



**COMSATS**

**University Abbottabad campus**

**Assignment NO: 2**

**Submitted to:**

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## **Experiment 6 (Rice type detection using Image Dataset)**

**Submission date:**

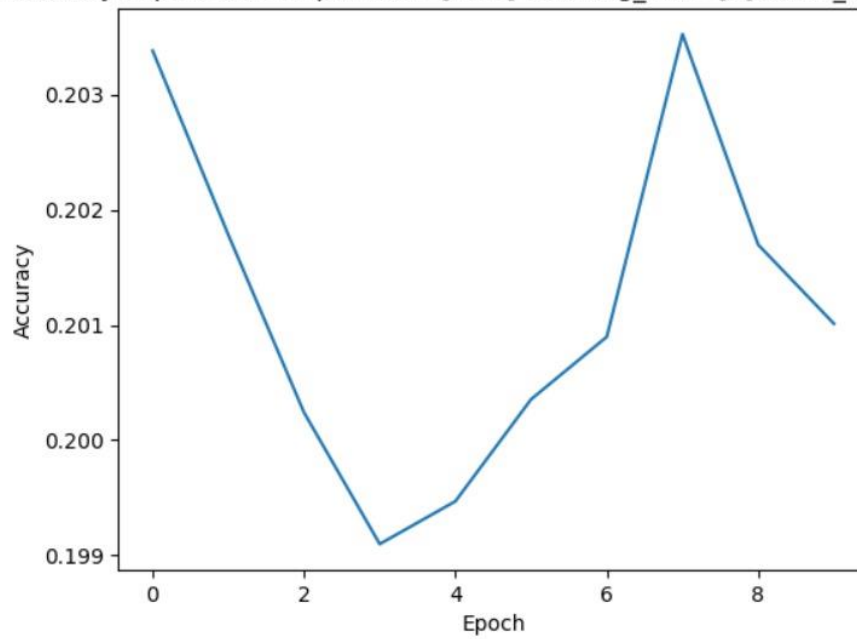
**15** Dec 2023

## Experiment table:

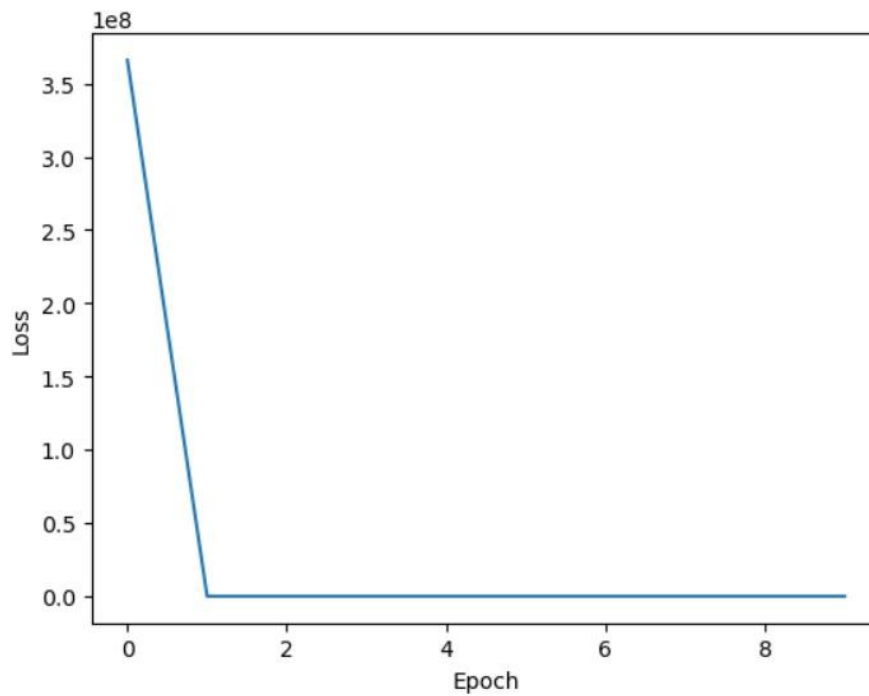
Experiments	Learning rate	Optimization Algo	Batch Normalization Layer	Training Loss	Training accuracy
1	1	SGD	No	1.6161	0.1974
2	0.1	SGD	Yes (specify)	0.1098	0.9615
3	0.01	SGD	No	0.2525	0.9065
4	1	ADAM	No	1.6781	0.2003
5	0.1	ADAM	Yes (specify)	0.3464	0.9171
6	0.01	ADAM	No	0.1368	0.9529

## Experiment 1:

Training Accuracy Experiment 1 optimizer=[SGD] Learning\_rate=[1] batch\_normalization=[No]

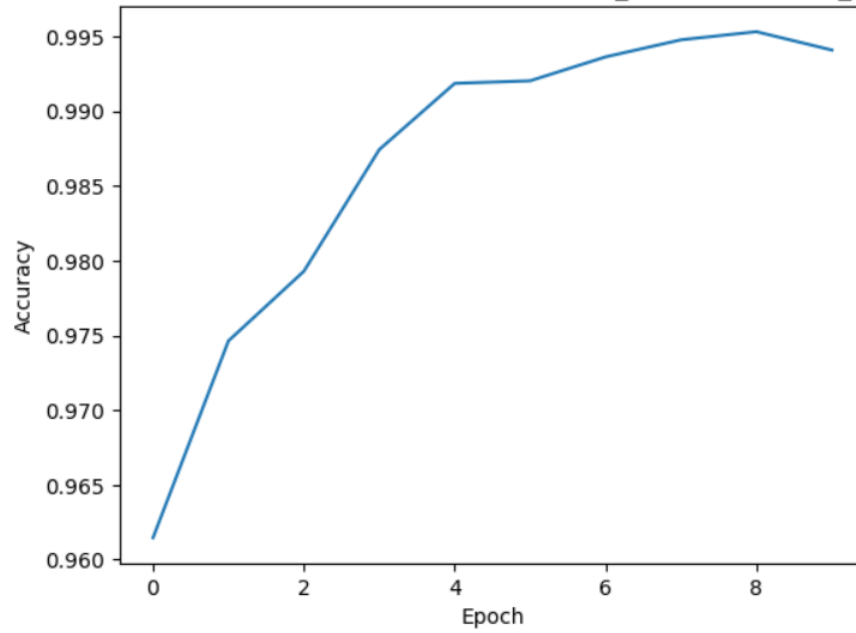


Training Loss Experiment 1 optimizer=[SGD] Learning\_rate=[1] batch\_normalization=[No]

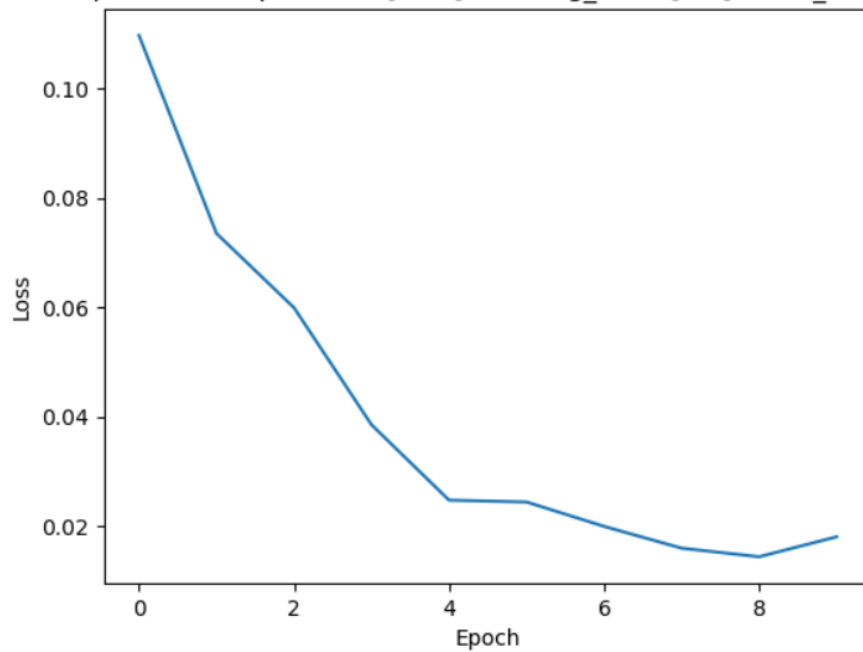


## Experiment 2:

Training Accuracy Experiment 2 optimizer=[SGD] Learning\_rate=[0.1] batch\_normalization=[yes]

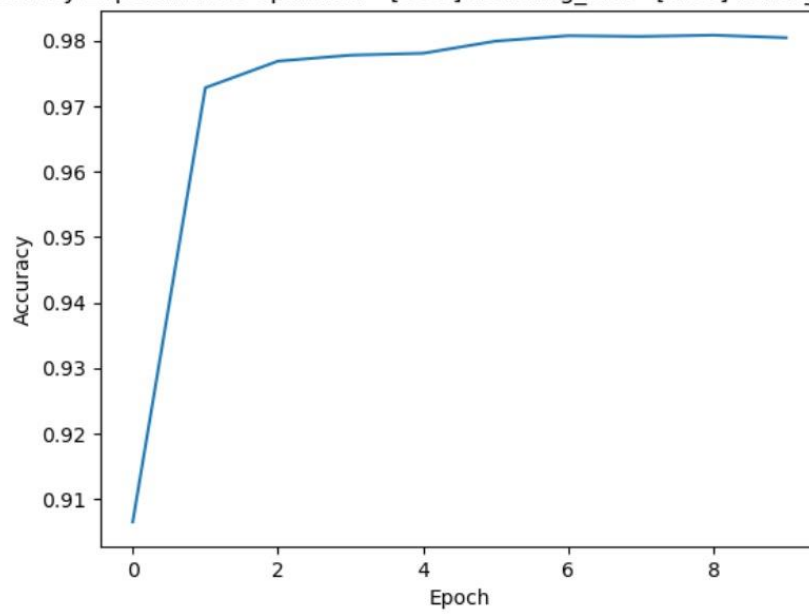


Training Loss Experiment 2 optimizer=[SGD] Learning\_rate=[0.1] batch\_normalization=[yes]

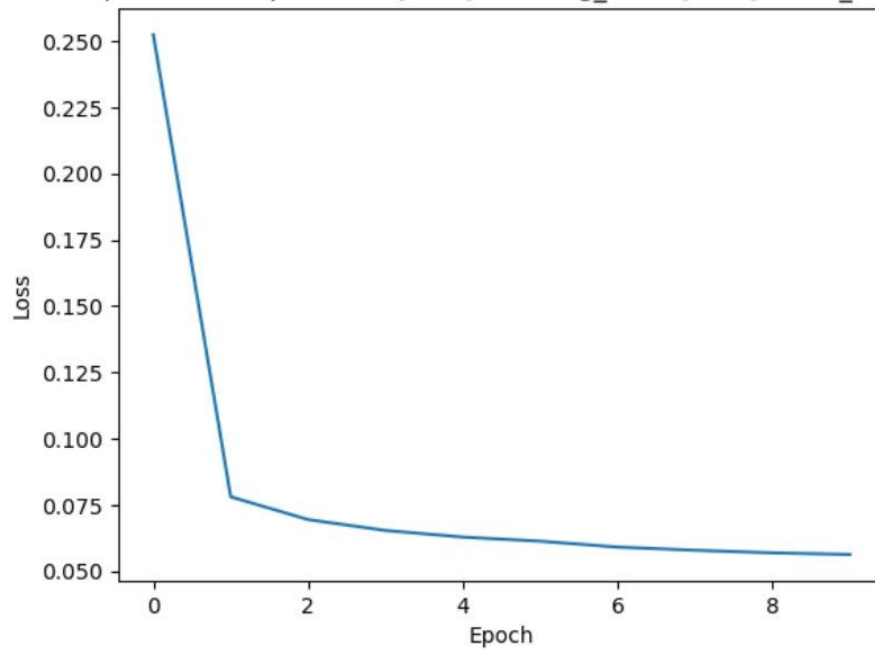


### Experiment 3:

Training Accuracy Experiment 3 optimizer=[SGD] Learning\_rate=[0.01] batch\_normalization=[No]

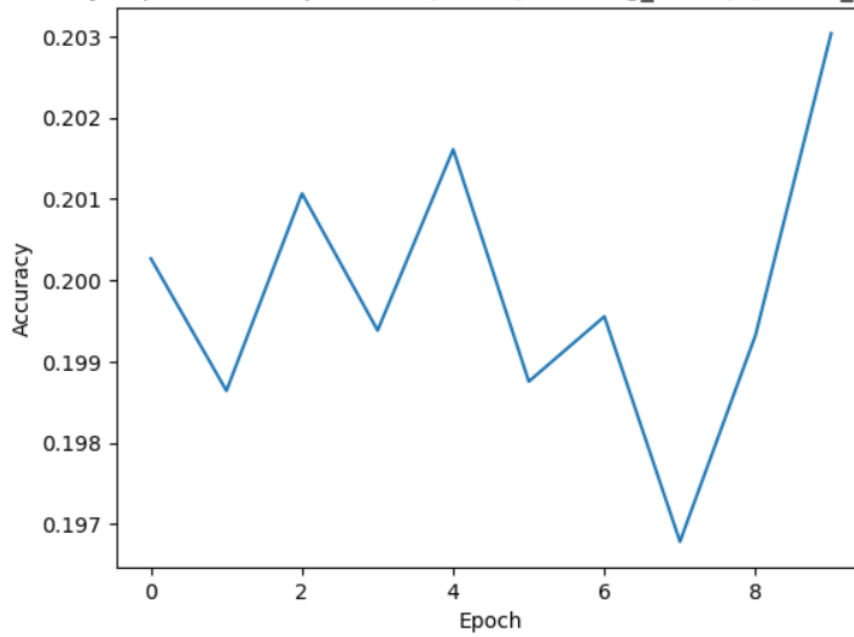


Training Loss Experiment 3 optimizer=[SGD] Learning\_rate=[0.01] batch\_normalization=[No]

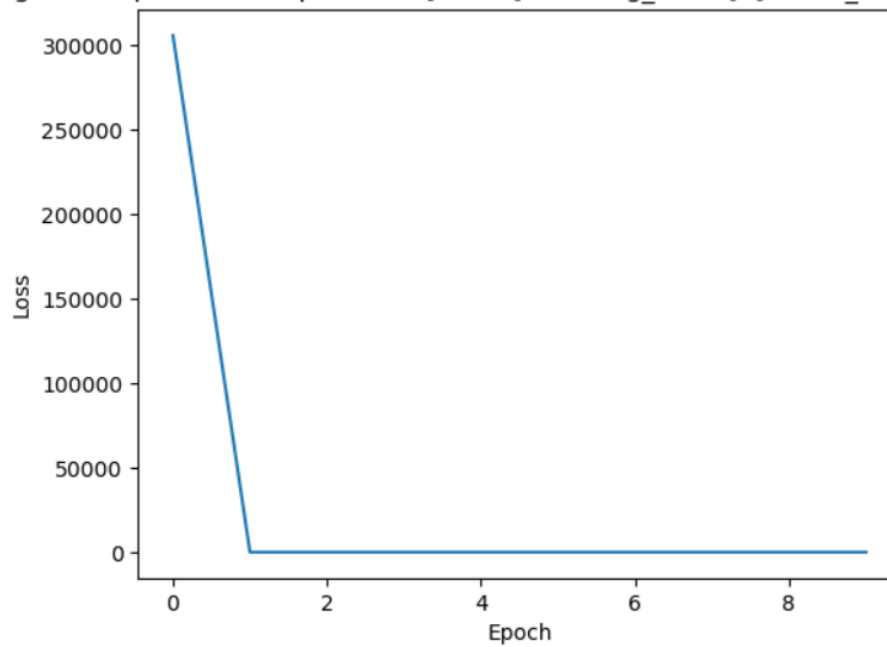


## Experiment 4:

Training Accuracy Experiment 4 optimizer=[ADAM] Learning\_rate=[1] batch\_normalization=[No]

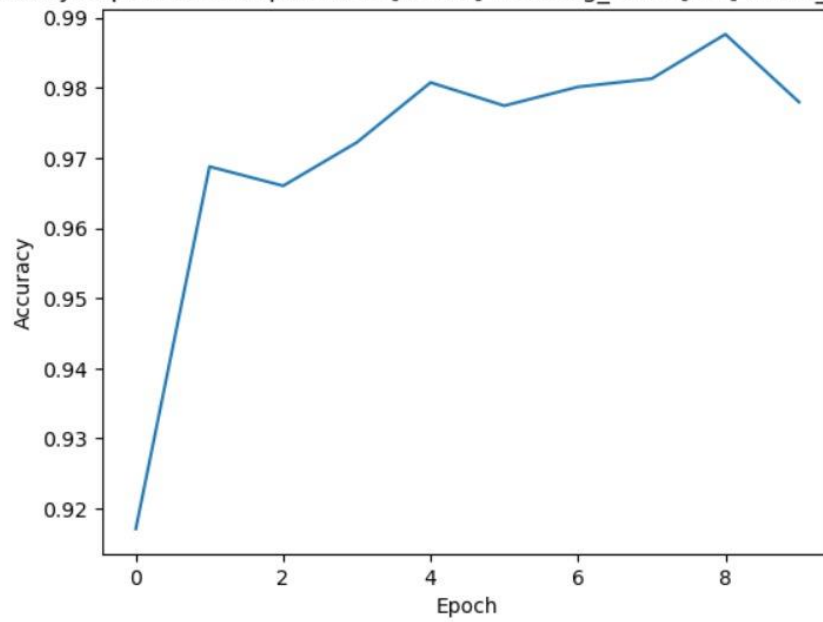


Training Loss Experiment 4 optimizer=[ADAM] Learning\_rate=[1] batch\_normalization=[No]

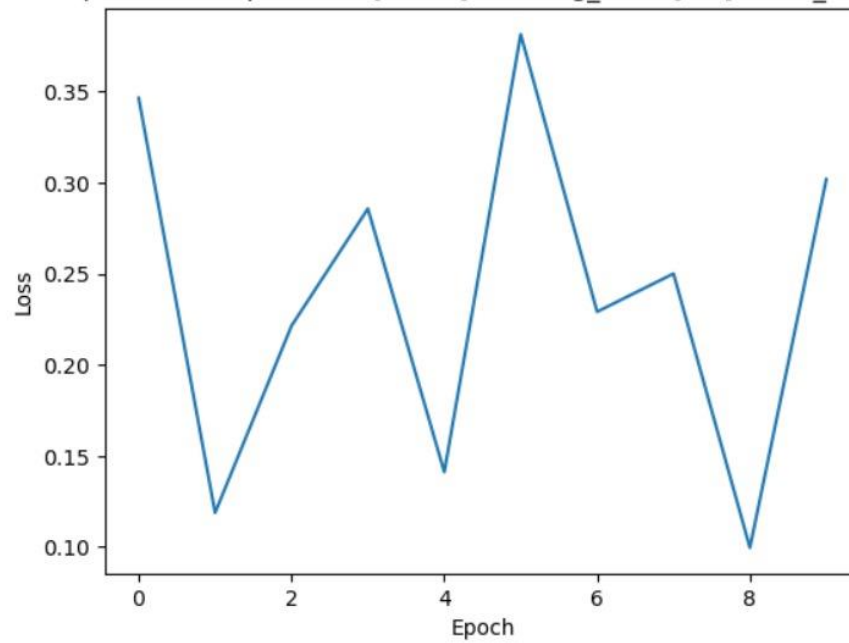


## Experiment 5:

Training Accuracy Experiment 5 optimizer=[ADAM] Learning\_rate=[0.1] batch\_normalization=[yes]

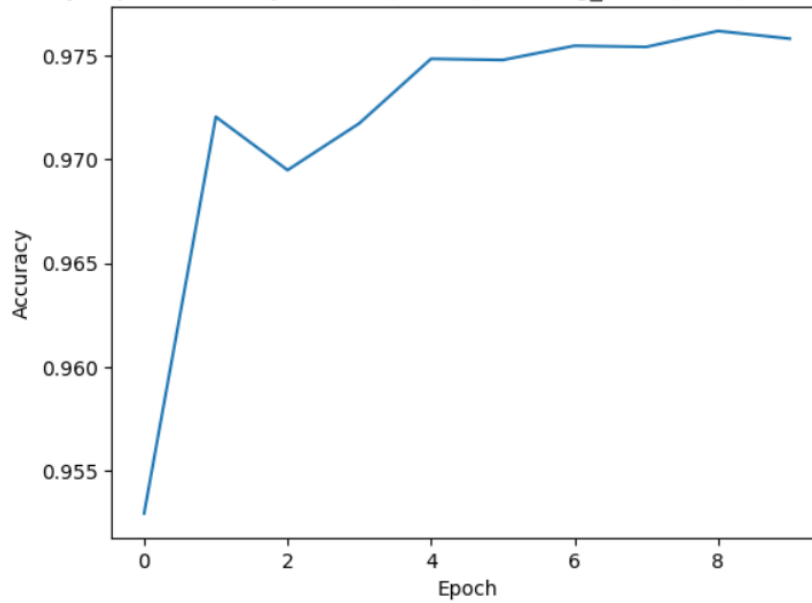


Training Loss Experiment 5 optimizer=[ADAM] Learning\_rate=[0.1] batch\_normalization=[yes]



## Experiment 6:

Training Accuracy Experiment 6 optimizer=[ADAM] Learning\_rate=[0.01] batch\_normalization=[No]



Training Loss Experiment 6 optimizer=[ADAM] Learning\_rate=[0.01] batch\_normalization=[No]

