**ABSTRACT**

Air pollution’ emerges as a substantial universal concern with far-reaching consequences for people health, affecting numerous persons worldwide. Its adverse effects encompass various respiratory and cardiovascular issues. The Air Quality Index (AQI) serves as a numeric gauge for evaluating air quality, furnishing details about pollutant levels like particulate matter, ammonia, carbon monoxide, NO2, ozone and SO2. The anticipation of AQI proves instrumental in empowering individuals and communities to undertake precautionary measures against the detrimental impacts of air pollution. Leveraging deep learning for AQI prediction becomes imperative. Positioned within machine learning, deep learning employs artificial neural networks as a potent tool to address complex challenges. This study employs an attention-based Arcane Neural Web, specifically the TFT, for constructing the estimating model. The model's efficacy is then juxtaposed with other deep learning models, including Long Short-Term Memory, Bidirectional Long Short-Term Memory, and Fenced Repeated Unit.