

SENCIA: **Computer system for citizen awareness in accessibility and design for all**

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Abstract. The computer systems are necessary for the management of any environment, ecosystem or implantation in society and in the real world. On the other hand, accessibility and universal design are two concepts that encompass a wide range of techniques and studies aimed at removing barriers to equality, and improving quality in products and services. It is very important for the municipality to have a computer system to develop or manage these concepts from the point of view of citizen awareness and municipal resources with which a population has to facilitate the mobility of people with special abilities.

Keywords: accessibility, municipal infrastructures, evaluation.

1 Introduction

As a society we have acquired obligations through multiple commitments. Among them, the one established in the Convention on the Rights of Persons with Disabilities, made at the headquarters of the United Nations on December 13, 2006.

2 Development

2.1 Operation

The main functionalities will be: the publication of a catalogue of articles of interest on the main topic, with linked or downloadable didactic resources. The publication of self-evaluating test-types whose performance gives users that reinforce a reward that reinforce their interest in training in accessibility and universal design. It will also have other complementary functions for the management of information on the web, to insert self-evaluating tests and to add and associate awards. The system is protected by the registration of intellectual property and copyright.

A video-demo is available at the URL: <https://youtu.be/eVzfRQfMcfY>.

2.2. Application Interface

Homepage. It shows all the common elements of the web and serves as a framework to the rest of the elements.

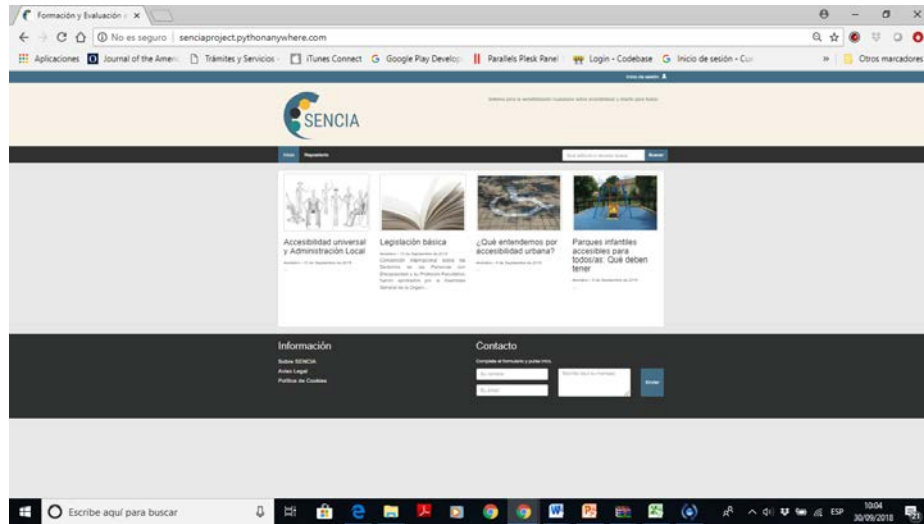


Fig. 1. Home interface or home page.

Administration and user interfaces. Some of the interaction screens of the application are shown below.

Prueba	Fecha	Resultado	Superada	Recompensas
Prueba de ejemplo 1	22 de Agosto de 2018 a las 20:08	10,00 / 10	✓	Elegir
Prueba de ejemplo 1	22 de Agosto de 2018 a las 00:09	10,00 / 10	✓	Reclamadas
Prueba de ejemplo 1	22 de Agosto de 2018 a las 00:09	0,00 / 10	✗	Sin recompensa
Prueba de ejemplo 1	22 de Agosto de 2018 a las 00:08	0,00 / 10	✗	Sin recompensa
prueba 2	17 de Agosto de 2018 a las 19:13	10,00 / 10	✓	Elegir
Prueba de ejemplo 1	12 de Agosto de 2018 a las 10:48	10,00 / 10	✓	Reclamadas
Prueba de ejemplo 1	12 de Agosto de 2018 a las 10:34	10,00 / 10	✓	Reclamadas
Prueba de ejemplo 1	12 de Agosto de 2018 a las 10:22	10,00 / 10	✓	Reclamadas

Fig. 2. Revision of user results and rewards

Sistema para la sensibilización ciudadana sobre accesibilidad y diseño para todos.

Inicio Repositorio Evaluación

Resultados

Prueba	Usuario	Intento/Max.	Fecha	Resultado	Superada
Parques infantiles accesibles	pepe	1	25/08/18	0,00 / 10	✗

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Fig. 3. System administration interface.

Resultados

Prueba	Usuario	Intento/Max.	Fecha	Resultado	Superada
Prueba de ejemplo 1	prueba1	3	23/08/18	10,00 / 10	✓
Prueba de ejemplo 1	prueba1	2	23/08/18	0,00 / 10	✗
Prueba de ejemplo 1	prueba1	1	23/08/18	0,00 / 10	✗

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Fig. 3. System administration interface.

The screenshot shows a web interface for creating a new article. On the left is a sidebar with buttons: "Revisar Resultados", "Gestión del Repositorio", "Gestión de la Evaluación", "Gestión de Recompensas", "Añadir Artículo", "Añadir Prueba", and "Añadir Recompensa". The main area is titled "Nuevo artículo" and contains the following elements:

- Two input fields: "Nombre del artículo" and "Palabras clave entre espacios".
- A section titled "HTML del artículo" containing a rich text editor with a toolbar (bold, italic, underline, strikethrough, link, unlink, list, indent, outdent, font color, background color, font size, font family, undo, redo, help) and a large text area.
- A note: "Nota: Los enlaces externos deben incluir la ruta completa (Ej: <http://www.uco.es>)".
- A section titled "Cabecera" with a button "Seleccionar archivo" and the text "Ningún archivo seleccionado".
- A section titled "Descripción corta de la imagen" with an input field.
- A "Guardar y continuar" button at the bottom right.

Fig. 5. Creation of new items in repository.