

## 2.1 REQUIREMENTS & CONSTRAINTS

Our project is to migrate websites by creating themes on the WordPress Platform. This project has four main types of requirements; resource, user, aesthetic, and UI.

**Resources:** Requirements of resources that we have to use during the project.

- Themes for the sites need to be created on WordPress.
- Use the provided pictures for the websites.
- Use the provided text for the website.

**User:** Requirements of what the clients (the owner of the sites) need to be able to do.

- Clients, who are not experienced with WordPress, need to be able to edit the sites.
- Plugins, themes, and features used need to be easily accessible, well-supported, and frequently updated. So the client can use them in the future if needed.

**Aesthetic:** Requirements on how the site should look.

- Sites should look similar to the original sites. Any changes should be made to improve the site.
- Clearly identify the company that the site belongs to.
- The text needs to be easy to read
- Pictures need to be a viewable size

**UI:** Requirements on how the user interface needs to be for the migrated sites.

- Interactive elements, like links and dropdown menus, should function correctly
- Navigation of the site needs to be simple (The sites we are working with are mainly sites where you can scroll up and down)
- Site response time and performance need to be at a reasonable speed. (The use of specific plugins or features can impact this)

## 2.2 ENGINEERING STANDARDS

The project has three engineering standards that apply: IEEE 1028, IEEE 1517, and IEEE 2001

## **IEEE 1028-2008 Software Reviews and Audits:**

This standard is defined by five parts: Management Reviews, Technical Reviews, Inspections, Walk-Throughs and Audits.

- Management Reviews: Focuses on the project's progress, status, and performance.
- Technical Reviews: Evaluates the technical aspects of the software such as architecture, code, design and documentation. Focuses on the quality of the project.
- Inspections: Inspection's main goal is to look at the output the software produces based on if it fulfills the requirement specifications. This includes identifying defects, inconsistencies, and deviations from the expected outputs.
- Walk-Throughs: This is a presentation to team members and clients on how the product works. Suggestions and feedback are made to further improve the quality of the project, and gives the client an idea on what the project status is.
- Audits: Audits are individual assessments to make sure that the product meets all policies, and covers any area related to software development.

In terms of this project, all five parts are covered and the entirety of this engineering standard will be used. The main goal is to make sure that each website has the best quality, is done on time, and that the specifications are fulfilled.

## **IEEE 1517-2010 Standard for Information Technology - Software Life Cycle Processes - Reuse Processes:**

**Definition:** The standard simply defines that the reuse of software and/or systems can be integrated to reduce cost, time, and potentially increase quality of the product.

**Project Relation:** For this project, the previous "look" and functionality of the website is being reused, along with other resources such as buttons, hyperlinks, and photos.

## **IEEE 12207-2008 Systems and Software Engineering - Software Life Cycle Processes**

This standard gives a framework for the software life cycle containing six parts: Acquisition, Supply, Development, Operation, Maintenance and Retirement.

- Acquisition: Finding needs/requirements, suppliers and software products.
- Development: Creating the product based on the needs/requirements.
- Supply: Provide the created product to the customer.
- Operation: The customer uses the product in the proper operational environment.
- Maintenance: Modifying and updating the product as needed.
- Retirement: Either stop using or replacing the product with something newer.

In terms of this project, only Acquisition, Development, and Supply will be used. Operation will be used for the customer whenever they want to search for it on the internet, and the owners of each website will decide what updates they should bring to the website and when to retire it.