**Abstract:**

Skin cancer is one of the most rapidly spreading malignancies of the numerous types of cancers known to humans. Melanoma is the deadliest and most dangerous type of skin cancer, which begins on the skin's surface and spreads deeper into the layers. Melanoma patients, on the other hand, have a 96 percent survival rate when discovered early and treated with basic and inexpensive therapy. As a result, developing an automatic system for classifying skin lesions would aid in the detection of cancer. Convolutional Neural Networks (CNN) are being used in the research to accurately categories pigmented skin lesions in dermoscopic pictures in order to detect malignant skin lesions as early as feasible. The study looks at two convolutional neural networks with different architecture and/or depth, as well as data pre-processing methods, to evaluate how they affect skin lesion classification performance. The CNN architecture ResNet50 and ResNet152V2 models were employed. Both models properly predicted Melanoma, although they occasionally failed to detect other skin lesions.