Time schedule and work plan

The following table includes our plan for 36 months that is composed of three main phases in which we plan to iterate the research -- using the technology, harvesting the data, analyzing the data using advanced techniques, provide insights, validate the outcomes, and refine intervening mechanisms.

|  |  |  |
| --- | --- | --- |
| **Phase** | **Duration** **(in months)** | **Main Activities** |
| Setting up | 5 | * Set up the sensors and the required equipment
* Set up the data infrastructure
* Set up the conceptual data mining models
* Run a short pilot
 |
| **1st Iteration** **Activation & Model** | 5 | * Activate the sensors system
* Collect and validate real-time and static data
* Analyze and build the Poriya ER model
* Provide insights on violence identification and crowdedness measures
 |
| **2nd Iteration****violence Identification** | 6 | * Activate the sensors system
* Collect and validate real-time and static data
* Validate the data model and define ER Load
* Analyze using various of techniques
* Achieve verbal violence identification
* Provide insights on potential interventions
* Establish ad-hoc machine learning algorithms into/with the existing environment
 |
| **3rd Iteration****Interventions**  | 8 | * Activate the sensors system
* Collect and validate real-time and static data
* Validate the ER Load
* Analyze using various of techniques
* Achieve verbal violence identification
* Demonstrate interventions
* Comparative analysis of the models
 |
| Pre-conclusions stage | 6 | * Establish additional DM & AI algorithms
* Comparisons between 1st use algorithm and current
* Crystallize concepts, values, and benefits between sets
 |
| Conclusions | 6 | * Validations, customizations, and adaptations of the adaptive machine learning outputs
* Reflection and summary activities
 |

Our first-year activities should concentrate on pilot's establishment preparations. A lot of technical issues should take place at this stage. Placing and using tech equipment, such as sensors and cameras, and implementing the data base for the entire real time data-collection sub-stage, should be established along this period. The pilot should run along the second (and third) year/s, and we should examine our results and activate comparative data mining and machine learning models ("Model" means "algorithm + data"). The third-year activities should include additional models' implementations, in order to confront and verify our existing models. This important stage should leverage the preciseness and accuracy of our researched model. The last substage during the 3rd year should reflect the entire results, and should enable us to crystallize and set up consistent rule base criteria.