LITERATURE REVIEW

1. **Jinyoung Rhee et al., (2018)** has targeted all officials whose main duties include water resources and agricultural management. The final beneficiaries of the output are residents of the area; water users and farmers for whom decision-making can be helped by drought prediction information with finer spatial resolution The models provide spatially distributed detailed drought prediction data of the 6-month Standardized Precipitation Index for the case study area, Fiji. They used Weather Research Forecasting (WRF) model as reference data for overcoming the limitations of non-dense monitoring network. Also they used Performance measures of the mean absolute error as well as classification accuracy. The WRF outputs reflect the topography of the area. Hybrid models showed better performance than simply bias corrected forecasts in most cases. The model based on Extra-Trees trained using the WRF model outputs performed the best in most cases.

2. **S. D. Patil et al., (2017)** suggests that according to their results, direct prediction of spectral band information is highly beneficial due to the ability it provides for deriving ecologically relevant products which can be used to analyse land cover change scenarios from multiple perspective. Aim of the authors, is to enhance the use of machine learning based land cover change models to predict the spectral band information of satellite based land cover images.Experimental areas covered by authors is some portion of United States. They used data from two large sites in US to train model RF machine learning model to spectral values from bands.They used the trained model to explore the look of land cover for a climate change scenario.The demonstrative results show that the direct prediction ofspectral band information is helpful for deriving ecological products. They have considered this as a major strength of their proposed approach as it has enabled the analysis of land cover change from multiple viewpoints The authors have made a comment through their literature survey, that in 2081-2100 projected rise in temperature will be 1.5o – 4.8oC than 1986-2005 era. This will impact global landcover timely and accurate prediction may provide useful solutions. Author has chosen RF model of ML in the study as it ensembles constitutes are comprised of DT models that offers variety of attractive features over other statistical learning techniques. Parameter selection was done based on their judgement of importance of factors. They urge research scholars to continue thework by analysing other predicted variables or modifying the data sources.

3. **Dr. Pushpa Mohan et al, (2017)** has given analysis of the techniques employed and parameters achieved with limitation that every technique and experiment faced. This paper helps to have a crisp view of Regression Analysis, Linear regression by Sellam (2016). Limitations say that it is more complex to predict the optimized number of input parameters.

4. **Evan Racah et al., (2017),** The authors have used deep learning for weather prediction and climate change. for this they have used. For calculating the extreme weather projection values, the labels for extreme weather events namely Tropical Depressions (TD) Tropical Cyclones (TC), Extra-Tropical Cyclones (ETC) and Atmospheric Rivers (AR) using TECA (Prabhat et al., 2012) are identified. 3D semi-supervised learning architecture is used. For experimentation, frame-wise reconstruction is done, Detection and localization and feature exploration is done

5. **Zaki Ahmad Khan, et al., (2017)** suggests different machine learning strategies for Wireless Sensor Networks (WSN). It presents a brief idea about supervised and unsupervised learning and its respective types. The author has suggested machine learning solutions for some operational, functional issues such as - query processing and event recognition, Medium Access Control, routing in WSN, object targeting and localization, Clustering and Data collection. Some other challenges highlighted are non-operational and application-specific challenges to address the WSN challenges.

6. **Donghyun Lee et al., (2017)** describes Artificial Intelligence and deep learning as a promising futuristic concept of technological advancements. Authors used deep learning's recurrent neural network (RNN) model algorithms to predict pro-environmental consumption index based on Google search query data. Advanced research on ANN and RNN development processes is done. 84 different datasets were used by the author for verification of reliability of data by doing repeated experiments. Authors have used the data for experimentation on different human parameters, and a comparative analysis of ANN and RNN is done.

7. **M. Shah et al., (2016)** The proposed model provides forecast of the monsoon at a long lead time which supports the government to implement appropriate policies for the economic growth of the country. The monsoon of the central, north-east, north-west, and south-peninsular India regions are predicted with errors of 4.1%, 5.1%, 5.5%, and 6.4%, respectively. The identified predictors show high skill in predicting the regional monsoon having high variability. The proposed model is observed to perform better than most of the prediction models