

## Appendix I

# Global Engineering Ethics Principles Reviewed

### I.1 BASIC ETHICAL PRINCIPLES FOR GLOBAL ENGINEERING

Based on their expertise, engineers should endeavor to

1. keep members of the public safe from serious negative consequences resulting from their development and implementation of technology;
2. ensure that fundamental human rights are not negatively impacted as a result of their work with technology;
3. avoid damage to the environment and living beings that would result in serious negative consequences, including long-term ones, to human life;
4. engage only in engineering activities they are competent to carry out;
5. base their engineering decisions on scientific principles and mathematical analyses and seek to avoid the influence of extraneous factors;
6. keep the public informed of their decisions, which have the potential to seriously affect the public, and to be truthful and complete in their disclosures;
7. understand and respect the nonmoral cultural values of those they encounter in fulfilling their engineering duties;
8. endeavor to refuse to participate in engineering activities that are claimed to reflect cultural practices but that violate basic ethical principles for global engineering.

### I.2 ORGANIZATIONAL ETHICAL PRINCIPLES

Corporations should endeavor to

1. avoid producing unnecessary harms to those in and outside of their organizations;
2. ensure that all stakeholders of their organizations are treated fairly and justly;
3. ensure that all relevant laws and regulations are followed within their organizations;
4. protect members of their organizations against internal discrimination and harassment;

5. make all hiring, compensation, promotion, and termination decisions based on merit;
6. ensure that all legitimate corporate contracts are upheld.

### **1.3 ETHICAL PRINCIPLES FOR EMPLOYEES**

Corporate employees should endeavor to

1. obey all legitimate, job-related directives;
2. perform their contracted duties on at least an industry-standard level;
3. uphold the principle of confidentiality in relation to knowledge gained in present and past employment;
4. avoid actions that harm the corporation in acting on behalf of the organization;
5. be honest in their business relationships with others;
6. enforce all organizational and employee ethical principles, when in positions of authority.

### **1.4 PRINCIPLES OF INVOLVEMENT FOR ENGINEERS**

1. Principle of public participation—Engineers should seriously consider participating in public policy discussions regarding future applications of technology.
2. Principle of public education—Engineers should seriously consider helping the public to understand the applications of technologies in broader social, global contexts.
3. Principle of engineering engagement—Engineers should seriously consider becoming involved in helping to improve the technological futures of those less fortunate than themselves, on a voluntary basis.

### **1.5 RIGHTS OF ENGINEERS AS EMPLOYEES**

Like all other employees, engineers have the right to

1. be protected from unnecessary harm in their employment;
2. fair and just treatment by employers;
3. not be subjected to discrimination or harassment in their employment;
4. be treated by their employers based on merit;
5. have their contracts honored;
6. disobey illegitimate employment directives.

As a special category of employees, engineers have the right to

7. blow the whistle (externally or internally) if, in their professional judgments, the physical safety of the public will be endangered as a result of their failures to act;

8. obtain the resources necessary to perform their assigned tasks competently;
9. inform the public of engineering decisions that have the potential to seriously harm the physical welfare of the public;
10. fair compensation for their work, including the right to share equitably in gains resulting from their contributions to intellectual property.