Web-Based Data Processing For Environmental Surveillance Monitoring Applications

By: Lola Bautista, MS Student Advisor: Prof. Domingo Rodriguez Automated Information Processing Laboratory (AIP) University of Puerto Rico, Mayagüez Campus (UPRM) May 2007



Problem Formulation

How to present in an unified manner fundamental principles of signal processing theory, under an integrated computational and information processing environment, to assist/aid in the solution of environmental surveillance monitoring (ESM) applications.



Methodology (Web-based Comp. Signal Processing)

Web Application Architecture



Model-Control-View Architecture



Application Tools

- J2EE (Java 2 Platform Enterprise Edition)
- Java Advanced Imaging API
- Java Image I/O
- Flanagan's Java Library for complex arithmetic
- JavaServer Faces
- Apache Tomcat (Web server)
- JFreeChart (Open source API to make charts)
- J-FTP (For FTP connection of JMethods Inc.)



Research Results (JCID: Java Comp. Image Developer)

