

```

function T = Online(TrainDatabasePath)
TrainFiles = dir(TrainDatabasePath);
Train_Number = 0;
for i = 1:size(TrainFiles,1)
    if
not(strcmp(TrainFiles(i).name, '.')|strcmp(TrainFiles(i).name, '..')|strcmp(TrainFiles(i).name, 'Thumbs.db'))
        Train_Number = Train_Number + 1; % Number of all images in the
training database
    end
end
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%% Construction of 2D matrix from 1D image vectors
T = [];
for i = 1 : Train_Number

    % I have chosen the name of each image in databases as a corresponding
    % number. However, it is not mandatory!
    str = int2str(i);
    str = strcat('\',str, '.jpg');
    str = strcat(TrainDatabasePath,str);

    img = imread(str);
    img = rgb2gray(img);

    [irow icol] = size(img);

    temp = reshape(img',irow*icol,1); % Reshaping 2D images into 1D image
vectors
    T = [T temp]; % 'T' grows after each turn
end

```