MSME IDEA HACKATHON 4.0

1. Title of proposed idea/innovation:

ENVIRONMENTAL SENSORS

2. Briefly explain newness/uniqueness of the innovation

Climate resilient Agriculture enables farmers to take decisions based on long term shift in climatic conditions and also to predict the influence on weather due to this climate change. The global warming is threatening the world day-by-day and making the earth a challenging place for human beings and species. Due to global warming, the temperature rise is reported as 4 degree Celsius which has adverse effects on agriculture. Effects such as: lowering of crop response to fertilizers, affecting the quality and growth of crops, affecting the fertility of soil due to loss of soil moisture and its organic matter, declining of water-intensive crops such as rice, wheat, groundnut etc., Challenges such as floods, droughts, salinization, and heat waves ends up with the risk of feeding the world community agriculture system. Indian agriculture system is highly sensitive to weather abnormalities and climatic conditions. Hence using machine learning and artificial technologies. We are in a position to restore the natural environment by facing the challenges posed by the climatic change and global warming.

3. Concept & Objective

Our project is proposed for the farmers in Tiruchirappalli district. In Tamilnadu, Tiruchirappalli is one of the seven major agro climatic zone located in Cauvery delta region occupies a Geographical area of 4.40 L.Ha with a gross cropped area of around 1.41 L.Ha for agriculture. Over 70% of population are engaged in farming and allied activities of agriculture. This region is famous for cultivation of paddy crops. Observation on the crop data taken under study for 15 years reveals that impact of climate change in this region on paddy cultivation is high. In Recent years, increased rate of floods, droughts and other climate change uncertainties causes major hit on small-farm holders. Hence this project will help the farmers by providing early warning and contingency plans to adapt to soil health change.

4. Specify the potential areas of application in industry/market in brief.

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climate change.

5. Briefly provide the market potential of idea/innovation.

Climate resilient Agriculture empowers the farmers to take decisions about the long term change in the climatic conditions and also to predict the influence on weather due to the climate change. The global warming is posing a threat to the world day-by-day and is turning the earth to be a tough place for human beings as well as species. Due to global warming the temperature rise is estimated to be 4 degree Celsius which is causing negative effects on agriculture. This includes: reducing crop susceptibility to fertilizers, impacting on crop quality and crop yields, effecting the soil fertility through loss of soil moisture and organic matter, decrease in irrigation intensive crops like rice, wheat, groundnut etc., Challenges like floods, droughts, salinization and heat waves lead to the vulnerability of feeding the world community agriculture system. Indian agriculture system is very sensitive to weather abnormalities and climatic conditions. So, using the concept of machine learning and artificial technologies.

We are in a position to restore the natural environment by facing the challenges posed by the climatic change and global warming. Our project is proposed for the farmers in Tiruchirappalli district. Tiruchirappalli is one of the seven major agro climatic zones located in Cauvery delta region occupies a Geographical area of 4.40 L.Ha with a gross cropped area of around 1.41 L.Ha for agriculture. The population over 70% are engaged in farming and allied activities of agriculture. This region is famous for cultivation of paddy crops. Observation on the crop data taken under study for 15 years reveals that impact of climate change in this region on paddy cultivation is high. In Recent years, increased rate of floods, droughts and other climate change uncertainties causes major hit on small-

farm holders. Hence this project will help the farmers by providing early warning and contingency plans to adapt to soil health change.

6. Block diagram / Flow chart