

Assignment-3

In this assignment:

- You will implement the auto-associative BAM network (**Hint**: the memory matrix equation will be different than the one you used in your last task).
- **W (Memory) Construction Step**: Memory Matrix will consist of three patterns (3 images).
- **X Recall Step**: Choose a random corrupted image, different than the ones you chose to construct the memory, and use it to recall the right pattern (image).
- Construct the image as a bmp file from the output of the recall step.

You need to do 4 experiments:

1. Use 3 images from class “1” to construct W. then use a random corrupted image from the same class for your X recall.
 2. Use 3 images from class “3” to construct W. then use a random corrupted image from the same class for your X recall.
 3. Use 3 images from class “8” to construct W. then use a random corrupted image from the same class for your X recall
 4. Use 3 images, one from each class to construct W. then use a random corrupted image from any class for your X recall.
- You will run these experiments during the discussion.
 - Write an observation file, stating your observation on each of these experiments.
 - Bonus part was explained in the lab.

HINT: Convert binary inputs to bipolar before calculating W or recalling patterns.

Notes:

1. Groups are 3-4 members
2. Discussions will be held next week.
3. **No Late** for this assignment.