

# Improving the Professional Through the IEEE Code of Ethics



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# Overview

- **Ethics in the Professional Life**
- **The IEEE Code of Ethics**
- **Ethics and Member Conduct Committee (EMCC)**
- **Handling of Member Conduct Cases**
- **IEEE Award for Distinguished Ethical Practice**
- **Student Ethics Competitions**
- **Contact Information**

# A PROFESSION

**An occupation that requires specialized knowledge and skills and that affects the public safety and welfare.**

**Since the public cannot judge the quality of engineer work independently of practitioners, the profession cannot be governed solely by self-interest and who is paying the tab.**

**Legal rules and professional standards define additional obligations.**

# IEEE Constitution

## From the IEEE Constitution

### Article I Sec. 2.

Its purposes are: . . .

(b) professional, directed toward the advancement of the standing of the members of the professions it serves; means to this end include, . . .  
collaboration with public bodies and with other societies for the benefit of the engineering professions as a whole and the general public,  
**and the promotion of ethical conduct.**

# IEEE's Mission

## Mission Statement

IEEE's core purpose is to foster technological innovation and excellence *for the benefit of humanity*

# PROFESSIONAL ETHICS

## RESPONSIBILITIES TO THE SOCIETY

- **Protect public health, safety and welfare**
  - **Reduce risks below the acceptable level –  
in Design, Fabrication, operation, disposal**
  
- **Inform public of issues**
  - **Realities of the situation**
  - **Expectations of safety**
  - **Environmental impacts**
  - **Respect Government/industry regulations and policies**

# PROFESSIONAL ETHICS

## RESPONSIBILITIES TO EMPLOYERS AND CLIENTS

- Act as a trusted agent
- Provide full disclosure on qualifications
- Protect and advance company interests
- Avoid conflicts of interest
- Maintain confidentiality
- Provide candid evaluation of company projects
- Perform assignments to the best of your ability
- *Balance responsibilities to employer and public*

# PROFESSIONAL ETHICS

## RESPONSIBILITIES TO PROFESSIONAL COLLEAGUES

- **Do not make false statements**
- **Recognize and give credit for work of others**
- **Share information (unless confidential)**
- **Promote professional development**
- **Participate in professional societies**

# PROFESSIONAL ETHICS

## RESPONSIBILITIES TO YOURSELF

- **Provide honest assessment of ALL facts:  
Personal Qualifications (and limitations)  
Product Specifications**
- **Take full responsibility for your actions**

# PROFESSIONAL CODES

## **Characteristic of a Good Professional Code of Ethics:**

General (consensus of most members accounting for honest difference of opinion)

Specific (useful for practical applications and supporting ethical absolutes)

## **Comparison:**

IEEE Code of Ethics – 248 Words

NSPE Code for Engineers – More 2500 Words

# IEEE Code of Ethics has a Long History

**1912 – First Code adopted by the American Institute of Electrical Engineers (AIEE).**

**1963 – After AIE/IRE Merger, IEEE endorses  
“Canons of Ethics of Engineers”**

**1974 – Board of Directors approved  
“IEEE Code of Ethics for Engineers”.**

**1979-89 – The Code underwent a few revisions.**

**1990 – Board of Directors approves simplified  
“ IEEE Code of Ethics ”.**

**2006 – Board of Directors approves a revision to the  
“ IEEE Code of Ethics ”.**

# IEEE CODE OF ETHICS

**“ We, the members of the IEEE, in recognition of the importance of our technologies in affecting the quality of life throughout the world, and in accepting a personal obligation to our profession, its members and the communities we serve do hereby commit ourselves to the highest ethical and professional conduct and agree:**

# Contents of the Code of Ethics

## **FOUR ASPECTS:**

- **Performance as Professionals**
- **Role in Society**
- **Personal Obligations**
- **Interaction with other Professionals**

# IEEE CODE OF ETHICS

## Performance as Professionals:

1. To accept responsibility in making decisions consistent with the safety, health, and welfare of the public, and to disclose promptly factors that might endanger the public or the environment;
2. To avoid real or perceived conflicts of interest whenever possible, and to disclose them to affected parties when they do exist;
3. To be honest and realistic in stating claims or estimates based on available data;
4. To reject bribery in all its forms;

# IEEE CODE OF ETHICS

## Role in Society:

5. To improve the understanding of technology, its appropriate application, and potential consequences;

# IEEE CODE OF ETHICS

## **Personal Obligations:**

6. To maintain and improve our competence and to undertake technological tasks for others only if qualified by training or experience, or after full disclosure of pertinent limitations;

# IEEE CODE OF ETHICS

## Interaction with Others:

7. To seek, accept, and offer honest criticism of technical work, to acknowledge and correct errors, and to credit properly the contributions of others;
8. To treat fairly all persons regardless of such facts as race, religion, gender, disability, age, or national origin;
9. To avoid injuring others, their property, reputation, or employment by false or malicious action;
10. To assist colleagues and co-workers in their professional development and to support them in following this code of ethics.

# Modifications to the Code of Ethics

The IEEE Code of Ethics is a part of the IEEE Policies [ 7.8 ]

Revisions by the Board of Directors require a special majority and previous consideration by all major Boards

Revisions to be made known to all Members through “The Institute” at least three months before approval

# **The IEEE EMCC: Ethics and Member Conduct Committee**

- **Nine members**
- **Reports to the IEEE Board of Directors**
- **Makes recommendations for policies and/or educational programs to promote the ethical behavior of members and staff**
- **Considers instituting proceedings, as defined in IEEE Bylaws I-110 and I-111, related to matters of member and officer discipline**

# Summary of the Handling of Member Conduct Complaints

- The EMCC receives complaints from members about the conduct of other members.
- The EMCC conducts a preliminary investigation.
- If the EMCC finds that the facts can be proven and constitute cause for
  - censure,
  - suspension, or
  - expulsion
- a Hearing Board is convened (by the IEEE President).
- The Hearing Board deliberates.
- The IEEE Board of Directors takes final action.

# Member Conduct Cases (I)

## Bylaw I 110 Member Discipline and Support

### 1. Cause for Expulsion, Suspension, or Censure.

A member of the IEEE may be expelled, suspended, or censured for cause. Cause shall mean conduct that is determined to constitute

- a violation of the IEEE Code of Ethics or
- a violation of the IEEE Constitution, Bylaws, or Policies, that is seriously prejudicial to IEEE.

The Board of Directors at its discretion may notify the Membership of any expulsion, suspension, or censure.

# Member Conduct Cases (II)

## Bylaw I 110 Member Discipline and Support

### 4. Requests for Support.

The IEEE may offer support to engineers and scientists involved in matters of ethical principle that stem in whole or in part from adherence to the principles embodied in the IEEE Code of Ethics, and that can jeopardize a person's livelihood, can compromise the discharge of the person's professional responsibilities, or that can be detrimental to the interests of IEEE or of the engineering profession.

# IEEE Award for Distinguished Ethical Practices

**Description of the award:** An Institute-level award for  
(a) exemplary ethical behavior / practices and/or  
(b) persuasive advocacy or promotion of ethical behavior / practices.

- **Eligibility:** Members of the IEEE and organizations that employ IEEE members.
- **Nomination Deadline:** 1 July
- Nominations reviewed by Award Selection Committee
- Approved by the EMCC and Board of Directors
- Online Nomination Form & Information Available at:  
<http://www.ieee.org/go/ethicsaward>

# STUDENT ETHICS COMPETITION (SEC)

- **Developed for use at IEEE Region, Section, etc.:**
- Incl. a presentation and defense of a case analysis by student teams
- **Objectives:**
  - To foster familiarity with the IEEE Code of Ethics and ethical concepts,
  - To promote a model for discussing and analyzing ethical questions, and
  - To provide experience in applying ethical concepts to typical professional situations.
- **Information and Resources Available at:**  
<http://www.ieee.org/go/studentethics>

# SEC Documentation available on the Web



## **Student Ethics Competition Guidelines and Requirements**

Prepared and Sponsored by the  
IEEE Ethics and Member Conduct Committee (EMCC)  
March 2008

# SEC EVENTS

## ■ **Resources Available:**

- Detailed Contest Guidelines with Ethics Material
- Judging Forms for 2-member or 3-member Teams
- Example Case Study and Analysis
- Theoretical Contest Case (from EMCC with approval)
- Signed Certificates (from EMCC with approval)

## ■ **Support for Approved Region-Level Events:**

- \$600 for prizes to sponsoring student branches
- Each region is eligible for support every other year

# SEC ORGANIZATION

## ■ **Event Requirements:**

- Student teams representing Stu. branches or similar group (4 to 6 teams of 2 or 3 members (UG or graduate) are recommended)
- Teams are sequestered (3 hours) to prepare PPT defense
- Defense & Q&A for judges (using provided criteria and forms)

## ■ **Hosting Requirements:**

- Promotion, Venue, and Facilities
- Coordinator, Timer, and Vote Counter
- Judges (3 to 6)

# SEC PLANNING

## ■ **Sponsoring Responsibilities:**

- Contact EMCC for approval, case study, and funding  
*Date, Location, and Event Venue*
- Organize, Advertise, and Post Materials for the Event
- Select Judges and Coordinate Components
- Notify EMCC of participant names and results

## ■ **Recommendations:**

- Select a Venue that will attract student involvement
- Select a Coordinator and a Balanced Panel of Judges
- Watch deadlines for approval, registration, and notification

# SEC CASE FORMAT

## Case Criteria:

- ▣ **(all material must be included; no outside references)**
  - Each case must contain multiple ethical questions that student can identify.
  - Cases should not depend on specialized technical knowledge to make a determination.
  - The ethical issues should not be intentionally vague, i.e. the results of the analysis should not require significant assumptions.
  - Preferably, the anticipated analysis would not result in findings that all of the ethical questions have a negative or a positive result.

# SEC SAMPLE CASE

A graduating engineering student is interviewing with several companies for an entry-level position. He receives an attractive offer from company A. Since the job market is very competitive, he feels it unlikely that another company will give an offer, much less an attractive one. The student accepts company A's offer and returns a signed letter of acceptance which documents the terms of the position. However, he receives an offer from company B one week afterwards. This new opportunity has a higher salary, more benefits, better advancement prospects, and a more desirable location. It is significantly better in all respects. Since only one week has past since the first acceptance was returned and the new opportunity is clearly in his professional and financial interests, he tells company A that he has changed his mind and accepts the offer of company B. Company A does not express any criticism of the student's actions.

**Questions:** Did the student act unethically? Was anyone harmed?

# SEC SAMPLE CASE ANALYSIS

## **CASE FACTS: Restatement of Relevant Facts**

- ▣ The student formally accepted a position in which all significant terms of employment were specified. The student backed out of this agreement to accept a second, more desirable offer.

## **QUESTIONS: Summary of ethical questions**

- ▣ Is the student ethically bound to honor the signed letter of acceptance with company A?
- ▣ Has company A been harmed by the student's action?

## **REFERENCES: Relevant sections of the IEEE code**

- ▣ *Preamble: ... to the highest ethical and professional conduct ...*
- ▣ *9. to avoid injuring others, their property, reputation, or employment by false or malicious action.*

## **DISCUSSION: Analysis of case ...**

## **CONCLUSION: Position statement on the identified ethical questions ...**

# SEC CONTEST EXAMPLE

## IEEE R5 2<sup>nd</sup> Annual Ethics Competition: Hurtful Words

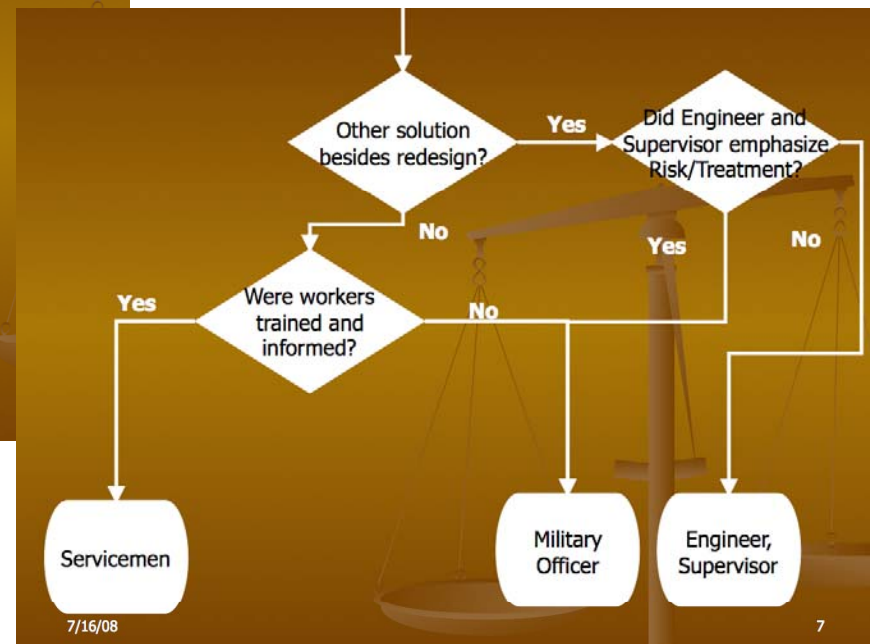
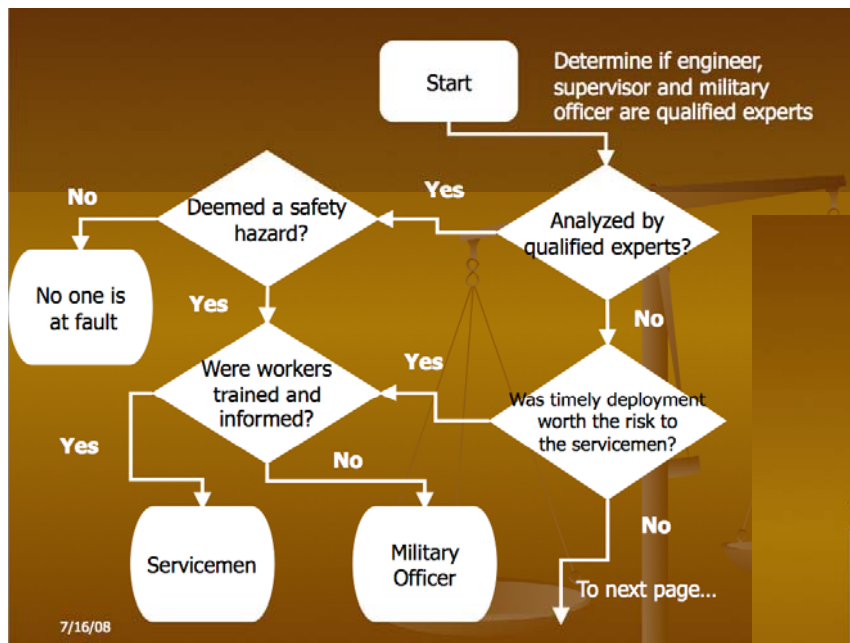
Louisiana Tech University  
Emile Frey  
Jake Léger

### Our Recommendations

- Ethical or Non-Ethical?
  - N. Salting's Remarks:
    - Toward "newer discipline"
    - Remorse over audience's reaction
  - A. Cumen's Actions:
    - Breaking of tension
    - Letter of criticism
    - Forwarding letter to leaders
    - Requesting apology

# SEC CONTEST EXAMPLE

- IEEE R5 SEC: Oklahoma Christian University Andrew Aston and Ben Johnson



# SUMMARY

## ■ **IEEE Supports Ethical Conduct through:**

Approved IEEE Code of Ethics

EMCC:

Informing Members

Handling Misconduct Cases

IEEE Award for Distinguished Ethical Practice

IEEE Student Ethics Competitions

# SECTION INVOLVEMENT

- **Resources for Presentations or Speakers:**
  - Contact EMCC
  
- **Award Nomination:**
  - Forms on website; nomination deadline is 1 July
  
- **Student Ethics Competition:**
  - Request for Funding or Support – at least 45 days prior

## Contact/Web Information

- ❑ **Email:** [ethics@ieee.org](mailto:ethics@ieee.org)
  - to make inquiries or
  - to request resource materials
  
- ❑ **Web:** <http://www.ieee.org/ethics>
  
- ❑ **EMCC Chair: Charles Hickmann**
  - [hickmanc@bellsouth.net](mailto:hickmanc@bellsouth.net)



## *CODE OF ETHICS*

**W**e, the members of the IEEE,

*in recognition of the importance of our technologies in affecting the quality of life throughout the world and in accepting a personal obligation to our profession, its members and the communities we serve, do hereby commit ourselves to the highest ethical and professional conduct and agree:*

- 1. to accept responsibility in making decisions consistent with the safety, health and welfare of the public, and to disclose promptly factors that might endanger the public or the environment;*
- 2. to avoid real or perceived conflicts of interest whenever possible, and to disclose them to affected parties when they do exist;*
- 3. to be honest and realistic in stating claims or estimates based on available data;*

4. *to reject bribery in all its forms;*
5. *to improve the understanding of technology, its appropriate application, and potential consequences;*
6. *to maintain and improve our technical competence and to undertake technological tasks for others only if qualified by training or experience, or after full disclosure of pertinent limitations;*
7. *to seek, accept, and offer honest criticism of technical work, to acknowledge and correct errors, and to credit properly the contributions of others;*
8. *to treat fairly all persons regardless of such factors as race, religion, gender, disability, age, or national origin;*
9. *to avoid injuring others, their property, reputation, or employment by false or malicious action;*
10. *to assist colleagues and co-workers in their professional development and to support them in following this code of ethics.*

*Approved by the IEEE Board of Directors*

*February 2006*