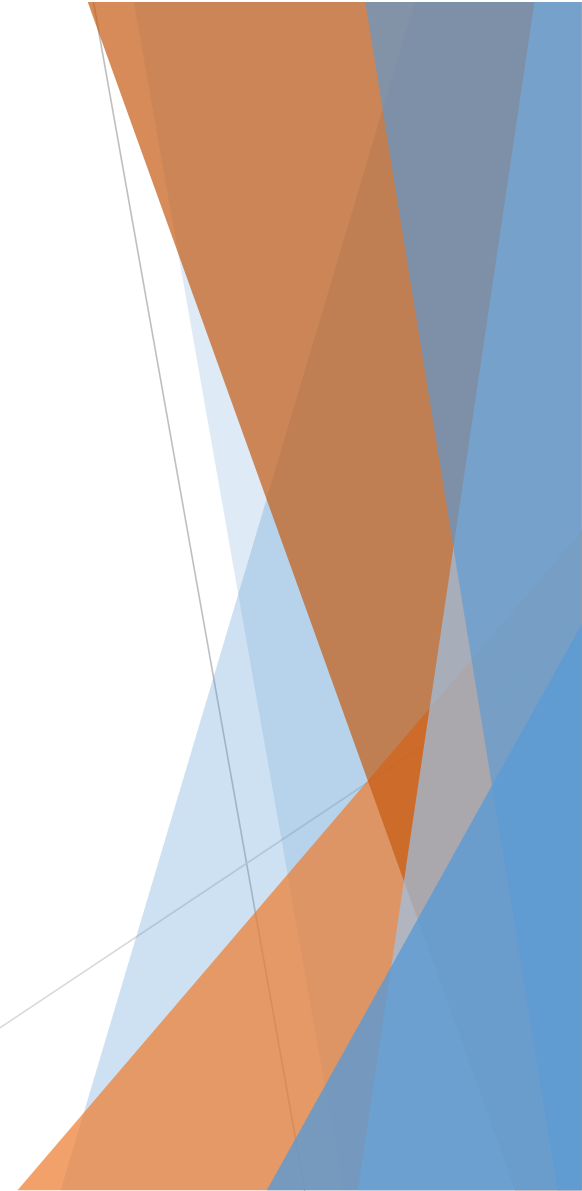
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- ▶ ***“... An engineer must know and must be aware of that, the final goal in producing or generating the engineering innovations are for the***
    - ▶ ***Happiness of people,***
    - ▶ ***Increase the societal welfare and the quality of individual life,***
  - ▶ ***...Awareness of the social responsibility is the only bridge which will carry the engineer from being only a professional to being human.”***

Aykut Koker, 2008

## Definitions of Ethics

Aritotoles defines ethics, as  
“science dealing with  
character”.

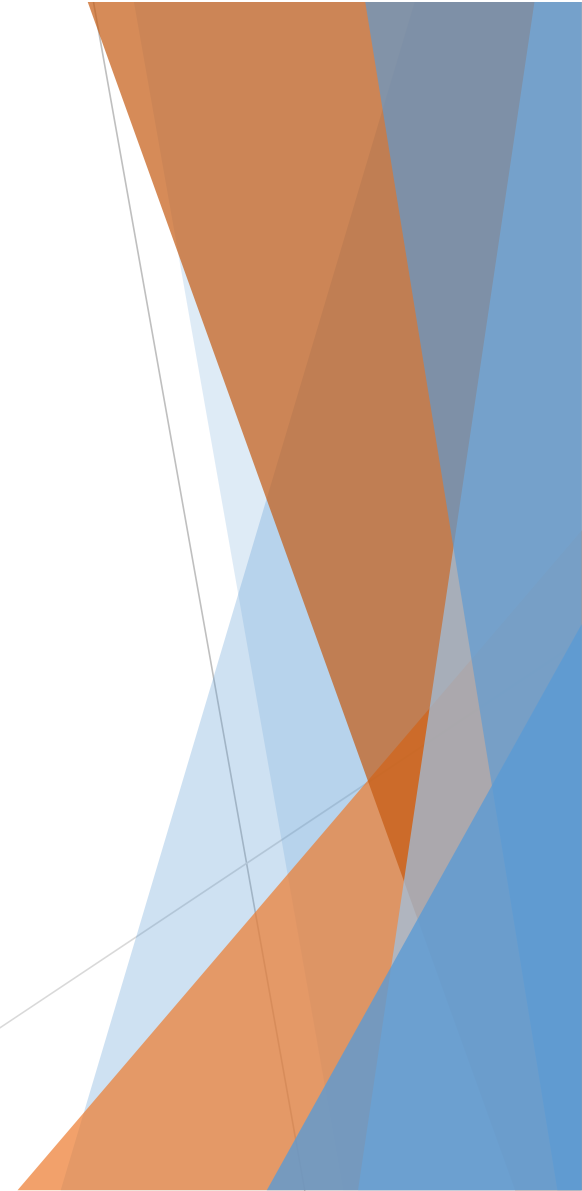
It is the science studying  
ideal human character and  
activities.



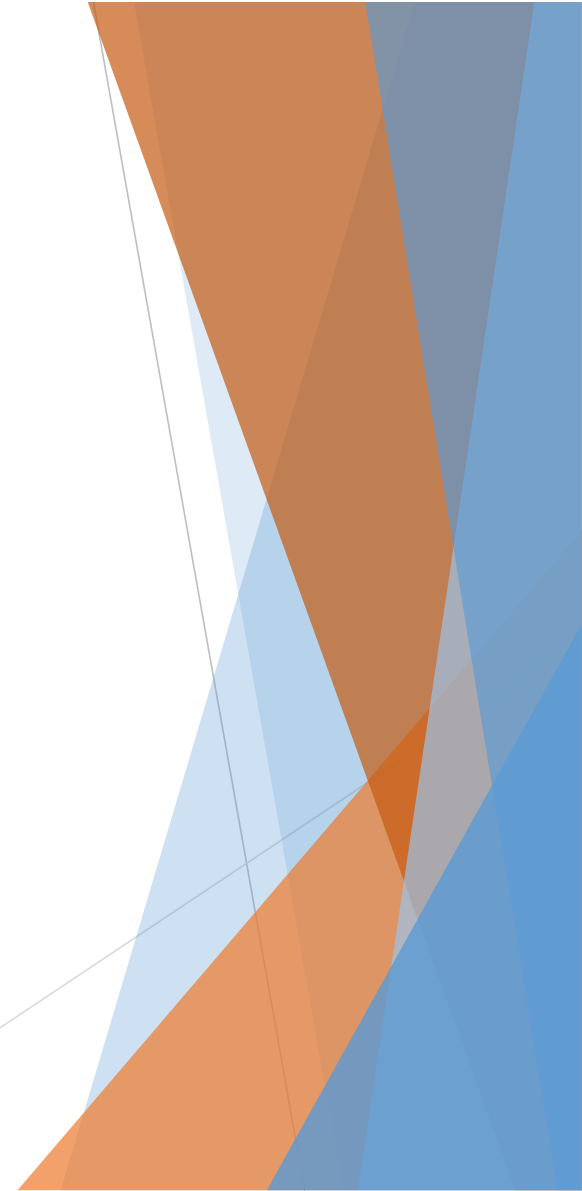
***"Ethics" is about how we meet the challenge of doing the right thing when that will cost more than we want to pay".\****

\*The Josephson Institute of Ethics

▶ As engineers these definitions apply to all of their choices, including those made while **practicing.**



# ENGINEERING and MORALITY

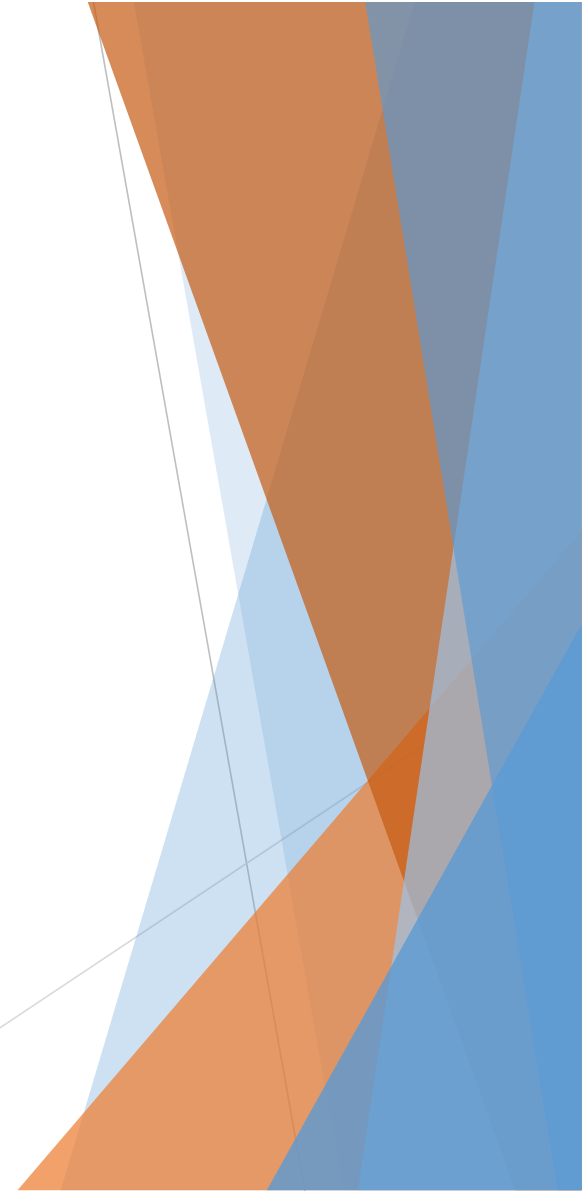




## Engineers must be aware of

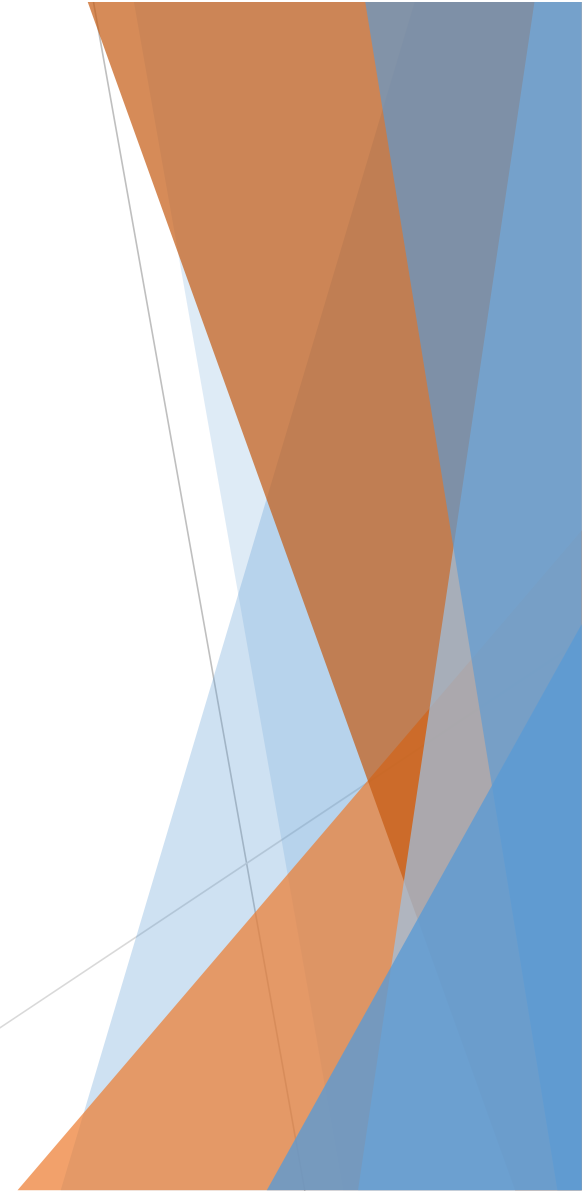
- Environmental Problems
  - 3R's: Reduce, Reuse, Recycle
  - Energy (Bio-mass)
  - Global warming
- Food
- Set for Sustainable Development
- e-learning

Ethics in using them !!!

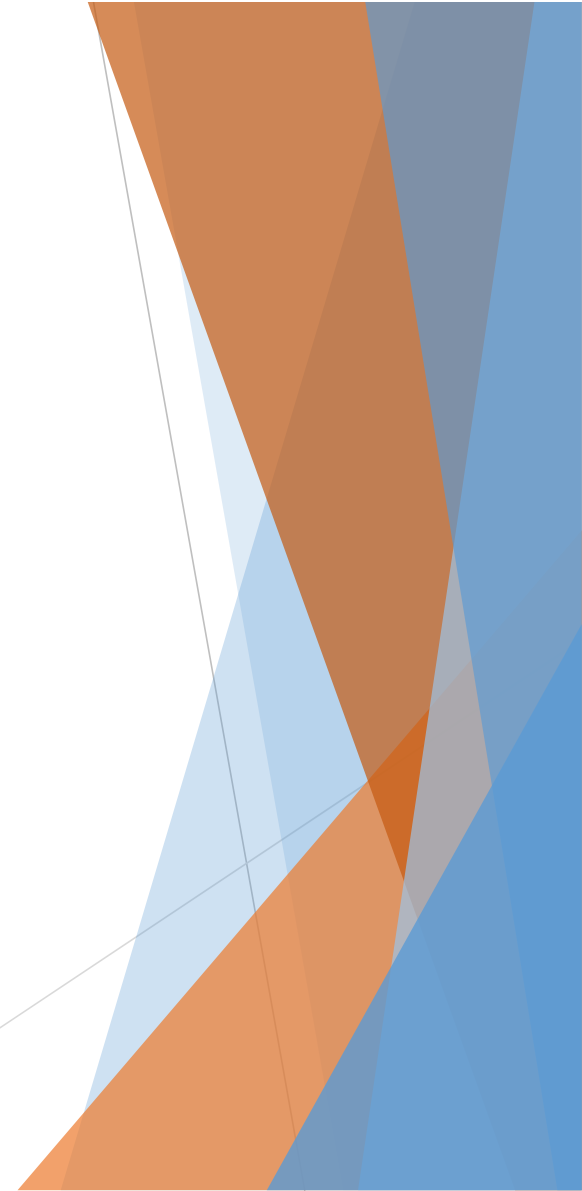


# Engineers must Shape their Mind for Peace

- ▶ **Morality,**
- ▶ Tolerans, Mutual Respect
- ▶ Human Rights/ Justice
- ▶ Dialogue/Debate



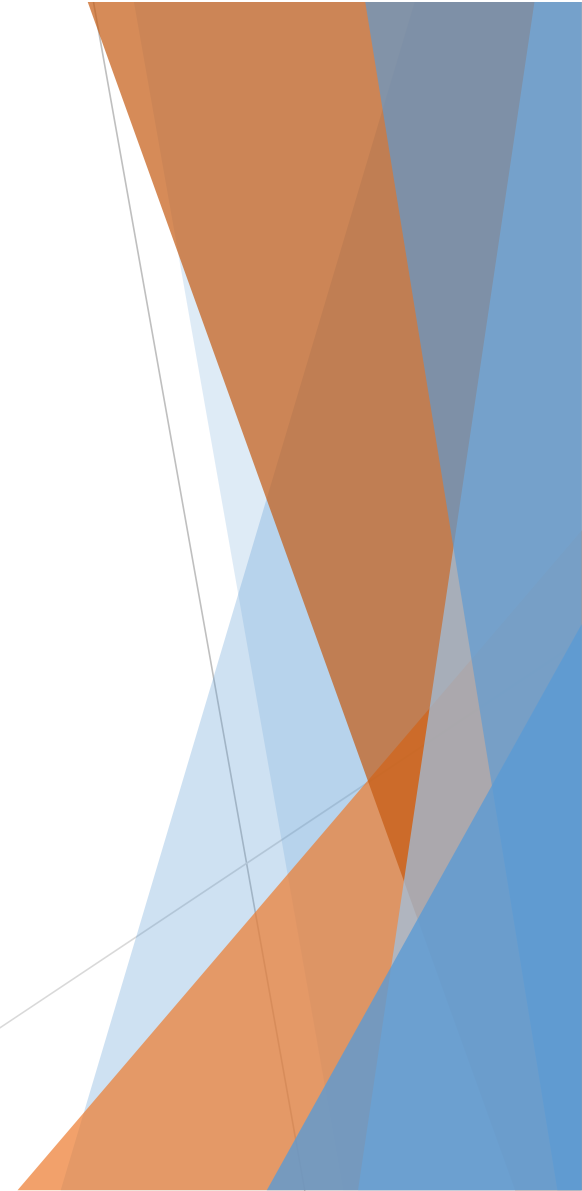
Ethics is always a personal  
issue.



## A Case from Turkey

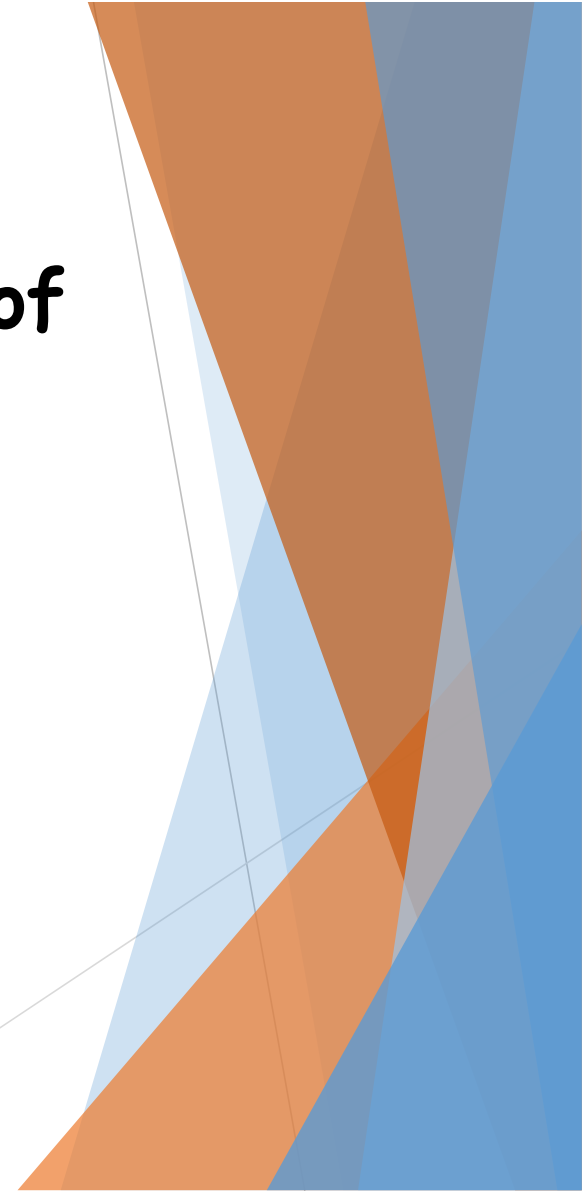
- ▶ 1999 Turkey experienced one of the greatest disasters of the 20th century.
- ▶ Buildings badly and wrongly constructed caused the deaths of thousands.
- ▶ A similar earthquake occurred in Japan recently (7.3) resulted in 0 number of deaths with 28 injured people.

▶ WHY?



## Engineering Ethics

**Engineering ethics is the study of moral issues and moral decisions confronting individuals and organizations engaged in engineering.**



***"There are really only two important points when it comes to ethics.***

***The first is a **standard (code)** to follow.***

***The second is the **will** to follow it."\****

*\*J.C. Maxwell, Business Ethics, 2003*

# Code of Ethics of Engineers

## The Fundamental Principles

### Goals:

Uphold and advance the integrity, honour and dignity of the engineering profession by:

- ▶ Being honest and impartial and serving with fidelity their employers, their clients and the public.
- ▶ Effort to increase the competence and prestige of the engineering profession.
- ▶ Using their knowledge and skill for the enhancement of human welfare.
- ▶ Supporting the professional and technical societies of their disciplines.

## REFERENCES

1. Prof. Dr. Canan Özgen, Mühendislik Etiği Eğitiminin Mühendislik Programları İle Bütünleştirilmesi, Kimya Mühendisliği Dergisi, Sayı: 174.
2. Prof. Dr. Emine Gönen, Doç. Dr. Şengül Hablemitođlu; Teknoloji ve Etik, Standard, Sayı: 439.
3. [www.globalethics.org](http://www.globalethics.org)