FLORIDA ENERGY SYSTEMS CONSORTIUM WEBSITE REDESIGN PROPOSAL

GENERAL INFO

The Florida Energy Systems Consortium (FESC) was created by the Florida State government to promote collaboration among the energy experts at its 12 supported universities to share energy-related expertise. The website is designed to be an information hub to provide resources about the development and implementation of an environmentally compatible, sustainable, and efficient energy strategic plan to its varied users such as general, experts in sustainable energy field, university students, researchers and government officials.

OBJECTIVE

The main objective of this redesign is to modernize this website by implementing the most recent standards for accessibility, responsiveness, usability and performance. To achieve this goal, the big chunk of information on the website will be reorganized with the help of functional links and buttons, easily navigable bars to have a well-designed resource.

SITE EVALUATION

1. Accessibility Audit

The website was tested through web accessibility evaluation tool named Wave and the issues are as follows:

Issue Categories/Total Number	Issue Definitions/Total Number
Errors (10)	• Missing alternative text (2) • Linked image missing alternative text (6) • Missing from label (1) • Empty heading (1)
Alerts (7)	• Suspicious link text (1) • Redundant link (4) • Link to PDF document (1) • Noscript element (1)
Features (17)	• Linked image with alternative text (16) • Form label (1)
Structural Elements (8)	• Layout table (8) • Heading level 1 (3) • Unordered list (1) • Inline frame (1)

HTML5 and ARIA (1)	• Search (1)

Full report: http://wave.webaim.org/report#/http://floridaenergy.ufl.edu/

2. Mobile Friendliness

Google Mobile-Friendly Test was run to evaluate its user friendliness on mobile devices. According to the result, the page can be difficult to use on a mobile device. The issues are listed as follows:

- Viewport not set
- Clickable elements too close together
- Text too small to read

3. Performance

FESC website was tested by WebPageTest, GTmetrix and PageSpeed Insights to assess its performance.

Here are the results:

Load time	4.109s
PageSpeed Score	D (66%)
Mobile Optimization	Medium 63/100
Desktop Optimization	Medium 66/100

- WebPageTest Results:

https://www.webpagetest.org/result/180716_QS_2b2c99452d1343137578668e43441613/

- GT Metrix Results:

https://gtmetrix.com/reports/floridaenergy.ufl.edu/k5rvh6Dm

- PageSpeed Insights Results:

Mobile:

https://developers.google.com/speed/pagespeed/insights/?url=http%3A%2F%2Ffloridaenergy.ufl.edu%2F&tab=mobile

Desktop:

https://developers.google.com/speed/pagespeed/insights/?url=http%3A%2F%2Ffloridaenergy.ufl.edu%2F&tab=desktop

Optimization Suggestions:

- Leverage browser caching
- Optimize images
- Serve scaled images
- Avoid landing page redirects
- Serve resources from a consistent URL
- Avoid a character set in the meta tag
- Specify a character set early
- Put CSS in the document head
- Minify HTML, CSS and JavaScript
- Inline small CSS and JavaScript
- Specify image dimensions
- Defer parsing of JavaScript

4. Functionality

The following issues have been found while doing functionality QA in the UI:

- The Download Brochure button on the right-hand side of the homepage results in error. There is no document in the directed link.
- LinkedIn icon at the bottom of the page isn't functional. It doesn't redirect the user to a valid link. When you click on the icon, you will see the image of the icon in the opening page.

5. Ease of Use

- Simplicity:

  The way FESC website's design to provide the large amount of information and resources is generally very overwhelming for its users because the typefaces are generally not eligible because of the spacing issue. The colors used in the UI is not matching and not consistent throughout the site. Since the content is related to environment green can be a better option instead of blue and orange especially in the navigation bar.

- Visual Hierarchy:

  The content should be redesigned in a logical order and easy to navigate. For instance, all the resources about solar energy should be under the same category and divided into logical directories.

- Navigability:

  There are too many navigation links and buttons across the website. Navigation bar should only include high level concepts/functions. Suggested buttons are Home, About Us, Energy Education, Events, Jobs, Contact Us.

- Consistency:

  To provide better user experience, the consistency in colors, type font, layout of landing and directing pages should be consistent. FESC is not consistent in terms of these features.

- Cosmetic:

  Some of the images are very-old fashioned (especially the one used in Energy Education/Energy Jobs page) and not eye-catching. The buttons, bars and images should be redesigned.

DEVICE SUPPORT NECESSARY

The intended users (no matter who they are) of FESC would likely to access via variety of devices and browsers. To meet the industryd standards, it should support IOS, Android (for mobiles and desktops) and the browsers such as Chrome, Firefox, Safari, Internet Explorer and Edge.

RECOMMENDATIONS FOR IMPROVEMENT

The followings are the recommended deliverables for this project which aims to modernize the FESC websites with ease of navigation, improved responsiveness and usability.

Deliverables:

- Fix not functional links and buttons
- Redesign navbar to navigate easily
- Redesign the aside bar in a more logical way
- Put Google Maps info to Contact Us landing page (not on directing page)
- Implement Email template on Contact Us page
- Give social media links also on Contact Us page
- Use better font style and color / be consistent among all the pages in terms of style
- Merge About Us and Advisory Board pages
- Minimize the images in Footer
- Change the images with more attractive ones
- Improve responsiveness of the website

- Optimize the images to increase the page speed