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Automation in Pneumonia Detection

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***Abstract*—Pneumonia is a commonly known disease that is possible to have both high illness and fatality. The infections happen between the respiratory system; where it causes inflammation in one or both lungs that possibly causes oedema. In such disease happened in a restricted area are difficult to diagnose simply without any assisted vision. Thus, 'Automation in Pneumonia Detection' is developed and it is a model system using a Machine Learning model trained for pneumonia radiographic images classification from the collected chest X-ray image data. Unlike other researchers method, this system has relied solely on the Shallow Learning approach with simple texture analysis feature obtained an accurate classification performance and results. The traditional technique is constructed with extracted features of the chest X-ray image and to classify its types and classes determining if a person is normal or infected with pneumonia viral or bacterial. The system proposed implied due to pandemic outbreaks on how to classify and differentiate the radiographic images between normal with Pneumonia infection since diagnosis the images for any symptoms and abnormalities could be cumbersome in a short time. The model aims to alleviate the challenges that occur and to get its reliability and easy to interpreted images for medical descriptive visual.**

Keywords—Pneumonia; diagnosis; chest X-ray; Machine Learning; Shallow Learning;