FAMU/FSU College of Engineering

Department of Electrical and Computer Engineering

Project Charter

Team 304: FPL ATS Training Application

Names:
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Project Scope

Project Description: The scope of this project is to create a user-friendly and intuitive virtual application that correctly trains and tests Florida Power & Light employees on how to perform maintenance on an ATS (Automated Transformer Switch).

Stakeholders: The stakeholders for this project are the FPL employees who will be utilizing this training application.

Markets: Students in vocational/technical schools, employees of electric/utility companies that will be professionally utilizing ATS equipment, manufacturers of the ATS equipment, and manufacturers of similar equipment.

Assumptions: The team is making the assumption that the user has background knowledge and experience in dealing with electrical components, especially the ATS. Furthermore, it is assumed that the user will know how to install the ATS, as the application will only cover maintenance and troubleshooting procedures.

Code of Conduct

Mission Statement

Team 304 is committed to ensuring a positive work environment that supports professionalism, integrity, respect, and trust. Every member of this team will contribute a full effort to the creation and maintenance of such an environment in order to bring out the best in all of us as well as this project.

Roles

Each team member is delegated a specific role based on their experience and skill sets and is responsible for all here-within:

Team Leader - Kaitlyn Gurtner

Delegates tasks among group members according to their skill sets. The team leader is responsible for promoting synergy and increased teamwork. If a problem arises, the team leader will act in the best interest of the project. The team leader takes the lead in organizing, planning, and setting up of meetings. In addition, they are responsible for keeping a record of all correspondence between the group and ‘minutes’ for the meetings. Finally they give or facilitate presentations by individual team members and is responsible for overall project plans and progress

Lead Programmer - Christopher Sopeju

Most responsible for the programming aspect of the project. The team decided to use a combination of C(#/++) and Unity for the virtual implementation of the application. Coordinates with other team members to create cohesive code that

Lead Designer - Kevin Rodriguez

Responsible for organizing the complete design of the virtual representation of the ATS (Automated Transformer Switch) in the training application. Coordinates with other team members to create smaller design items and incorporate them into the full design.

Technical Specialist - Alexis Cross

Researches the ATS (Automated Transformer Switch) and is most knowledgeable about the technical details of it. Communicates with other team members about the technical workings of the ATS and how to accurately represent it in the training application. Responsible for maintaining the accuracy of the representation of the ATS throughout the training application.

Test Engineer - Max Urscheler

In charge of testing the product periodically and relaying information back to the other team members if there an issue was to arise with the application when it was tested.

All Team Members:

- Work on certain tasks of the project
- Buys into the project goals and success
- Delivers on commitments
- Adopt team spirit
- Listen and contribute constructively (feedback)
- Be effective in trying to get message across
- Be open minded to others ideas
- Respect others roles and ideas
- Be ambassador to the outside world in own tasks

Communication

The main form of communication will be over via Zoom Meetings and text-messaging among the group. Email will be a secondary form of communication for issues not being time-sensitive. For the passing of information, i.e. files and presentations, email and Google Drive will be the main form of file transfer and proliferation. There will also be a google drive folder shared between all team members with important files stored pertaining to the project inside.

Each group member must have a working email for the purposes of communication and file transference. Members must check their emails at least twice a day to check for important information and updates from the group. Although members will be initially informed via a text message, meeting dates and pertinent information from the sponsor will additionally be sent over email so it is very important that each group member checks their email frequently.

If a meeting must be canceled, an email must be sent to the group at least 24 hours in advance.

Any team member that cannot attend a meeting must give advance notice of 24 hours informing the group of his absence. Reason for absence will be appreciated but not required if personal. Repeated absences in violation with this agreement will not be tolerated.

Team Dynamics

The students will work as a team while allowing one another to feel free to make any suggestions or constructive criticisms without fear of being ridiculed and/or embarrassed. If any member on this team finds a task to be too difficult it is expected that the member should ask for help from the other teammates. If any member of the team feels they are not being respected or taken seriously, that member must bring it to the attention of the team in order for the issue to be resolved. We shall NOT let emotions dictate our actions. Everything done is for the benefit of the project and together everyone achieves more.

Ethics

Team members are required to be familiar with the NSPE Engineering Code of ethics and the IEEE Code of Ethics, as they are responsible for their obligations to the public, the client, the employer, and the profession. There will be stringent following of the NSPE Engineering Code of Ethics and the IEEE Code of Ethics.

Dress Code

Team meetings will be held in casual attire. Sponsor meetings and group presentations will be business casual to formal as decided by the team per the event.

Weekly and biweekly Tasks

Team members will participate in all meetings with the sponsor, adviser and instructor. During said times ideas, project progress, budget, conflicts, timelines and due dates will be discussed. In addition, tasks will be delegated to team members during these meetings. Repeat absences will not be tolerated.

Decision Making

It is conducted by consensus and majority of the team members. Should ethical/moral reasons be cited for dissenting reason, then the ethics/morals shall be evaluated as a group and the majority will decide on the plan of action. Individuals with conflicts of interest should not participate in decision-making processes but do not need to announce said conflict. It is up to each individual to act ethically and for the interests of the group and the goals of the project. Achieving the goal of the project will be the top priority for each group member. Below are the steps to be followed for each decision-making process:

- Problem Definition – Define the problem and understand it. Discuss among the group.
- Tentative Solutions – Brainstorms possible solutions. Discuss among the group for plausible solutions.
- Data/History Gathering and Analyses – Gather necessary data required for implementing Tentative Solution. Re-evaluate Tentative Solution for plausibility and effectiveness.
- Design – Design the Tentative Solution product and construct it. Re-evaluate for plausibility and effectiveness.
- Test and Simulation/Observation – Test design for Tentative Solution and gather data. Re-evaluate for plausibility and effectiveness.
- Final Evaluation – Evaluate the testing phase and determine its level of success. Decide if design can be improved and if time/budget allows for it.

Conflict Resolution

In the event of discord amongst team members the following steps shall be respectfully employed:

- Communication of points of interest from both parties which may include demonstration of active listening by both parties through paraphrasing or other tool acknowledging clear understanding.
- Administration of a vote, if needed, favoring majority rule.
- Team Leader intervention.
- Instructors will facilitate the resolution of conflicts.