**SILIGURI INSTITUTE OF TECHNOLOGY**

**SILIGURI -734009**

**DEPARTMENT OF ELECTRICAL ENGINEERING**

# PROJECT ON QR CODE GENERATION

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**FACULTY OF EE DEPARTMENT**

**Certificate of Recommendation**

This is to certify that we have completed his project work titled “Minor project on: “Contact Book”, under the direct supervision and guidance of Ripam Kundu. We are satisfied with their work, which is being presented for the partial fulfillment of the degree of Bachelor of Technology (BTech), West Bengal University of technology (WBUT), Kolkata– 700032.

Signature Of TPO

(Siliguri Institute of Technology )

Signature of Teacher in charge of Project

Signature Of Director

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**Certificate of Approval**

The foregoing Minor project is hereby approved as a creditable study of Bachelor of Technology (BTech) and presented in a manner satisfactory to warrant its acceptance as a pre-requisite to the degree for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or any statement made, opinion expressed or conclusion therein but approve this Minor project only for the purpose for which it is submitted.

Shahid Afridi

Signature of the Members

Date:

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## Abstract:

Quick Response (QR) codes seem to appear everywhere these days. We can see them on posters, magazine ads, websites, product packaging and so on. Using the QR codes is one of the most intriguing ways of digitally connecting consumers to the internet via mobile phones since the mobile phones have become a basic necessity thing of everyone. In this paper, we present a methodology for creating QR codes by which the users enter text into a web browser and get the QR code generated. Drupal module was used in conjunction with the popular libqrencode C library to develop user interface on the web browser and encode data in a QR Code symbol. The experiment was conducted using single and multiple lines of text in both English and Thai languages. The result shows that all QR encoding outputs were successfully and correctly generated.

## Introduction:

A QR code is a type of matrix bar code or two-dimensional code that can store data information and designed to be read by smartphones. QR stands for “Quick Response” indicating that the code contents should be decoded very quickly at high speed. The code consists of black modules arranged in a square pattern on a white background. The information encoded may be text, a URL or other data . The QR code was designed to allow its contents to be decoded at high speed. The popularity of QR codes is growing rapidly all around the world. Nowadays, mobile phones with built-in camera are widely used to recognize the QR Codes.

```
#### QR CODE GENERATOR ####
import pyqrcode
import tkinter as tk
from tkinter import *
from tkinter import messagebox
from PIL import ImageTk, Image



#Defining CreateWidgets() function to create necessary tkinter widgets
def CreateWidgets():
   label = Label(text='Enter Text: ',bg='darkolivegreen4')
   label.grid(row=0, column=1, padx=5, pady=5)

   root.entry = Entry(width=30, textvariable=qrInput)
   root.entry.grid(row=0, column=2, padx=5, pady=5)

   button = Button(width=10, text='Generate', command=QRCodeGenerate)
   button.grid(row=0, column=3, padx=5, pady=5)

   label = Label(text='QR Code: ', bg='darkolivegreen4')
   label.grid(row=1, column=1, padx=5, pady=5)
root.imageLabel = Label(root, background='darkolivegreen4')
   root.imageLabel.grid(row=2, column=1, columnspan=2, padx=5, pady=5)

#defining QRCodeGenerate() fun
```

```
def QRCodeGenerate():
    # Storing user-input text in a var
    qrString = qrInput.get()

    if qrString!='':
        qrGenerate = pyqrcode.create(qrString)

        qrCodePath = 'D:\qrsaver'
        qrCodeName = qrCodePath + '\\'  + qrString + '.png'
        #install pypng module using pip command
        qrGenerate.png(qrCodeName, scale=10)
        image = Image.open(qrCodeName)
        image = image.resize((400,400), Image.ANTIALIAS)

        image = ImageTk.PhotoImage(image)
        root.imageLabel.config(image=image)
        root.imageLabel.photo = image

    else:
        messagebox.showerror("ERROR","ENTER A TEXT!")

root = tk.Tk()
root.title("PyQR GENERATOR")
root.geometry('510x500')
root.resizable(False,False)
```

**root.config(background='darkolivegreen4')**

**qrInput = StringVar()**

**CreateWidgets()**

**root.mainloop()**

- Conclusion: QR Code stores the information matrix form which stores the information on both axes horizontally or vertically. QR code has many advantages like, QR codes are free to generate and free to Scanned.

- References:

https://en.wikipedia.org

https://github.com/