Rodrigo N. Calheiros et al.[1] ,they provide a Cloud based workload prediction module for SaaS suppliers using the Autoregressive Integrated Moving Average (ARIMA) model. They presented the prediction based on the ARIMA model and estimated its accuracy of future workload prediction by using the real traces of requests to the web servers. They also calculated the impact of the achieved accuracy with respect to the efficiency in resource utilization and QoS. Simulated results show that their model is able to accomplish an average accuracy of up to 91%, which further leads to efficiency in resource usage with minimum impact on the quality of service.

G., P. Zhang .[2], they present a hybrid methodology that consolidates both Autoregressive integrated moving average (ARIMA) and artificial neural networks (ANNs) models. The hybrid method takes advantage of the unique characteristics provided by ARIMA and ANN models in linear and nonlinear modeling. The hybrid methodology considers factors such as sampling variation, model uncertainty, and structure change to provide results thus experimental results with real datasets demonstrates that the consolidated model can be an effective method to improve forecasting accuracy accomplished by either of the models used individually.

Tejas Shelatkar et al.[3] they presented web traffic Time series prediction which is performed using Long Short Term Memory Recurrent Neural Network (LSTM RNN)and Autoregressive integrated moving average(ARIMA) more efficiently and accurately. The system predicts the number of users who will access the website in the future. The system will keep on upgrading and produce accurate results as more user data is fed. The system can be used by any user for improving their web traffic load management and business analysis. LSTM RNN provides more accuracy to the system. The system effectively records seasonal and long-term patterns including information such as holidays, day of week, language, region which will help our model to capture the trends of the data more efficiently.

Saman Feghhi et al.[4]they introduced an attack on the encrypted web traffic that utilizes only the packet timing data on the uplink. This attack is therefore impenetrable to existing packet padding defenses. Likewise, in contrast to existing approaches, this timing-only attack does not need the information on the start or end of the web fetches and so is effective against traffic streams. We exhibit the effectiveness of the attack against the wired and wireless traffic, accomplishing average success rates of 90%. Likewise this timing-only attack serves to emphasize deficiencies in the already present defenses and also to the areas where it would be useful for virtual private network (VPN) designers to concentrate their further attention.

Rishabh Madan at al.[5]they have presented a time series forecasting technique to forecast internet traffic based on prior values. Numerous forecasting techniques such as ARIMA are used for making predictions, but, it is mostly convenient for a time series which is linear. Whereas, neural networks like RNN are capable of predicting time series which are nonlinear. The presented system uses Discrete Wavelet Transform(DWT) and uses a high pass filter and a low pass filter resulting in linear and nonlinear parts for the time series. The proposed technique is more efficient and accurate than ARIMA and RNN individually.

Navyasree Petluri et al.[6]they propose a system where they utilize existing Web Traffic Time Series Forecasting dataset by Google to forecast future traffic of the Wikipedia site. Forecasting web traffic is used to aids website owners to regulate an effective technique for load balancing of web pages present in the cloud, forecasting future patterns based on prior data and comprehend the user behavior. They built a time-series model that uses RNN seq2seq model. They use symmetric mean absolute percentage error (SMAPE) for measuring the complete efficiency and accuracy of the developed model. Finally, evaluating the result of the developed model to the existing ones to determine the effectiveness of the presented method in forecasting future traffic of Wikipedia articles.

Seyyed Meysam et al.[7] they have proposed a system that deals with the issue of detecting DoS and DDoS attacks. Two features number of packets and source IP addresses are utilized as detection metrics that are calculated from network traffic every minute. Thus, a time series based on the number of packets is created using a Box-Cox transformation. An ARIMA model is also used for forecasting the number of packets in every minute. Then, using Lyapunov exponents and categorizing the chaotic behaviour the system differentiates normal traffic and attack traffics from one other. Simulation outcomes present that the proposed system can efficiently differentiate 99.5% of traffic states.

Soheila Mehrmolaei et al[8]In this paper, they have proposed time series forecasting techniques to categorize and place two groups on the basis of forecasting duration. Moreover, a technique is presented by applying an average of estimation error for time series forecasting in ARlMA model. With respect to the outcome the improved ARlMA model is efficient than basic ARlMA model. As the future work, implementation of the application of the proposed approach in multivariate time series data sets can be implemented.