



IEEE, 445 Hoes Lane, Piscataway, NJ 08854


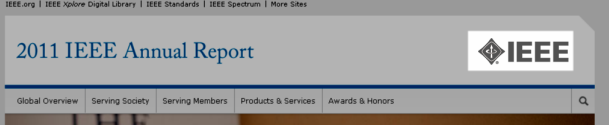

IEEE Digital Guidelines & Usability Optimization Review
[DATE]




Scope: IEEE sites should be tested or reviewed for usability, accessibility, and heuristics. The scope of this document is to provide high-level digital guidelines and usability optimization review based on the [IEEE Visual Identity Guidelines](#) (PDF, 5 MB) and [IEEE Digital Style Guide](#) as well as on industry and organization best practices.


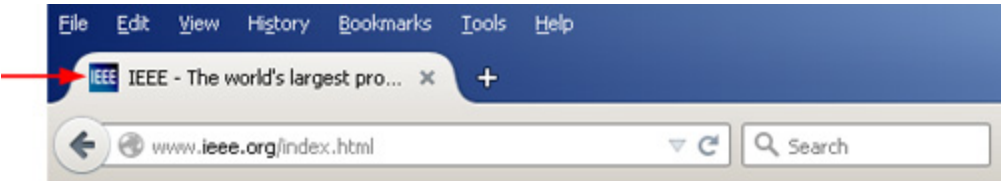

Additional user and expert analysis (i.e., usability testing, heuristic review) should be conducted after the opportunities/issues outlined in this document are addressed.


Date of DCI review:	
IEEE website name:	
Phase of site at time of review:	(Wireframing, Design, Development/Beta Testing, Live)
If live, when did the site launch?:	
Pages/comps reviewed:	Entire site
Screen resolution used to view:	Normally at 1028x768 pixels
IEEE entity category:	(Societies, Tech Council, Geographic Unit (Chapter Branch, Section), Products, Conference, Corporate, Volunteer, Social Media, Other Sites, Future Directions, Affinity Group)
Affiliation:	(Society/Council/Technical Council/Geographic Unit (for Geographic Unit, [Region, Chapter, Branch, Section]))
IEEE OU/department (if hosted internally):	
IEEE domain name (URL):	
Domain status at the time of review (active/inactive):	
Webmaster name/email/phone:	
Content editor name/email/phone:	
What is the strategy and goal of this digital initiative?	
What are the key tasks/flows of the website?	
Who is the audience of the website?	
How often will the website's content be updated?	
How will the website's success be measured?	

Any user feedback received to date/areas of concern:	
IEEE domain/current and proposed redirects:	
List any current promotional URL(s)	
Site developer (in-house stakeholder/agency name):	
Site hosting environment (EWH/IEEE IT/other; please provide contact details):	
Site CMS platform (WordPress, Drupal, Liferay, none, other):	
Site search engine (Google CSE, Endeca, none, other):	
Site analytics tools (Google Analytics, Webtrends, none, other):	
Related social media site(s) planned (Facebook, Twitter, Google+, etc.)	
Site maintenance process/plan/timeline for updates:	
Site responsiveness/mobile version (Yes/No):	

Criteria	Priority	Notes/Requirement	Changes have been made
<p>IEEE Master Brand</p> <p> required</p>	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<p>Per the IEEE Digital Style Guide - Page Element and Branding Requirements:</p> <p>The IEEE Master Brand (MB) :</p> <ol style="list-style-type: none"> Placement: appear in the upper right corner of the site header and within the top one-third of the screen view Size: appear at a minimum of 100 pixels wide by 33 pixels high and smaller in size than the site identifier Clear space: adhere to the correct clear space around the IEEE Master Brand of 1/2x (x = the height of the letters I-E-E-E) Color: appear in either black or white (the blue IEEE Master Brand is reserved only for the IEEE main site [IEEE.org]) Alt text value: should be “IEEE” Hyperlinking: link back to http://www.ieee.org; links should open in the same window Ensure there is no white background behind the diamond symbol, and never use the IEEE Master Brand as a background, watermark, or wallpaper Should not have any modifications or distortions applied (e.g., drop shadow) <p>Sample of header showing IEEE MB:</p>  <p>Comments:</p> <ol style="list-style-type: none"> 	
<p>Site identifier</p> <p> required</p>	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<p>Per the IEEE Digital Style Guide - Header/Footer Requirements:</p> <p>The logo or name of the site:</p> <ul style="list-style-type: none"> Must appear in the upper left corner of the site header Must link to the home page of the site Must contain the letters I-E-E-E Should appear larger in size than the IEEE Master Brand to avoid confusion as to which site the visitor is on <p>Comments:</p> <ol style="list-style-type: none"> 	

<p>IEEE meta navigation</p> <p> required</p>	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<p>Per the IEEE Digital Style Guide - IEEE meta-navigation requirements:</p> <p>The meta-navigation is a menu to appear on all IEEE sites allowing visitors to quickly access IEEE flagship properties and options. Requirements for the IEEE meta-navigation are as follows.</p> <ol style="list-style-type: none"> a) Placement: outside of the main page above the site header. Within the meta-navigation: <ul style="list-style-type: none"> – Site links should appear at the upper left and flushed left with the edge of the page – The upper right side is reserved for single-sign-on. To request single-sign-on, please work with your IEEE employee representative to initiate a project with IEEE Information Technology. b) Meta-navigation size: minimum height of 30-40 pixels c) Meta-navigation color: should be aligned with your site colors and user tested for effectiveness (noticeable but not distracting from site content) d) Link interaction: should only underline upon hover, have no "visited" link color change, and open in the same window e) Link separation symbol: should be a vertical bar () f) Typography: Verdana, no smaller than .07em g) Text color: light or dark text can be used depending upon the background color/contrast h) Links: Align site links to the left side of the page in the following order with the noted destinations. <ul style="list-style-type: none"> – IEEE.org: www.ieee.org – IEEE <i>Xplore</i> Digital Library: ieeexplore.ieee.org ('Xplore' in italics) – IEEE Standards: standards.ieee.org – IEEE Spectrum: spectrum.ieee.org – More Sites: www.ieee.org/sitemap.html <p>Download an HTML sample of the IEEE meta navigation code (ZIP, 1 KB)</p> <p>Sample of meta-navigation on IEEE.org:</p>  <p>Comments:</p> <ol style="list-style-type: none"> 1. 	
<p>IEEE favicon</p> <p> required</p>	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p>	<p>Per the IEEE Digital Style Guide - Favicon requirements:</p> <p>The IEEE favicon (short for "favorites icon") is a 16x16 pixel square icon that appears in the latest versions of digital browsers' address bars, tabs, and bookmarks. The 57x57 pixel square icon, Apple Touch Icon, is used for iOS devices where the user adds the icon to his or her home screen. Download the official IEEE favicon</p>	

	<p>Approved - no changes needed</p> <p>Not applicable</p>	 <ul style="list-style-type: none"> All official IEEE sites are required to use the IEEE favicon or an approved IEEE sub-brand favicon as a way to improve user experience and leverage the IEEE brand. Color can be customized to align with the color themes of the site. <p>Sample favicon usage within a browser:</p>  <p>Comments:</p> <ol style="list-style-type: none"> 	
<p>Footer</p> <p> required</p>	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<p>Per the IEEE Digital Style Guide - Footer Requirements:</p> <p>All sites within the IEEE Digital Presence must utilize the guidelines below for site footers:</p> <p>Administrative links:</p> <ol style="list-style-type: none"> *Home: links to the home page of the digital site (should appear as first link) Site Map *Contact: contact page or form for the site Help: instructional content for the site (if applicable) *Accessibility: link to the IEEE Accessibility Statement page (http://www.ieee.org/accessibility_statement.html) *Nondiscrimination Policy: link to the IEEE Nondiscrimination Policy page (www.ieee.org/nondiscrimination) *Privacy & Opting Out of Cookies: link to the IEEE Privacy & Security page (www.ieee.org/privacy) Feedback: form for users to give feedback about the site (if applicable) *Copyright line: © Copyright <YEAR> IEEE – All rights reserved. Use of this website signifies your agreement to the IEEE Terms and Conditions. (link "IEEE Terms and Conditions" to www.ieee.org/site_terms_conditions.html and should appear underlined) 	







		<p>10. *Descriptor: A not-for-profit organization, IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity.</p> <p>Design: Use either a border or a different background color to ensure visual separation between the footer and the page areas above</p> <p>Width: extends the full width of the page</p> <p>Typography: Verdana, no smaller than .07em</p> <p>Download: an HTML sample of the IEEE footer code (ZIP, 1 KB)</p> <p>*Denotes required administrative links/language in the digital site footer. Do not replicate the policies listed above. Link directly to the IEEE policies. If you believe there's a conflict or that your site has need for a more explicit or restrictive policy, please contact the Digital & Creative Innovations Team.</p> <p>Comments: 1.</p>	
<p>Legal requirements for content</p> <p> required</p>	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<p>Using trademark symbols When trademarked products are mentioned, trademark symbols must be included along with a trademarked product name the first time it is mentioned on a web page. The trademark symbol must only appear upon first usage on the page and need not appear every time the product name is mentioned on that page.</p> <p>Use the appropriate trademark symbols, i.e., unregistered (™) or registered (®), after the full name of the trademarked product. (Example: IEEE <i>Xplore</i>® Digital Library)</p> <p>Citing sources Provide the source of all content that is not original once permission for publishing has been obtained. Or instead, link directly to the source. It is mandatory to provide credit to the original source.</p> <p>Do not use content from another site (including IEEE digital sites) without permission. For example, do not use Google images found through search without permission of the owner.</p> <p>Comments: 1.</p>	
<p>Tagline/site purpose</p>	<p>High – Needs to be updated/addressed immediately</p>	<p>Per the IEEE Digital Style Guide - Header/Footer Requirements:</p>	

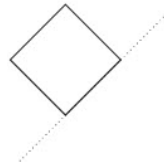
	<p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<p>The purpose of the site should be obvious either through the site identifier or through positioning copy placed prominently within the site header. However, if for some reason the site header cannot adequately convey this information, it should be placed in another prominent position within the home page.</p> <p>Comments:</p> <ol style="list-style-type: none"> 1. 	
<p>Screen-size optimization and display</p>	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<p>Ideally, site designs should be able to scale to the size of the devices that access them and deliver the appropriate output for optimum usability. Development methods such as responsive design should be used to support this goal. If the current design does not meet these requirements, a plan should be in place to create this experience with the soonest possible release date.</p> <p>Website display should be optimized for the following screen resolutions at minimum:</p> <ul style="list-style-type: none"> • 1366x768 pixels • 1920x1080 pixels • 1280x1024 pixels <p>Comments:</p> <ol style="list-style-type: none"> 1. 	
<p>Browser compatibility</p>	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<p><u>New sites or releases:</u></p> <p>Site managers should certify compatibility with all browser versions outlined in the IEEE.org Browser Policy. Prior to launch of the new site or site release, known discrepancies should be brought to the attention of the Digital and Creative Innovations Team (digital-innovations@ieee.org), who will evaluate whether immediate remediation or policy disclaimers are needed. Discrepancies may also include issues related to dependencies on JavaScript, Flash, or other rich media; non-standard screen resolution; or pop-up windows.</p> <p><u>Existing sites:</u></p> <p>IEEE flagship sites (sites in the IEEE meta-navigation) should do the following at least three times a year:</p> <ul style="list-style-type: none"> • Review site-specific browser usage data and trends. • Recertify site for compliance with pending policy updates (as applicable). • Update site-specific browser requirements/statements based on data review (as applicable). <p>All other IEEE-branded site managers should recertify their sites annually to ensure adherence to the policy.</p>	

		<p>All IEEE sites should include a link to site-specific browser requirements and/or statements. These should be equal to or more inclusive than the IEEE.org Browser Policy and should note any approved discrepancies or optimization instructions. Reference the IEEE.org Browser Policy.</p> <p>For further guidelines and processes, refer to the IEEE Enterprise Browser Strategy (username and password required).</p> <p>Comments: 1.</p>	
Domain name	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<p>IEEE sub-sites should preferably be established as sub-domains of IEEE by IEEE IT. The naming convention for domains is <subsite>.ieee.org. If this is not possible, follow domain-naming best practices:</p> <ul style="list-style-type: none"> ● Product and service groups should use a primary subdomain, with subdirectories for major sub-products or sub-brands. Examples: <ul style="list-style-type: none"> ○ publications.ieee.org/journals/photonics-journal ○ publications.ieee.org/transactions/plasma-science ● Do not abbreviate: Don't abbreviate domain names to keep them short in length. For example: www.blp.com is an unacceptable shortening of the IEEE product name Blended Learning Program. ● For multi-word product names translated into domain names, use dashes to separate words and dates: <ul style="list-style-type: none"> ○ Blended-learning.ieee.org, NOT blendedlearning.ieee.org ○ ieee-ieorms-2014.org, NOT ieeeieorms2014.org ● IEEE domain names should be registered through IEEE IT and should not be owned by entities outside of IEEE. ● Redirects for domains. <ul style="list-style-type: none"> ○ The current URL is <site name> and should appear as <site name>. ○ When the domain name is changed (ideally at the time of a redesign or migration when URLs would change anyway), all old URLs with the domain name <site URL> should be sent to the corresponding new URLs via permanent 301 redirects. ○ This is a requisite for better search engine rankings for the site on the web and within the IEEE search engines that index the <site name>. Users will also automatically be directed to the new URLs, which will not interrupt their experience on the <site name>. ○ At a minimum, the <subsite>.ieee.org should be setup to redirect users to the current URL so that users who are familiar with IEEE naming conventions will be able to easily locate the site. <p>For more information, view the IEEE Domain Naming Guidelines (username and password required).</p> <p>Comments: 1.</p>	
File naming guidelines	<p>High – Needs to be updated/addressed immediately</p>	<p>The following file-naming guidelines should be followed:</p> <ul style="list-style-type: none"> ● Directory and file names should be as short as possible, while still having meaning to the user, to avoid excessively long URLs. 	

	<p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<ul style="list-style-type: none"> • The landing page of a section should be named "index," while all other files (pages) within the folder should have names that refer to the page title. • Each file name within a section should be unique. • Use all lowercase and avoid special characters (including spaces) when creating file and folder names. When creating a new site, Google recommends using dashes instead of underscores as URL word separators in order to optimize your site for search engines. However, if you have an existing site that is using underscores, it is not recommended to go back and change all existing URLs, as the impact on user experience (e.g., inconsistency, broken bookmarks and links, etc.) may outweigh the positives. <p>Comments:</p> <ol style="list-style-type: none"> 1. 	
<p>Accessibility compliance</p>	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<p>Web accessibility is the ease with which people with disabilities can perceive, understand, navigate, interact with, and contribute to the web.</p> <p>All IEEE sites should, at a minimum, comply with Section 508 (29 U.S.C. ‘ 794d) and Web Content Accessibility Guidelines (WCAG) 2.0, Level A.</p> <p>If complete compliance has not yet been reached, you should have a project plan to obtain completion and be actively working to complete it within a reasonable amount of time.</p> <p>View Section 508 website for detailed guidelines View Web Content Accessibility Guidelines (WCAG) 2.0 View the IEEE Digital Presence style guide - Usability and accessibility guidelines</p> <p>Note: Some accessibility requirements and considerations have been noted throughout this document, but a complete review was not performed.</p> <ul style="list-style-type: none"> • Web pages should have “skip to main content” functionality in order to skip navigational elements. The functionality does not necessarily need to be visible but should be apparent when using a keyboard or assistive technology tool. • Navigation elements should be keyboard accessible. • Alt text should be provided for all non-decorative images. • Data tables should have identifiable row and column headers coded correctly to enable assistive technology tools to view the data properly. • Form elements should have properly coded labels associated with them and should be keyboard accessible. • Web content functioning with timed responses should be controllable by the user. • Ensure information conveyed with color is also available without color. <p>Alt Text</p> <ul style="list-style-type: none"> • All images should contain proper alt tag information for users who utilize screen readers and SEO. • Alt text should describe the image in a meaningful way (e.g., IEEE President John Smith). 	

		<ul style="list-style-type: none"> Do not add alt text to an icon if it would be the same as the link text (since screen readers will read both the alt tag and the link text). <p>Browsers</p> <p>Content and functionality should display in the following browsers, according to the IEEE.org Browser Policy:</p> <ul style="list-style-type: none"> Internet Explorer 11 Mozilla Firefox Safari Google Chrome <p>Comments:</p> <ol style="list-style-type: none"> 	
Color palette	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<p>All IEEE sites should utilize the IEEE color palette to create a more unified look and feel between sites. Although the palette offers a broad range of colors it is advised to use only 2-3 colors from either palette predominantly throughout the site. Additional color usage within or outside the palette should be used sparingly and purposefully.</p> <p>View the IEEE color palette in the "Branding and Visual Elements" section of the IEEE digital style guide.</p> <p>Comments:</p> <ol style="list-style-type: none"> 	
Typography	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p>	<p>Per the IEEE Digital Presence style guide - Typography:</p> <ul style="list-style-type: none"> IEEE typefaces can be referenced in the IEEE Visual Identity Guidelines (PDF, 3 MB) in the "Brand Basics: Typography" section. IEEE web presence sites should use a font designed especially for screen such as Verdana. Font sizes should be set using relative units such as ems, percentages (%), or pixels so that users can resize text. Points (pt) are intended for print media only and should not be used. The minimum body text size should not be smaller than 0.75 ems if the body text is set to 12 pixels. The minimum disclaimer/secondary text should not be smaller than 0.7 ems. <p>Comments:</p> <ol style="list-style-type: none"> 	

	Not applicable		
Imagery	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<p>Per the IEEE Digital Presence style guide - Imagery:</p> <p>Imagery used consistently can support the IEEE brand identity.</p> <p>If imagery is used on your site, it should reflect the six imagery themes below. These themes are based on key pillars of the IEEE brand and reflect the IEEE brand personality and style, as well as IEEE members, areas of expertise, and history.</p> <div style="display: flex; justify-content: space-around; text-align: center;"> <div> <p>People</p>  </div> <div> <p>Technology</p>  </div> <div> <p>Knowledge</p>  </div> <div> <p>Connected</p>  </div> <div> <p>Global</p>  </div> <div> <p>Archival</p>  </div> </div> <p>Real photographs (not clip art or stock images) should be used whenever possible to convey these themes. When real photographs are not available, stock photography that looks real is acceptable but should only be used in meaningful ways.*</p> <p>Learn more about how to use imagery in the IEEE Visual Identity Guidelines document (PDF, 3 MB) within the "Design System: The Wedge" section.</p> <p>Comments:</p> <ol style="list-style-type: none"> 	
Design system - the wedge	Low – Consideration	<p>Per the IEEE Digital Presence style guide – Branding elements:</p> <p>The wedge device, based on the graphic style of the diamond symbol from the IEEE Master Brand, is also a key element of the IEEE design system.</p> <p>This symbol, which has a long history at IEEE, has been enhanced to create a unique and dynamic look-and-feel system that can be applied across all of the IEEE branded communications. Using this graphic style correctly and consistently will help build a recognizable and powerful brand look and feel, creating equity for the IEEE brand.</p>	



Comments:

1. Add in the IEEE wedge design so the website contains this same design element that is used throughout the IEEE Web presence.

Links within page content

High – Needs to be updated/addressed immediately

Medium – Needs to be updated/addressed when possible

Low – Consideration

Approved - no changes needed

Not applicable

Links should appear and behave in a consistent manner wherever possible throughout the site.

- **Color:** The primary link color on the site should be blue (recommended color is #0063D7) across the site.
- **Interaction:** Generally, links should underline only upon hover. Links should also generally open in the same window.
 - Special cases when links should open in a new window include links to supporting documents such as PDF, Excel, Word, PowerPoint files, or contextual help links.
- **Destination:** Ensure destination link matches link text. Do not link to anchors on another page within the same or another website.
- **Notation:** When linking to a supporting file, include the file size and type in parentheses. Format should be (TYPE, size). Include the duration of multimedia files in parentheses as well. (Note: The size of the document can be found under "Properties.") Appropriate abbreviations include: DOC, DOCX, PDF, XLS, XLSX, PPT, PPTX, WMV. Links to secure pages that require sign-in should also be annotated.
- **Link text:** Link text should be concise and meaningful (approximately 5-7 words). Use plain language; avoid "click here," "follow this link," or URL addresses. When appropriate, write action-oriented links that accurately describe the information at the destination page. For links to pages on other IEEE web properties, be sure to use the same terminology used on other sites for consistency.
- **Trailing links vs. embedded links:** Use trailing links (links that appear below the descriptive content on a separate line) for calls to action. Use embedded links (links within paragraphs) only for supplemental information. Embedded links should be used sparingly and should not interfere with the reading of information either on the computer screen or when printed.

		<ul style="list-style-type: none"> ● Within-page links should be used for longer pages with sections of content that fall below the fold of the page. These links should not link to anchors on another page. Within-page links, if used, should follow general link-styling guidelines. These links have the following acceptable uses: <ul style="list-style-type: none"> ○ Top of page: links to the top of the page; used below the page "fold" to prevent scrolling. ○ Table of contents/“On this page”: link menus outlining and linking to all of the section within a page. ○ Alphabetical, chronological, or other category lists: often used across the top of the page to link to the appropriate place in a categorized list. ○ Frequently asked questions (FAQs): list the questions at the top of the page and make each question a link that scrolls the page to the associated answer. <p>Comments:</p> <ol style="list-style-type: none"> 1. 	
Main navigation	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<p>Guidelines for main navigation menus are as follows:</p> <ul style="list-style-type: none"> ● Tab name should be concise and relevant to the content within the section. ● Avoid using acronyms in menu labels unless widely understood/defined within the site. ● Create active/non-active tab interaction states with defined colors for each. ● Use high color contrast between type and tab color. ● Do not place supporting files in main navigation menus. ● Home tab should be avoided; but if used, should be the first tab <p>Comments:</p> <ol style="list-style-type: none"> 1. 	
Left navigation	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<ul style="list-style-type: none"> ● Consistency: Left navigation should be applied consistently throughout the site to avoid user confusion. Pages of the same type should have similar left navigation treatment. ● Menu headers: Each navigation menu should contain a header that identifies that this is the section's navigation menu, i.e., "Membership Menu." This is a requirement. ● Primary links: Menus should be composed of between two and 15 primary links (with five to ten being most optimal). This is strongly advised but not required. ● Link destinations: All links must have a valid destination that corresponds with the link label. Avoid "mail to" links in navigation menus by creating a contact page where such links can be found. Similarly, supporting files should be linked from page content rather than included as links in navigation menus. Links to other areas of the site should not be included in left navigation unless clearly labeled, e.g., "Related links". This is a requirement. ● Link target: All links in the left-hand navigation should open within the same browser window. This is a requirement. ● Expanded navigation/Secondary links: If allowed within the particular site templates being used, left navigation menus may also include between two and ten secondary links within each primary link. A minimum of two primary links should 	

		<p>expand. When expanded navigation is used, the primary link should be linked to a page orienting the user to all of the content within the secondary section. This is strongly advised but not required.</p> <ul style="list-style-type: none"> ● Link naming: Global terms such as "Home," "Sitemap," and "Contact" should never be used as standalone terms within a navigation menu, unless they will link to the home, sitemap, or contact pages for the overall site. References to these types of pages within a particular section should include the name of the specific section (e.g., "Conferences Home," "Contact IEEE Education Staff"). Link text should match the page title of the page it links to. Do not use acronyms. ● Supporting files: Should not be linked from the left navigation. <p>Comments: 1.</p>	
Right column content	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<p>Guidelines for right column content and navigation menus are as follows:</p> <ul style="list-style-type: none"> ● Right column content should be removable without any impact to page navigation or availability of content. ● Right column content and navigation is optional for IEEE websites and pages. ● Do not put critical information or links that are central to the purpose of the page in the right column. ● Do not overuse the right column. Keep the numbers of elements/modules to a minimum so they do not compete with the main page content. ● Elements should be ordered according to relevance to the page content and purpose. <p>Comments: 1.</p>	
Search engine optimization	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<p>At a minimum, all IEEE sites must adhere to following best practices for SEO in order to improve visibility in search engine results and indexing on IEEE search engines.</p> <p>Home page and top-level landing pages must include metadata descriptions:</p> <ul style="list-style-type: none"> ● Should be no longer than 155 characters ● Should include primary, relevant keywords ● Should be well-written to convey the purpose of the site <p>Proper use of page titles throughout the site:</p> <ul style="list-style-type: none"> ● Should be no more than 65 characters (including spaces) in length ● Should include keywords relevant to the page content ● Should use H1 header tags (headers are seen in the source code as H1, H2, H3 tags) <ul style="list-style-type: none"> ● Links should utilize meaningful words, preferably consistent with usage on other IEEE web properties. For example, all links to IEEE <i>Xplore</i> should read "IEEE <i>Xplore</i> Digital Library." ● Images should have meaningful alt text. 	

[Download OGP Facebook guidelines and metadata coding best practices.](#)

Comments:

1.

Search tools

High – Needs to be updated/addressed immediately

Medium – Needs to be updated/addressed when possible

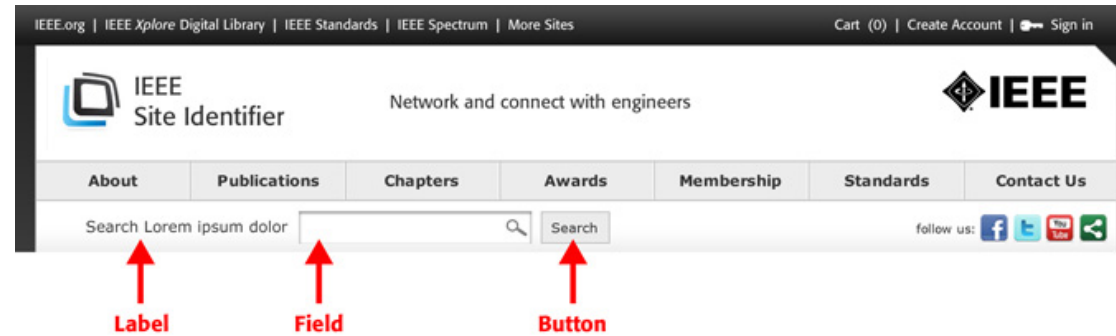
Low – Consideration

Approved - no changes needed

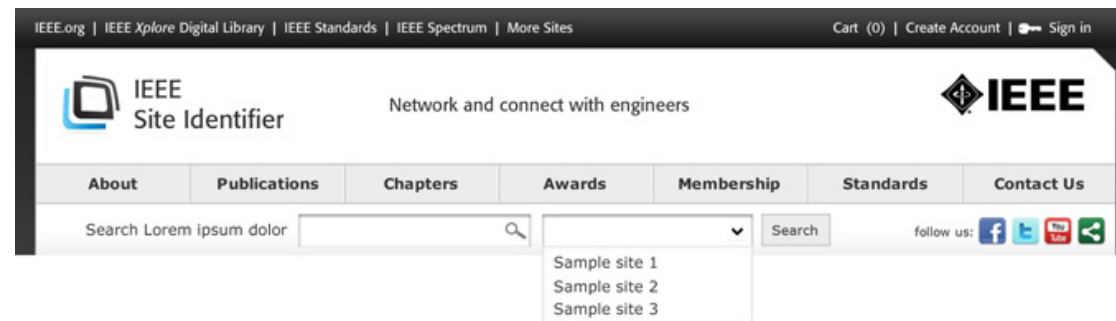
Not applicable

Search tools help users find content on a site through the use of a search engine that indexes the content on the site. This tool is most useful when users do not want to browse for content or are unable to find content via browsing.

Sample search area using conventional placement in header area of the site:



Sample search area with dropdown treatment using conventional placement in header area of the site:



Placement

- If used, search tools (field, label, and button) must be placed in a consistent and global area within the digital site's design.

- Search tools are traditionally placed in the header area of a site or in proximity to the global navigation for quick access.
- Global search tools must appear on all pages of the site for quick access and to aid findability of content.
- Other search tools, if warranted, should appear contextually with content on the relevant page(s).

Design

- Global search tools can be presented using either a search field/box (conventional usage) or a search field/box designed as/alongside a dropdown if providing faceted search options.
- Search tools must be clearly visible and recognizable through the use of good recognition aids such as:
 - Field labels placed to the left of the search field or inside (note accessibility requirements for placing the label inside). Example: Search IEEE *Xplore*
 - Search button
 - Must be placed in close proximity to the right of the search field
 - Button label text must say "Search" instead of "Go" or other text labels
 - A magnifying glass inside the search field [optional]
 - Hint text inside the search field [optional]
 - Search tips and advanced search can be included if available

Accessibility requirements

- When using a magnifying glass, ensure that the code label says "search" and not "magnifying glass."
- Hint text, if placed inside the search field, must meet the following code requirements to support screen reading software via invisible form labels. Use one of the following three suggested techniques to apply invisible form labels.
 1. Hidden <label>: Hide the <label> element off-screen using CSS. The label will not appear visually but will still be read by a screen reader. Create a CSS style called "hidden" and apply it to the label of the form label.

HTML

```
<label class="hidden" for="s">Search Terms</label>
```

```
<input type="text" id="s" name="s">
```

CSS

```
.hidden
```

```
{position:absolute;
```

```
left:-10000px;
```

```
top:auto;
```

```
width:1px;
```

		<p>height: 1px; overflow: hidden;}</p> <p>2. Title attribute: If a form field has a title attribute but no <label>, the screen reader will read the title as if it were a label.</p> <p>HTML <input id="s" type="text" name="s" title="Search Terms"></p> <p>3. Aria-label: The aria-label attribute can also be used when there is no text label on the page. Add the aria-label to the input element.</p> <p>HTML <input id="s" type="text" name="s" aria-label="Search Terms"></p> <ul style="list-style-type: none"> ● Important to note: <ul style="list-style-type: none"> ○ Only one of these recommendations should be implemented. Using two or more together (e.g., a hidden <label> and a duplicate title attribute) can cause information to be repeated by a screen reader. ○ Placeholder text (e.g., <input type="text" placeholder="Search WebAIM">) is not a suitable label and should never be used in place of the above techniques. <p>Resources</p> <p>WebAIM Advanced Form Labeling Invisible Content Just for Screen Reader Users</p> <p>Sample search engine technologies</p> <ul style="list-style-type: none"> ● Google Custom Search Engine ● Oracle Endeca ● WordPress search engine ● Elasticsearch ● Also review search engine optimization guidelines <p>Comments:</p> <p>1.</p>	
Design of interactive elements	High – Needs to be updated/addressed immediately	<p>Adhere to the design elements and IEEE Master Brand standards within the IEEE Visual Identity Guidelines (PDF, 3 MB)</p> <p>Usability and accessibility guidelines</p> <ul style="list-style-type: none"> ● Clearly identify the number of steps at the beginning of a sequence. For example, step 1 of 5 (if applicable). 	

	<p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<ul style="list-style-type: none"> ● Provide an explanation of the animation file before it begins to help users better understand the animation and associated content. ● Indicate which type of viewer/player is necessary and provide a link to download the viewer/player (if applicable). ● If the file is downloadable, always indicate file type and size in parentheses after the link. For example, IEEE presentation template (ZIP, 755 KB). ● Allow animation to be user-controlled. The user should be able to pause, stop, replay, or ignore animation or other multimedia elements. ● Place actionable controls (such as buttons) in an intuitive place within the file so users do not have to search for a way to advance. ● The typeface size within the file should not appear smaller than 8pt or .07 em. ● The file should have an absolute end and not loop. ● Provide an HTML or transcribed version of the file for users using assistive technology. ● Learn more about creating transcripts. <p>Comments:</p> <ol style="list-style-type: none"> 1. 	
Icons	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<p>Icons should be consistent in their behavior, positioning, and design and should reinforce commonly used metaphors.</p> <p>Best practices:</p> <ul style="list-style-type: none"> ● Icons should be used sparingly (or only when absolutely needed). ● Proper alt tags should be provided for the icons to support users who use screen readers. ● Expansion cues, if used, should be consistently applied throughout the site; plus/minus symbols are preferred. ● Use established icons when available. <p>Comments:</p> <ol style="list-style-type: none"> 1. 	
IEEE copy writing conventions	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p>	<p>Optimize writing for the web; write content in the most concise manner possible that can be quickly and efficiently read on screen by a user. Use soundbites or video instead of dense paragraphs, or break information up into bulleted lists or outside links where appropriate.</p> <p>Consider your audience; use international date/time format where necessary.</p> <p>Use “IEEE” properly:</p> <ul style="list-style-type: none"> ● Avoid adding an apostrophe to the name IEEE, such as "IEEE's publication..." Instead use "... publication of IEEE." ● Use “IEEE,” not the “Institute of Electrical and Electronics Engineers” or “the Institute” or “the IEEE.” 	

	<p>Approved - no changes needed</p> <p>Not applicable</p>	<ul style="list-style-type: none"> ● Only use IEEE when referring to an activity or policy of the overall organization. If the statement refers to a specific area of IEEE only, be sure to clearly state this. ● When “IEEE” is part of the name of a product, publication, service, Society, or other title, it should never be dropped. This applies to first and subsequent references. (Examples: IEEE <i>Xplore</i>®, IEEE Spectrum, IEEE Computer Society) <p>Follow IEEE capitalization conventions:</p> <p>Uppercase:</p> <ul style="list-style-type: none"> ● Section ● Region ● Society ● Council ● Chapter ● Student Branch ● Chapter ● Student (or Life, Senior, etc.) <p>Lowercase:</p> <ul style="list-style-type: none"> ● unit ● organizational unit ● geographic unit ● committee ● member ● volunteer ● affinity group <p>Comments:</p> <ol style="list-style-type: none"> 1. 	
<p>Breadcrumb navigation</p>	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p>	<p>Breadcrumb links aid users in knowing where they are in the site.</p> <ul style="list-style-type: none"> ● All IEEE sites that are more than two levels deep must have breadcrumbs on lower-level pages of the site. ● The links should represent the hierarchical order of each section and always take the user through the shortest path to the home page. <p>Comments:</p> <ol style="list-style-type: none"> 1. 	

	Not applicable		
Forms: field names and accessibility	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<p>A web form is a web area where users can enter data that is sent to a server for processing. A web form resembles paper forms because users fill out the forms using check boxes, radio buttons, or text fields. A form could be used to collect many different types of data such as member, personal, and/or financial information. View the IEEE form guidelines.</p> <p>IEEE is an international association; therefore, to be considerate of international users, the form fields should be labeled correctly.</p> <p>Form fields</p> <ul style="list-style-type: none"> a) First name: should appear as “First/Given Name” b) Last name: should appear as “Last/Family/Surname” c) Email: can remain as Email (no hyphen) d) Contact phone number: there should be an example/helper text provided (+1 732 555 5555) e) State or province: should appear as “State/Province/Region” f) Postal code: should appear as “ZIP/Postal Code” <p>Accessibility</p> <ul style="list-style-type: none"> a) Ensure that all cues for filling out the form (form fields, checkboxes, error messages, and so on) are available to users of assistive technology. Use HTML markup to associate the controls explicitly with their labels or provide a title attribute. b) If possible provide a LABEL tag that identifies the purpose of the control before the input element. The FOR attributes of the label element should match the ID of the input element. c) Use the title attribute to label form controls when the visual design cannot accommodate the label (for example, if there is no text on the screen that can be identified as a label) or where it might be confusing to display a label. <p>Interactive elements</p> <ul style="list-style-type: none"> a) Radio buttons should be used when there is a list of two or more options that are mutually exclusive and the user must select exactly one choice. In other words, clicking a non-selected radio button will deselect whatever other button was previously selected in the list. b) Checkboxes are used when there are lists of options and the user may select any number of choices, including zero, one, or several. In other words, each checkbox is independent of all other checkboxes in the list, so checking one box doesn't uncheck the others. c) A stand-alone checkbox is used for a single option that the user can turn on or off. You should indicate if more than one option can be selected. <p>Comments:</p>	

		1.	
Social networking	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<p>View the IEEE social networking guidelines</p> <p>Placement of icons: There are two recommended options for social icons on a website, section, or page.</p> <ol style="list-style-type: none"> Connect with social media presence: Placement: In header aligned to the right of the search bar Interaction: User is taken to social media presence for your initiative Share local page content/article on user's social media account: Placement: Aligned to the right of the page title Interaction: Post page content/article title and meta description on user's account <p>Facebook OGP (Open Graph Protocol) code</p> <ul style="list-style-type: none"> Facebook allows site owners to control the appearance of shared content on Facebook by adding Facebook's OGP (Open Graph Protocol) code to individual website pages. Read the description of OGP and examine Facebook's OGP markup guidelines. Download guidelines and current best practices for OGP markup code. <p>Comments:</p> <ol style="list-style-type: none"> 	
Tables	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<p>Tables can be a useful way to organize information within a web page.</p> <ul style="list-style-type: none"> They should be used for data only and not for formatting images. They should contain properly named table header rows and table columns. They should contain proper tags for table header rows/columns for accessibility. Alternate shading should be used for longer tables. <p>Comments:</p> <ol style="list-style-type: none"> 	
Home page	<p>High – Needs to be updated/addressed immediately</p>	<ul style="list-style-type: none"> Alert messages: Home pages should be designed with a prominent area in which user notifications can be posted by the site owner in the event of an emergency. A process should be in place to ensure that such messaging can be posted or removed in a timely manner. 	

	<p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p>	<ul style="list-style-type: none"> ● Site purpose: The purpose of the site should be obvious either through the site identifier or through positioning copy placed prominently within the site header. However, if for some reason the site header cannot adequately convey this information, it should be placed in another prominent position within the home page. ● Image carousels: Billboard-like promotional areas may be used on IEEE home pages; however, the following conditions should be met: <ul style="list-style-type: none"> ○ All content should align with the purpose and tone of the site. ○ Animation should be user-controlled (pause, stop, play, mute, etc.) and optimized for accessibility and usability. ○ Animated frame advancement should allow all content to be read (typically 8-10 seconds). ○ Flash files (if used) should be animated at 18 frames per second (fps). <p>Please reference the sample home page wireframe in the following section as a guideline for how home page elements might appear on an IEEE site.</p> <p>Comments:</p> <p>1.</p>	
Other UX enhancements	See notes	<p>High – Needs to be updated/addressed immediately</p> <p>Medium – Needs to be updated/addressed when possible</p> <p>Low – Consideration</p> <p>Approved - no changes needed</p> <p>Not applicable</p> <p>Comments:</p> <p>1.</p>	

Best Practices:

Performance Monitoring and Shut Pages	<ul style="list-style-type: none"> ● All IEEE sites should be monitored for performance and efforts should be made to ensure an optimum user experience with minimal disruption. ● In the event of unavoidable downtime, applications should display an informative, user-friendly page alerting users to the status of the site (including internationally formatted dates and times for the outage if known/appropriate) and alternative contact methods or information sources.
Search	<ul style="list-style-type: none"> ● All major IEEE sites should include a site search tool. Site search serves as an alternative to menu-based navigation for users. <ul style="list-style-type: none"> ○ Site search benefits users by making it easier to find content and benefits site managers by providing analytics intelligence that can help identify problems with IA and needs for new or modified content. ○ Site search provides the best experience when it allows users to filter search results using various standard facets including date, relevance, content type, site section, etc. ○ Most CMS platforms include their own site search module, including WordPress, Joomla, Drupal and others. Other site search tools include Google Custom Search.
Analytics	<ul style="list-style-type: none"> ● All IEEE sites should be instrumented with a web analytics tool and, if possible one or more “webmaster tools” accounts.

- | | |
|--|--|
| | <ul style="list-style-type: none">○ Analytics tools allow monitoring of site traffic, user locations, browser, OS and platforms used, acquisition channel, landing and exit pages, internal and external search terms, and more. Recommended analytics tools include Google Analytics, Webtrends, CoreMetrics● Webmaster tools allow on-demand indexing and de-indexing of selected pages, tracking of backlinks to a site, external search analytics, testing of robots.txt and sitemap files, and more. Different web search engines have their own Webmaster tools that allow monitoring of search analytics on each platform.<ul style="list-style-type: none">○ Recommend tools include Google Search Console, Microsoft Webmaster Tools, and Baidu Webmaster Tools. |
|--|--|

Appendix:

- Insert screenshots of pages reviewed: