Sure, I'll help you create a concise and informative slide deck for your presentation at the BIC 2024 conference. Here’s a proposed structure for your 10-slide presentation based on the content of your paper:

### Slide 1: Title Slide

- \*\*Title:\*\* Comparative Performance of Deep Learning Models in Detecting Invasive Ductal Carcinoma

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- \*\*Conference:\*\* The 8th International Conference on Big data, IoT, and Cloud Computing (BIC 2024)

### Slide 2: Introduction

- \*\*Overview of Breast Cancer\*\*

- Most common and fatal disease affecting women globally

- Accounts for 25% of all cancer cases and 15% of all cancer deaths among women

- Importance of early and accurate diagnosis

### Slide 3: Objectives

- \*\*Research Goal:\*\* Evaluate the effectiveness of various deep-learning models in detecting Invasive Ductal Carcinoma (IDC)

- \*\*Models Evaluated:\*\* CNNs, MobileNet, Transformer, EfficientNet

- \*\*Key Metrics:\*\* Accuracy, F1-score, precision, recall, and training time

### Slide 4: Related Works

- \*\*Advancements in ML and DL for Breast Cancer Detection\*\*

- Traditional ML algorithms: decision trees, SVM, neural networks

- Advanced DL models: CNNs, RNNs, ensemble methods

- Comparative studies highlighting the efficacy of different models

### Slide 5: Methodology

- \*\*Dataset:\*\* IDC dataset of breast cancer images

- 162 whole-mount slide images, 277,524 patches (198,738 IDC-negative, 78,786 IDC-positive)

- Preprocessing: normalization, augmentation, partitioning into training (80%) and testing (20%) sets

- \*\*Model Architectures:\*\*

- \*\*CNN:\*\* Convolutional, pooling, and fully connected layers

- \*\*MobileNet:\*\* Depthwise separable convolutions for efficiency

- \*\*EfficientNet:\*\* Compound scaling for balanced performance

- \*\*Transformer:\*\* Multi-head self-attention for global dependencies

### Slide 6: Training Accuracy Across Epochs

- \*\*Graph:\*\* Training accuracy progression over 100 epochs for CNN, MobileNet, EfficientNet, and Transformer

- \*\*Observation:\*\*

- CNN: Gradual increase in accuracy

- MobileNet: Rapid early-stage accuracy enhancement

- EfficientNet: High initial accuracy, quickly reaching near-perfect levels

- Transformer: Steady improvement, slower initial start

### Slide 7: Performance Metrics Comparison

- \*\*Graph:\*\* F1-score, Precision, and Recall for each model

- \*\*Observation:\*\*

- \*\*EfficientNet:\*\* Highest precision, recall, and F1-score

- \*\*MobileNet:\*\* Strong performance, balanced metrics

- \*\*CNN:\*\* Good but not top-performing

- \*\*Transformer:\*\* High recall but lower precision and F1-score

### Slide 8: Test Accuracy

- \*\*Graph:\*\* Test accuracy for CNN, MobileNet, EfficientNet, and Transformer

- \*\*Observation:\*\*

- \*\*EfficientNet:\*\* Highest test accuracy

- \*\*MobileNet:\*\* Strong performance

- \*\*CNN:\*\* Moderate accuracy

- \*\*Transformer:\*\* Requires further optimization

### Slide 9: Training Time Analysis

- \*\*Graph:\*\* Training time for each model

- \*\*Observation:\*\*

- \*\*CNN:\*\* Shortest training time

- \*\*MobileNet:\*\* Longer training due to depthwise separable convolutions

- \*\*EfficientNet:\*\* Longest training time due to complex architecture

- \*\*Transformer:\*\* Moderate training time

### Slide 10: Conclusion and Future Work

- \*\*Summary:\*\* EfficientNet and MobileNet are top-performing models in terms of accuracy and efficiency for IDC detection.

- \*\*Implications:\*\* These models provide reliable tools for clinical applications in breast cancer diagnosis.

- \*\*Future Research:\*\* Optimize models further for better performance, considering computational efficiency and diagnostic accuracy.

### Additional Notes for Presentation:

- \*\*Visuals:\*\* Include sample images from the IDC dataset, architecture diagrams for the models, and clear graphs/charts for the metrics.

- \*\*Text:\*\* Keep text concise and focus on key points.

- \*\*Delivery:\*\* Practice explaining the complex concepts in simple terms for the audience.

This structure will ensure that your presentation is clear, concise, and informative, covering all the key aspects of your research.