**SVEC-EPICS**

**EPICS-Project Proposal**

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| Title of the project | DENGUE PREDICTION APPLICATION |
| Name of the Team | DATA SEEDERS |
| Theme of the project  (Select with ✓ mark) | Sustainability/Assistive Technologies  Others (Specify): |

**Team Members:**

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| --- | --- | --- | --- |
| **Reg.No** | **Student Name** | **Branch** | **Year** |
| 16121A05A6 | K YASHWANTH KRISHNA  **(Team Lead)**  **Email id:**  yashwanthkrishna164india@gmail.com | CSE | III |
| 16121A0591 | J NIRANJANA REDDY | CSE | III |
| 16121A0594 | K CHANDRA KUMAR | CSE | III |
| 16121A0599 | K URMILA | CSE | III |
| 16121A05A0 | K POOJITHA | CSE | III |

**Team Mentor(s)**

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| --- | --- |
| **Name of the Faculty** | **Department** |
| R. KAMALRAJ | CSE |
| I REDDYSEKHAR REDDY | CSE |

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| **Community/Beneficiaries** | **Municipal Authorities** |
| Necessity of the Project  (150 words) | Dengue is the most extensively spread mosquito-borne disease; endemic in more than 100 countries. The incidence of dengue has grown dramatically over the last few decades. This is a great concern to the public health in India. The National Capital, Delhi, saw its worst dengue outbreak in 2015, when it claimed 60 lives. The lack of proper prediction mechanism is one contributing factor making the preventive measures not so effective. Our project tries to solve this issue by analyzing patterns in the number of dengue cases with respect to the environmental conditions that effect it. Given the current environmental parameters, the model estimates the extent of outbreak of dengue. This prediction enables the municipal authorities to optimize the preventive measures, thereby preventing dengue efficiently. |
| Objectives  (50 words) | The objective of the project is to predict the probability of dengue outbreak in a locality. A model is trained using predictive analysis of the historical data sets. The data set includes the major environmental factors that influence the number of dengue cases. |
| Deliverables  (100 words) | The project deliverable is a desktop application, to be deployed at the Municipal Office. The application uses a model that is trained using a machine learning algorithm. The model is trained so as to correlate the incidence of dengue cases with the parameters that govern it. The model inputs the current environmental parameters and determines the probability of incidence of dengue in that locality. This information can be used by the authorities to fine-tune the preventive mechanisms accordingly. |
| Phases of Work | The initial phase of work involves determining the contributing factors to the number of dengue cases. The next step involves gathering the required data sets and preprocessing them. The model needs to be built using the data and it should be tested for accuracy. The final phase of work involves demonstrating the efficiency of the model and how it can change the dynamics of dengue control. |
| Criteria for Project Success | The success of the project depends on the level of accuracy of dengue prediction. |
| Pre and Post Assessment plan for the Project  (150 words) | Nil |
| Duration of Project  (Maximum 90 days) | 90 days |
| Project Budget Nil | |

**Team Leader Team Mentor(s)**