

*****IMAGE PROCESSING*****

About the project: -

- Image processing is the use of a digital computer to process digital images through an algorithm. As a subcategory or field of digital signal processing, digital image processing has many advantages over analog image processing.

Explanation

- Mat getRotationMatrix2D (Point2f center, double angle, double scale)

This function returns 2x3 affine transformation matrix for the 2D rotation.

Arguments -

- **center** - The center of the rotation of the the source image.
- **angle** - Angle of rotation in degrees (Positive values for counter-clockwise direction and negative values for clockwise rotation)
- **scale** - The scaling factor of the image. (Scaling factor of 1 means its original size)
- void warpAffine (InputArray src, OutputArray dst, InputArray M, Size dsize, int flags = INTER_LINEAR, int bordreMode=BORDER_CONSTANT, const Scalar& borderValue=Scalar ())

This OpenCV function applies affine transformation to an image.

Function Used: -

- **src** - Source Image
- **dst** - Destination image which should have the same type as the source image (The transformed image is stored in this location)
- **M** - 2x3 affine transformation matrix
- **dsize** - Size of the destination image
- **flags** - Interpolation methods
- **borderMode** - pixel extrapolation method. (Try these values; BORDER_REPLICATE, BORDER_CONSTANT, BORDER_REFLECT, BORDER_WRAP, BORDER_REFLECT_101, BORDER_TRANSPARENT and BORDER_ISOLATED)
- **borderValue** - If you use BORDER_CONSTANT for borderMode, this argument defines the value used for the border