


**TITLE OF RESEARCH WORK:**  
**INTEGRATED WEB ENVIRONMENT OF WALSAIP APPLICATIONS**

***Research Description:***

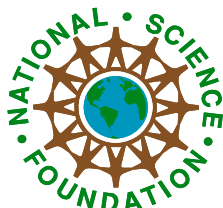
It has been identified a deficit in management information systems used today, specifically in interfaces between the applications and the final user. The origin of this problem is the lack of use of task analysis methods as a tool to better understand the process and the needs of the user. According to the information obtained through a task analysis we will be able to provide an interface that will be easier to use and understand. Real time data generating applications are an example of such behavior due to its low level of usability and a difficult interpretation of the generated data.

<b>WALSAIP GROUP ASSOCIATION:</b> Human Computer Interfaces Group	
<b>THESIS TITLE:</b> Integrated Web Environment Of WALSAIP Applications	
<b>THESIS ADVISOR:</b> Prof. Néstor J. Rodríguez	
<b>INSTITUTION:</b> Electrical and Computer Engineering Dept. University of Puerto Rico at Mayagüez	
<b>PERSONAL WEBSITE:</b>	<b>NAME OF RESEACH ASSISTANT:</b> Viky C. Arnedo Martinez

**RESEARCH PROJECT OUTCOMES:**

***Publications:***

At this moment there are no publications related to this project.



## ***Tools and Applications:***

Tools:

1. GIS
2. Jsp – Java Servlets – Java Beans
3. KML - AJAX - JavaScript

Applications:

1. ArcGIS
2. ArcExplorer
3. Eclipse
4. Macromedia Dreamweaver
5. Photoshop CS 2

**GIS** is a computer system capable of capturing, storing, analyzing, and displaying geographically referenced information; that is, data identified according to location. Practitioners also define a GIS as including the procedures, operating personnel, and spatial data that go into the system.

### **Jsp – Servlets – Bean**

Java Server Pages (JSP) is a Java technology that allows software developers to dynamically generate HTML, XML or other types of documents in response to a Web client request. The technology allows Java code and certain pre-defined actions to be embedded into static content.

Java Servlets allows a software developer to add *dynamic* content to a Web server using the Java platform.

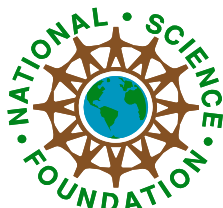
Java Beans is reusable software components that can be manipulated visually in a builder tool.

### **KML - AJAX - JavaScript**

KML (Keyhole Markup Language) is an XML-based language for managing three-dimensional geospatial data

Ajax (*Asynchronous JavaScript and XML*) is a web development technique for creating interactive web applications. The intent is to make web pages feel more responsive by exchanging small amounts of data with the server behind the scenes, so that the entire web page does not have to be reloaded each time the user makes a change. This is meant to increase the web page's interactivity, speed, and usability.

Javascript the language is best known for its use in websites, but is also used to enable scripting access to objects embedded in other applications.

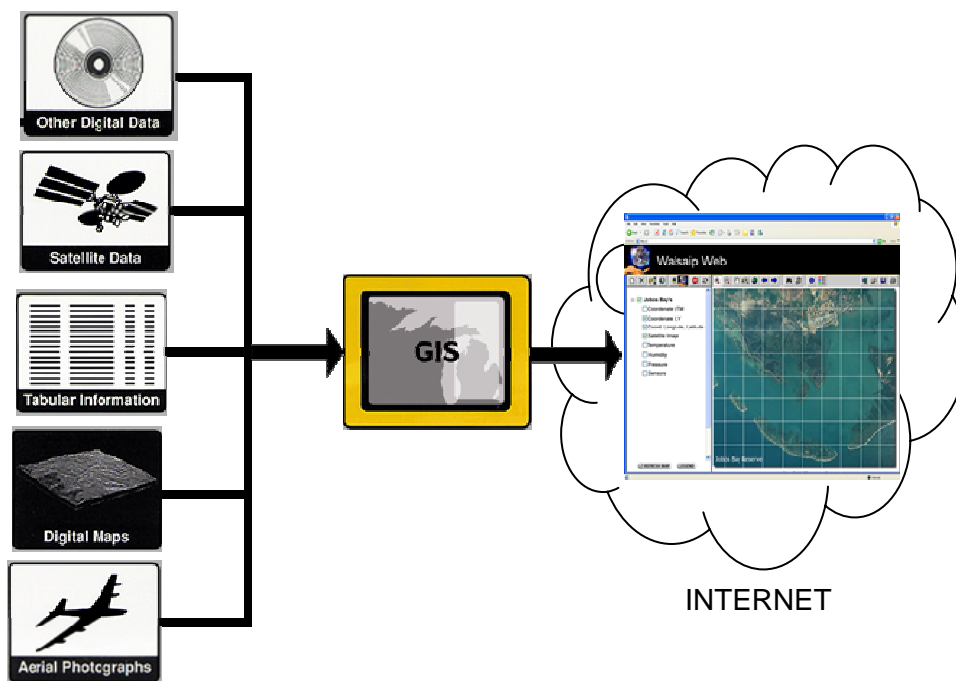


## RELATION OF RESEARCH WORK TO WALSAIP PROJECT:

This research seeks the improvement of the usability of user interfaces so users can learn to use and operate systems with relative ease, achieve high levels of productivity, commit few errors, and achieve high levels of satisfaction.

The research focuses on the development of interaction paradigms for improving the usability of user interfaces. The methodology for this kind of research involves a task analysis to understand the nature of the target application and identifies users' needs. This solution searches the best form for accessing and manipulating images, in the form of a viewer, to study modalities for efficient interaction of users with large image data sets.

## IMAGE REPRESENTATIVE OF RESEARCH WORK:



**RESEARCH DEMONSTRATION:**

I am Ms Student of new admission and I haven't demonstration in this moment.

