# Article Title

Dinh-Khoa Tran[1*]

[1]University of Science and Technology - The University of Danang, Da Nang, Viet Nam.

Corresponding author(s). E-mail(s): tdkhoa@dut.udn.vn;

**Abstract**

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## 1 Results

### 1.1 Data description

On the respiratory sound dataset from the ICBHI scientific challenge, we conduct all assessments. One of the largest respiratory datasets that is readily accessible to the public. The collection consists of 920 recordings from 126 patients totaling 5.5 hours in length. An expert classifies each breathing cycle in a recording into one of four categories: normal, crackle, wheeze, or both (crackle and wheeze). The collection consists of recordings made by four distinct medical equipment from Portugal and Greece. Seven distinct body sites were used to collect data for each subject.

**Table 1** Test score of each type of CNNs with epoch: 100, batch size: 16, learning rate: 0.001, optimizer: Adam

| CNNs | Score | Mel spectrogram | Stft |
|---|---|---|---|
| EfficientNetV2M | Acc | 52.03 | 59.7 |
| | SE | 28.33 | 36.75 |
| | SP | 73.25 | 80.25 |
| | AS | 50.79 | 58.5 |
| | HS | 40.86 | 50.42 |
| MobileNetV2 | Acc | 56.58 | 58.25 |
| | SE | 41.65 | 35.53 |
| | SP | 69.96 | 78.6 |
| | AS | 55.81 | 57.06 |
| | HS | 52.22 | 48.94 |
| **InceptionResNetV2** | Acc | **58.97** | **60.93** |
| | SE | **35.53** | **41.65** |
| | SP | **79.97** | **78.19** |
| | AS | **57.75** | **59.92** |
| | HS | 49.2 | **59.92** |
| ResNet152V2 | Acc | 55.14 | 56.95 |
| | SE | 31.09 | 32.16 |
| | SP | 76.68 | 79.15 |
| | AS | 53.88 | 55.65 |
| | HS | 44.24 | 45.74 |

# References