I – Data Management Plan

1. Types of Data
   Data produced in the course of the project includes the following types:
   - Computer software - This includes software code (in MATLAB) for computer simulation and numerical analysis.
   - Publications - The outcomes of this project will be shared in the form of technical reports, journal articles, conference papers, etc.
   - Curriculum materials - Outcomes from our curriculum development effort will be documented, including course modules, project reports, final presentations, and source code for course projects.

2. Data and Metadata Standards
   Due to the lack of existing standards for the research data we are collecting, the data collected from this project will be organized and maintained in customized formats, depending the nature of the data collected. For example, source code will be organized in compressed packages that can be downloaded by potential users, or distributed via email following a request. Curriculum development related materials will be maintained in their original form, such as syllabus, project descriptions, project reports in the PDF format, and final presentations in the Microsoft powerpoint format.

3. Policies for Access and Sharing and Provisions for Appropriate Protection/Privacy
   Due to the nature of the collected data, such data will be shared in the form of computer files, either through online access/downloading, or distributed via email upon request. Since the data is obtained from open, fundamental research activities, we intend to make it available in the public domain for open access. However, the PI may retain the right to use the data before opening it up to wider use. The research papers will also be presented in public databases such as IEEE Xplore, and UMI Dissertation Publishing, to ensure timely dissemination of scholarly and technical work. If any data other than the published data on the above website is requested, electronic copies will be distributed via e-mail or FTP services. All data will be made available after a reasonable length of time. The data generated in this project does not contain information about individuals or locations of endangered species. Access to other sensitive data, such as information that has potential commercial value, will be allowed through reasonable binding agreements that contain confidentiality provisions to protect intellectual property rights.

4. Policies and Provisions for Re-use and Re-distribution
   Due to the nature of the proposed research, we are committed to disseminate the data set produced from this research for broader impact in the community. We allow the data published to be re-used freely on a non-commercial basis. The published data may be re-distributed with the explicit permission of the copyright holder. However, copyright and all rights therein are retained by authors or by other copyright holders.

5. Plans for Archiving and Preservation of Access
   We will make frequent backups of the data stored in our domain. The data will be preserved for a reasonable length of time for the community of interest. We will also track citations in the literature (e.g., through Google Scholar, Web of Science, etc), which will evidence the impact of this project.