

Project ID: PW21KS04

Project Title: Style Consistent Kannada Font Generation

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Project Abstract: The project is to automate the generation of new fonts for the Kannada scripts while taking inspiration from existing fonts from English language.

Code Execution:

The code below generates the style transferred glyph of one Kannada letter.

#### INPUTS

Before we run the code lets understand the inputs :

epochs : The total number of steps to run the model  
: Ideally between 3,000 to 10,000

image\_size : The dimension of the image generated  
: Ideally between 200 to 400

learning\_rate : Hyper-parameter to get better accuracy  
: Ideally between 0.001 to 0.01

alpha : Hyper-parameter to get better accuracy  
: Ideally between 1 to 100

beta : Hyper-parameter to get better accuracy  
: Ideally between 0.001 to 10

Style : The letter style you want to copy  
: Can be any English font from the English\_Fonts folder

style\_letter : the letter of english font that we want to use as style image  
: Image name of any letter within the English font directory

letter : The image name of the input Kannada letter that we want to generate  
: Image name of any letter within the Kannada font directory

## OUTPUTS

The output image can be found in the Generated folder

Inside the style chosen

With the name letter\_O.png where letter is the name of the Kannada input letter

In the example below the generated image would be : Generated/Locomo/013\_O.png

Run the code below to generate a the “ii” letter of the Kannada Alphabet in the Locomo font

```
letter="013.png"
```

```
Style="Locomo"
```

```
style_letter="042.png"
```

```
epochs=4000
```

```
image_size=200
```

```
learning_rate=0.01
```

```
alpha=10
```

```
beta=0.01
```

```
python3 nst.py $letter $Style $style_letter $epochs $image_size $learning_rate $alpha $beta
```