

#### **HC-4-PM: A Heterarchical Communication Framework for Project Management**

HC-4-PM is an open source software, which was developed via using JavaScript (Node JS) and particularly the Express.js framework. In addition, HC-4-PM uses the MongoDB as a database system. The functionalities of HC-4-PM include online heterarchical project communication into text-messenger and data sharing. Furthermore, the VSM structure enables data analysis, data visualization and data dissemination to support the understanding of data-related failure sources in projects and apply a range of related risk mitigation techniques.