

## Term Project Phase 2: White Noise Removal

### Revised and Resubmitted

(100 points)

**Assigned Date: Wednesday, November 13, 2013**

**Due Date:**

**deadline: 4:00 PM Wednesday, November 20, 2013**

#### Educational Goal

Become familiar with the WCL project and apply machine learning to white noise removal on temperature data and ISE reading.

#### Requirements

- The instructor will meet with each team on Thursday November 14, 4:00 – 5:30 PM. Each team will receive specific instructions and comments on the submitted experiments and reports at Phase I.
- If required, re-do some experiments or conduct additional experiments. Revise and resubmit the report to discuss the method you use to remove white noise from temperature and ISE reading of Sodium ( $\text{Na}^+$ ) for all the first-sample data (Sol030, Sol041, Sol096, Sol107). The report must include Introduction, Method, and Experimental Results. The report should include graphic plots of the temperature and Sodium readings before and after white noise removal.

#### Submission Requirements

1. One submission per team.
2. Submit all the scripts you used for this project.
3. Submit the denoised data for this project.
4. Submit a single zipped file of all the files of this assignment through your UMassOnline account. Submit the paper copy along with the cover page in class. Paper copy should be bound firmly together as one pack (for example, staple, but not limited to, at the left corner). 5 points will be deducted for unbounded homework.
5. Name your file with AI\_ lastname\_ firstname\_ team#\_ ph1. For example, team 1 should name their file as AI\_team1\_ph2.zip.
6. No hard copies or soft copies results in 0 points.
7. Demonstrate your project with the Instructor on November 20 after the class.