5 Professionalism

This discussion is with respect to the paper titled " Contextualizing Professionalism in Capstone Projects Using the IDEALS Professional Responsibility Assessment", *International Journal of Engineering Education* Vol. 28, No. 2, pp. 416–424, 2012

5.1 AREAS OF RESPONSIBILITY

Pick one of IEEE, ACM, or SE code of ethics. Add a column to Table 1 from the paper corresponding to the society-specific code of ethics selected above. State how it addresses each of the areas of seven professional responsibilities in the table. Briefly describe each entry added to the table in your own words. How does the IEEE, ACM, or SE code of ethics differ from the NSPE version for each area?

Area of responsibility	Definition	NSPE Canon	IEEE Code of Ethics
Work Competence	Perform work of high quality, integrity, timeliness, and professional competence.	Perform services only in areas of their competence; Avoid deceptive acts.	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; to improve the understanding of technology; its appropriate application, and potential consequences.
Financial Responsibility	Deliver products and services of realizable value and at reasonable costs.	Act for each employer or client as faithful agents or trustees.	To reject bribery in all its forms.
Communication Honesty	Report work truthfully, without deception, and understandable to stakeholders.	Issue public statements only in an objective and truthful manner; Avoid deceptive acts.	To avoid real or perceived conflicts of interest whenever possible, and to disclose them to affected parties when they do exist; to be honest and

			realistic in stating claims or estimates based on available data.
Health, Safety, Well-Being	Minimize risks to safety, health, and well-being of stakeholders.	Hold paramount the safety, health, and welfare of the public.	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.
Property Ownership	Respect property, ideas, and information of clients and others.	Act for each employer or client as faithful agents or trustees.	To seek, accept, and offer honest criticism of technical work, to acknowledge and correct errors, and to credit properly the contributions of others.
Sustainability	Protect environment and natural resources locally and globally.		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.
Social Responsibility	Produce products and services that benefit society and communities.	Conduct themselves honorably, responsibly, ethically, and lawfully so as to enhance the honor, reputation, and usefulness of the profession.	To treat fairly all persons and to not engage in acts of discrimination based on race, religion, gender, disability, age, national origin, sexual orientation, gender identity, or gender expression; to avoid injuring others, their property, reputation,

			or employment by false or malicious action; to assist colleagues and co-workers in their professional development and to support them in following this code of ethics.

- **Work Competence** - The NSPE code refers both to areas of competence and deceptive acts while the IEEE code of ethics focuses more primarily on only working within areas of competence and qualifications.
- **Financial Responsibility** - The NSPE code of ethics discusses acting as good agents on a client's behalf while the IEEE code primarily focuses on refusing deceptive acts such as bribery.
- **Communication Honesty** - The NSPE code focuses on making public statements responsibly while the IEEE code focuses primarily on avoiding conflicts of interest and communicating transparently both externally and internally.
- **Health, Safety, Well-Being** - Both the NSPE and the IEEE codes of ethics focus on maintaining the safety and well-being of the public and the environment.
- **Property Ownership** - The NSPE discusses acting as good agents for the client while the IEEE focuses on respecting ideas and criticism and to be respectful and honest in the acknowledgement of errors.
- **Sustainability** - While the NSPE does not discuss sustainability, the IEEE code discusses making decisions to protect the safety and health of both the public and the environment/
- **Social Responsibility** - The NSPE code discusses working honestly and ethically while the IEEE code goes beyond that to focus on avoiding discrimination and other non ethical acts.

5.2 Project Specific Professional Responsibility Areas

For each of the professional responsibility areas in Table 1, discuss whether it applies in your project's professional context. Why yes or why not? How well is your team performing (High, Medium, Low, N/A) in each of the seven areas of professional responsibility, again in the context of your project. Justify.

Professional Responsibility	Project Application
Work Competence	**Why/why not? -** Our project will be used by future students thus it needs to be of high enough quality that it can be comprehended in the future to aid in education. **Performance(Medium):** We are continuously working to better our code but our documentation could be improved to help with future

	comprehension.
Financial Responsibility	**Why/why not? -** We are not buying or selling any products of significant value. **Performance(N/A):**
Communication Honesty	**Why/why not? -** We've had to communicate our progress to our contact on a weekly basis. **Performance(High):** We write up weekly status reports, as well as communicating frequently in discord and through email with our contact.
Health, Safety, Well-Being	**Why/why not? -** We do have potentially harmful equipment being used in our workroom. **Performance(High):** Safety protocols are in place and used during development and testing.
Property Ownership	**Why/why not? -** We use university provided resources and technology in our development laboratory. **Performance(High):** We have been respectful of the lab & equipment, especially the sensitive drone electrical components.
Sustainability	**Why/why not? -** Sustainability is not a large part of our project as we use primarily small amounts of standard grade plastic components. **Performance(N/A):** The scope of our project uses limited supplies and creates minimal waste.
Social Responsibility	**Why/why not? -** Our project does not have a high social responsibility because it is going to be used primarily only by future students. **Performance(High):** Although we do not have a high social responsibility, we are developing our project with the safety and education of the user in mind.

5.3 Most Applicable Professional Responsibility Area

Identify one area of professional responsibility that is both important to your project, and for which your team has demonstrated a moderate or high level of proficiency in the context of your project. Briefly describe what this responsibility means to your project, the ways in which your team has demonstrated the responsibility in the project, and specific impacts to the project that you have observed.

Professional Responsibility:

Communication Honesty

Description, Demonstration, and Impacts:

For our project Communication Honest consists of reporting our work to our client truthfully, transparently, and without deception. We demonstrate this responsibility by providing detailed reports to our client on a weekly basis that communicate our team's progress, what we achieved, what we are spending our time and resources on, and what our plans for the future are. Communicating clearly and honestly in this manner has allowed us to receive critical feedback from our client on our performance in order to improve our team's performance as the project progresses.