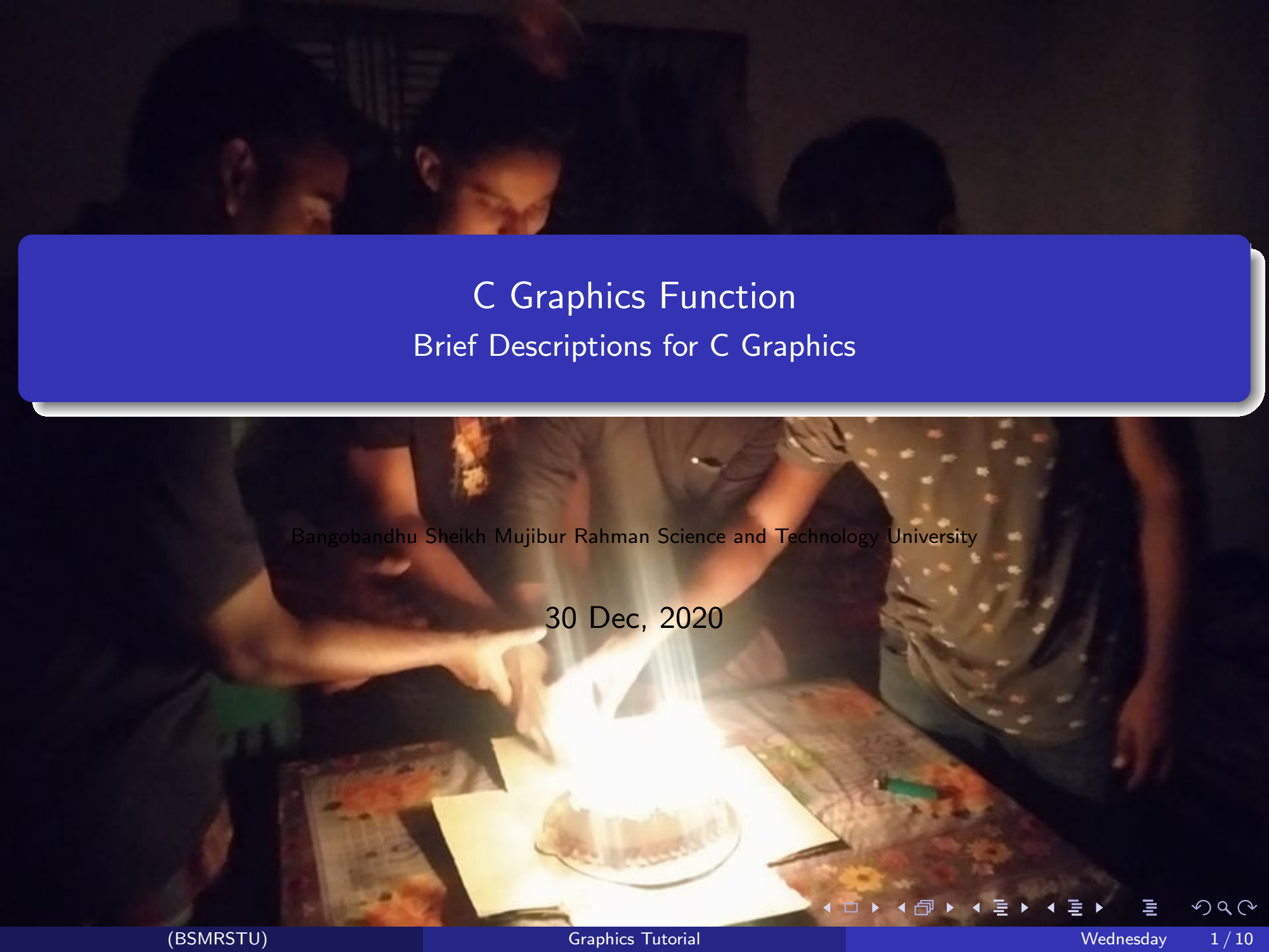

C Graphics Function

Brief Descriptions for C Graphics

Bangobandhu Sheikh Mujibur Rahman Science and Technology University

30 Dec, 2020

graphics.h function

putpixel()

Syntax:

```
void putpixel(int x, int y, enum color);
```

Syntax:

```
void putpixel(int x, int y, enum color);
```

This function will put a pixel at the given coordinates by the color specified.

Syntax:

```
void putpixel(int x, int y, enum color);
```

This function will put a pixel at the given coordinates by the color specified. Now, take a color form the *enum* list.

```
enum colors { BLACK, BLUE, GREEN, CYAN, RED, MAGENTA,
BROWN, LIGHTGRAY, DARKGRAY, LIGHTBLUE, LIGHTGREEN,
LIGHTCYAN, LIGHTRED, LIGHTMAGENTA, YELLOW, WHITE };
```

Hello

The delay() function

No subtitle

The delay() function

No subtitle

Syntax:

```
void delay(int milisecond);
```

The delay() function

No subtitle

Syntax:

```
void delay(int milisecond);
```

Description

Delay/Pause program for miliseconds. (1000/1k miliseconds = 1 second)

Draw a line using putpixel function: Animated

No subtitle

Draw a line using putpixel function: Animated

No subtitle

```
void drawAnimatedLine()
{
    int start, end;
    printf("Starting point: ");
    scanf("%d", &start);
    printf("Ending point: ");
    scanf("%d", &end);
    while (start <= end)
    {
        putpixel(start++, 250, GREEN);
        delay(5);
    }
}
```

Listing 2: Animated Line

Rectangle Anime

Drawing an rectangle by putpixel() and delay() function

Rectangle Anime

Drawing an rectangle by putpixel() and delay() function

```
void drawAnimatedRectangleFromMid() {
    int midX, midY, totalHeight, totalWidth, i, j;

    printf("Mid point-X: "); scanf("%d", &midX);
    printf("Mid point-Y: "); scanf("%d", &midY);
    printf("Total Width: "); scanf("%d", &totalWidth);
    printf("Total Height: "); scanf("%d", &totalHeight);

    // Drawing up line.
    i = midX, j = midX;
    while (i >= midX - totalWidth / 2) {
        putpixel(i--, midY, GREEN); putpixel(j++, midY, GREEN);
        delay(9);
    }

    // Drawing side lines.
    i = midY, j = midY;
    while (i <= midY + totalHeight) {
        putpixel(midX - totalWidth / 2, i++, GREEN); putpixel(midX + totalWidth / 2, j++, GREEN);
        delay(9);
    }

    // Drawing bottom line.
    i = midX - totalWidth / 2, j = midX + totalWidth / 2;
    while (i <= midX) {
        putpixel(i++, midY + totalHeight, GREEN); putpixel(j--, midY + totalHeight, GREEN);
        delay(9);
    }

    /* Over */
}
```

graphics.h function

line()

Syntax:

```
void line(int x1, int y1, int x2, int y2);
```

Syntax:

```
void line(int x1, int y1, int x2, int y2);
```

Description

Will draw a straight line from $(x1, y1)$ to $(x2, y2)$.

graphics.h function

setcolor()

Syntax:

```
void setcolor(enum color);
```

Syntax:

```
void setcolor(enum color);
```

Description

After this statement, all graphical elements will be colored as defined in the function.

graphics.h function

rectangle()

Syntax:

```
void rectangle(int left, int top, int right, int bottom);
```

Syntax:

```
void rectangle(int left, int top, int right, int bottom);
```

Description

Give the coordinate of top-left(left, top) and bottom-right(right, bottom) corner. Then a rectangle will be created.

Draw Rectangle Shape Bar

Animated Rectangle Bar

```
void barTypeRectangleAnimated()
{
    int left, top, right, bottom;
    printf("Left: ");
    scanf("%d", &left);
    printf("Top: ");
    scanf("%d", &top);
    printf("Right: ");
    scanf("%d", &right);
    printf("Bottom: ");
    scanf("%d", &bottom);

    while (left < right - 5 && top < bottom - 5)
    {
        rectangle(left++, top++, right--, bottom--);
        delay(9);
    }
}
```

Listing 4: Filling a rectangle with rectangle

Any Font Size

Still not arrived!

Description

You can give any size of a font as you want by using *anyfontsize* package. And then the command.