

```
In [7]: import numpy as np # linear algebra
import os # operating system
```

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In [8]: keras.utils import set_random_seed
set_random_seed(812)
from
```

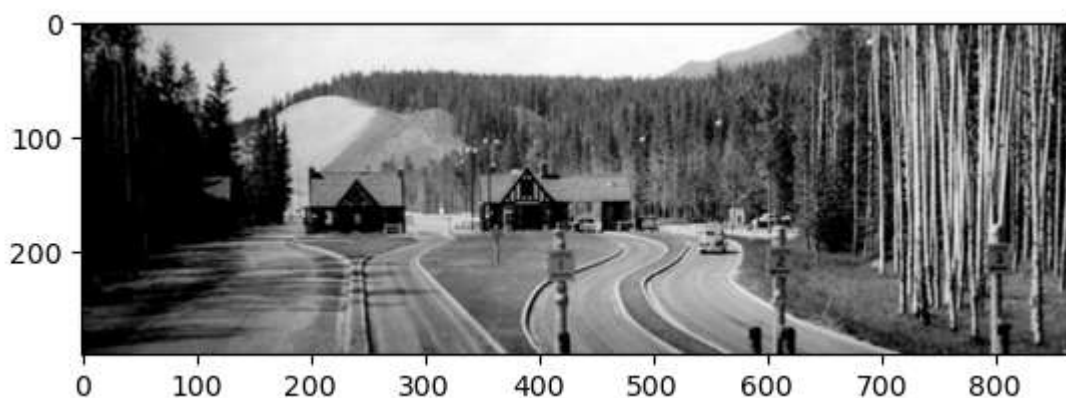
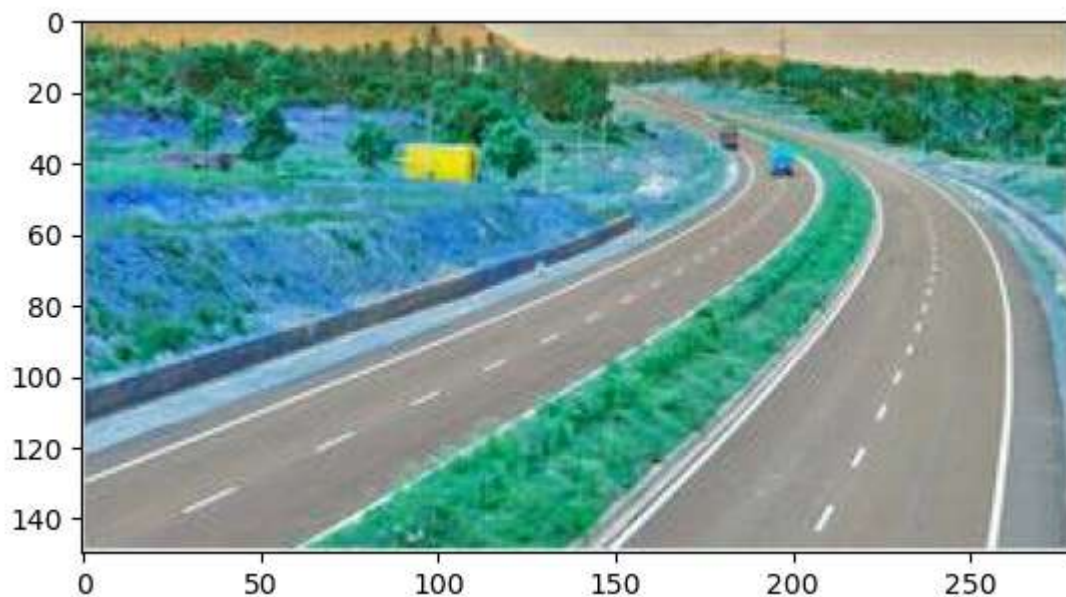
WARNING:tensorflow:From C:\ProgramData\anaconda3\Lib\site-packages\keras\src\losses.py:2976: The name tf.losses.sparse\_softmax\_cross\_entropy is deprecated. Please use tf.compat.v1.losses.sparse\_softmax\_cross\_entropy instead.

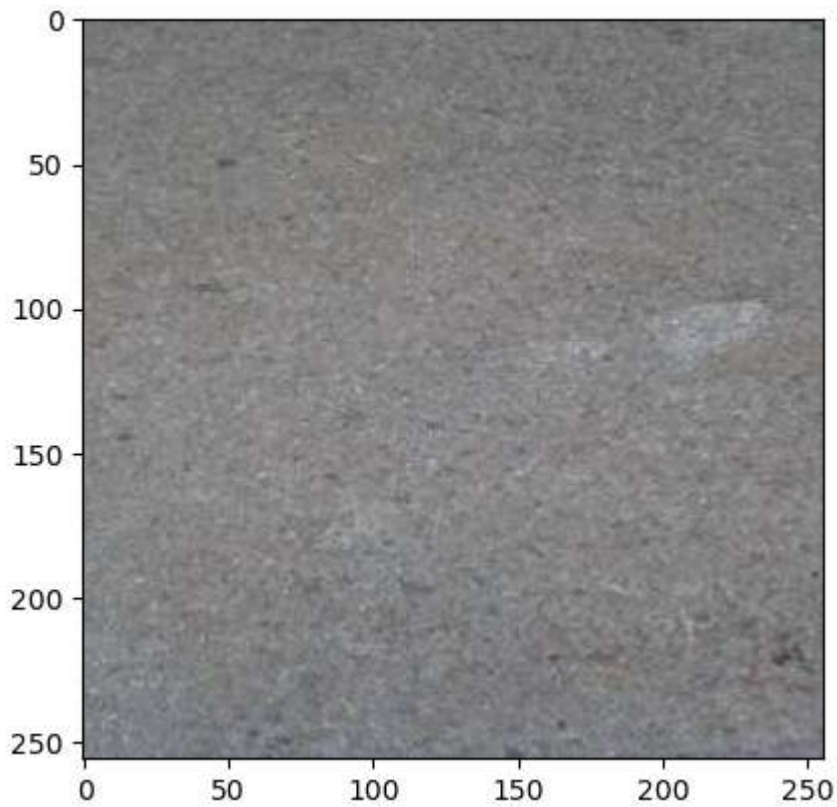
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In [17]: import cv2
import matplotlib.pyplot as plt

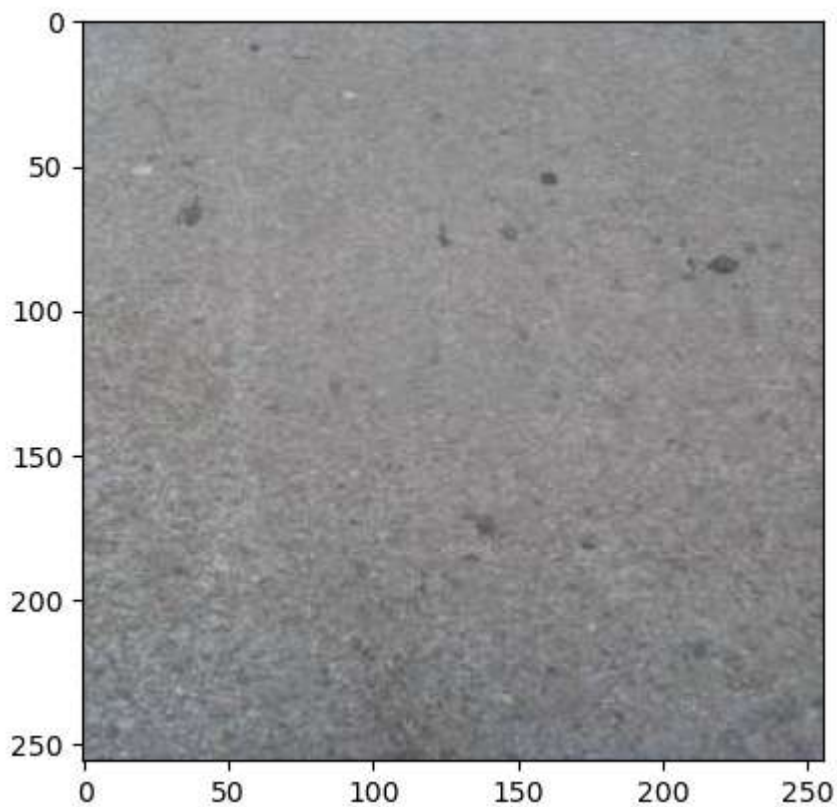
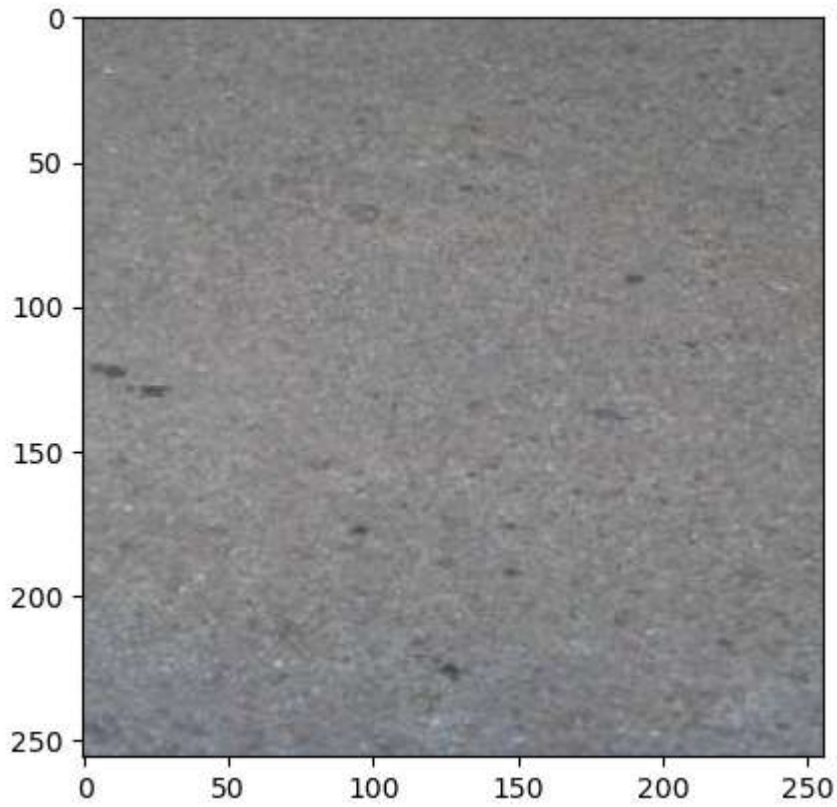
def explore_dir(dir_path, count):
    for _, _, filenames in os.walk(dir_path):
        for i in range(count):
            img = cv2.imread(os.path.join(dir_path, filenames[i]))
            plt.imshow(img)
            plt.show()

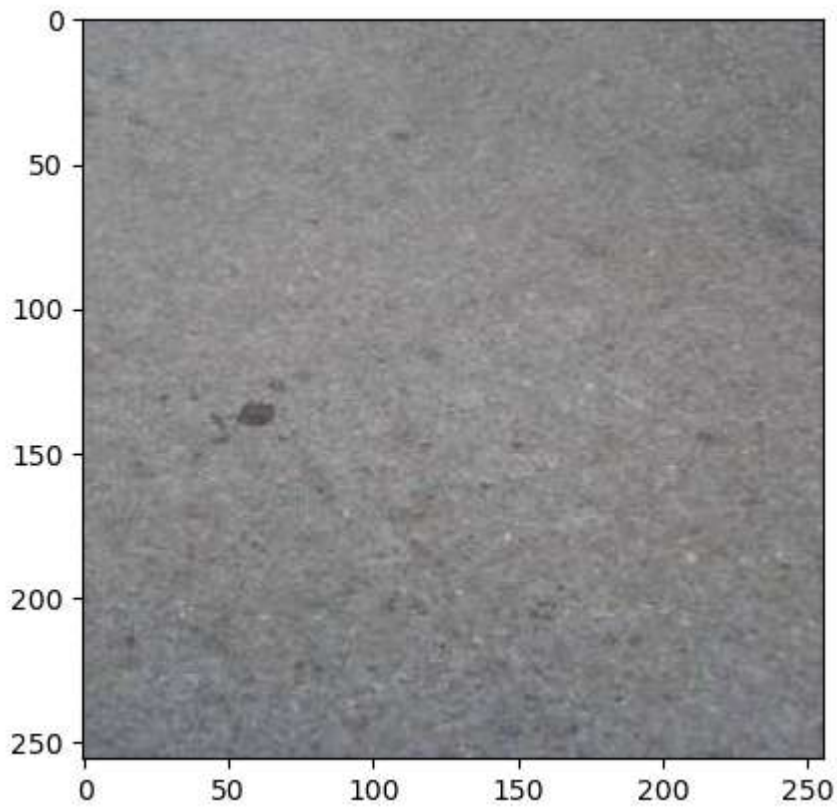
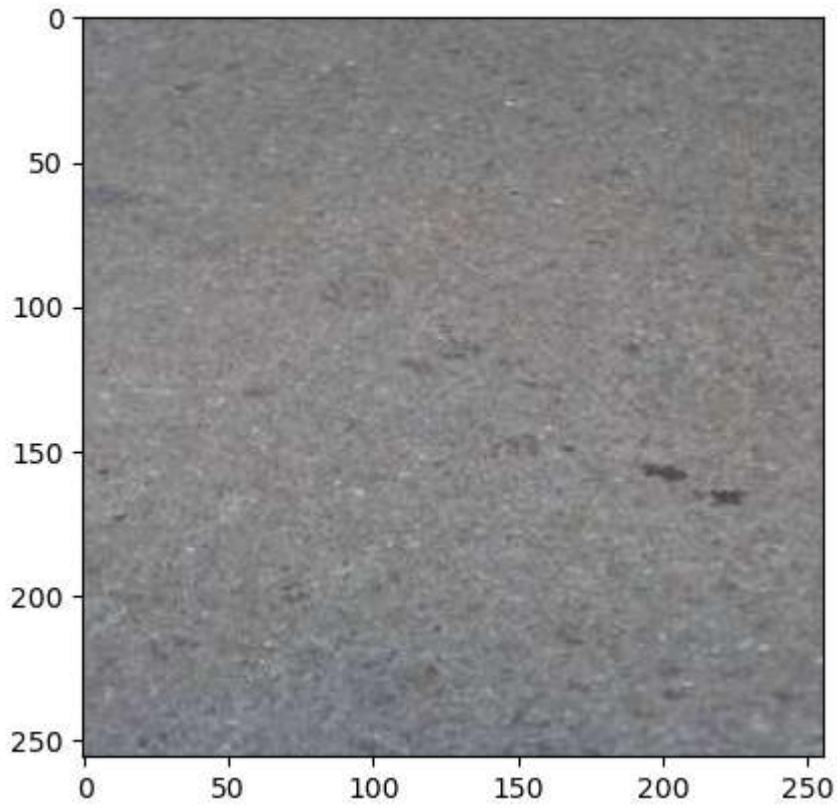
normal_dir = 'D:/neha1/Normal'
potholes_dir = 'D:/neha1/Pothole'

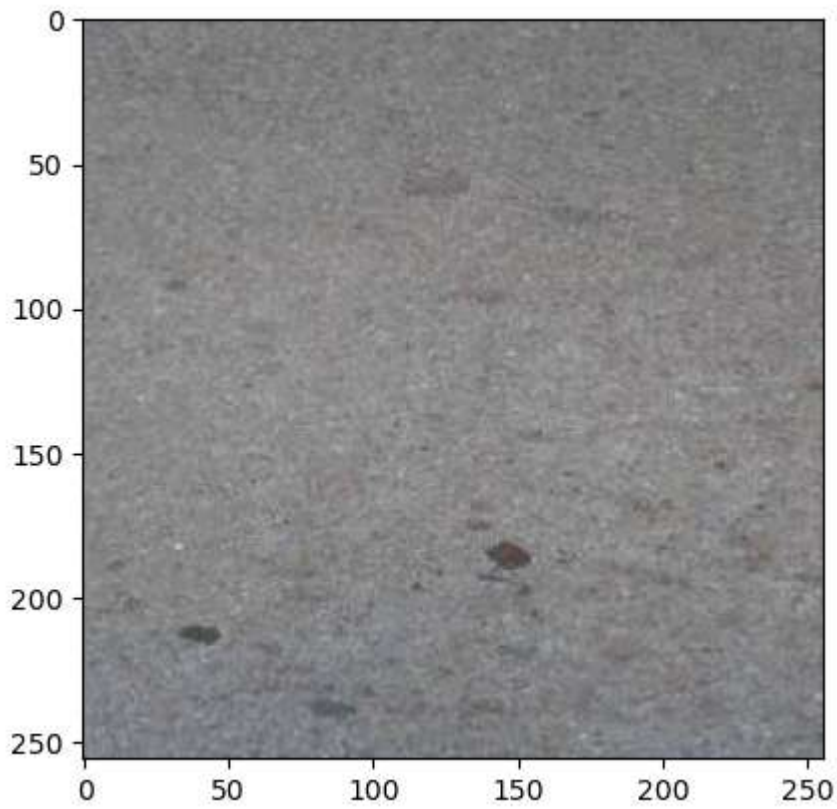
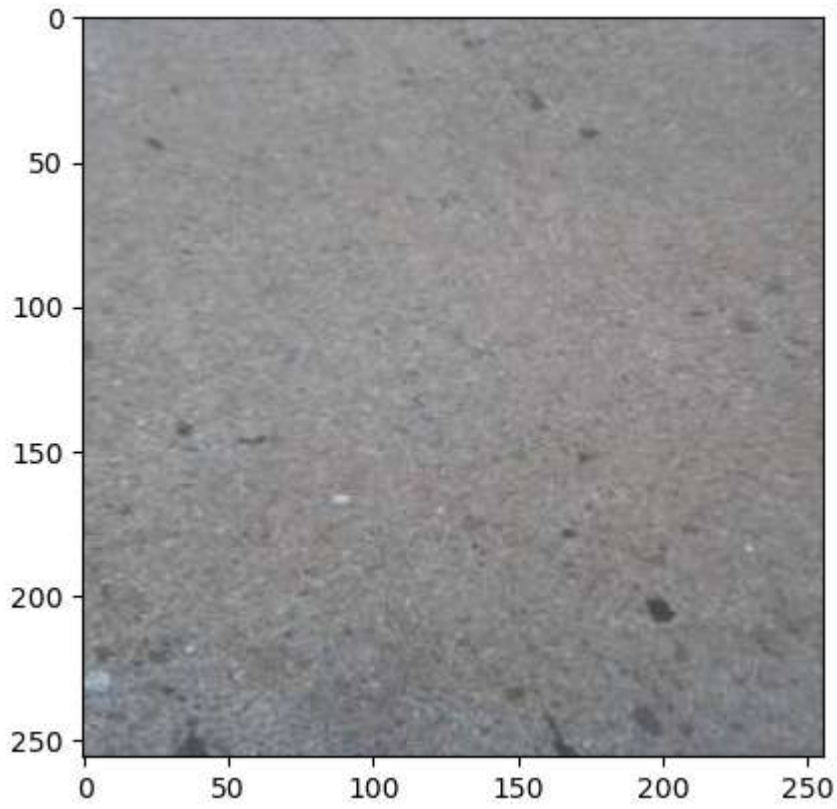
explore_dir(normal_dir, 100)
explore_dir(potholes_dir, 10)
```

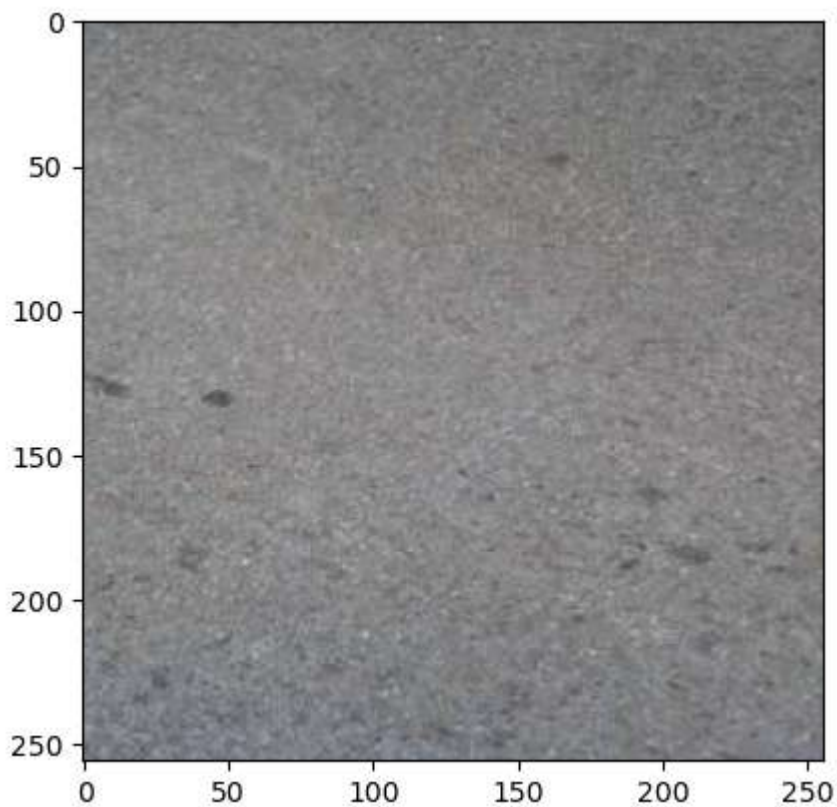
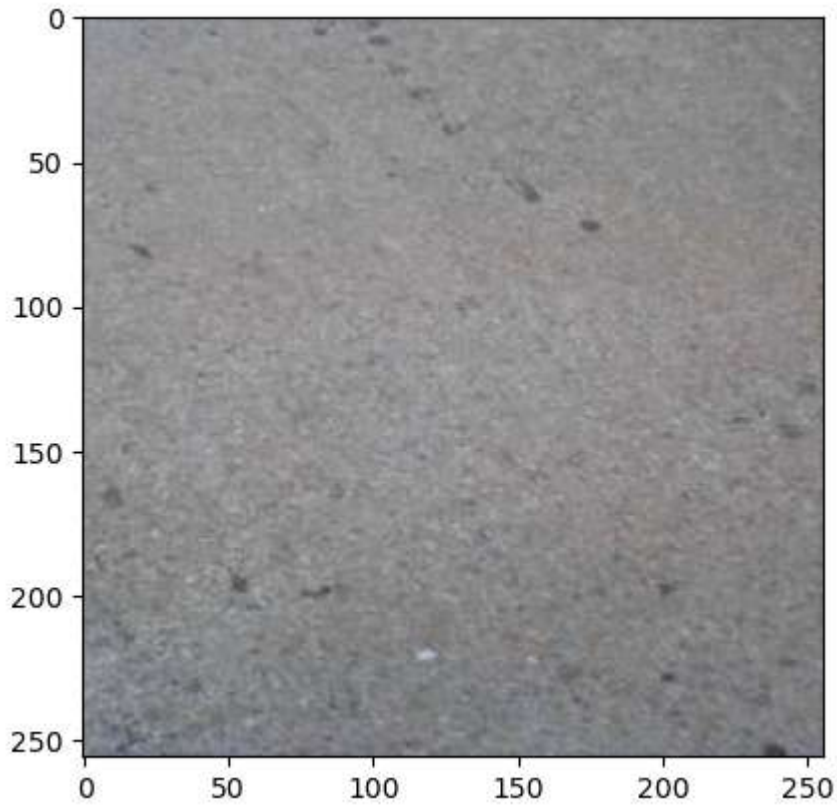


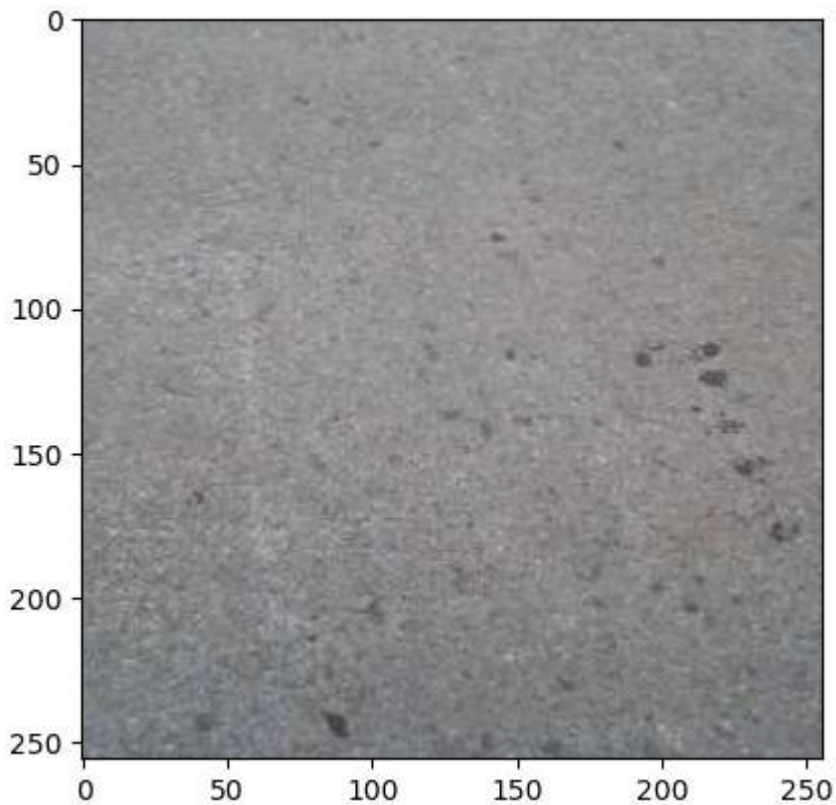


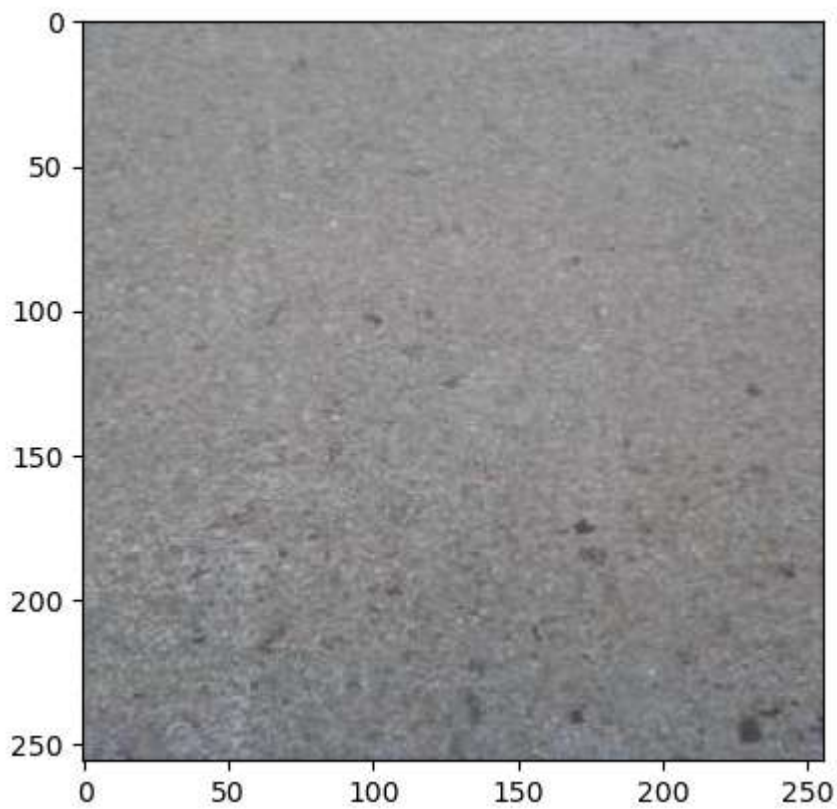
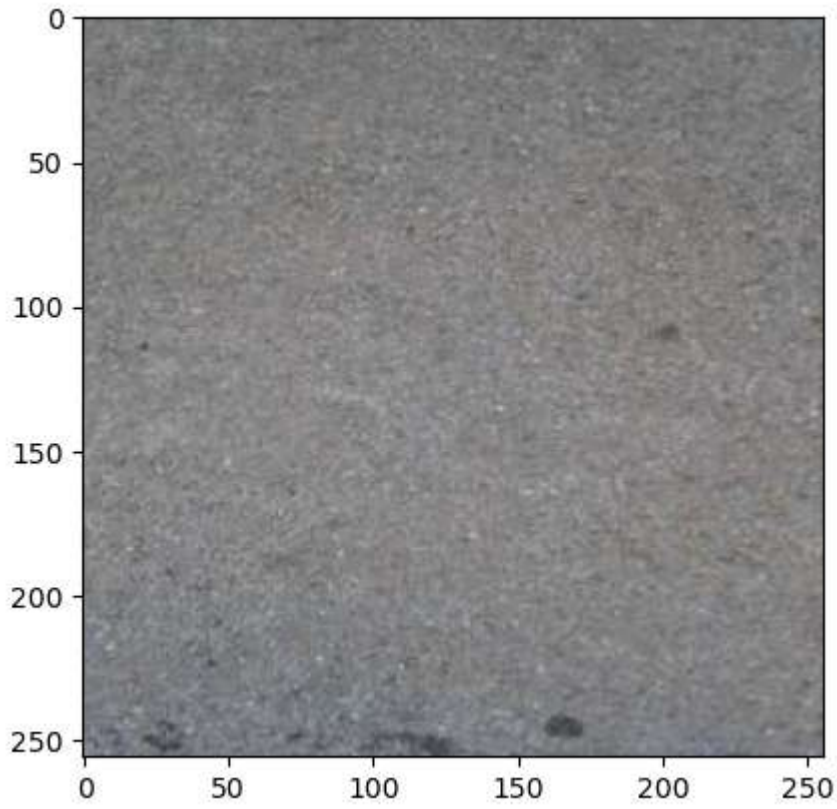




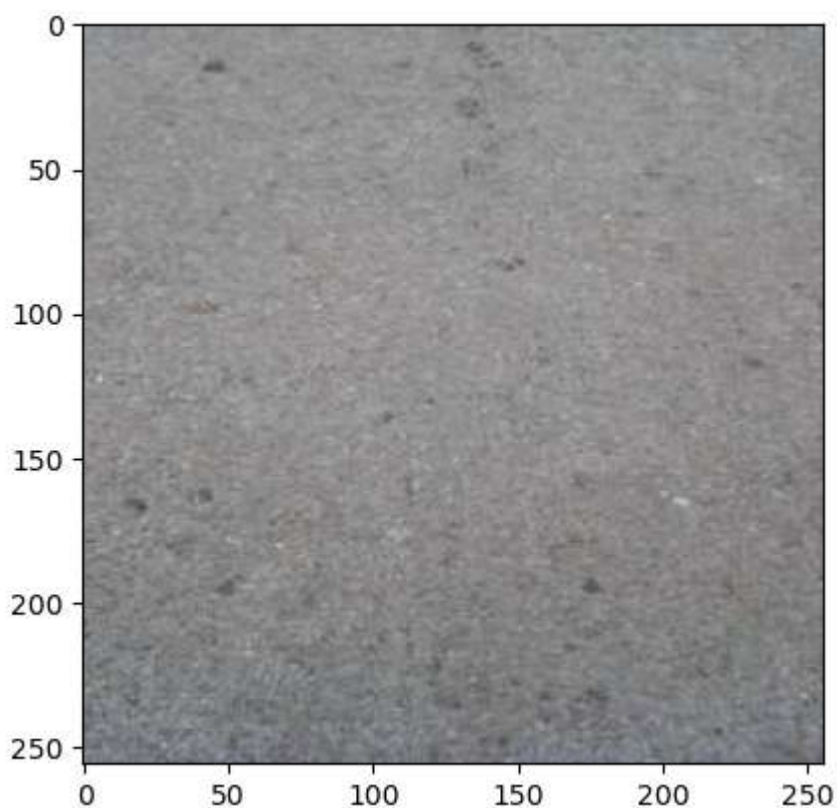
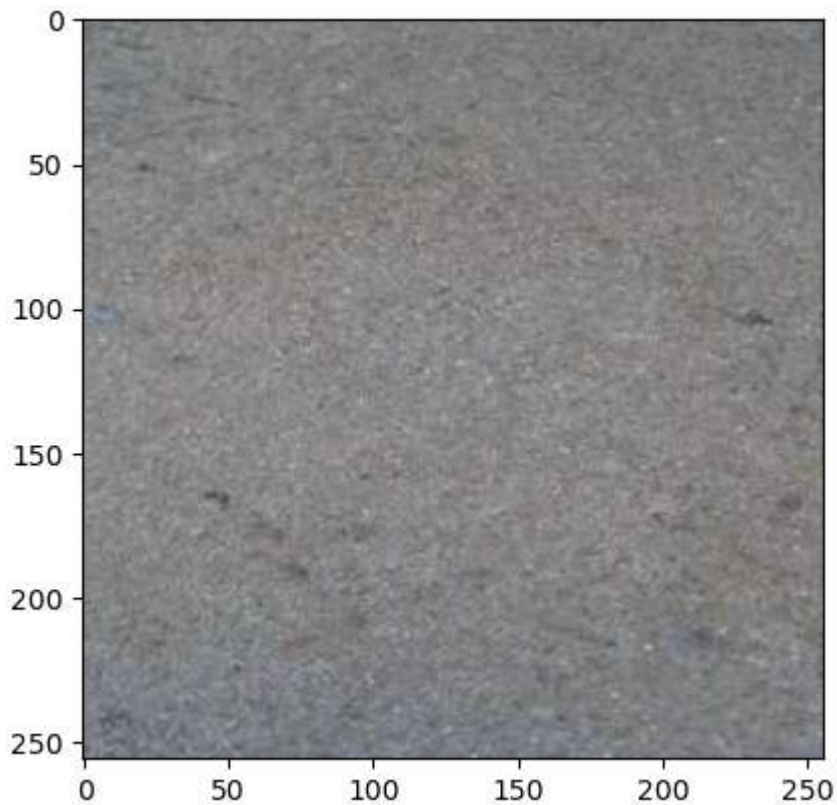


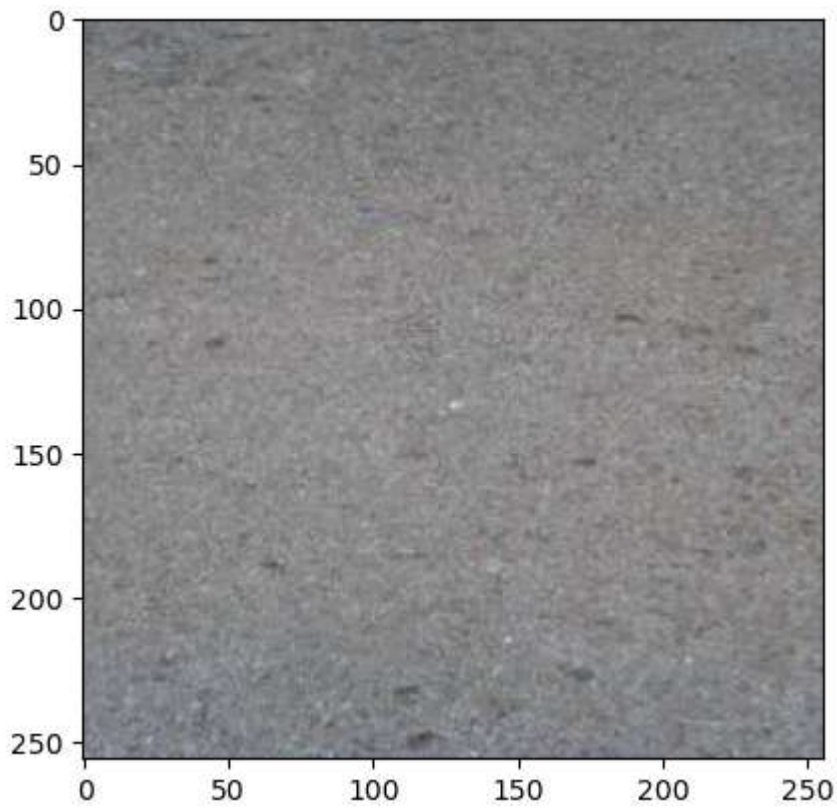
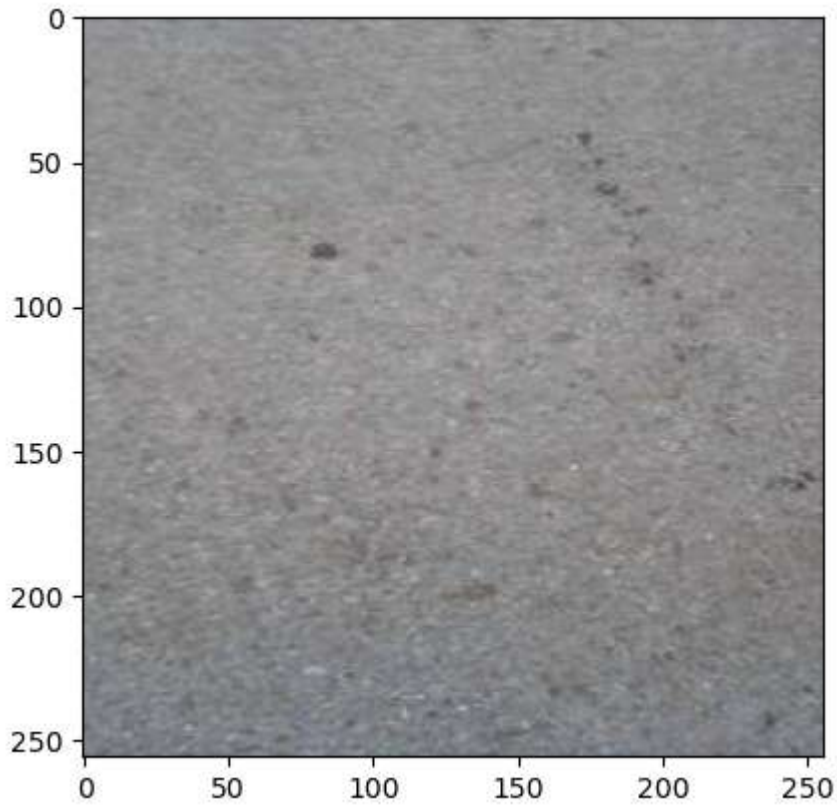


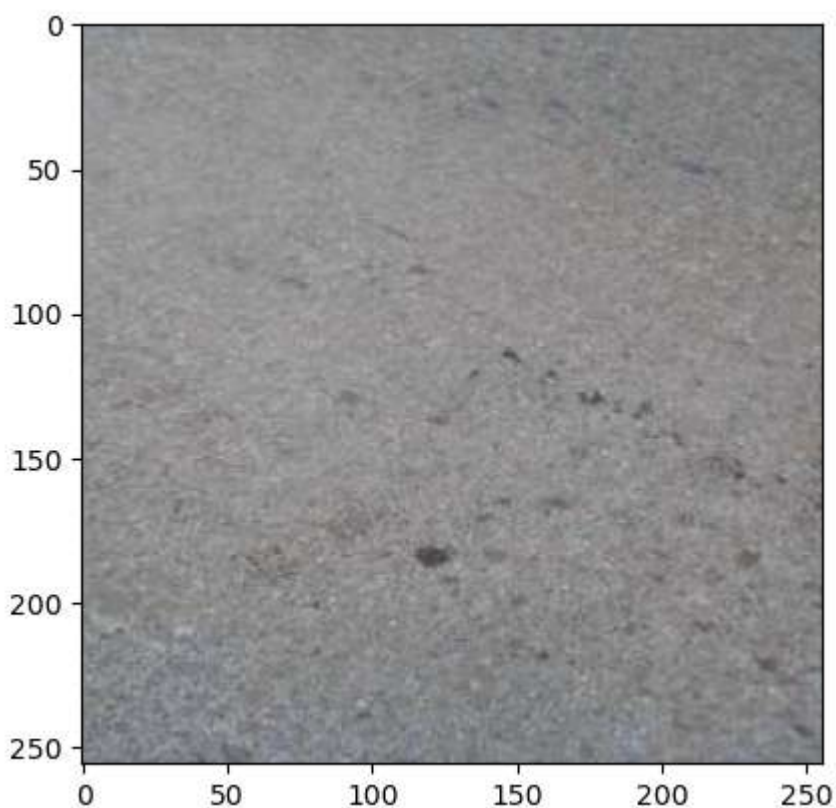
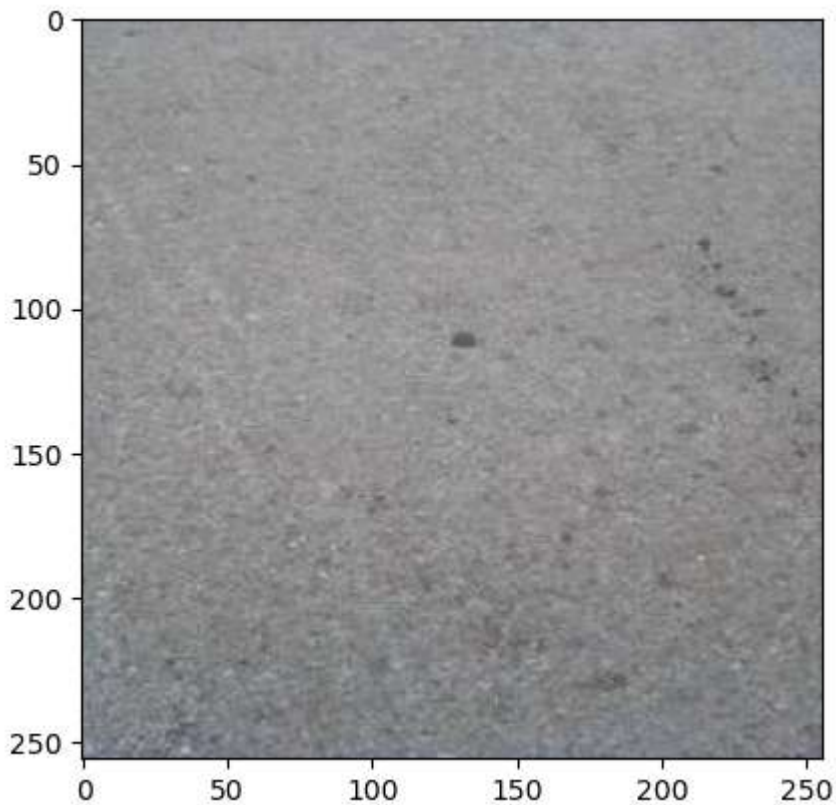


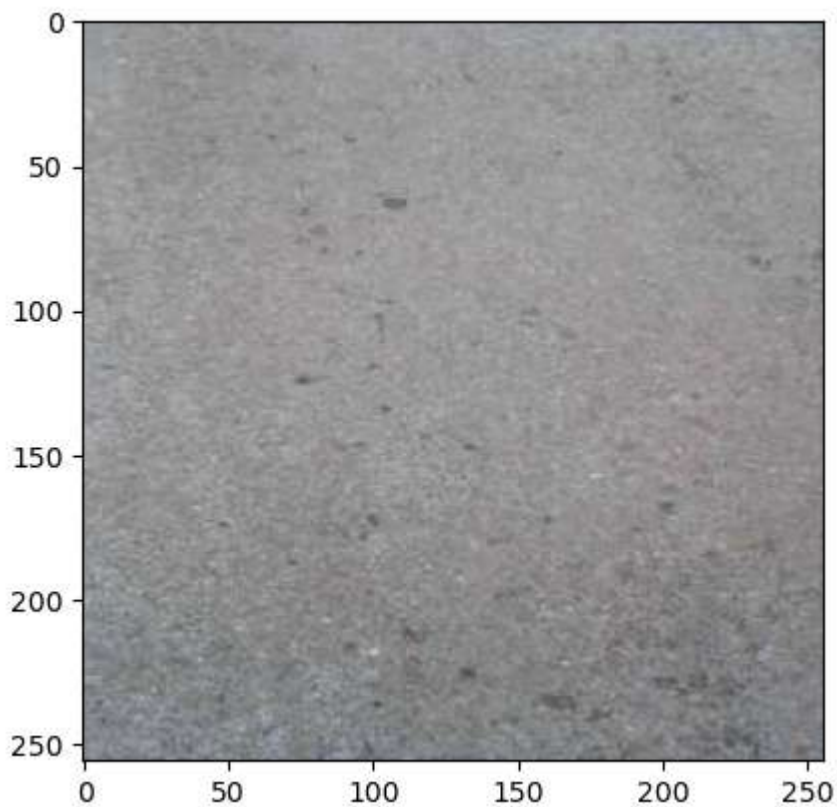
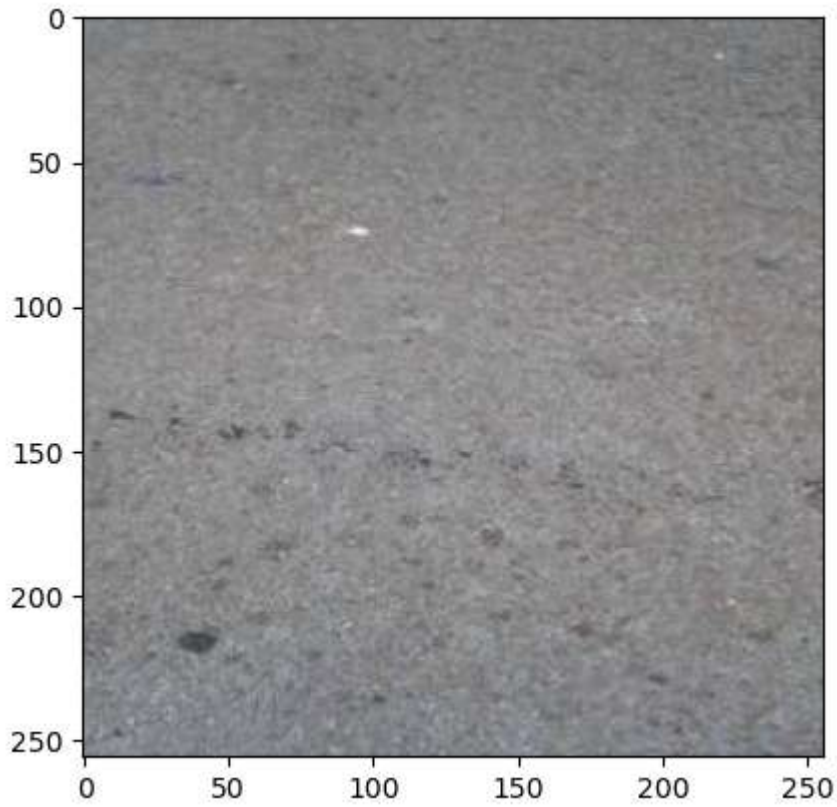


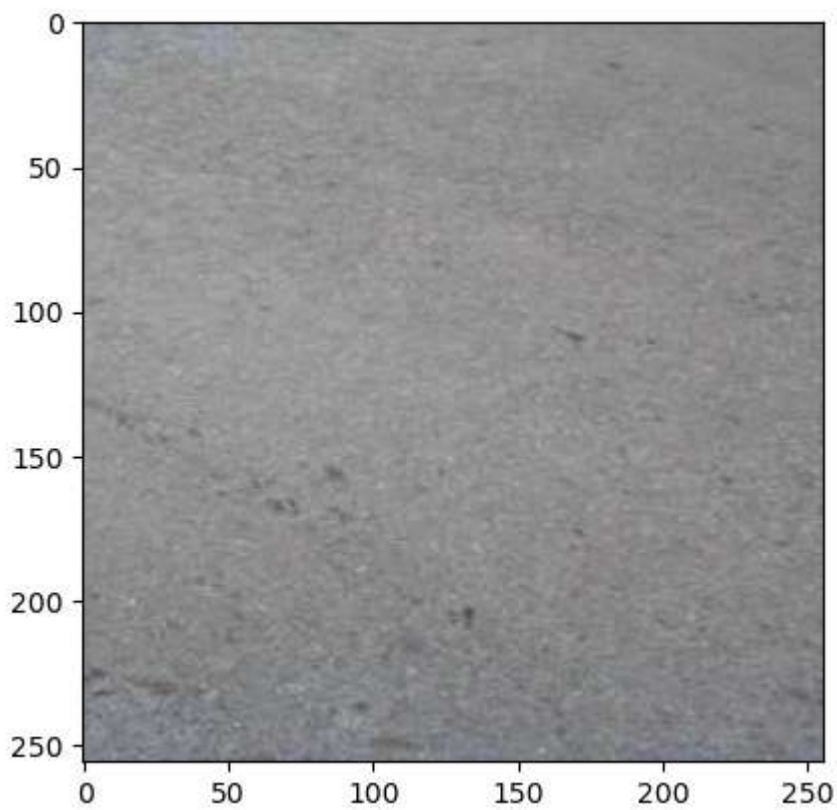


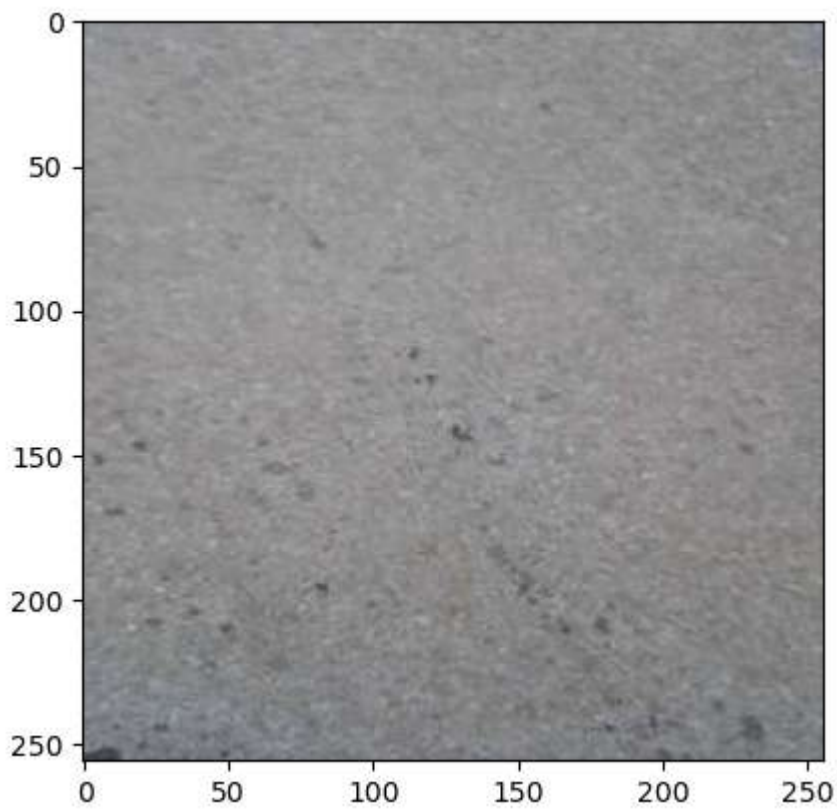
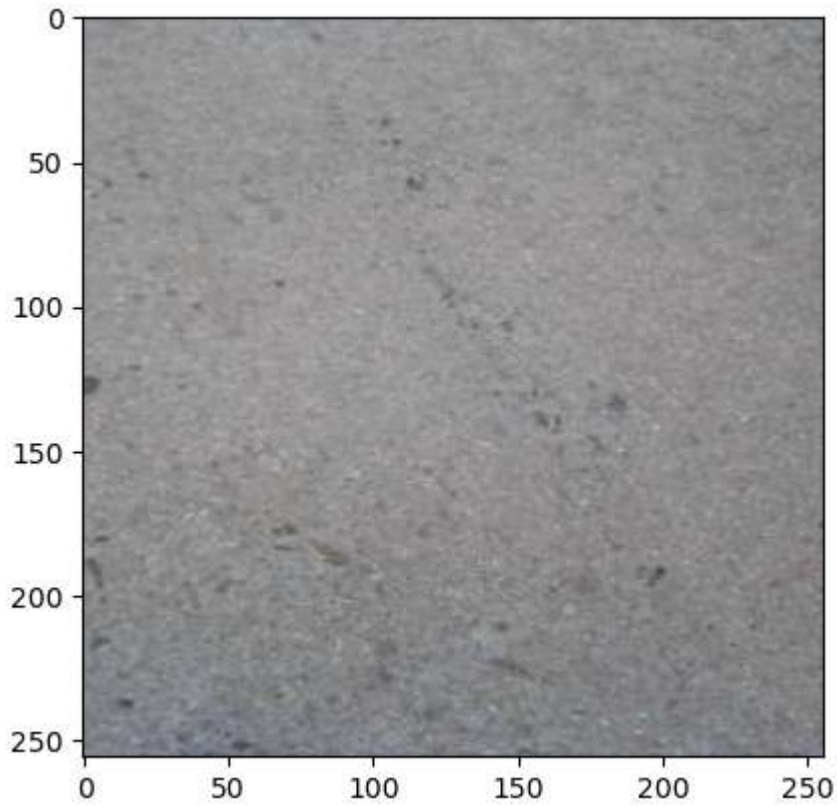


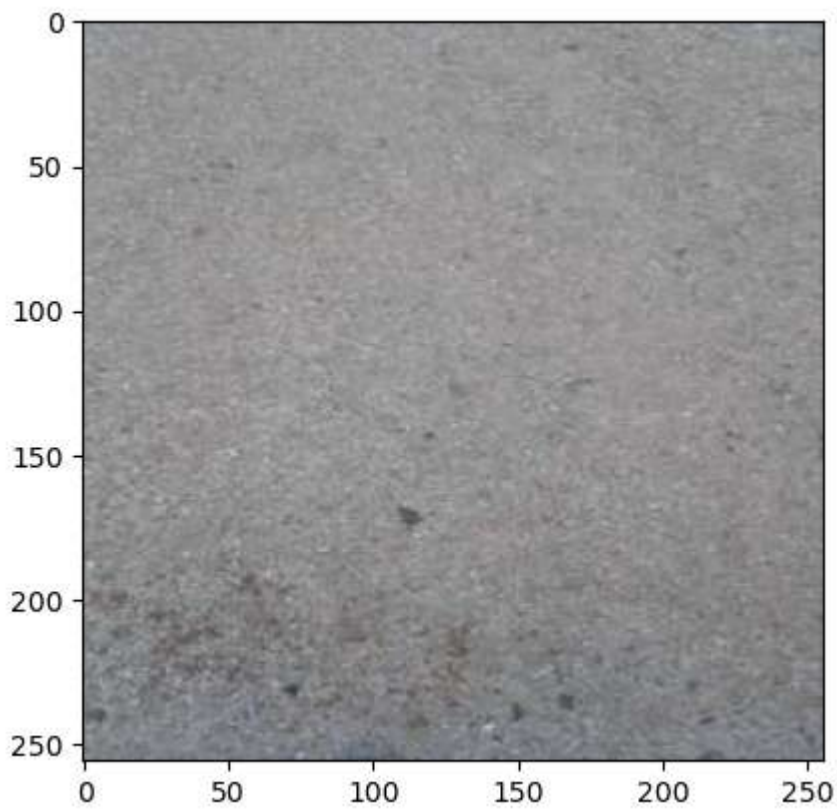
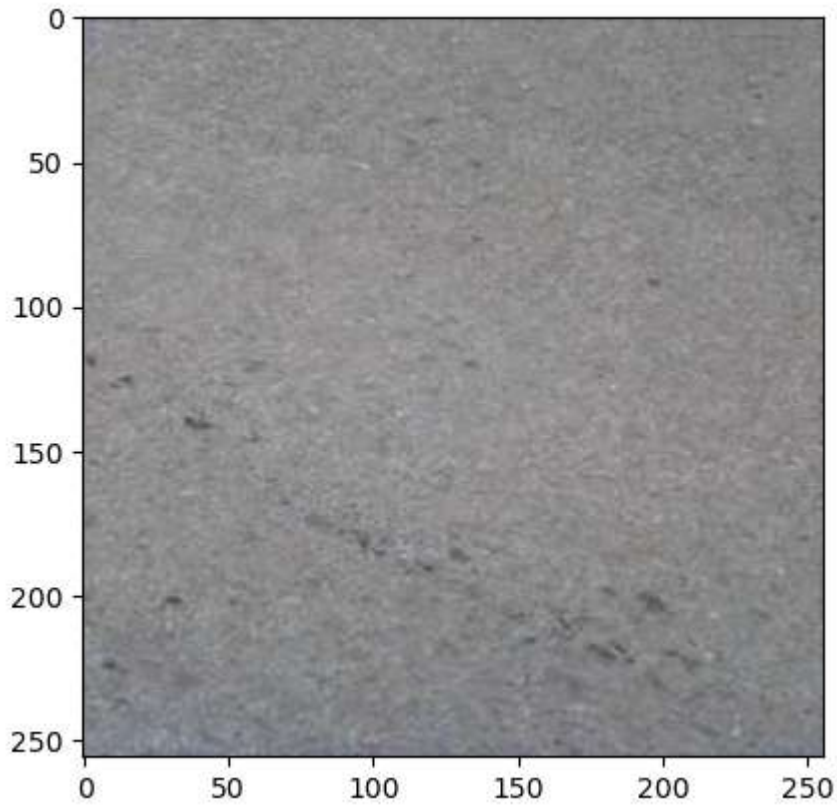


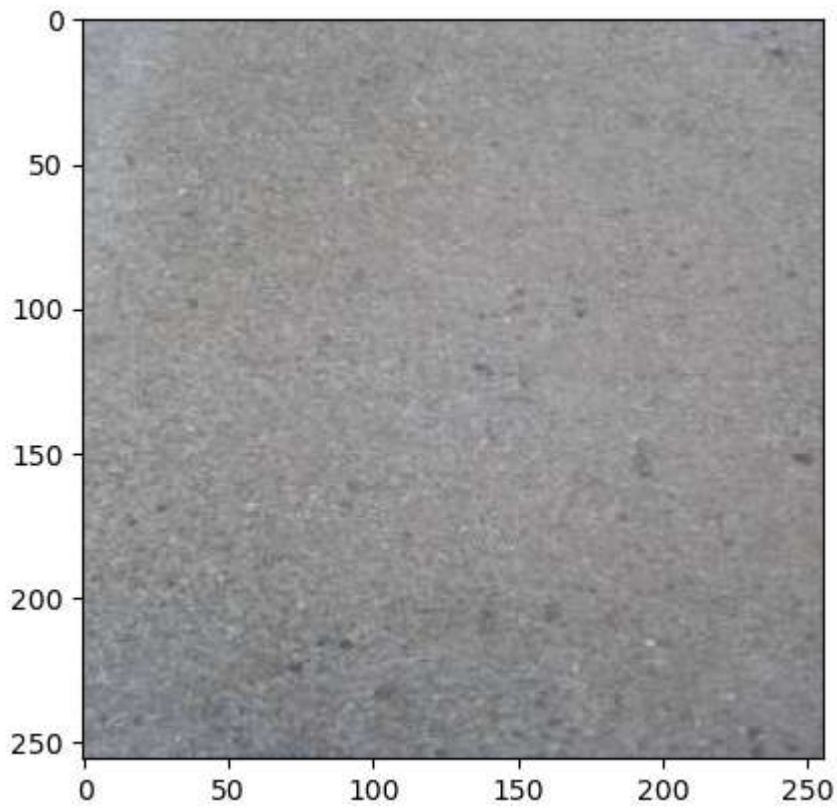
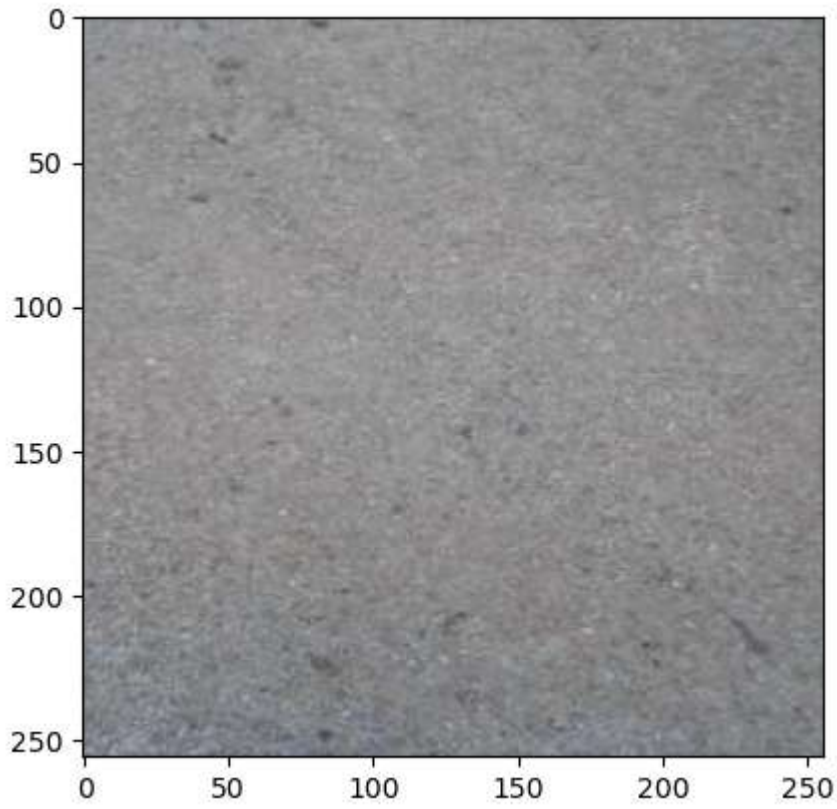




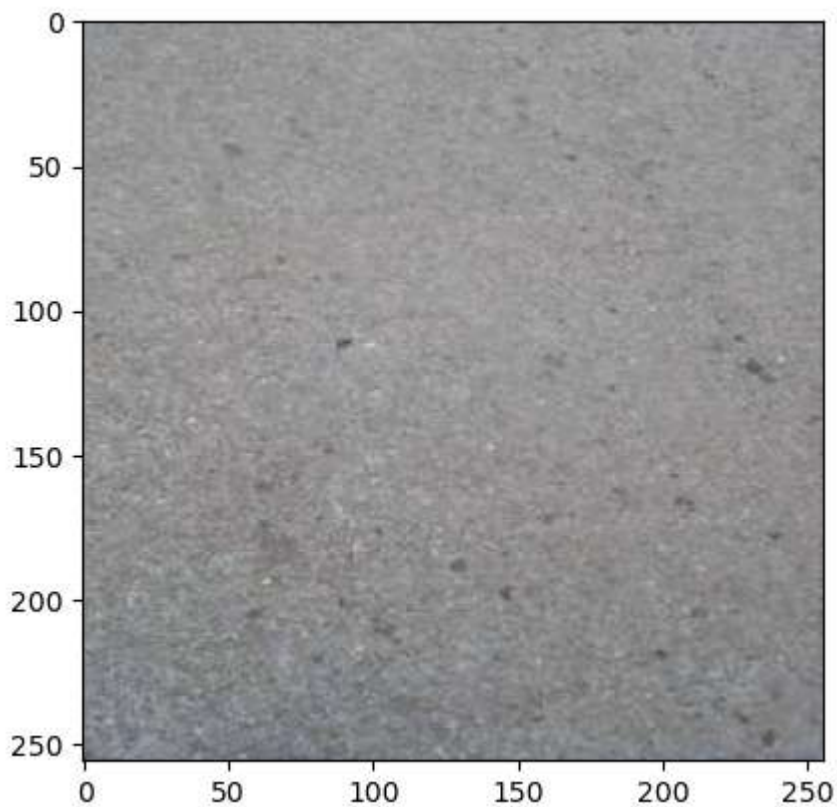
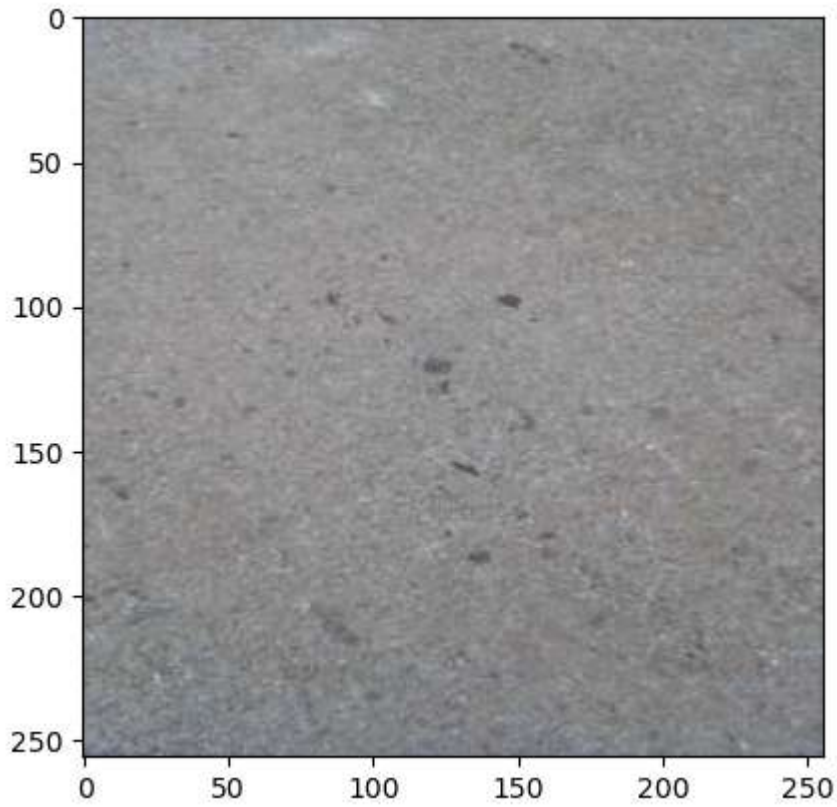


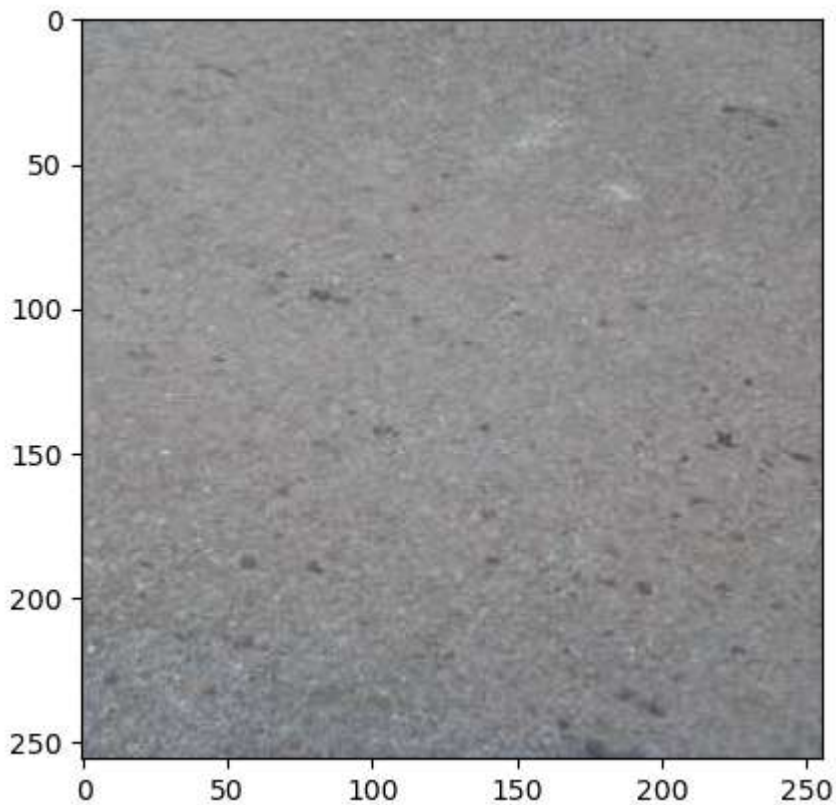


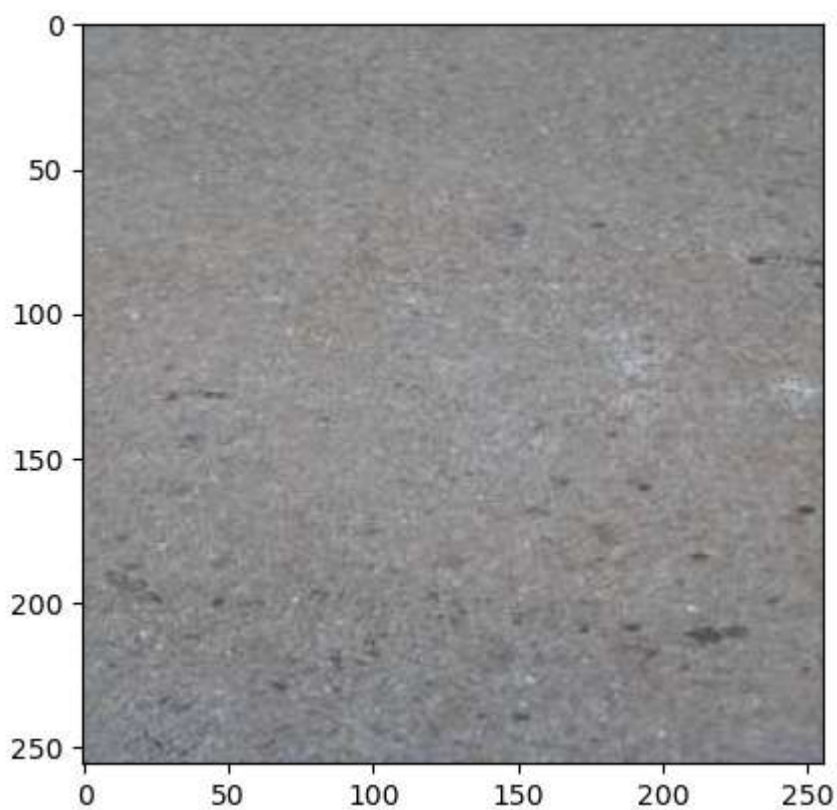
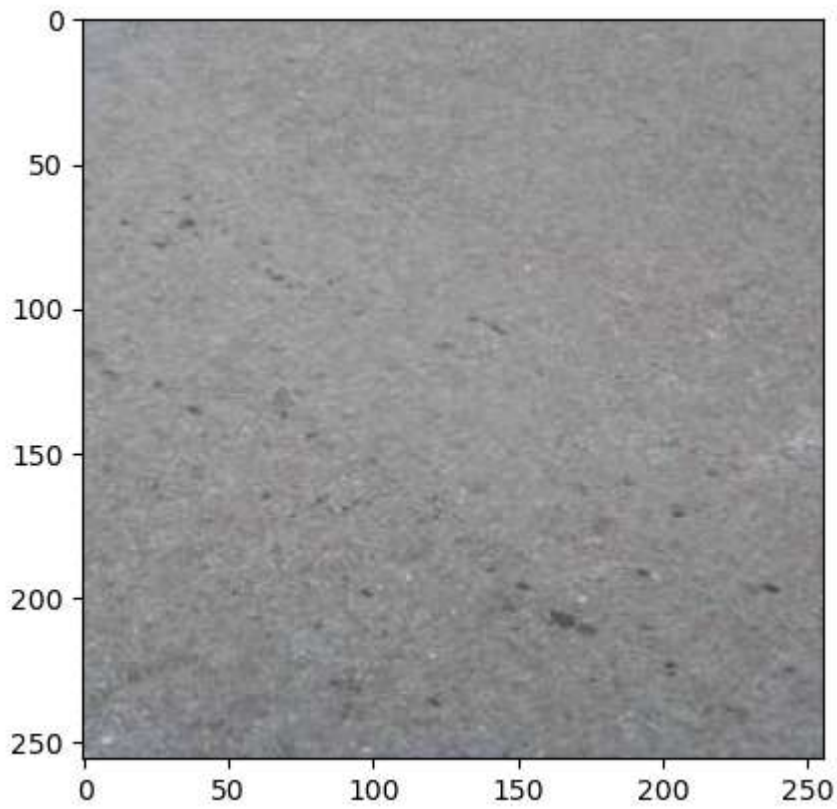


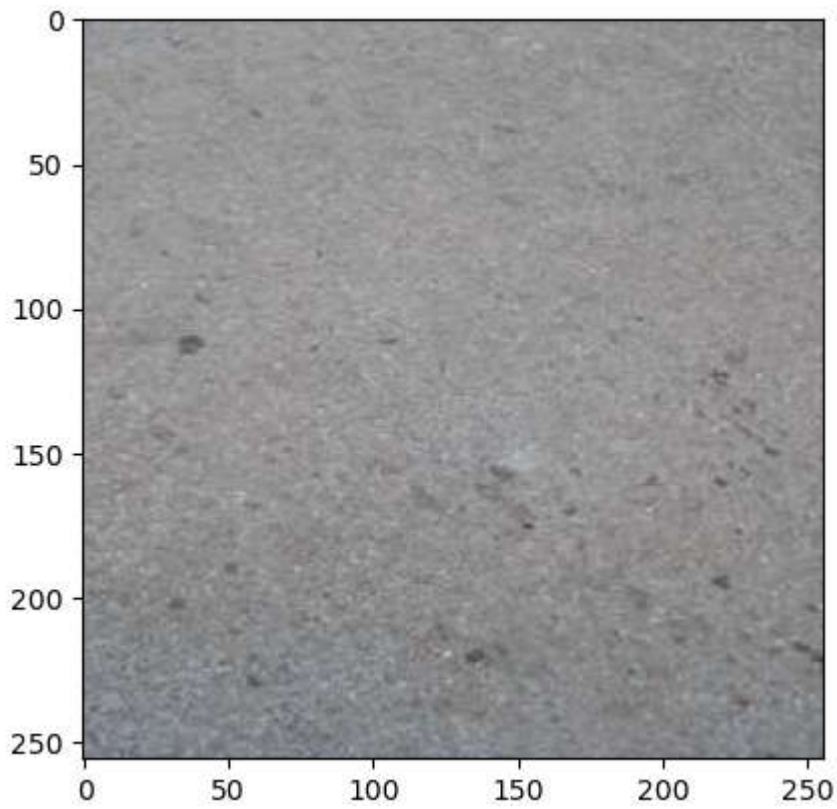
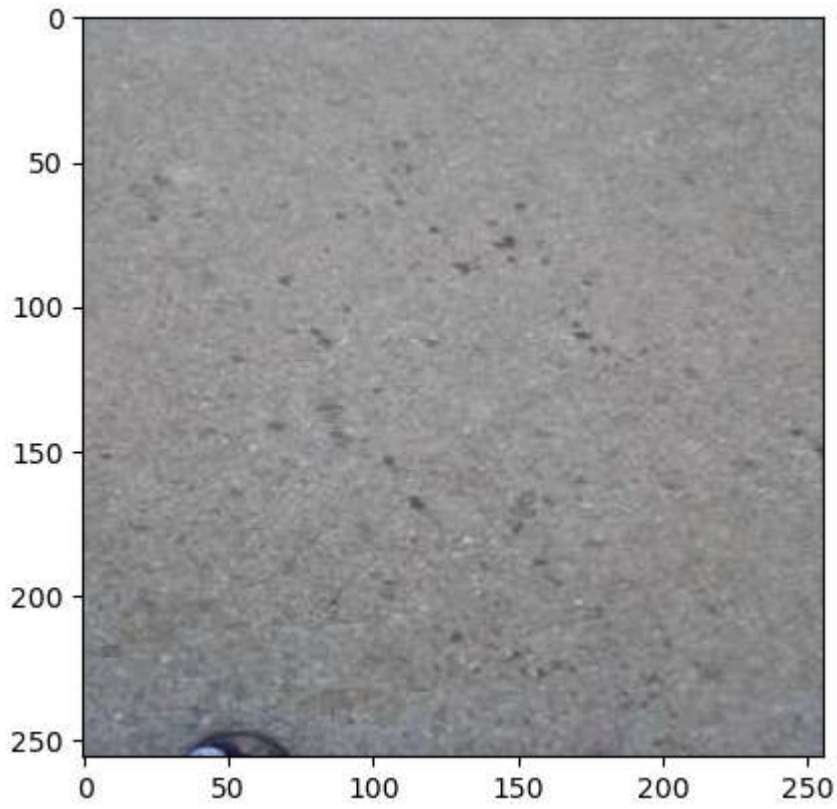


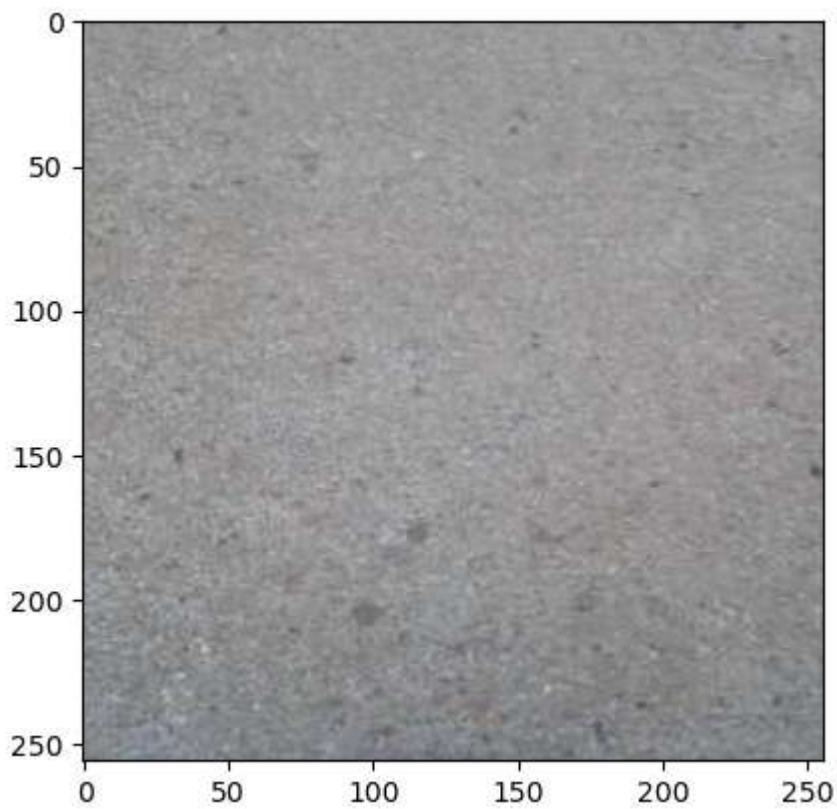
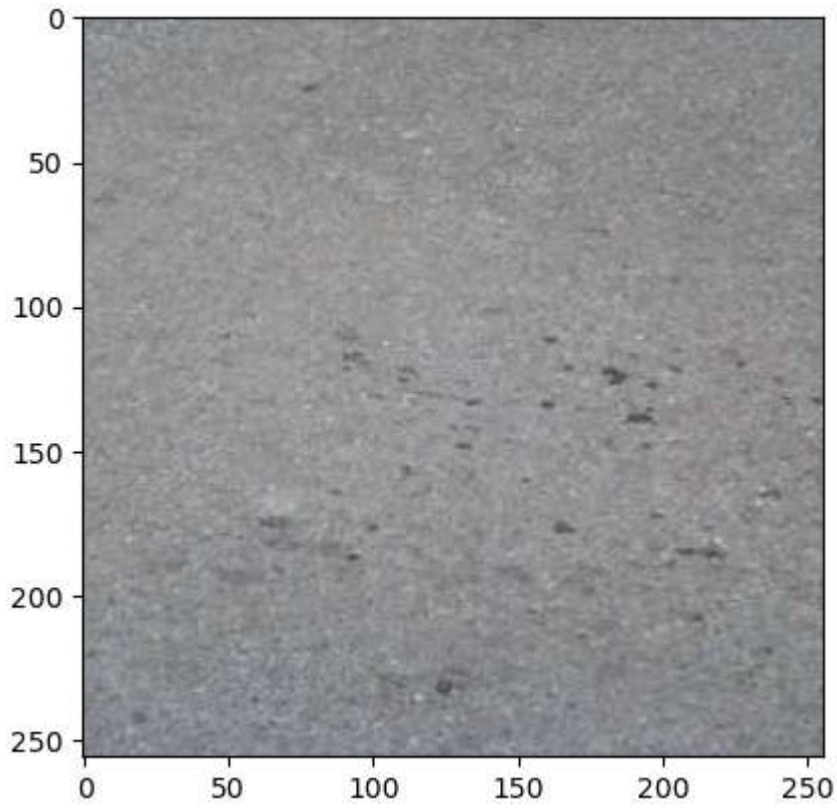


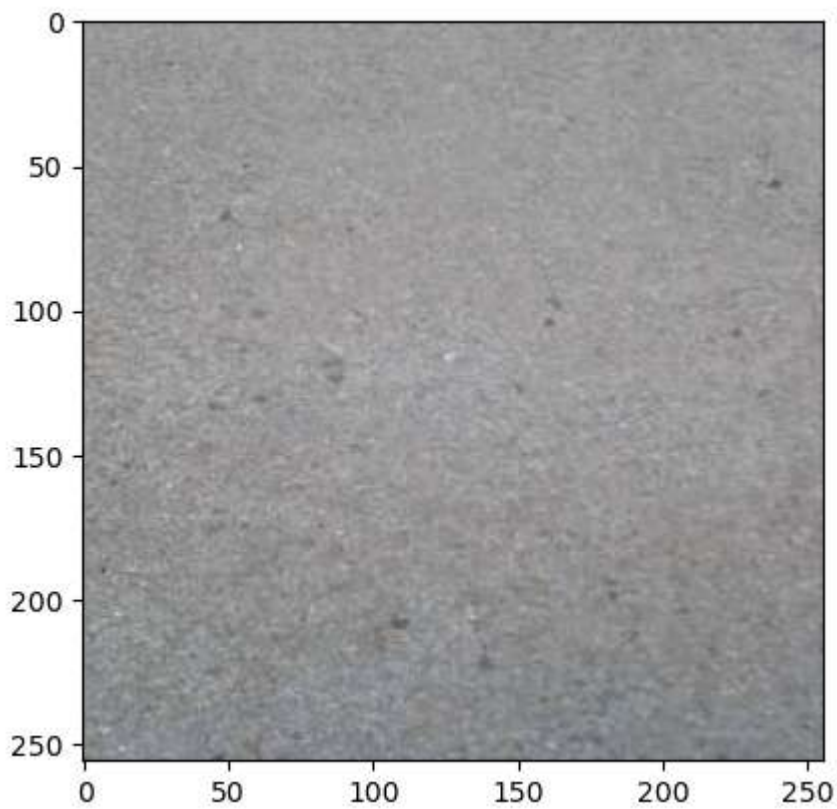
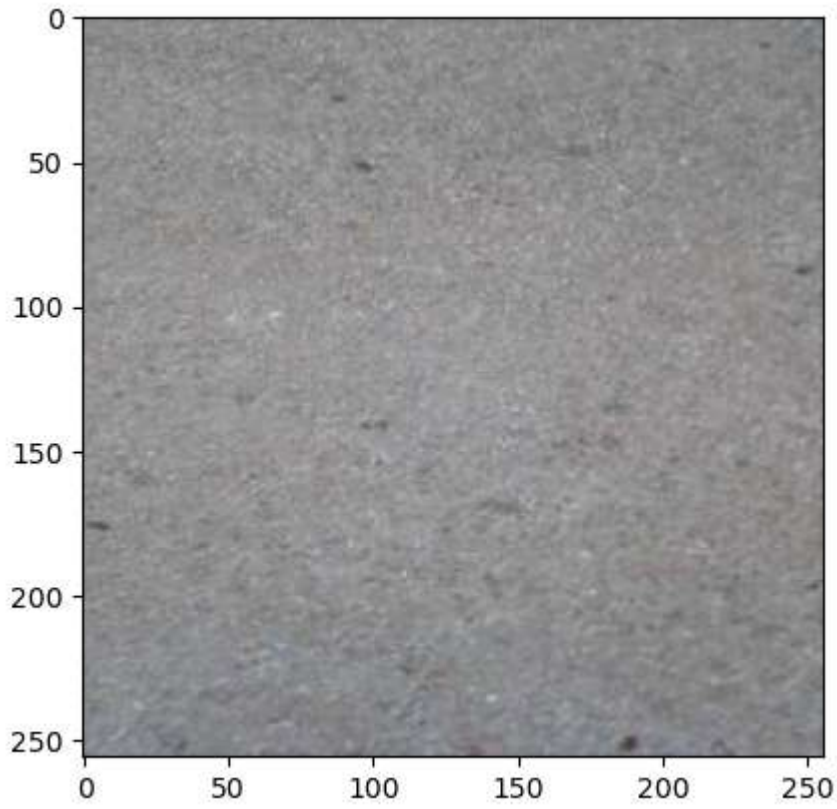


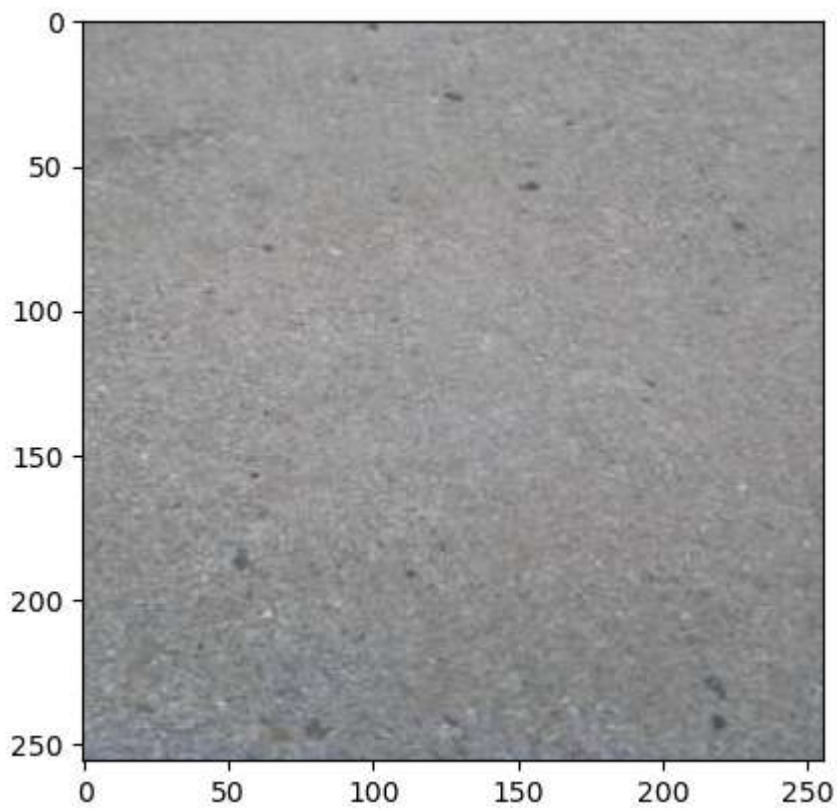
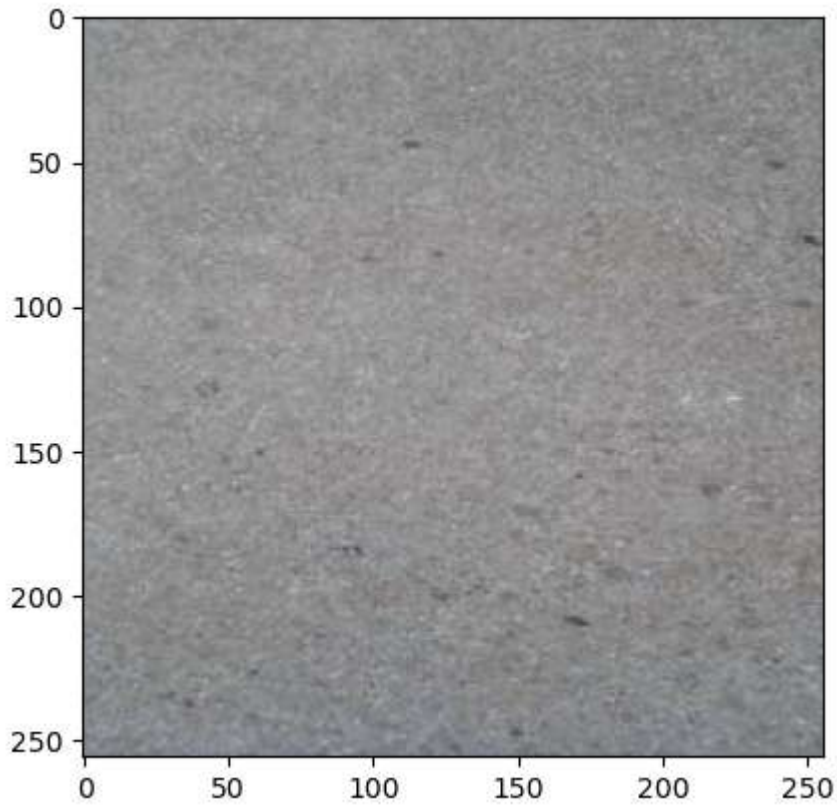


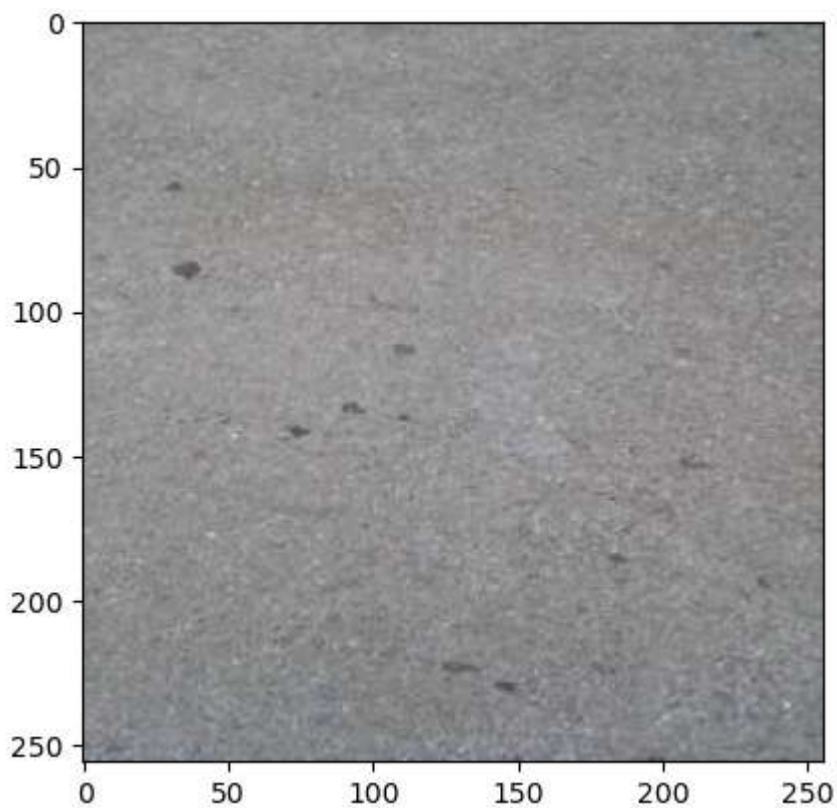




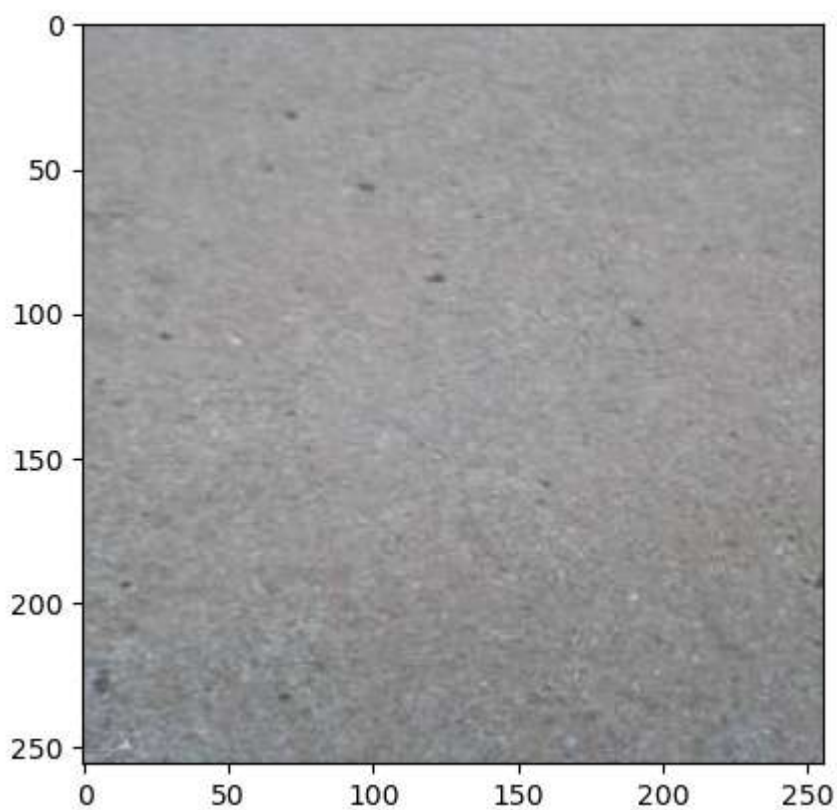
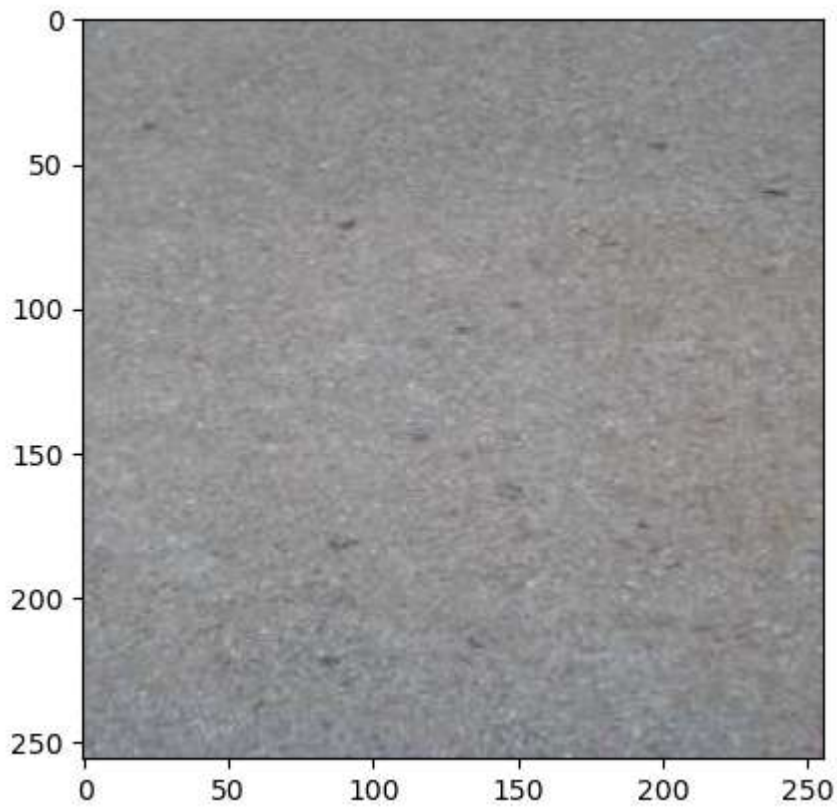


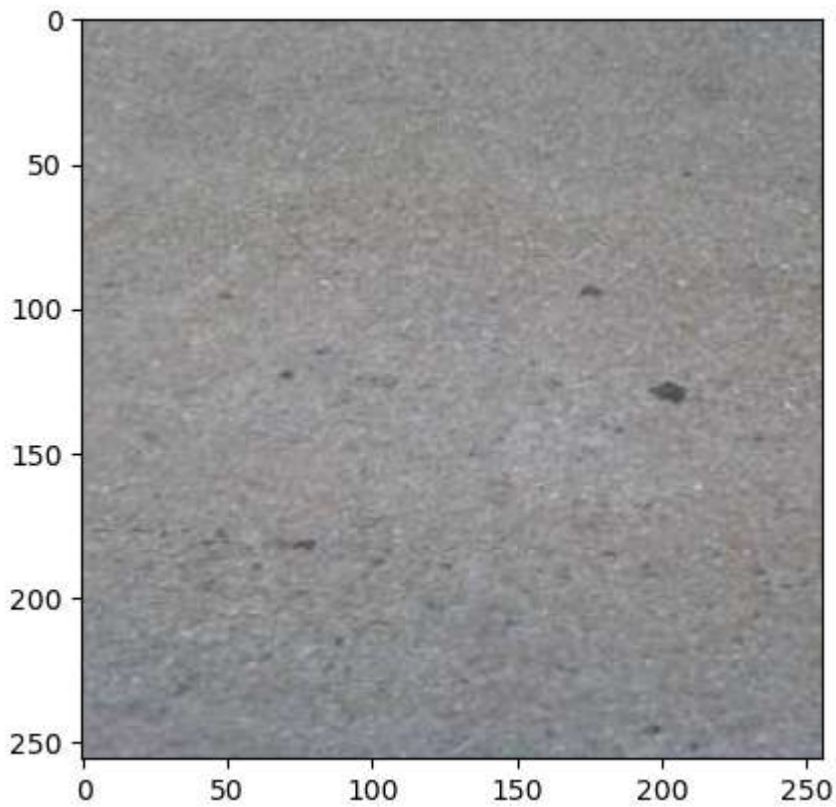
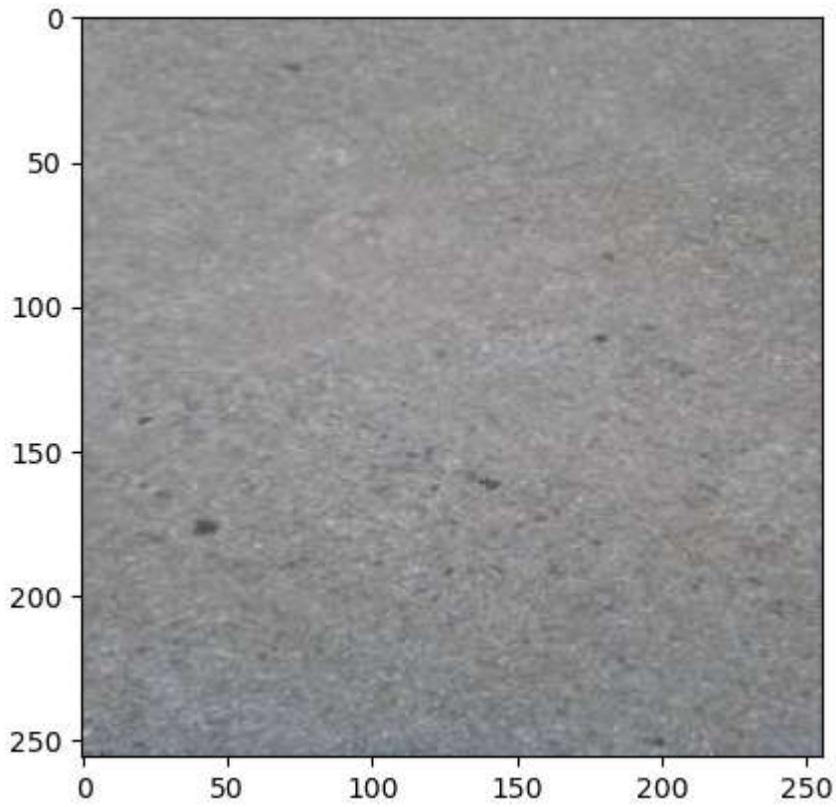


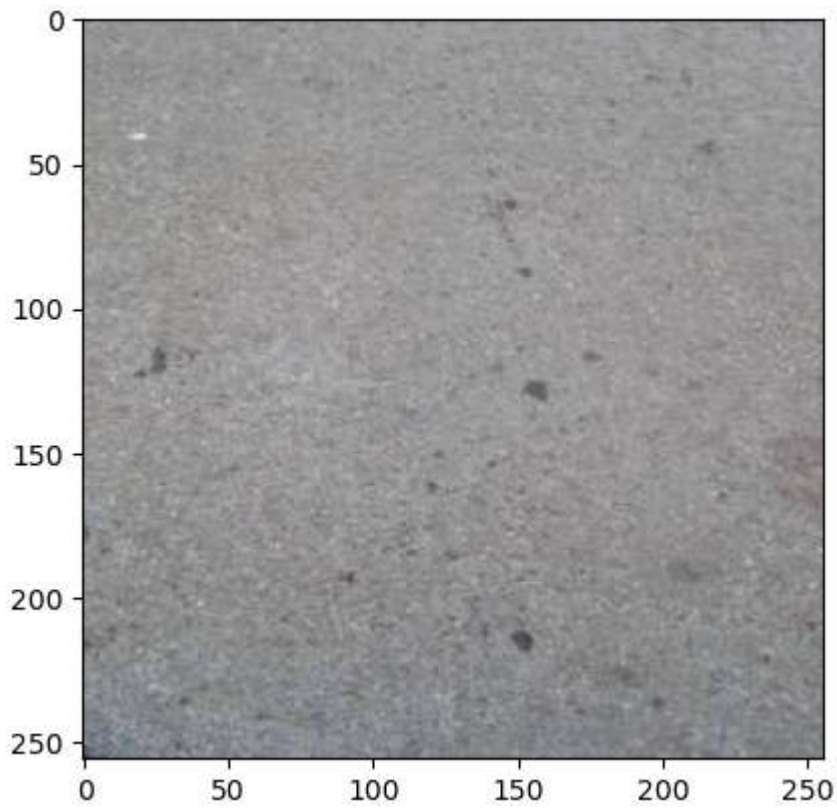
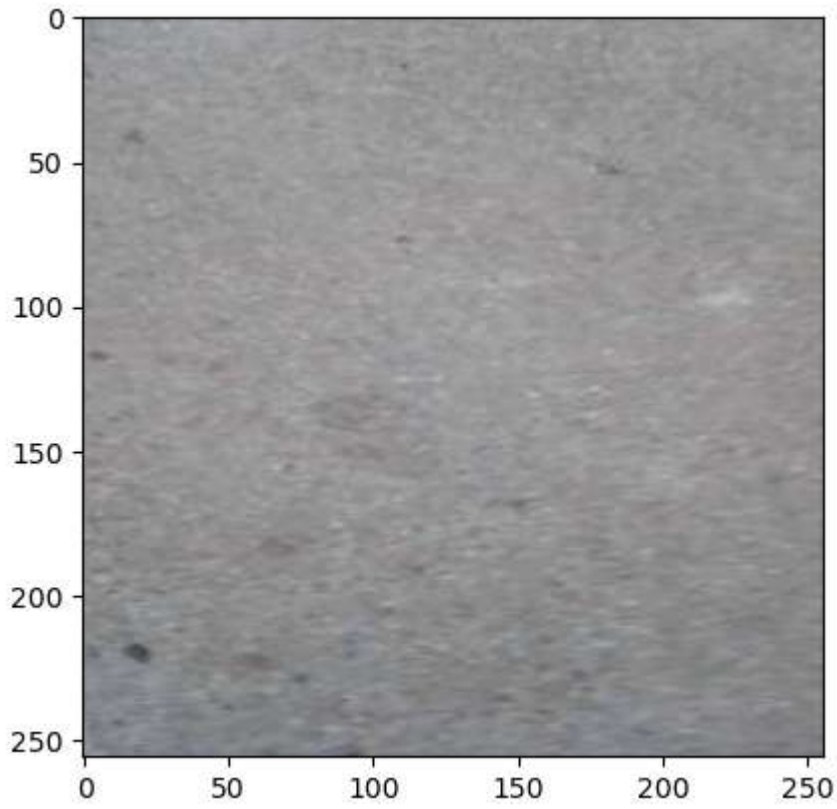


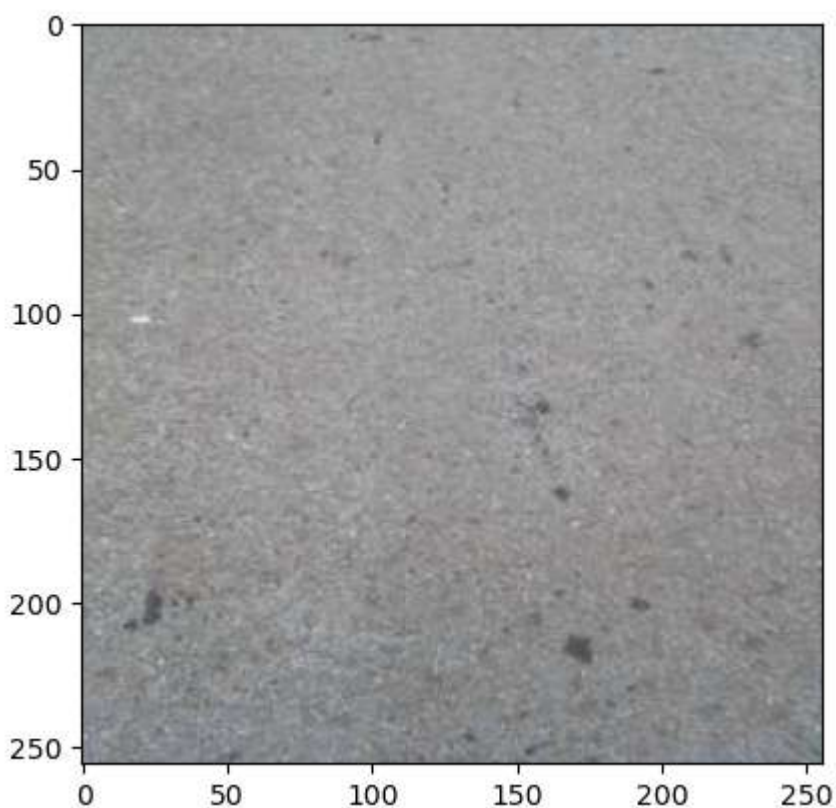
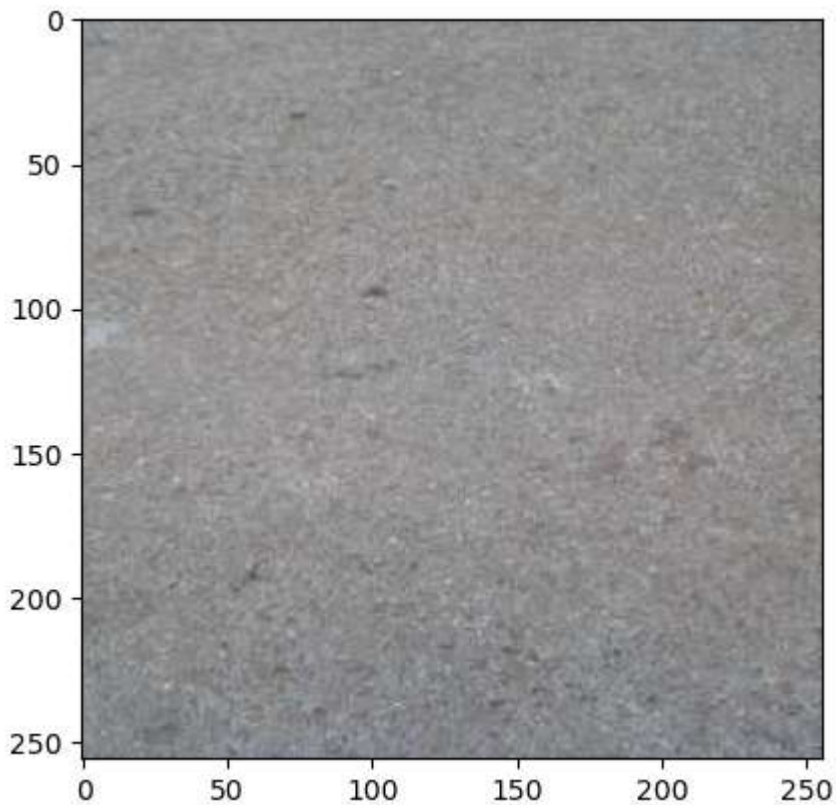


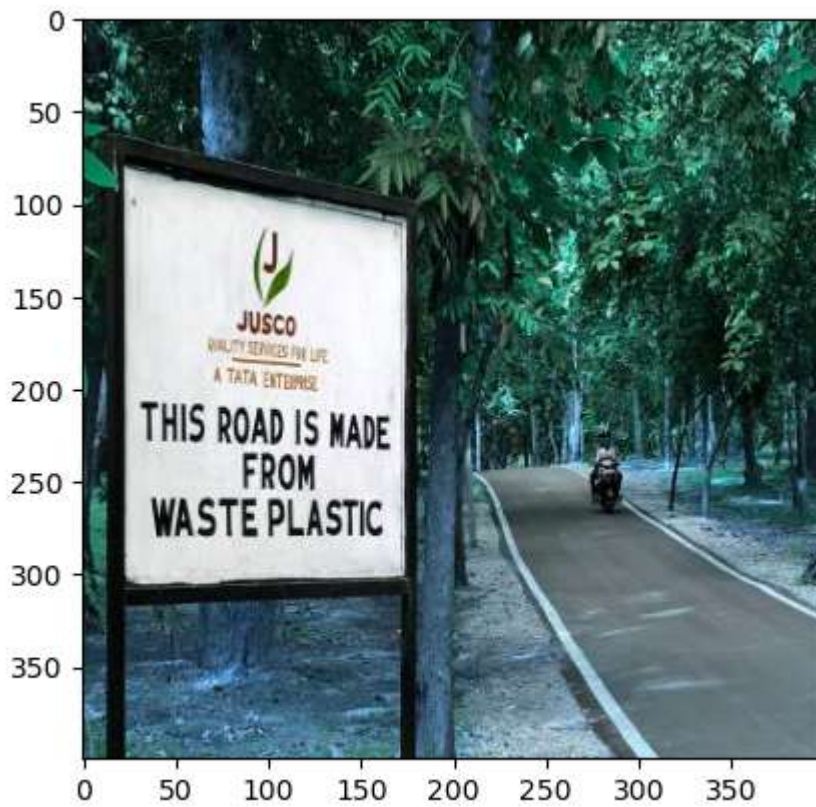
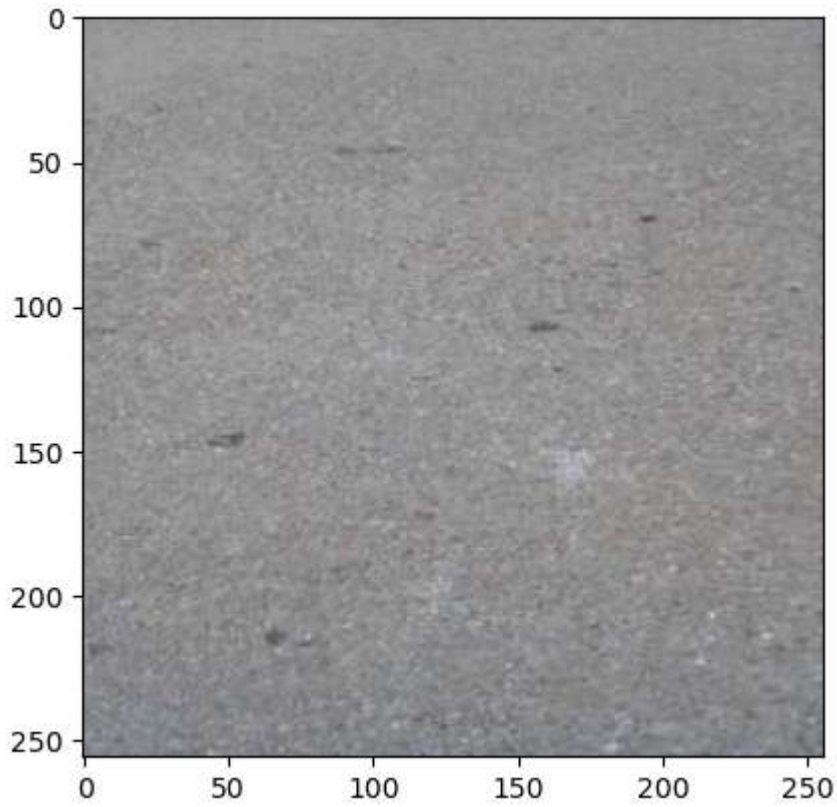


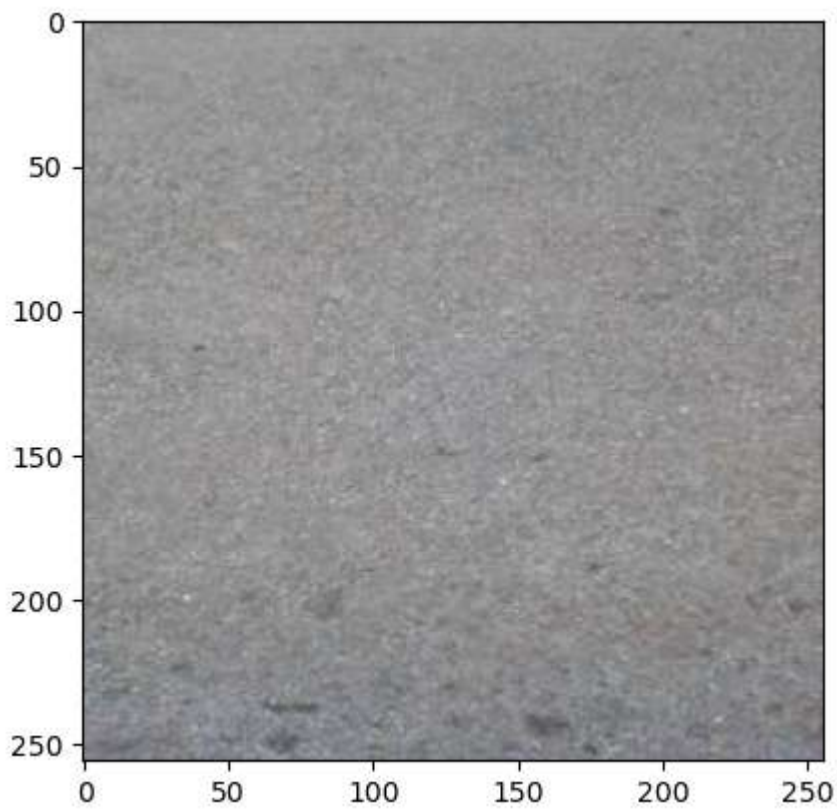
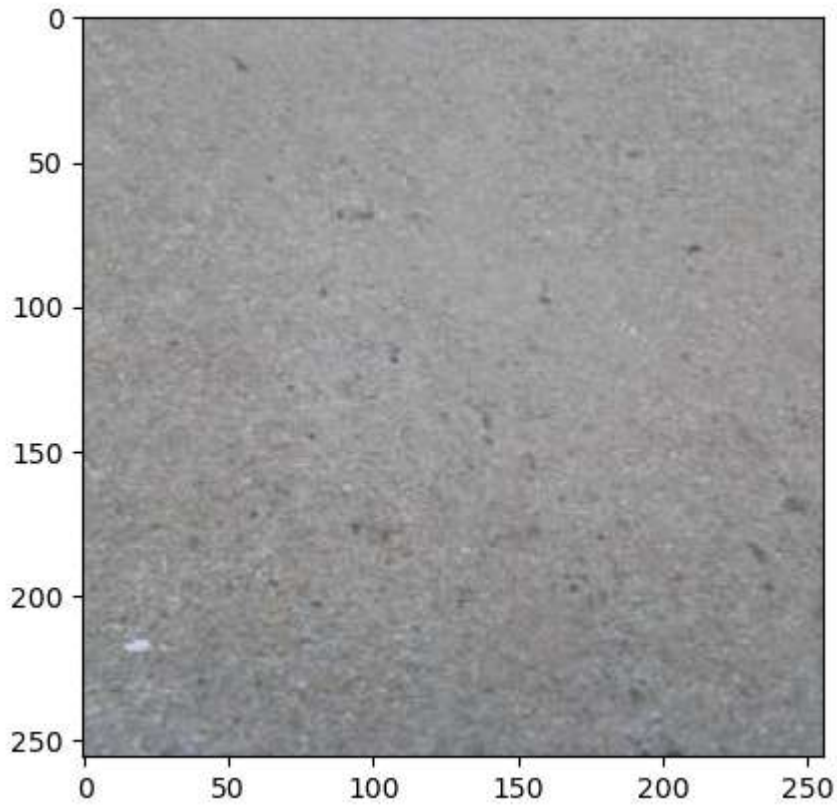


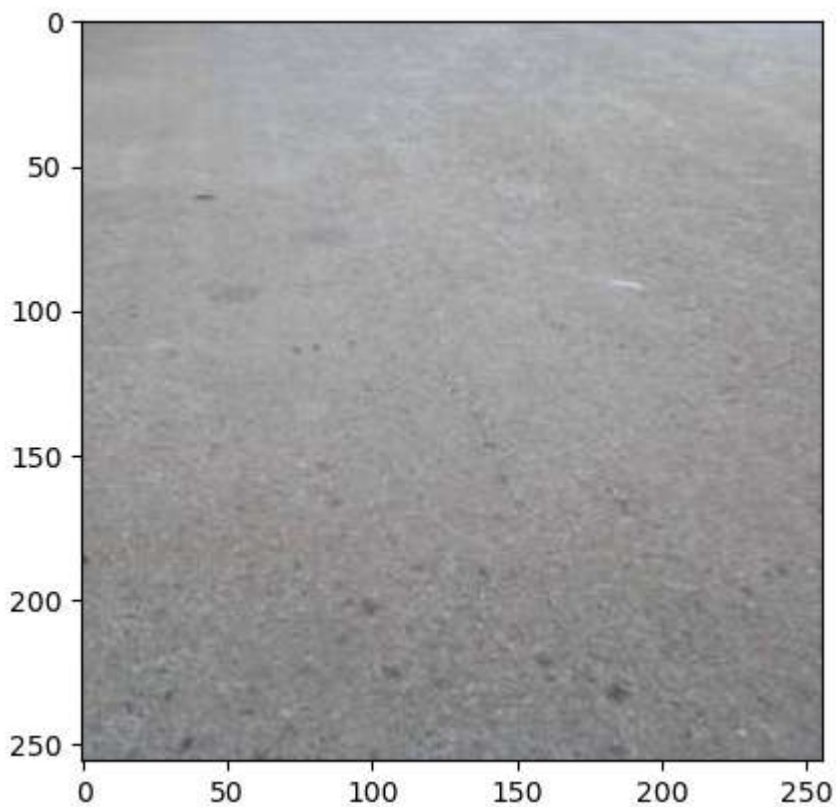
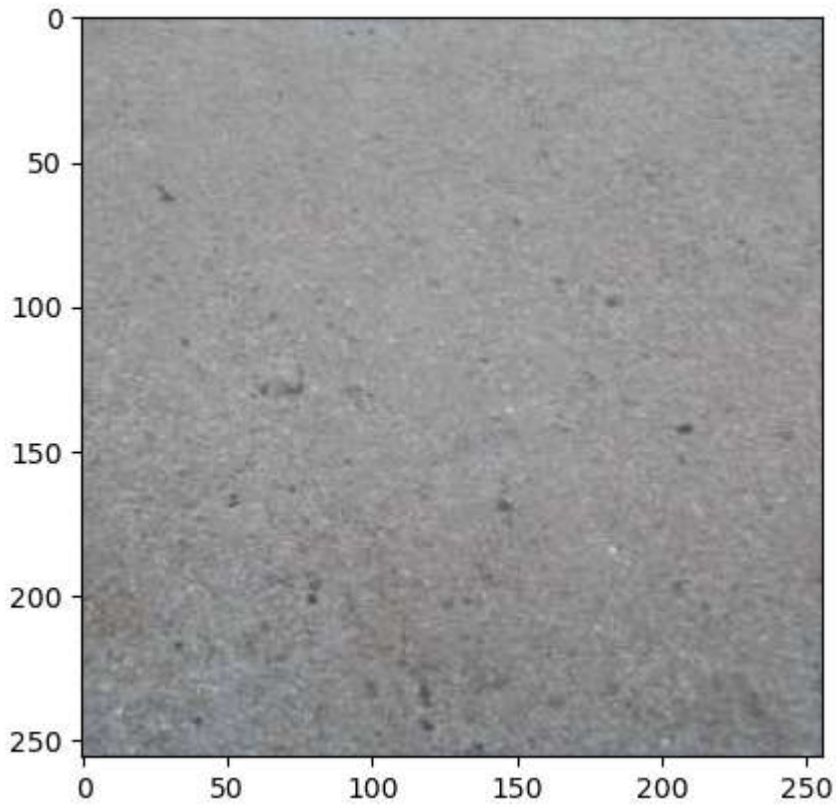


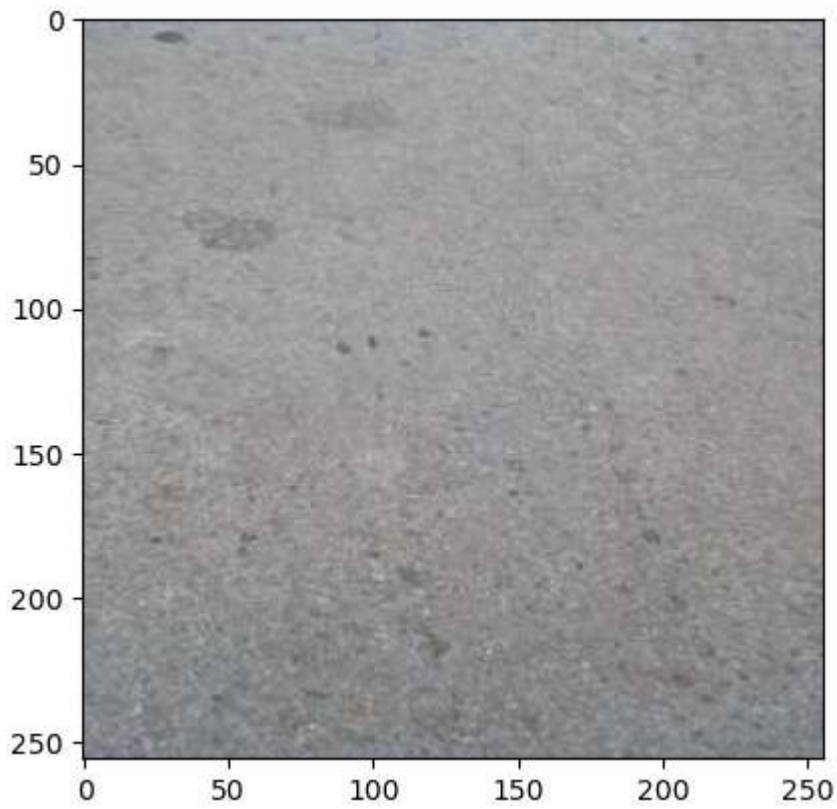
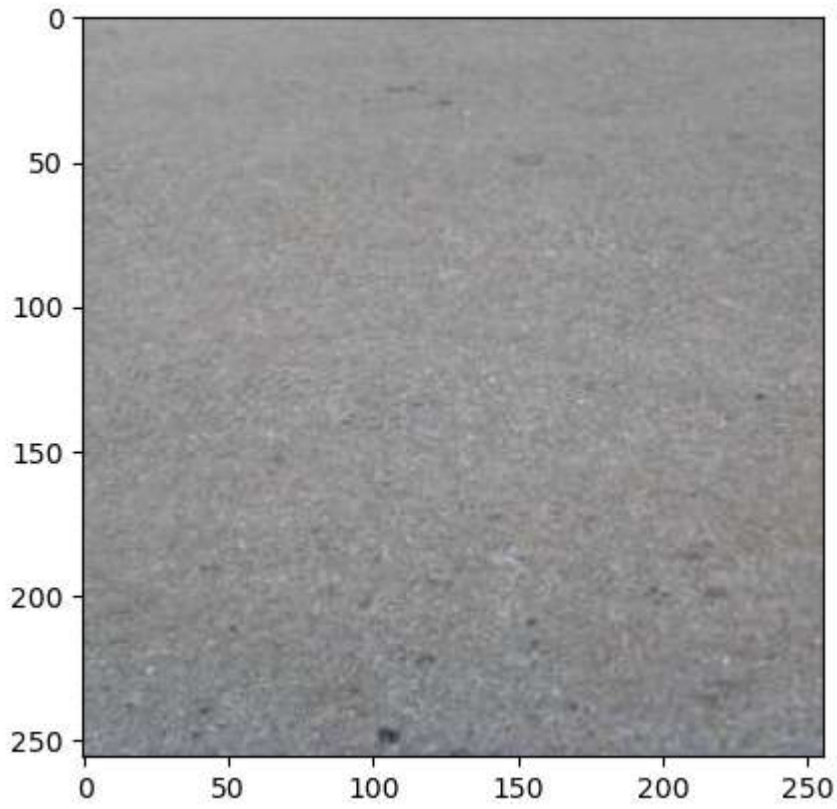




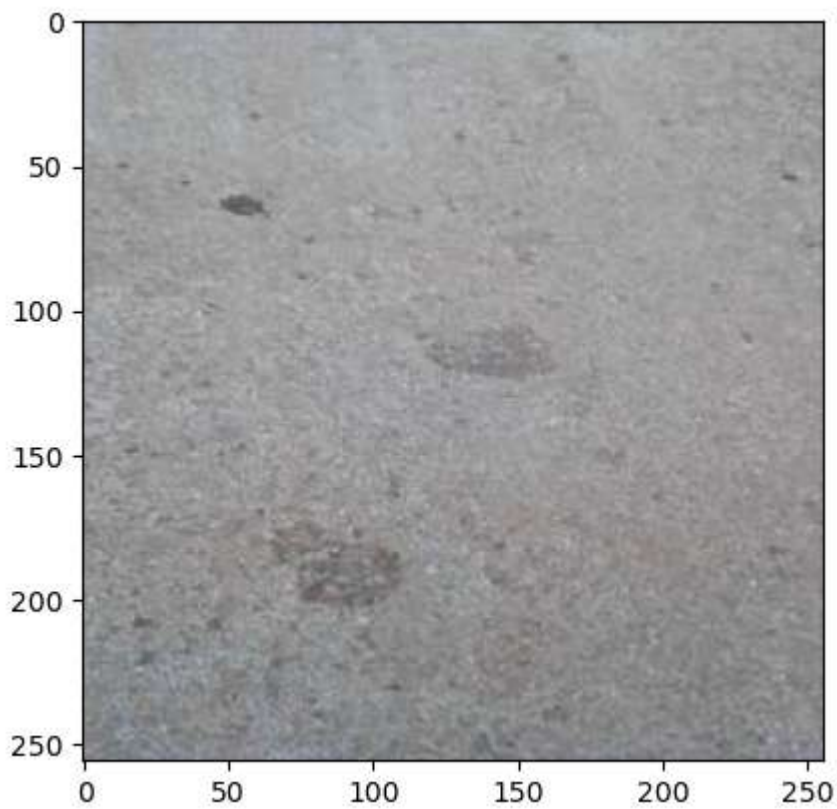
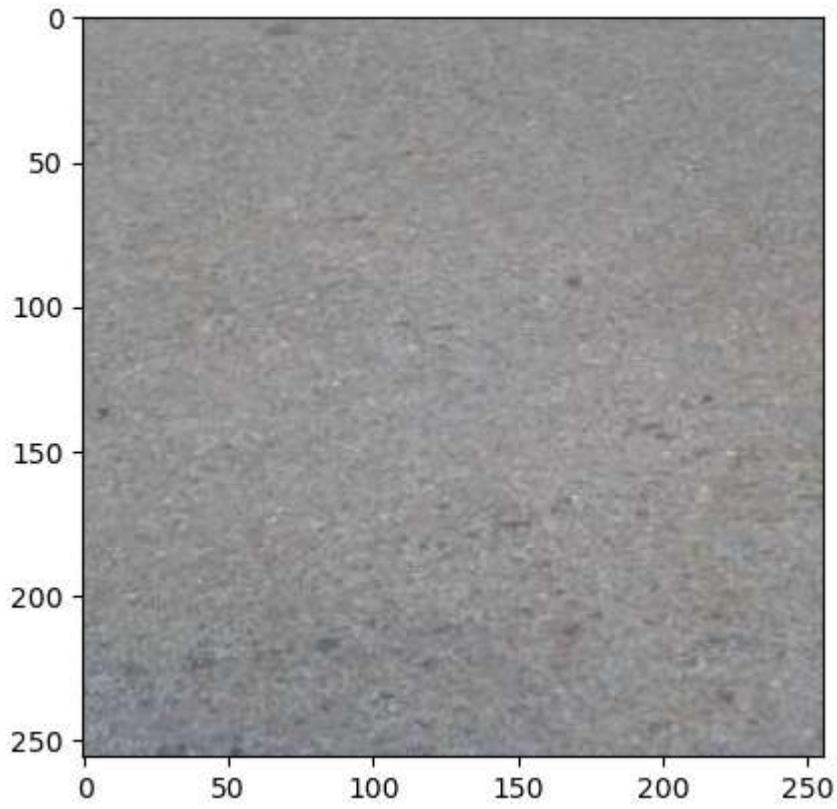


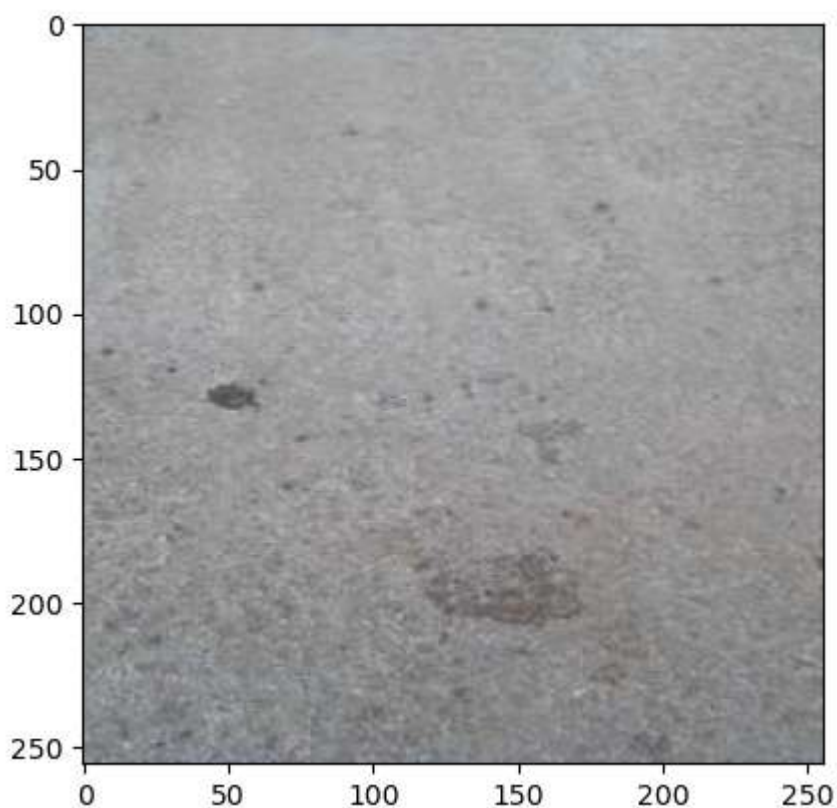
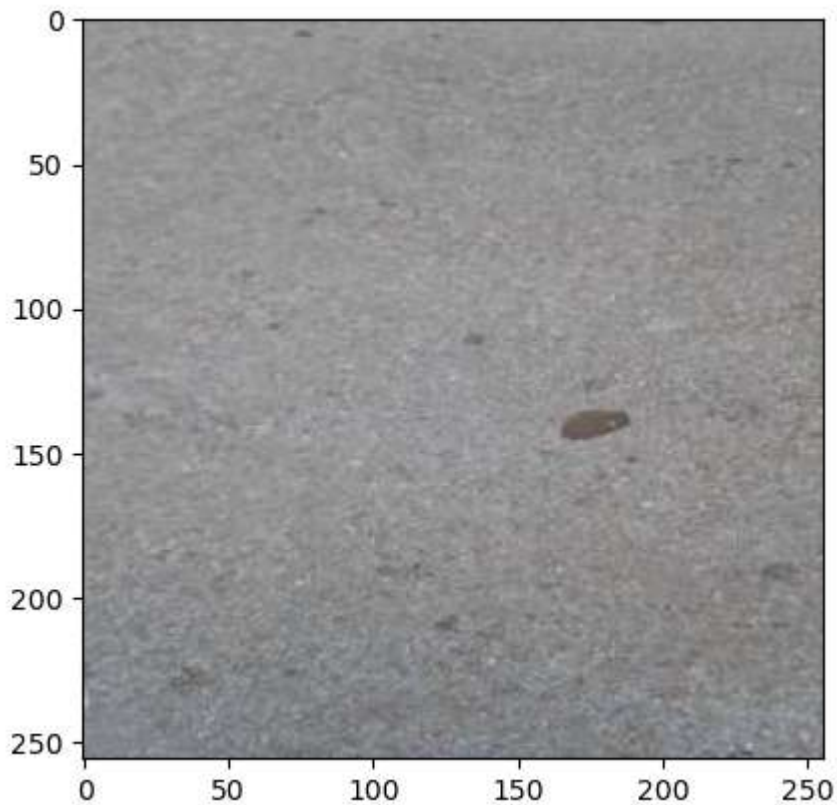


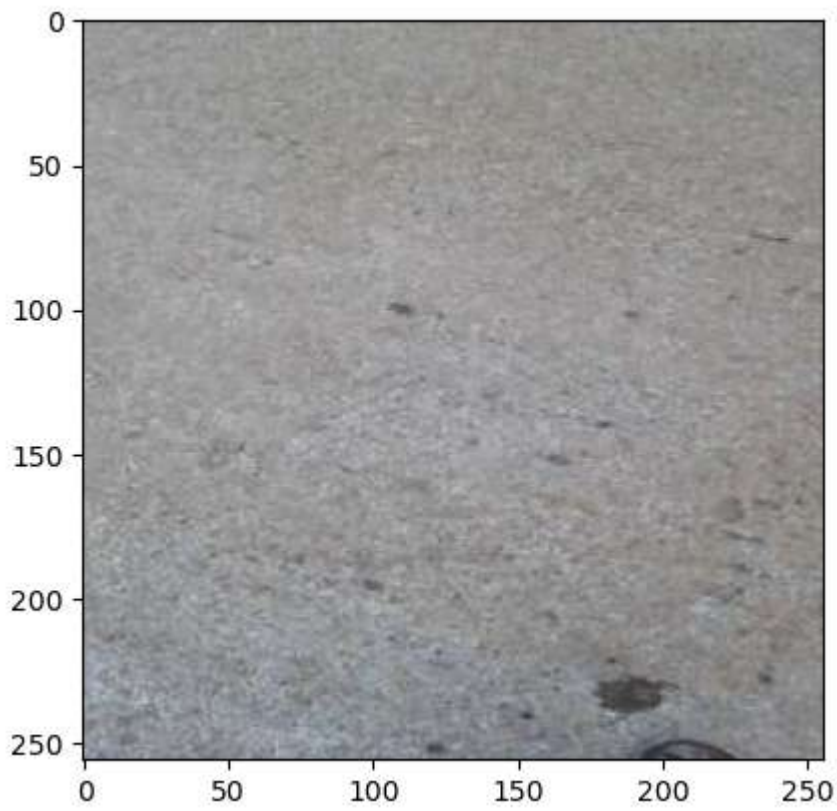


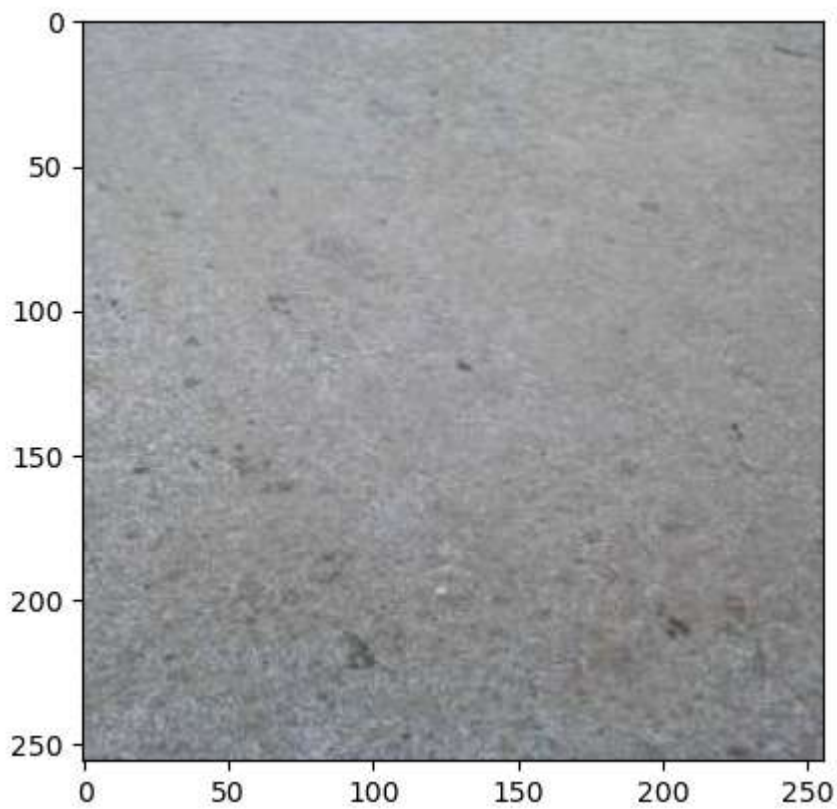
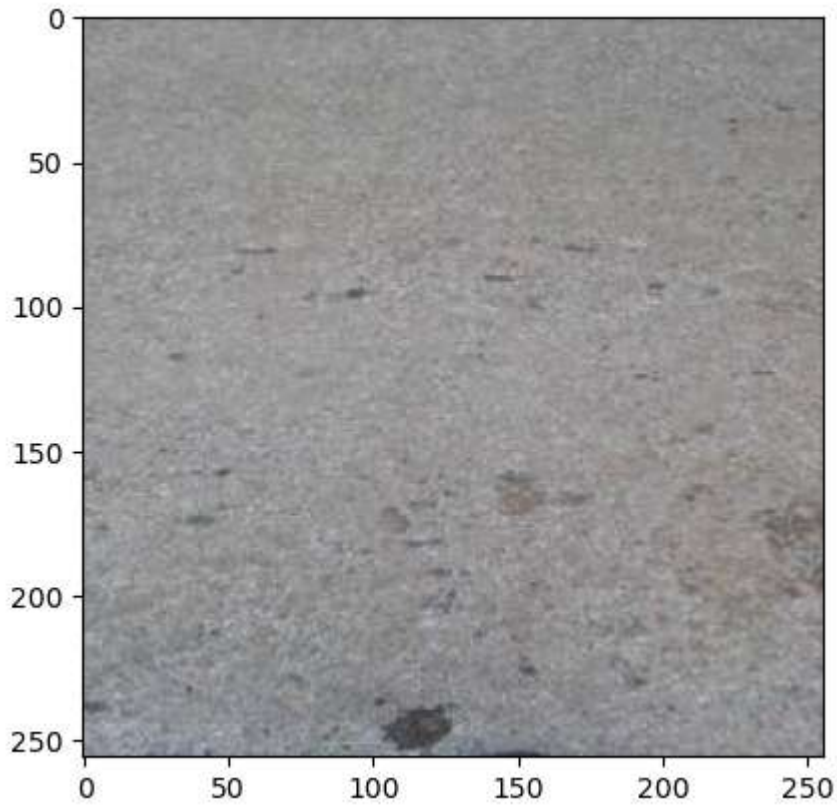


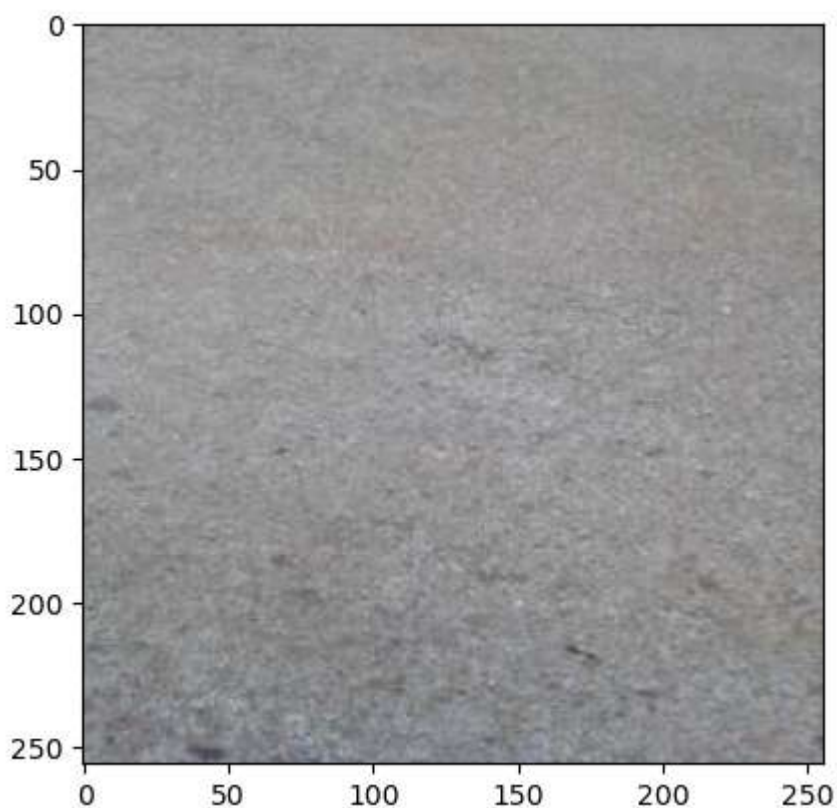
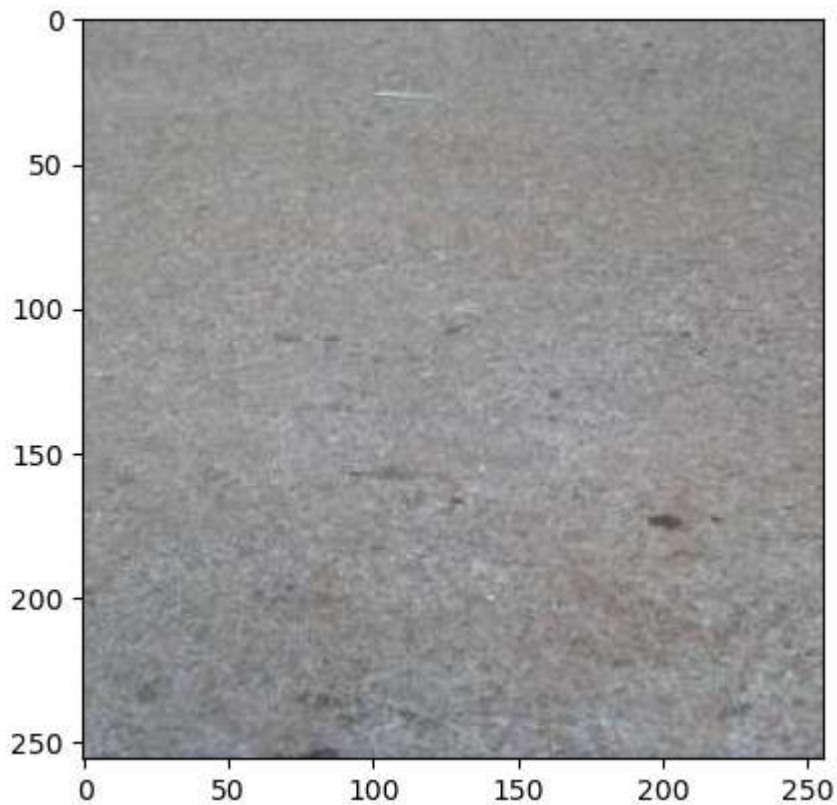


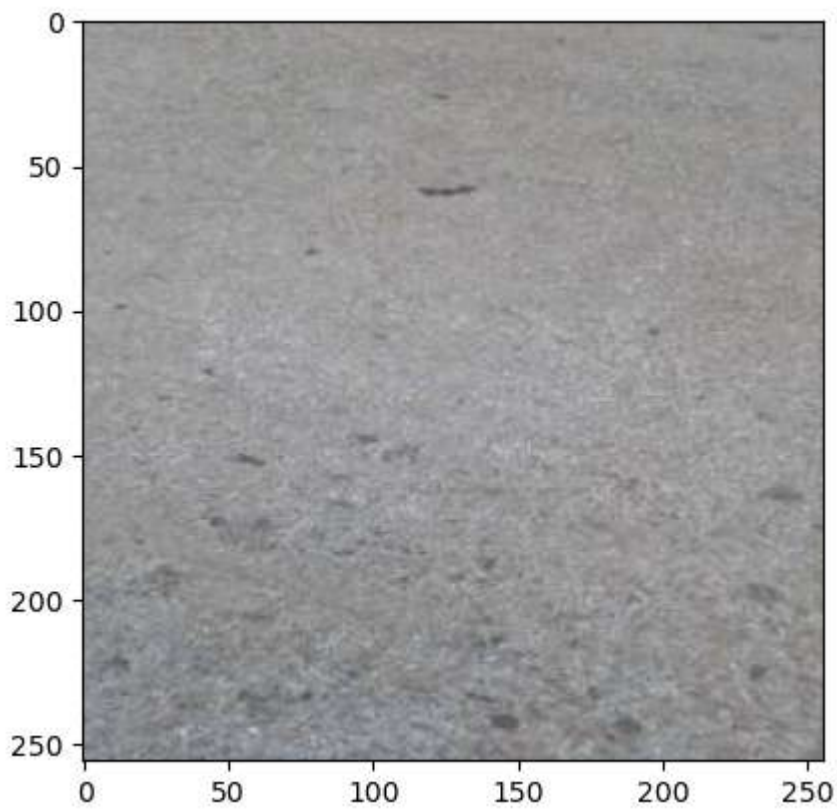
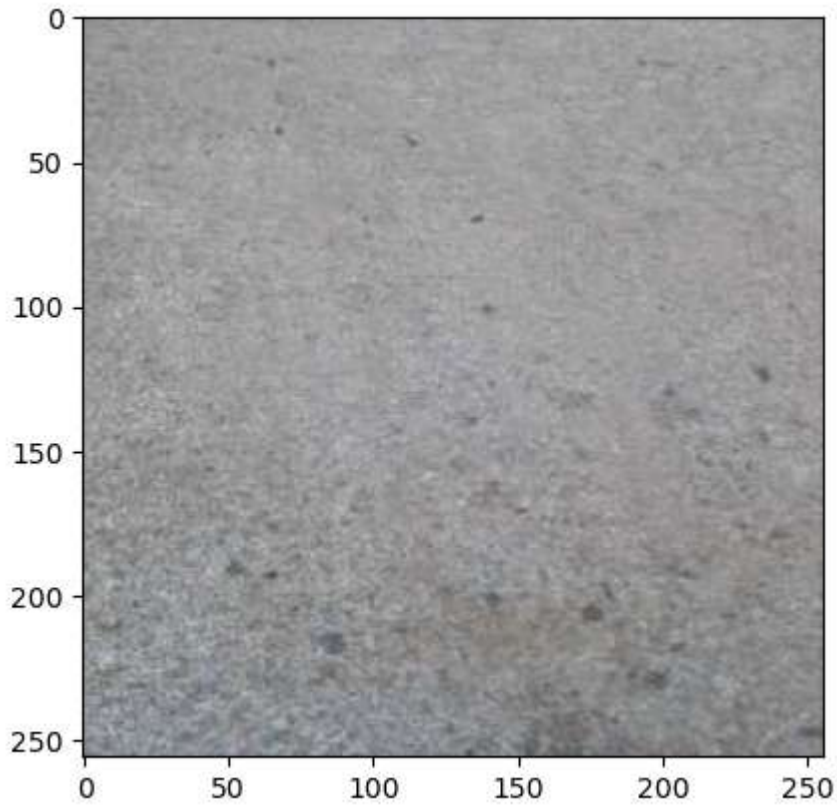


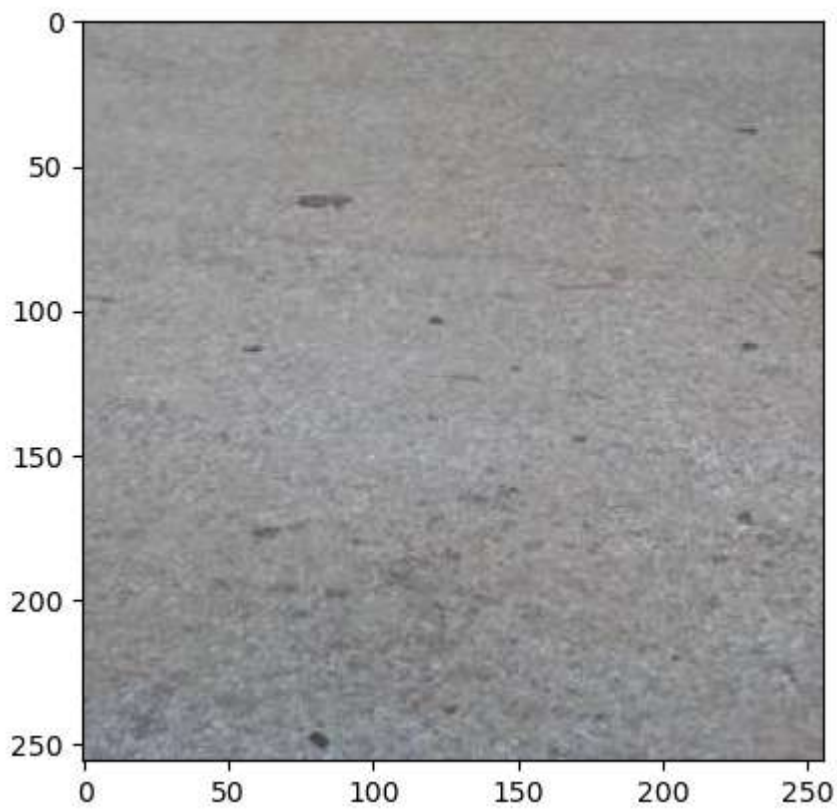
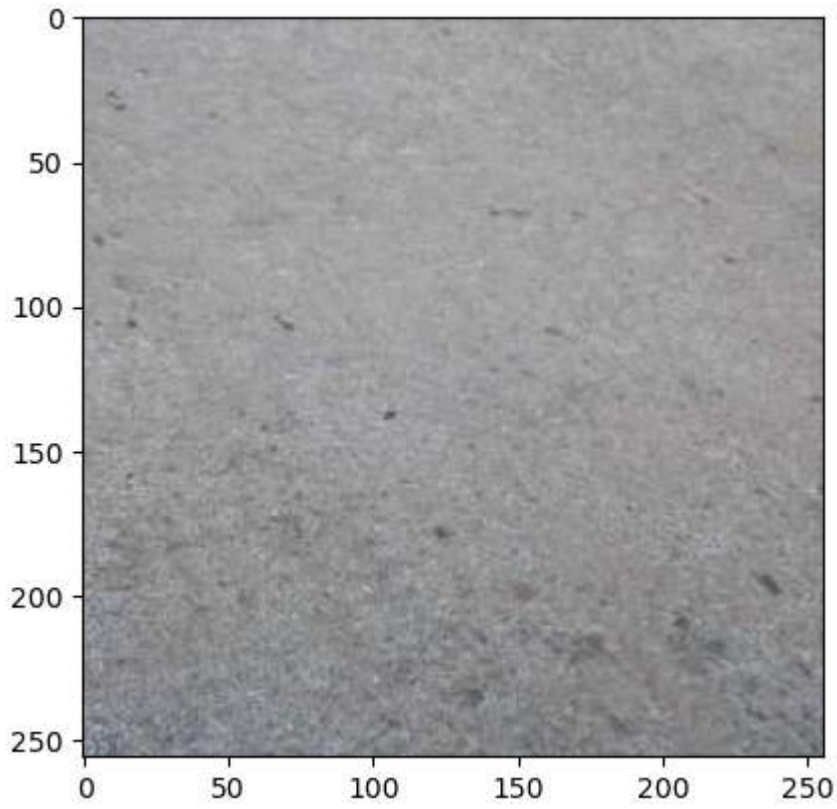


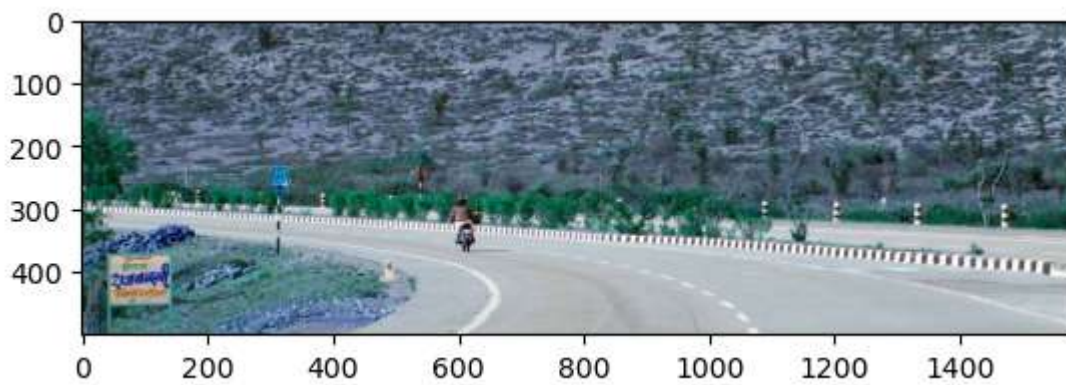
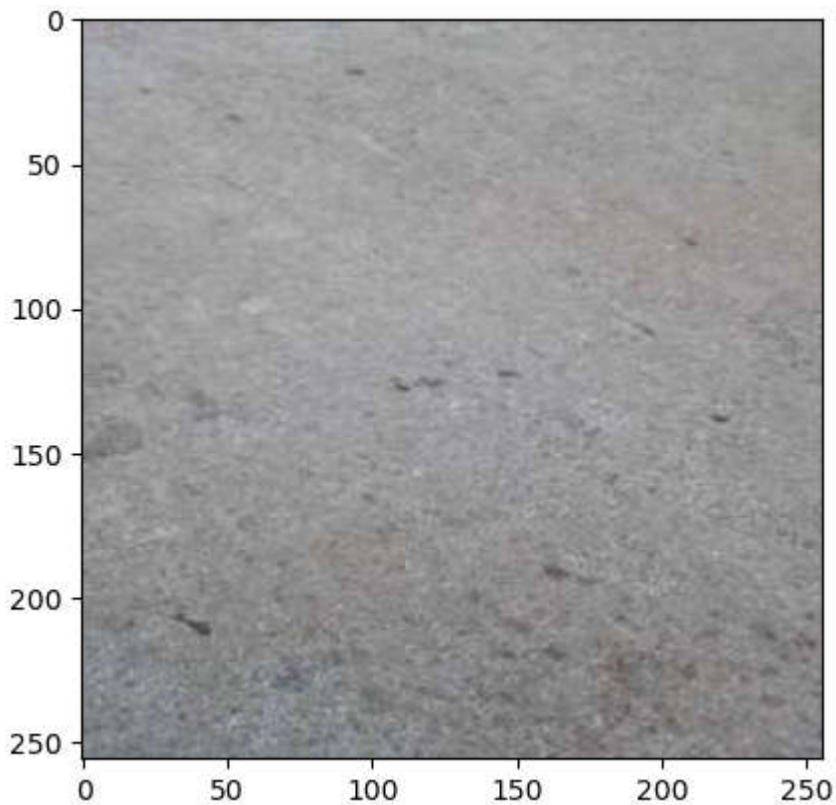




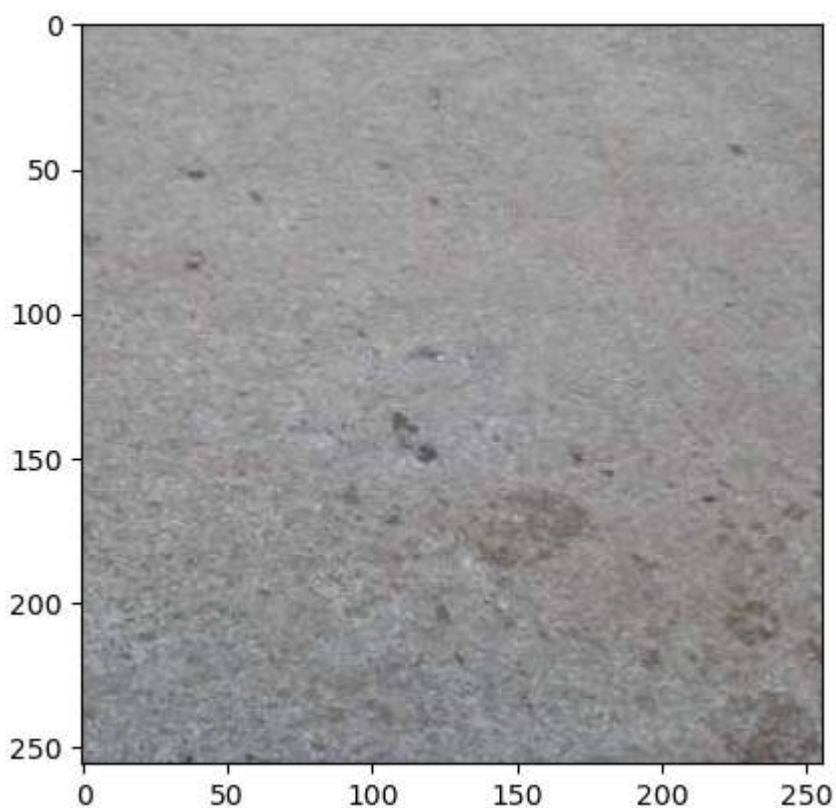
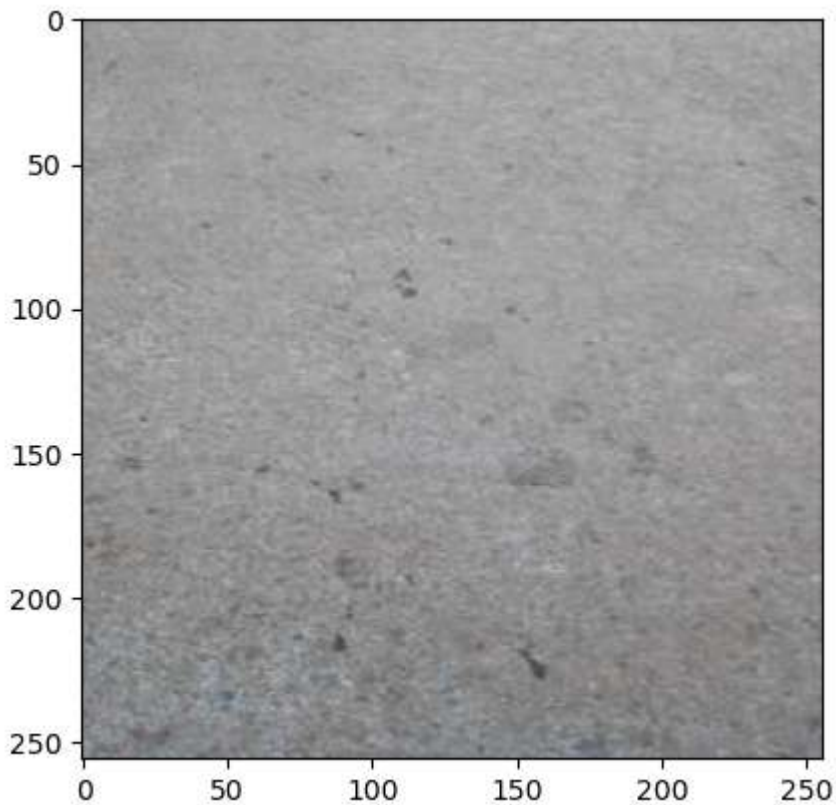


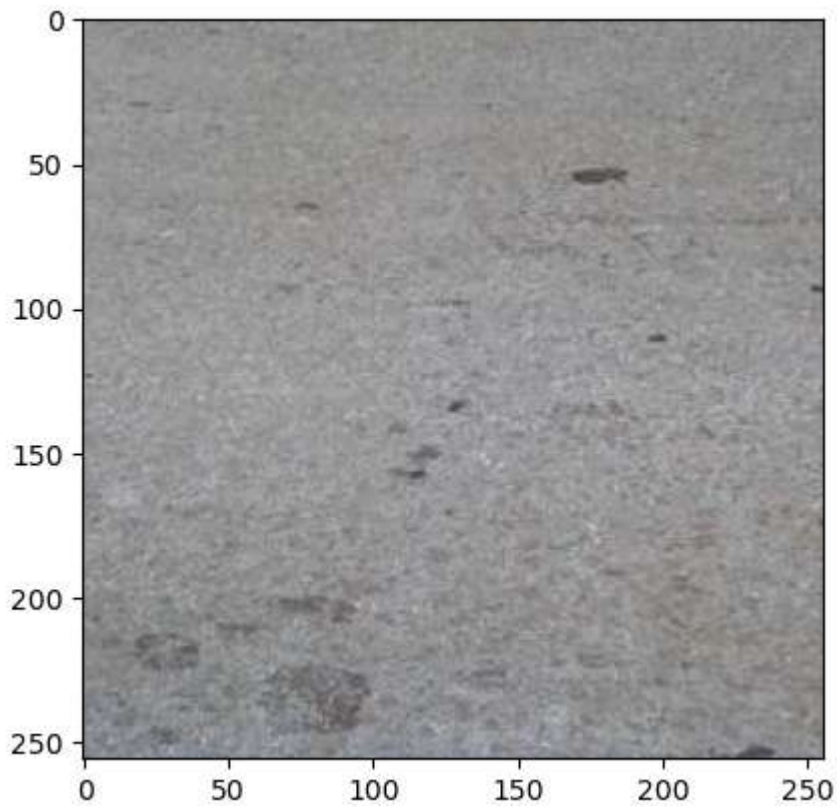
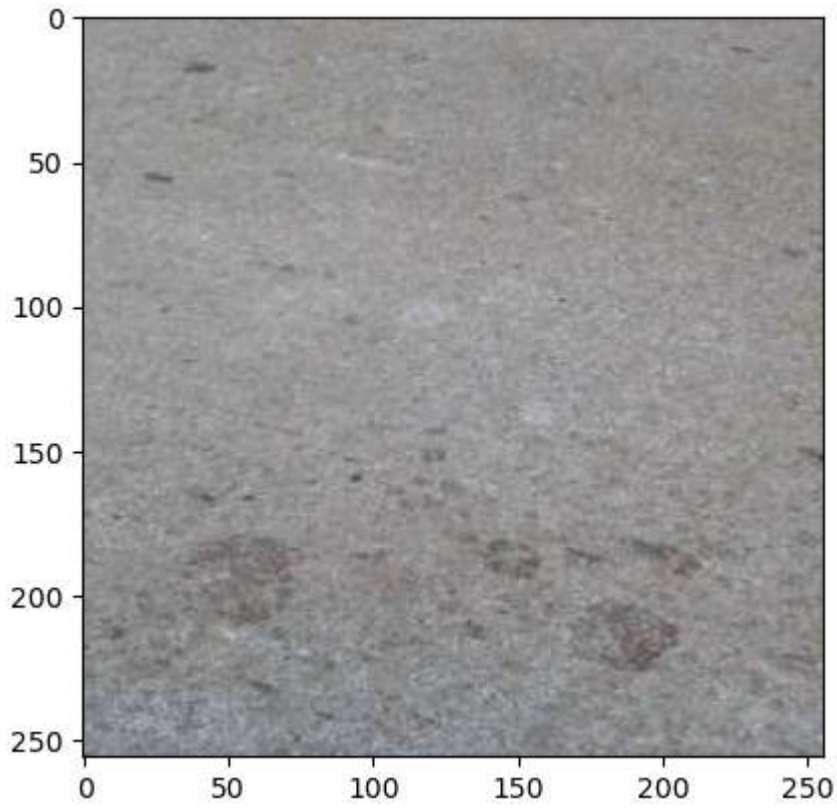


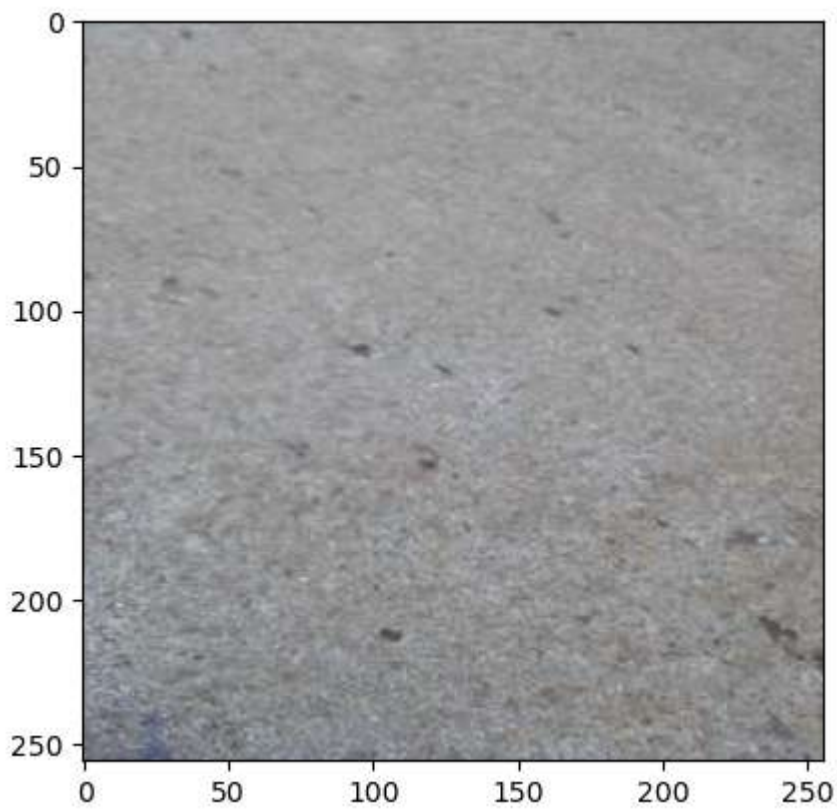
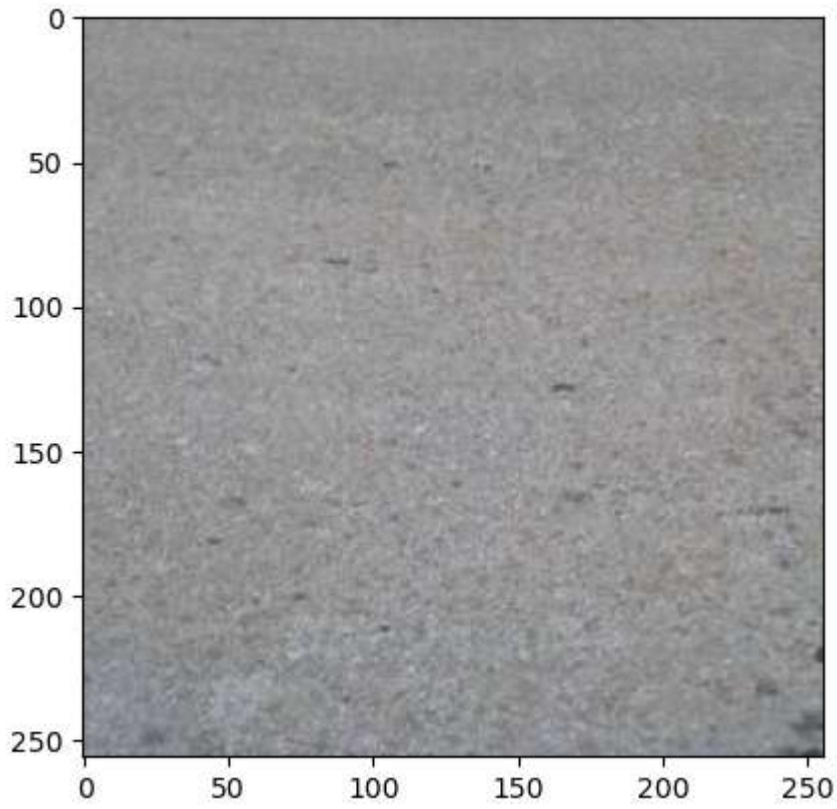


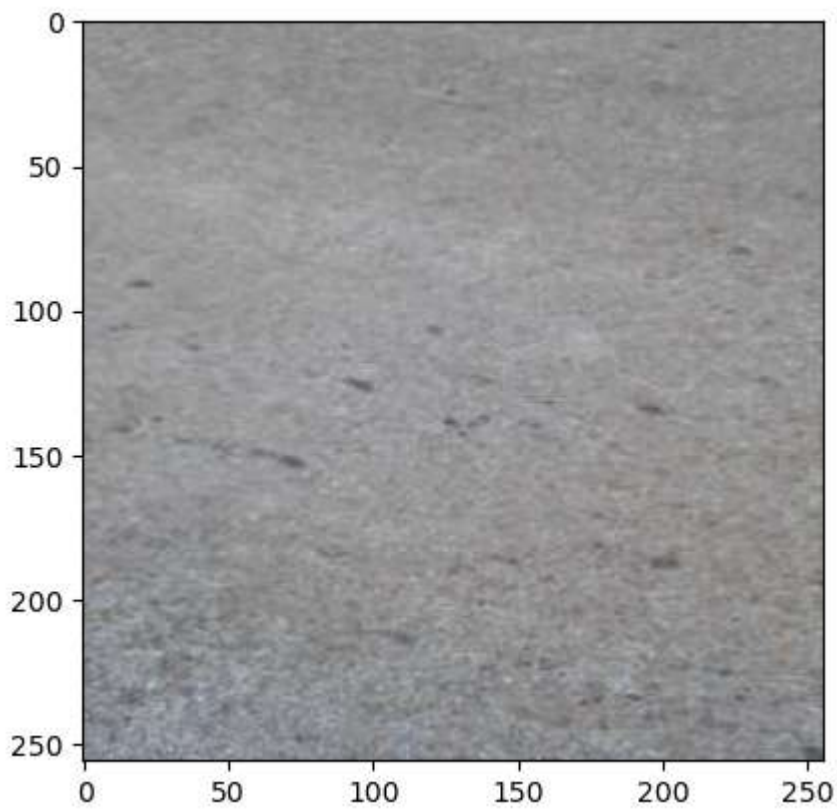
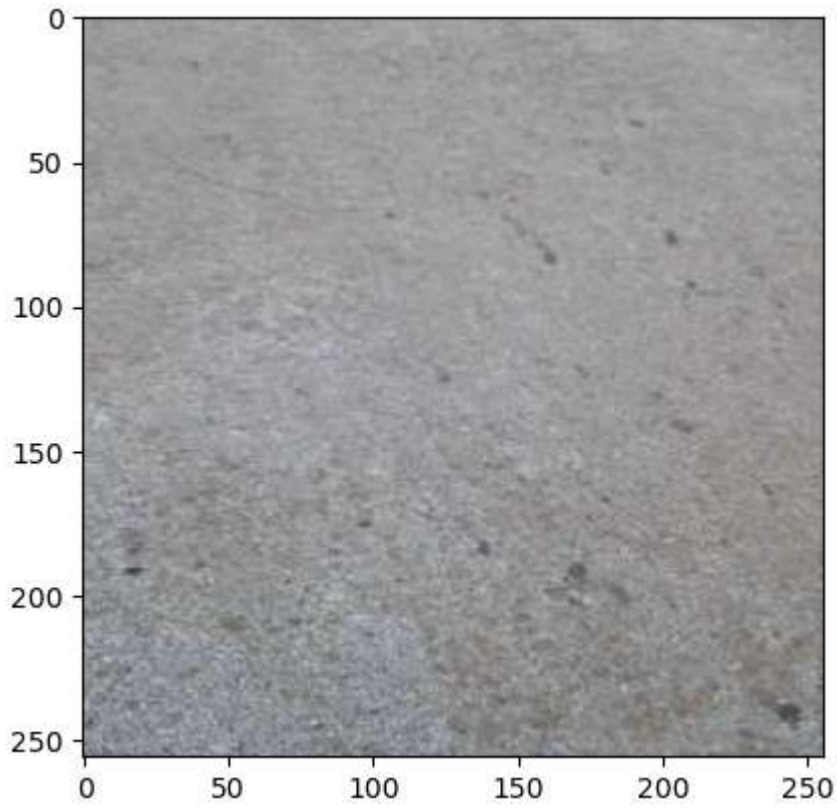


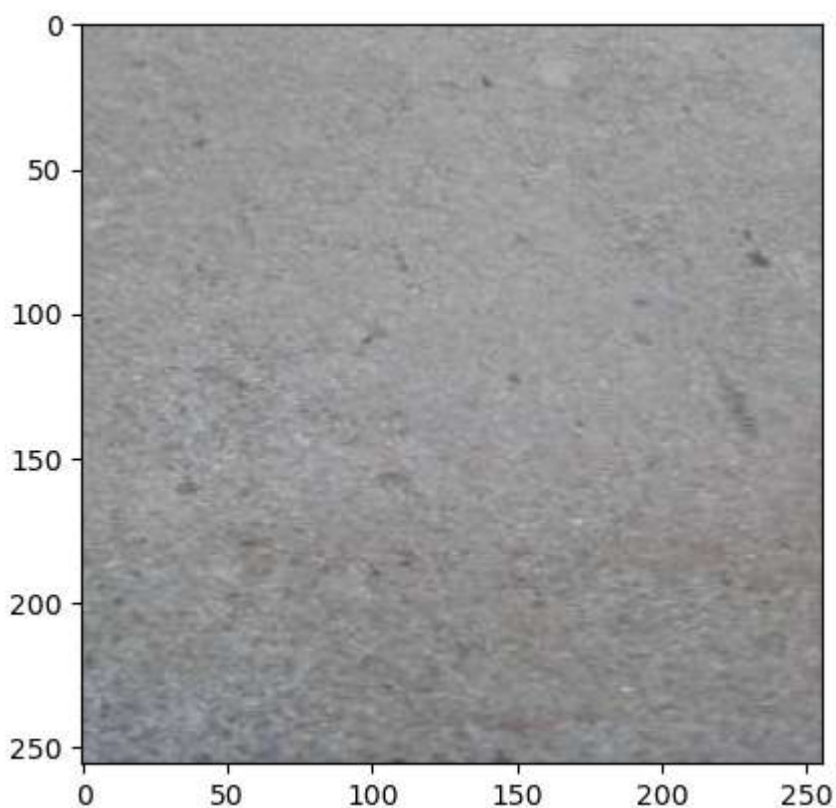
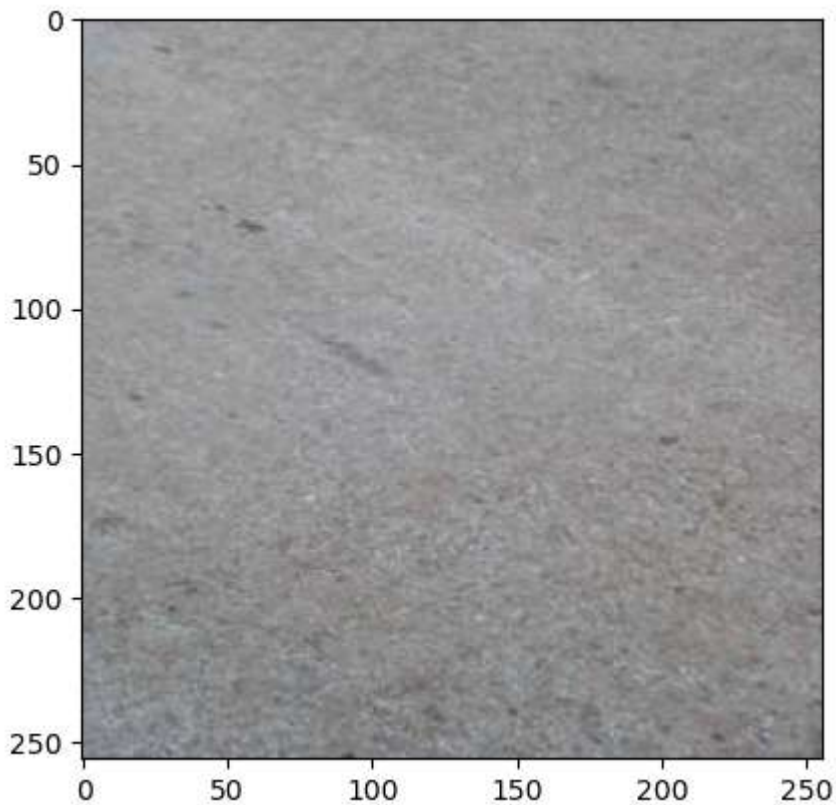


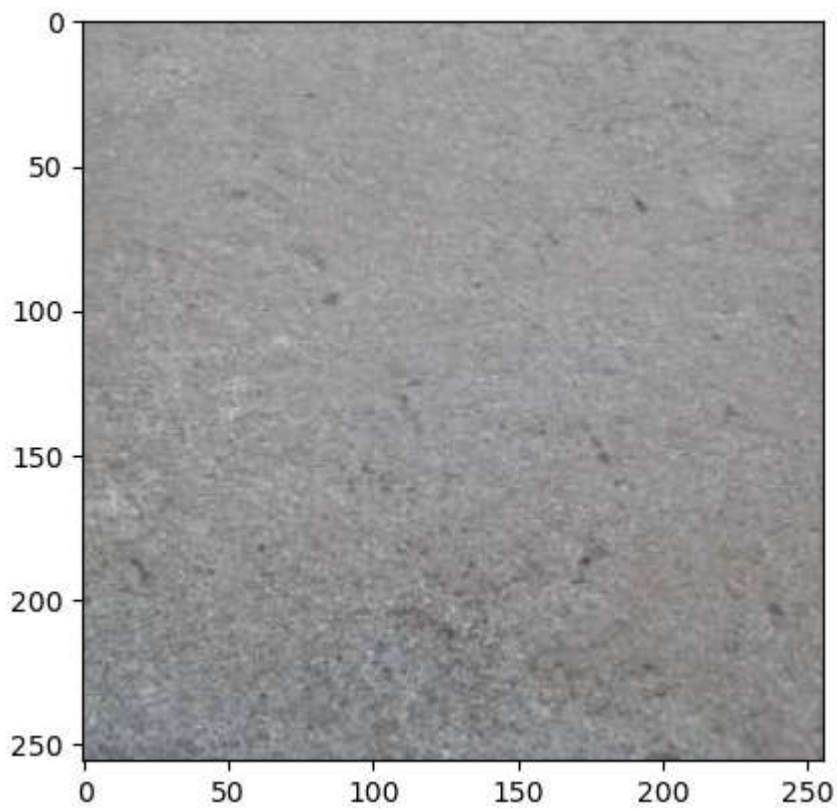
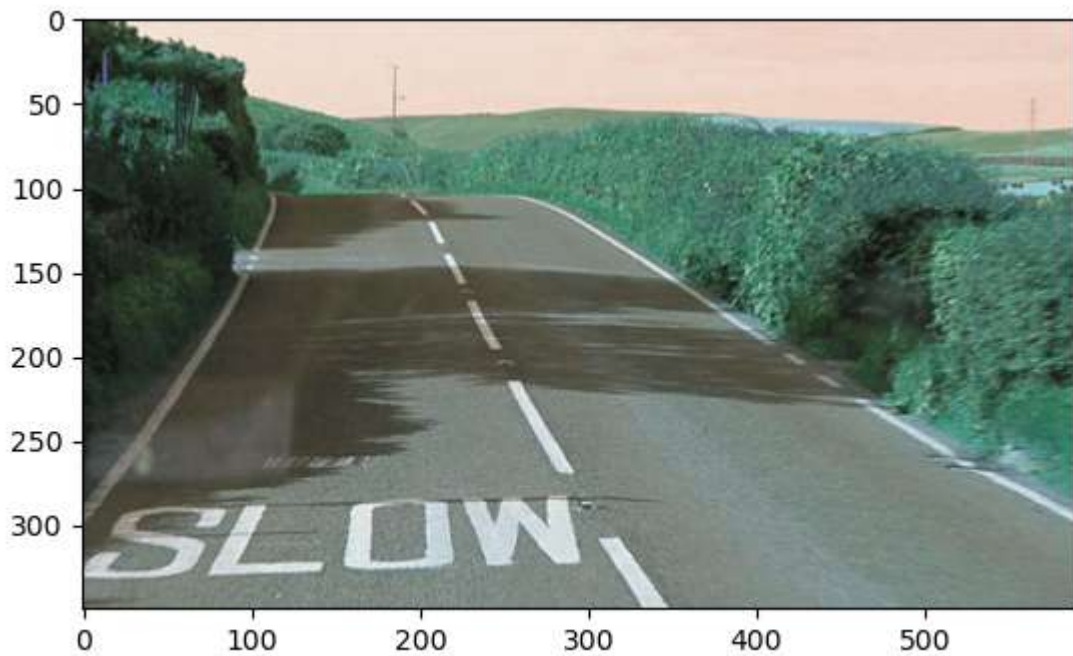


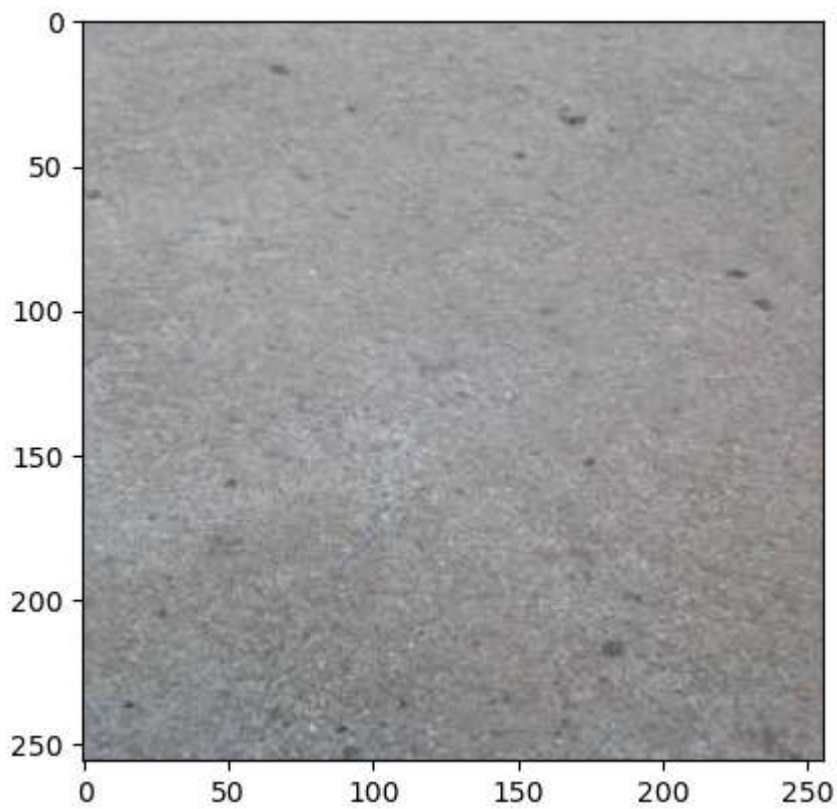
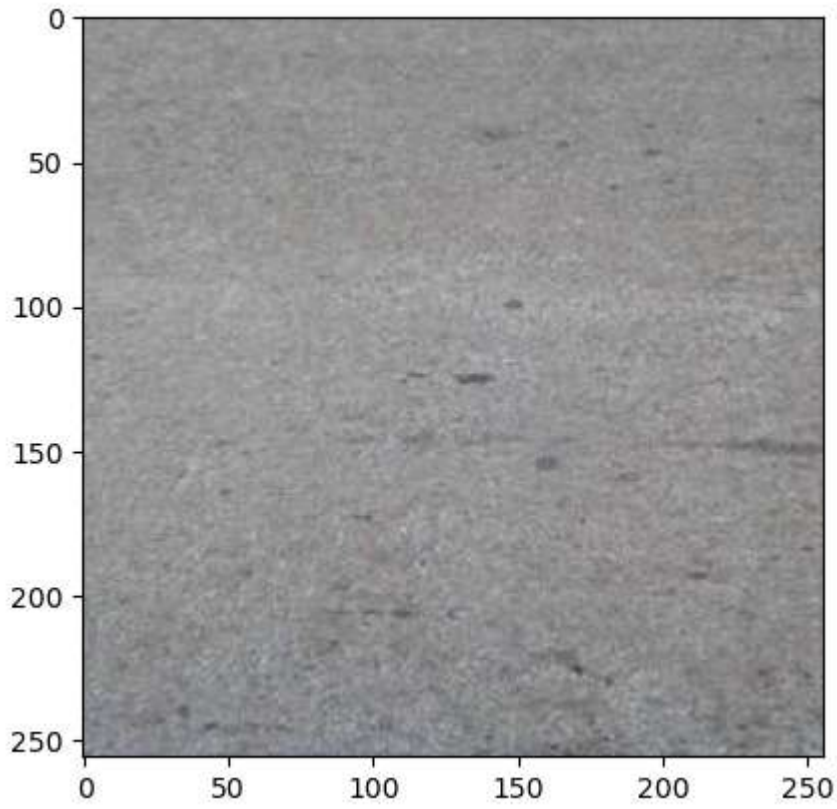


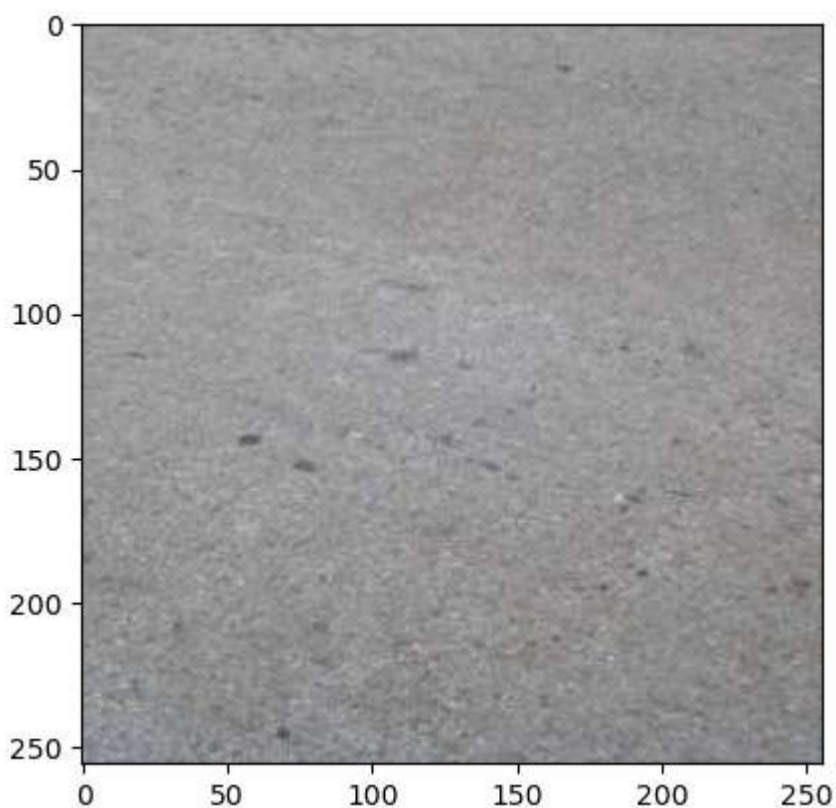
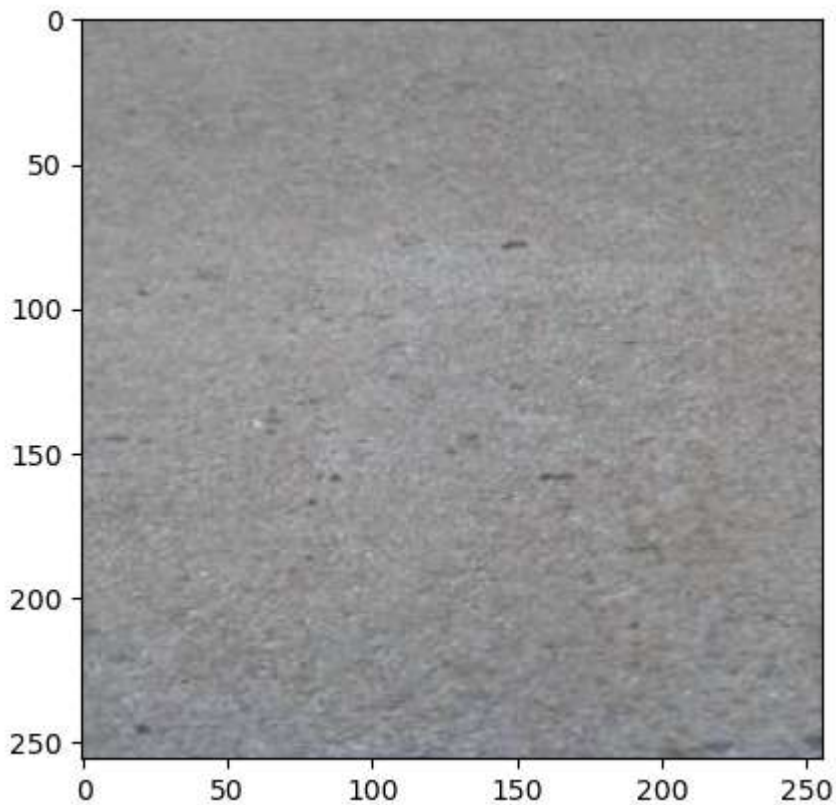




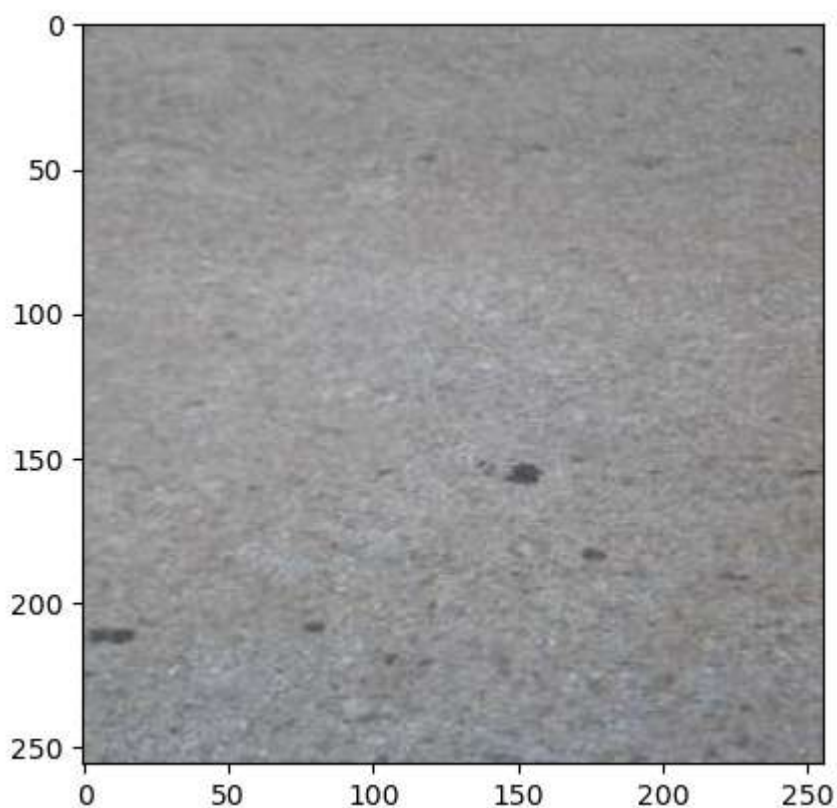
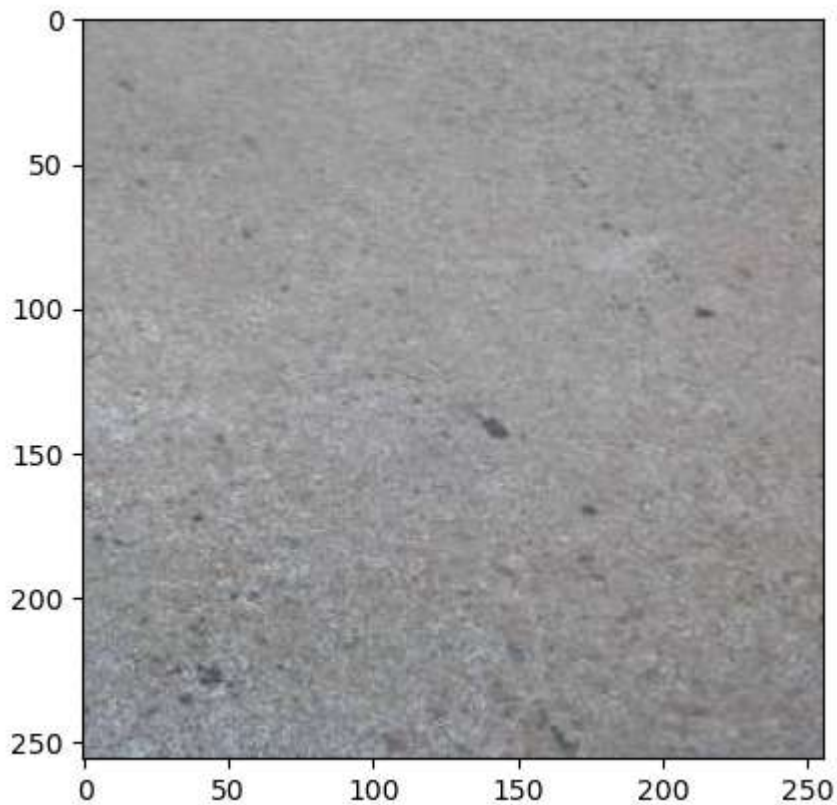


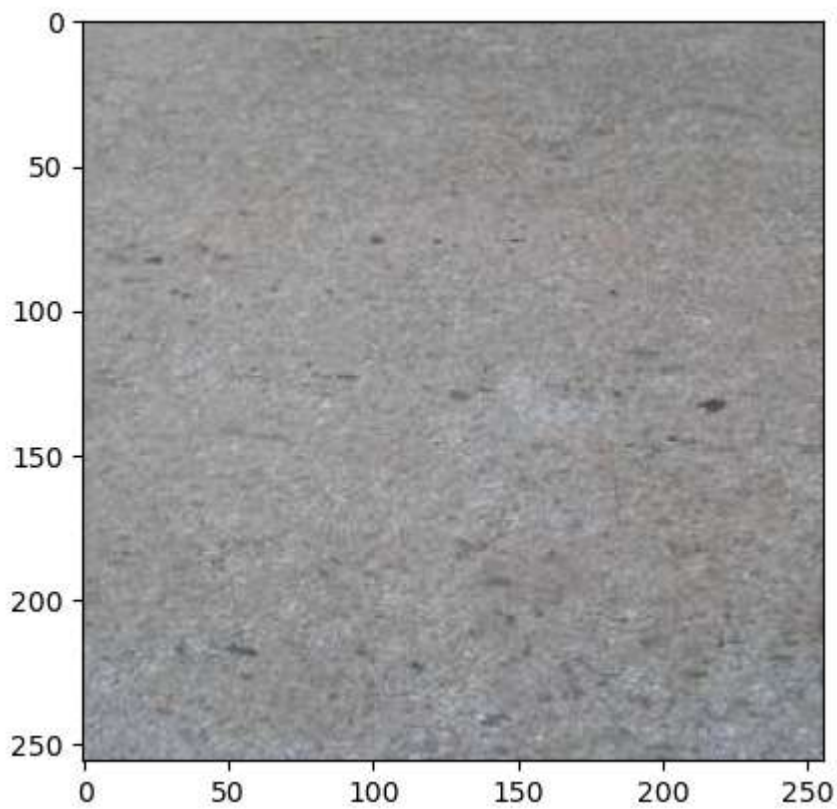
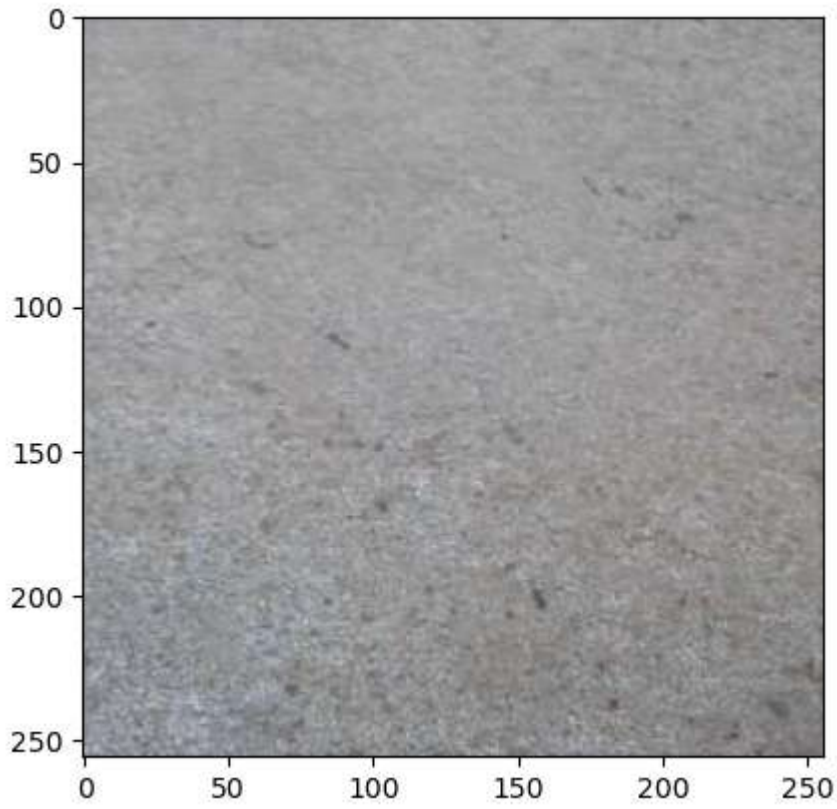


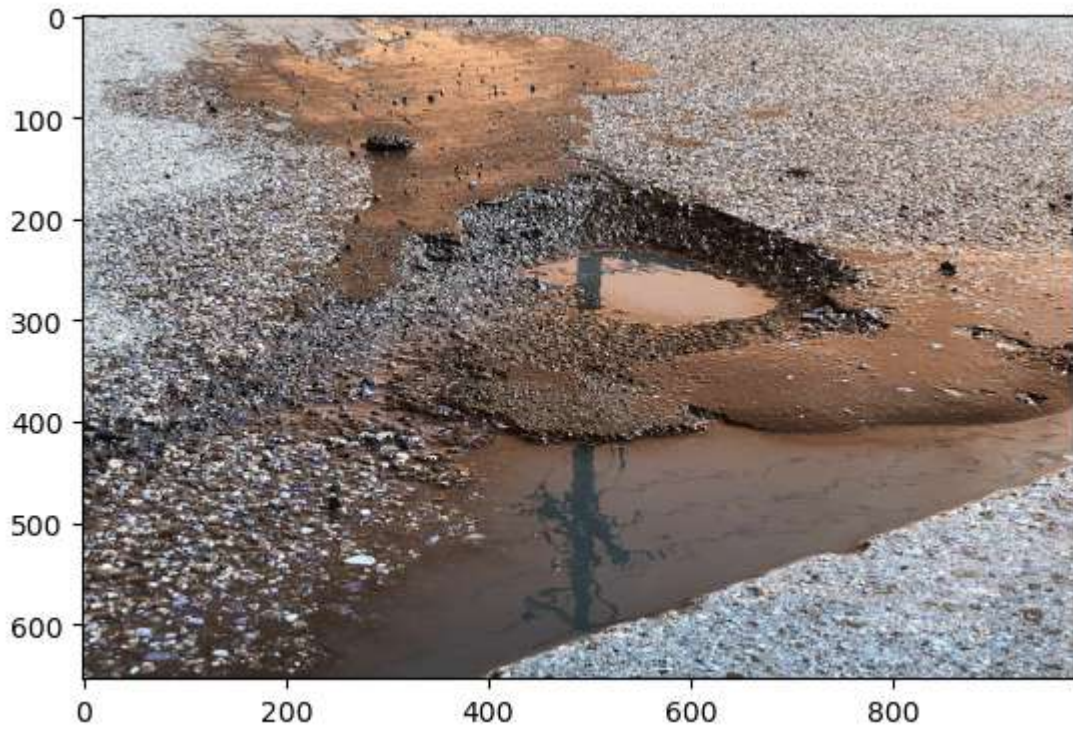




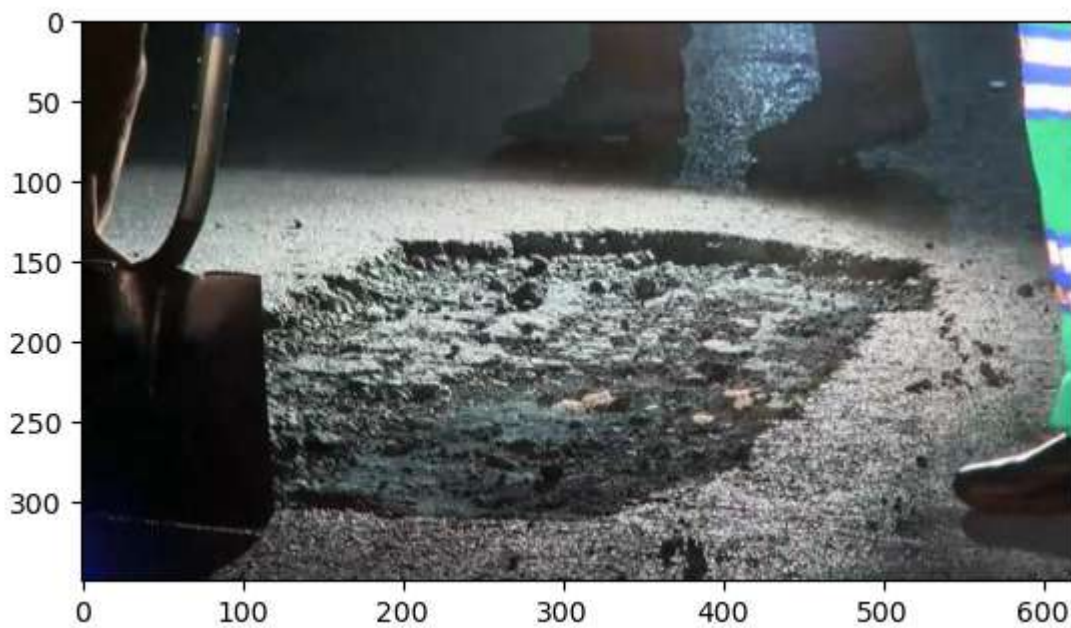


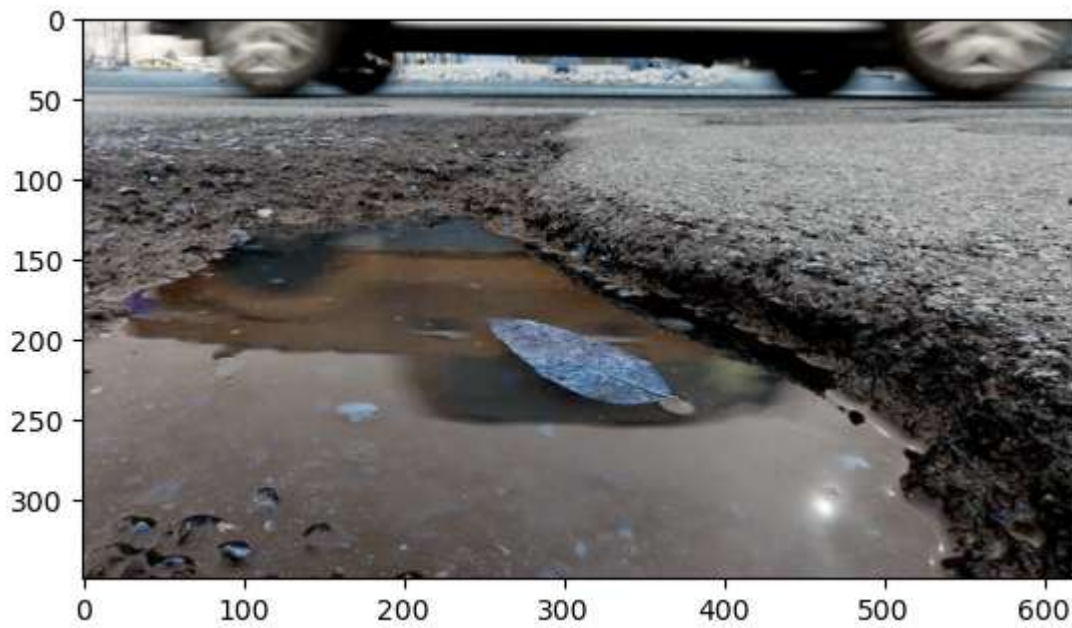


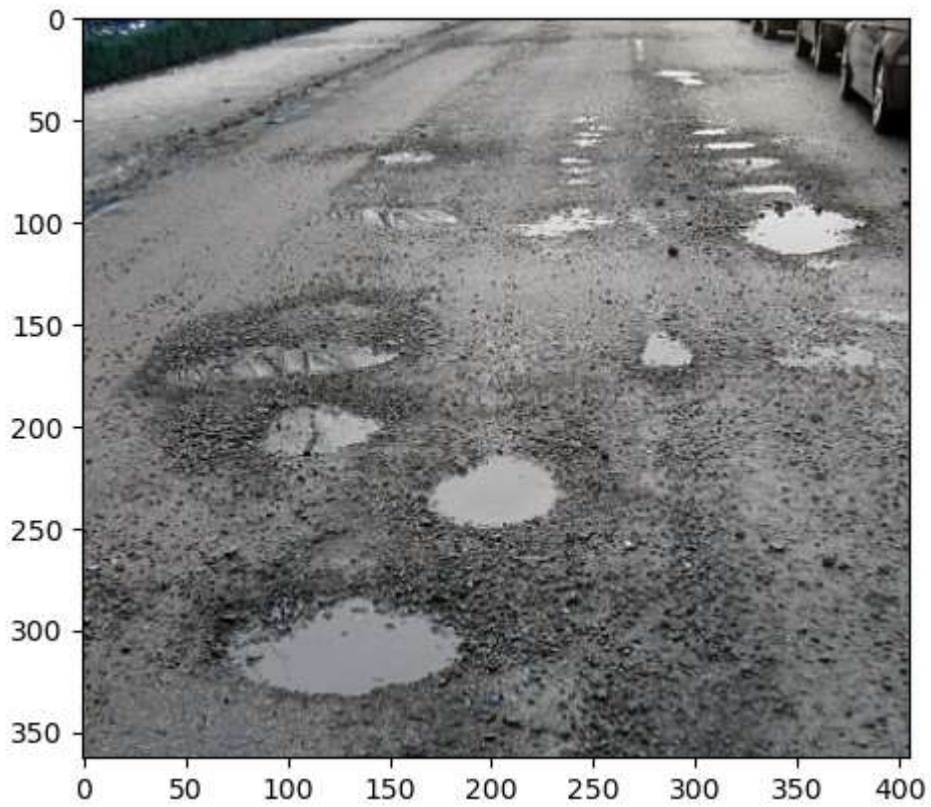
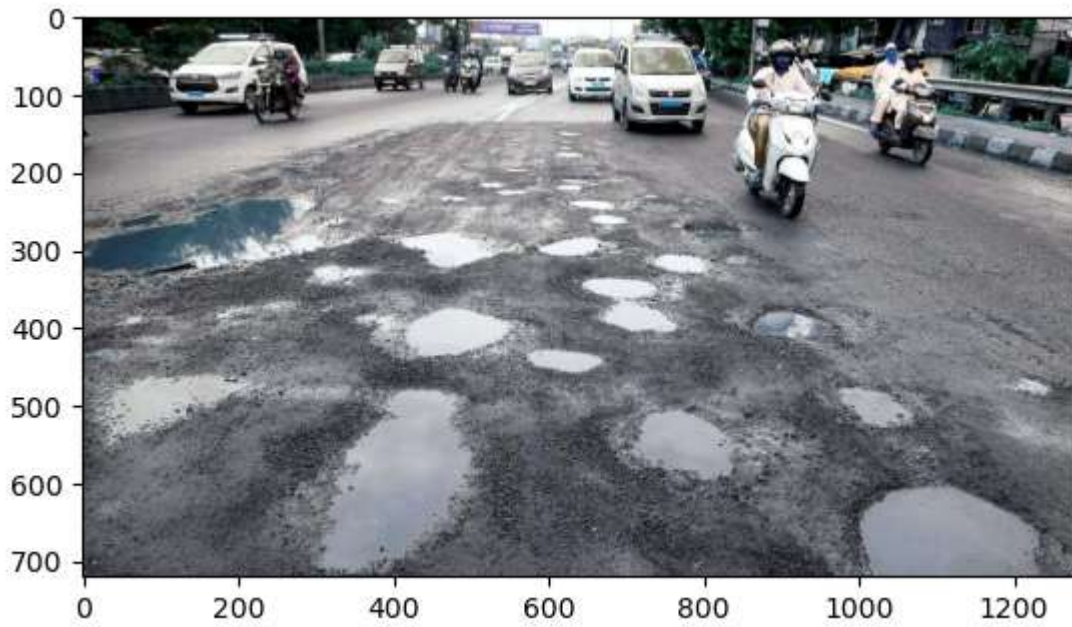


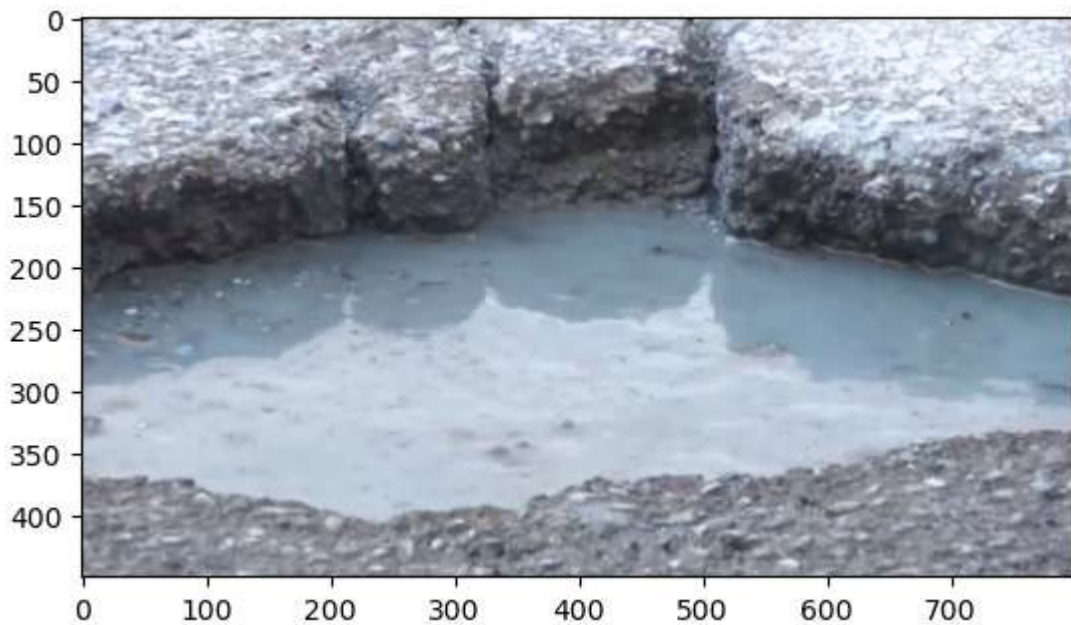






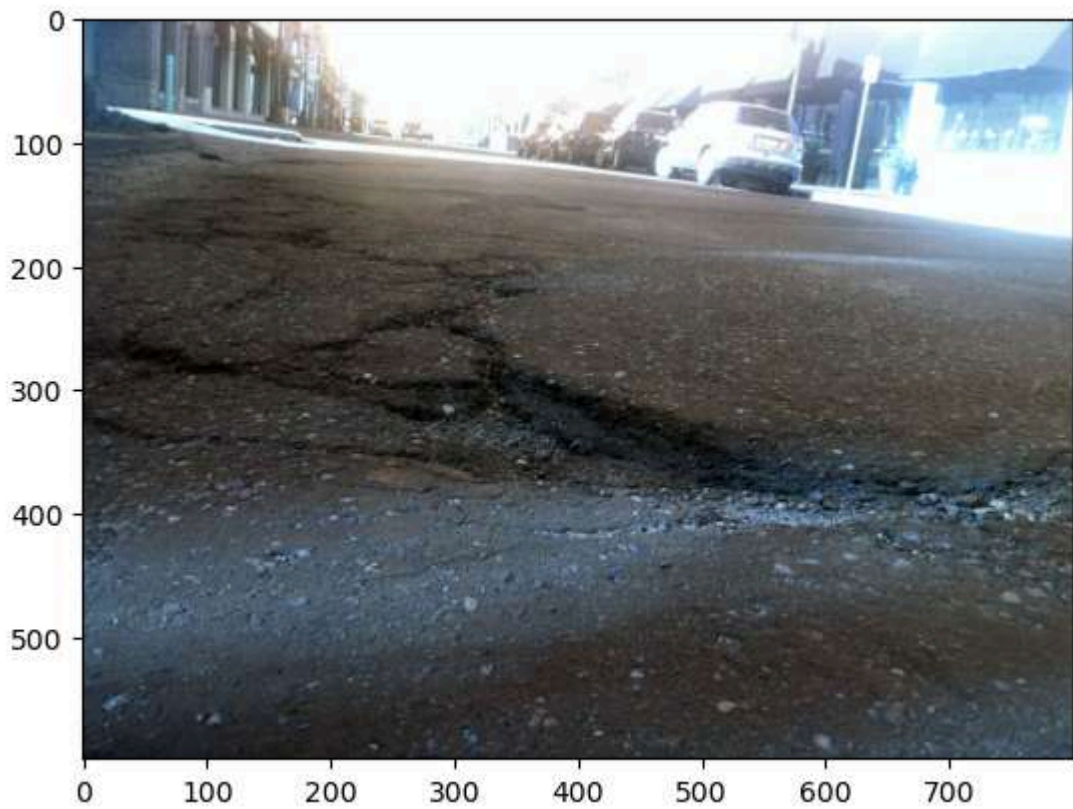


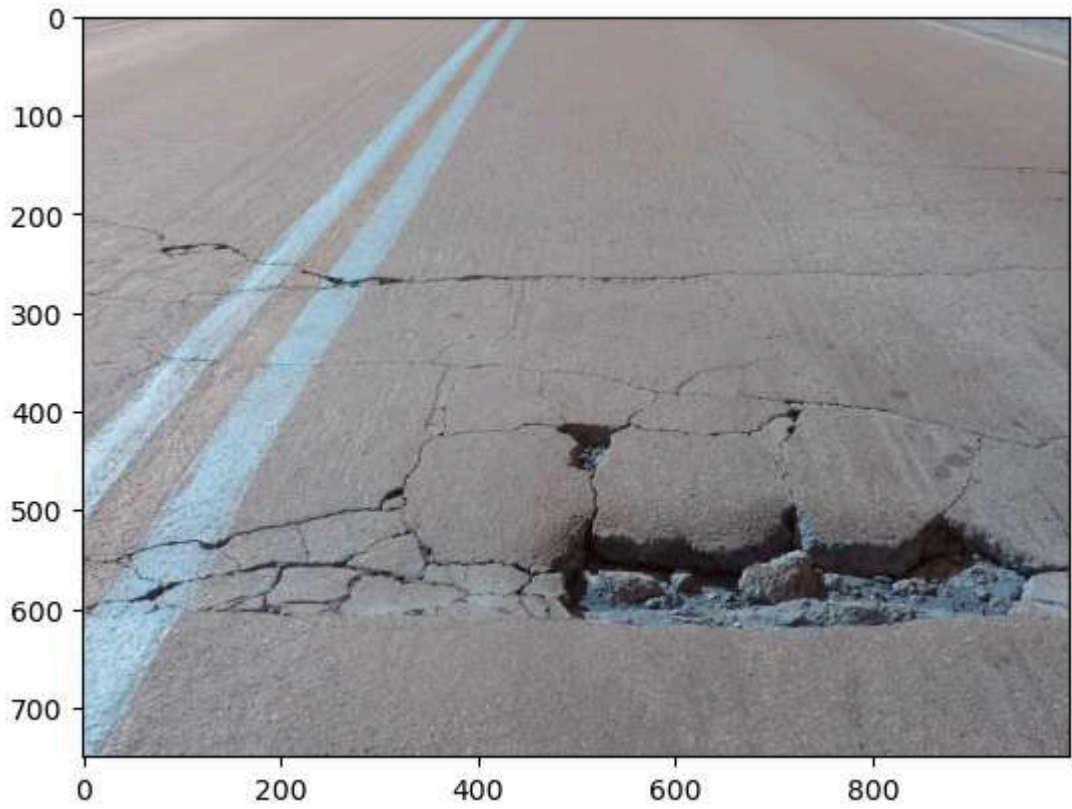


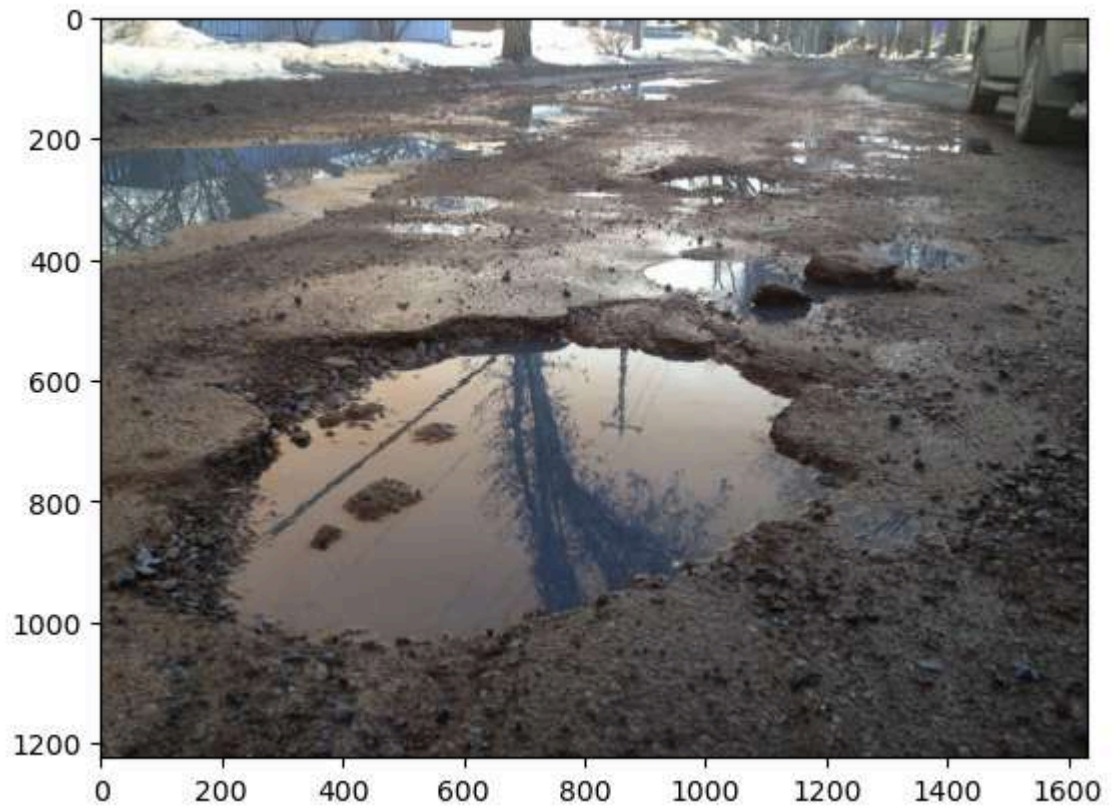


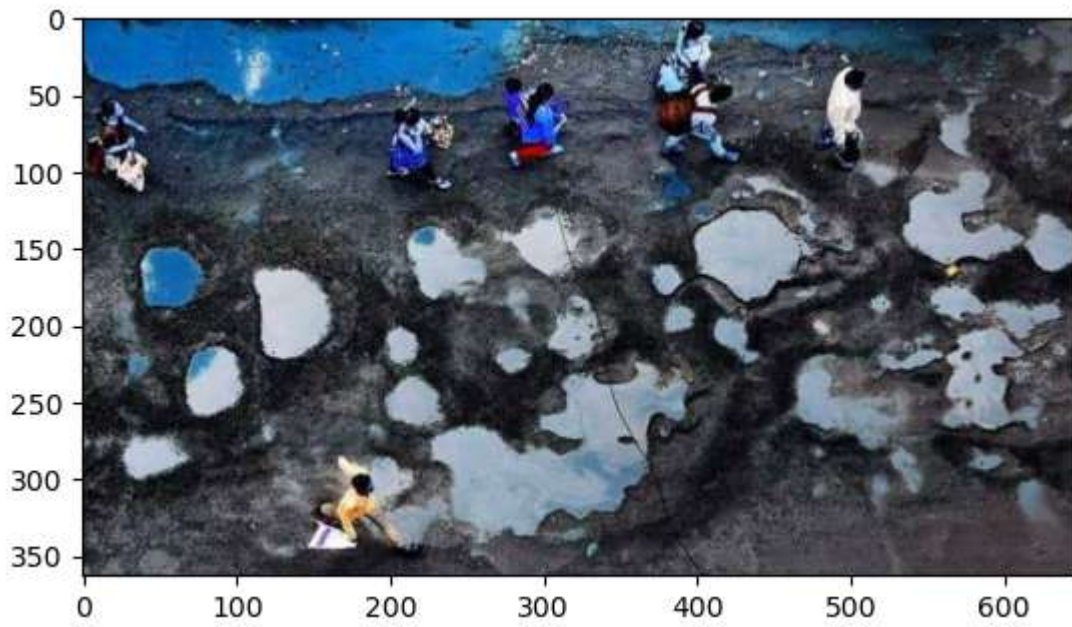
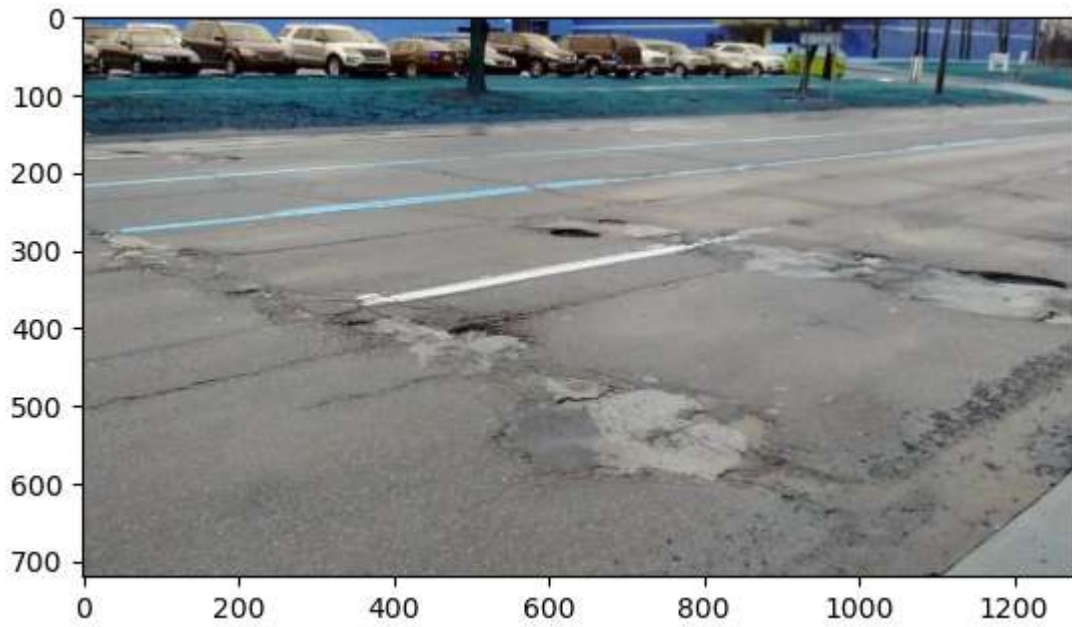


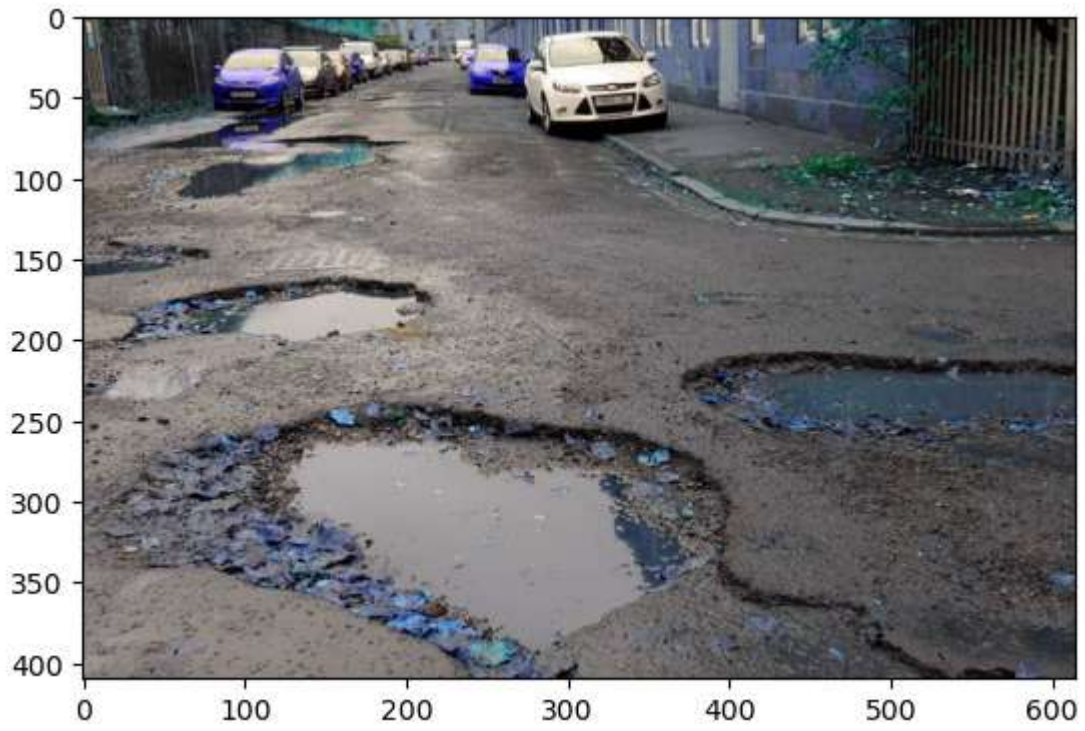




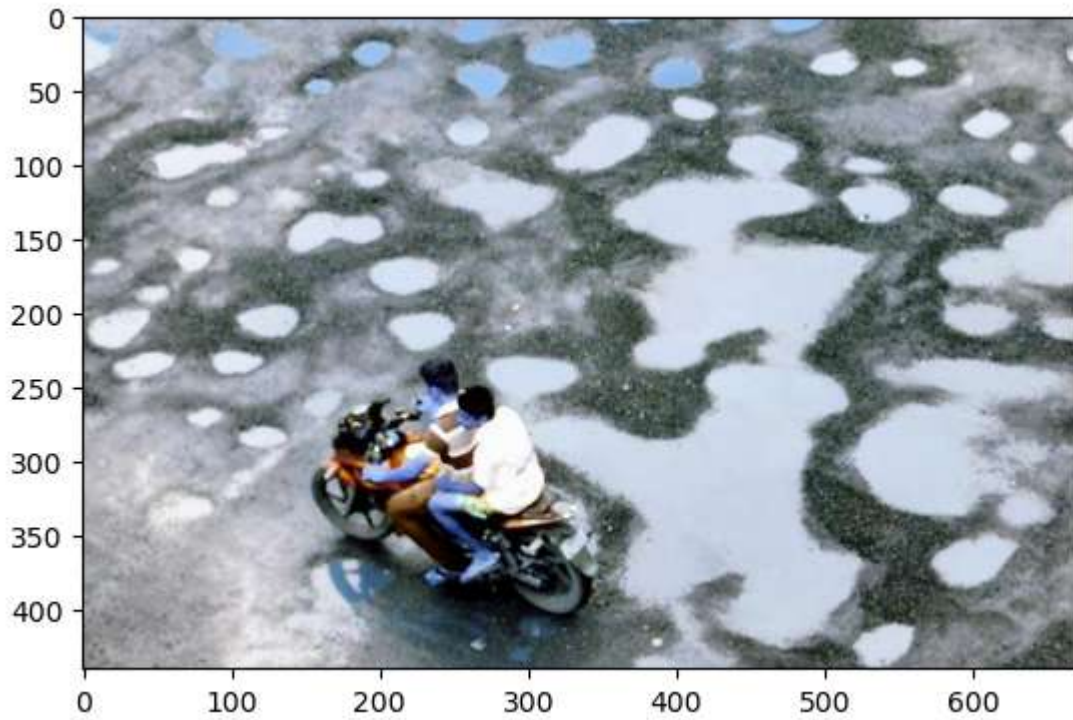




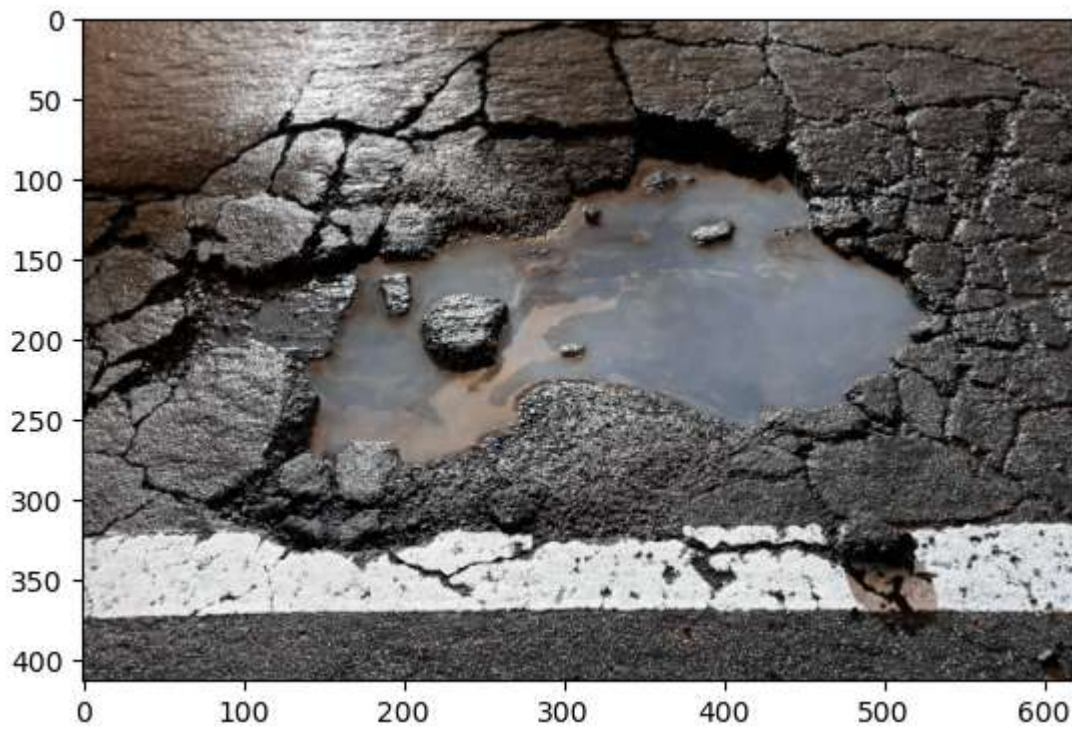
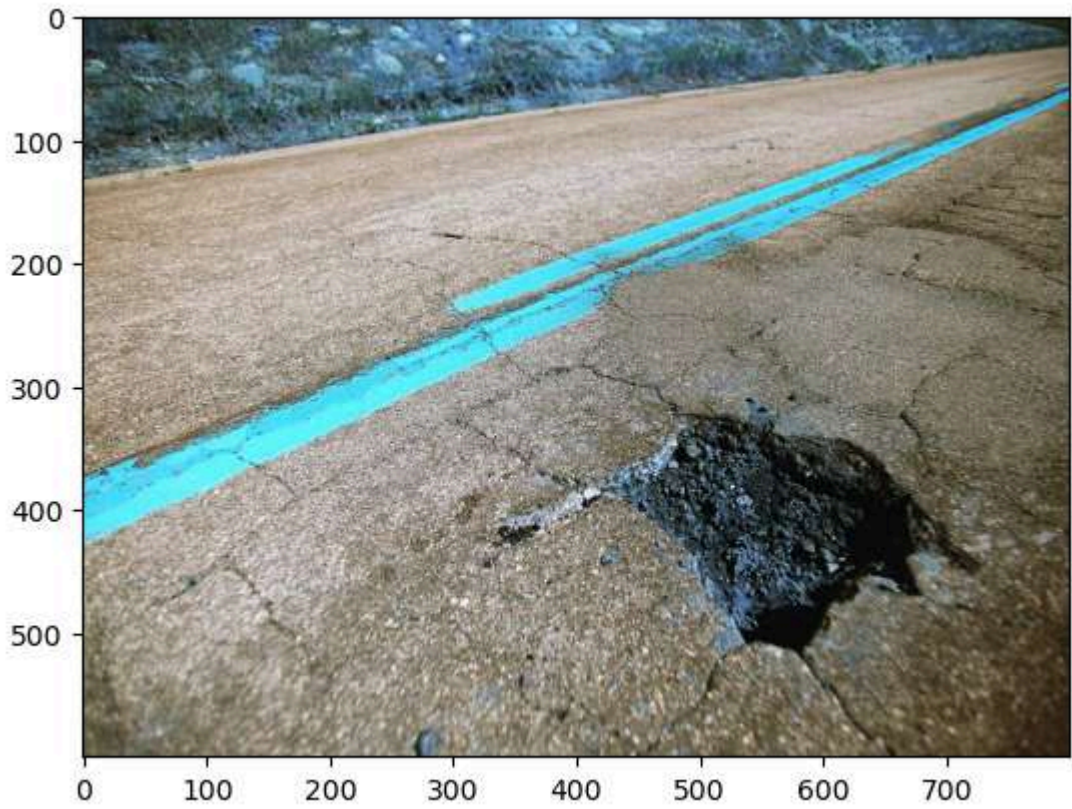








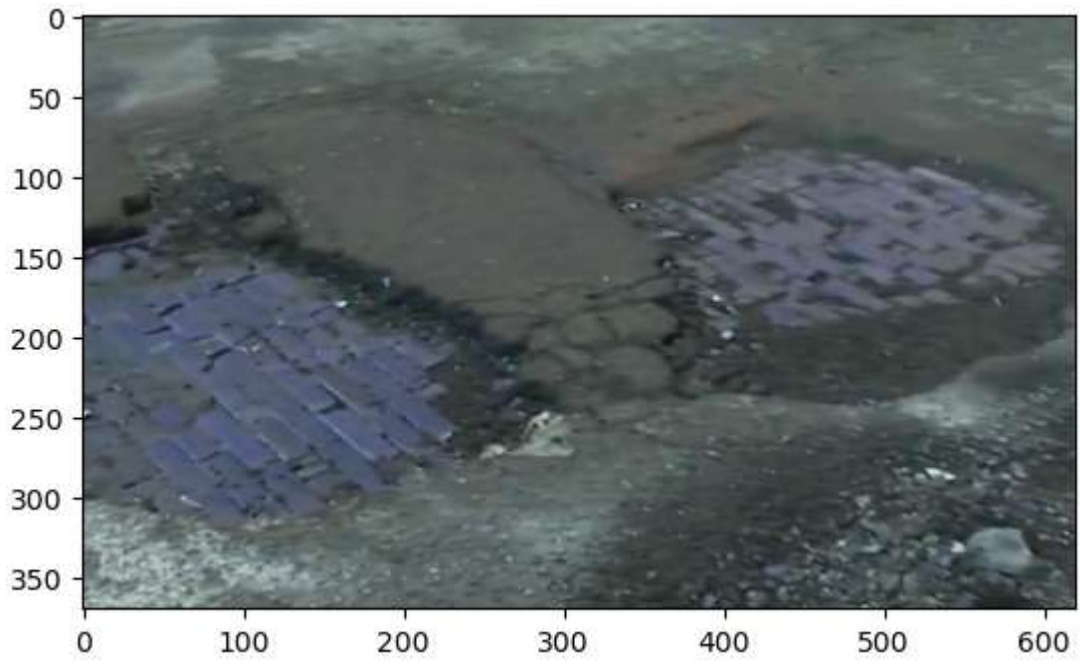










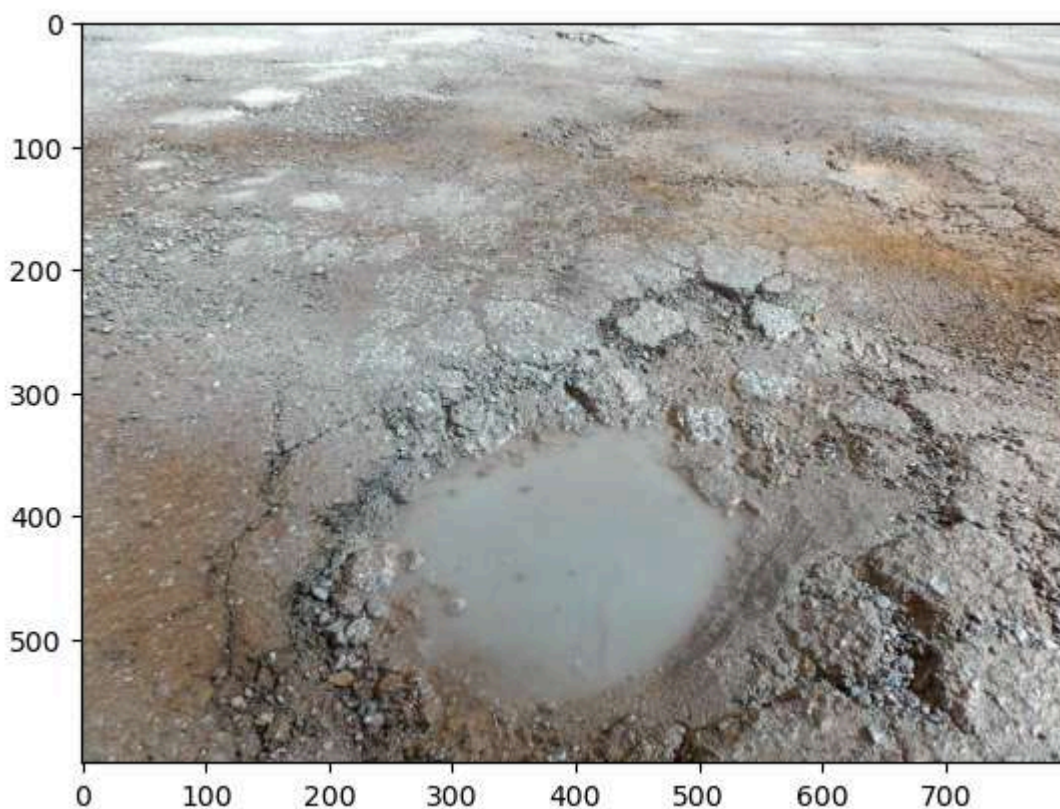
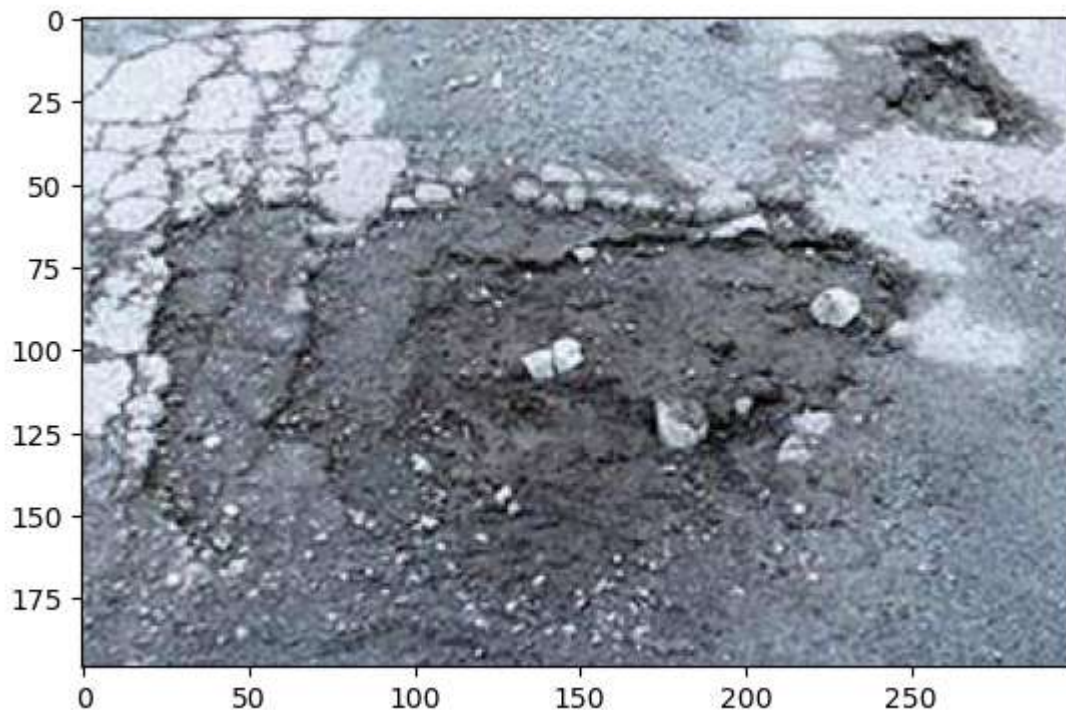


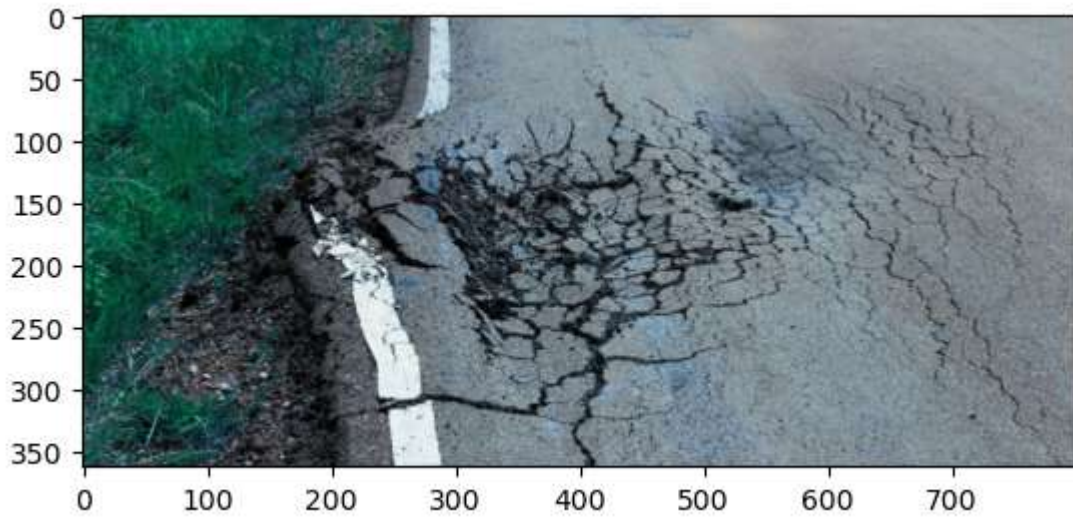








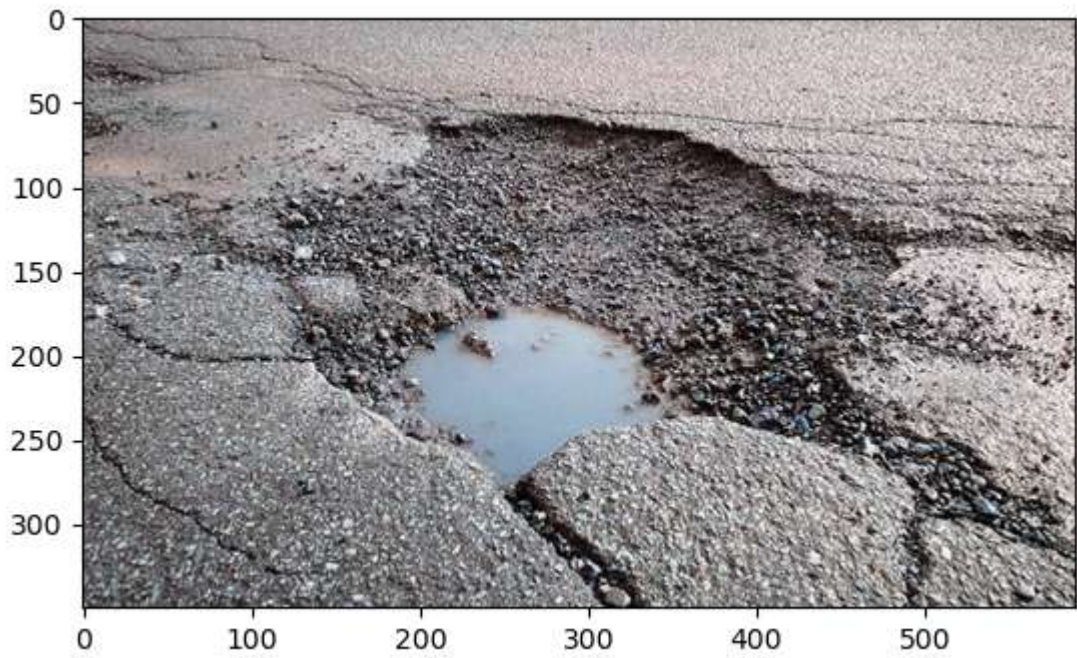
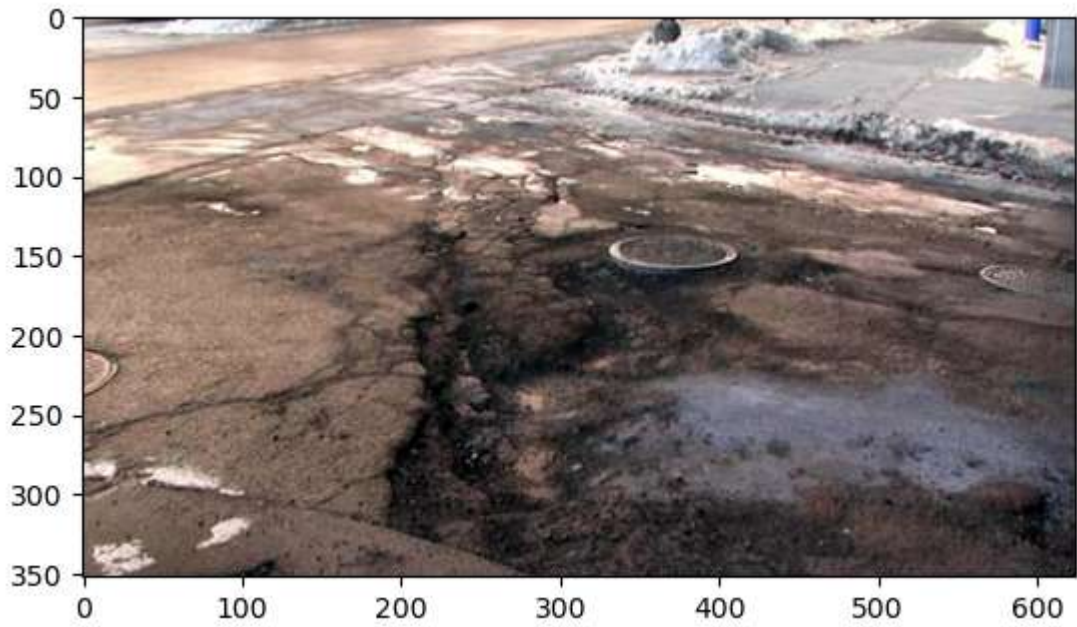


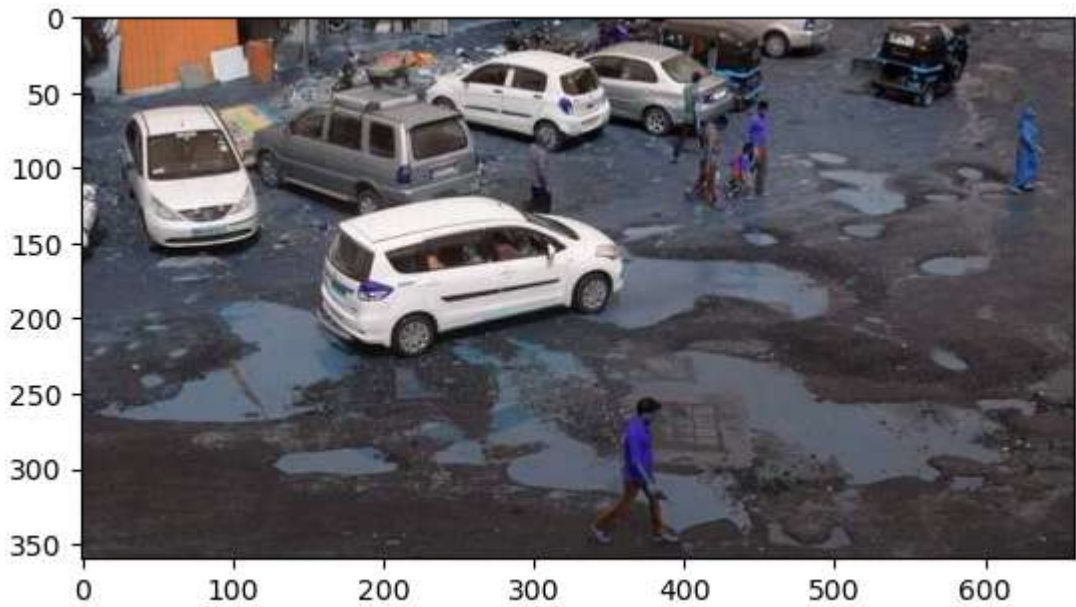
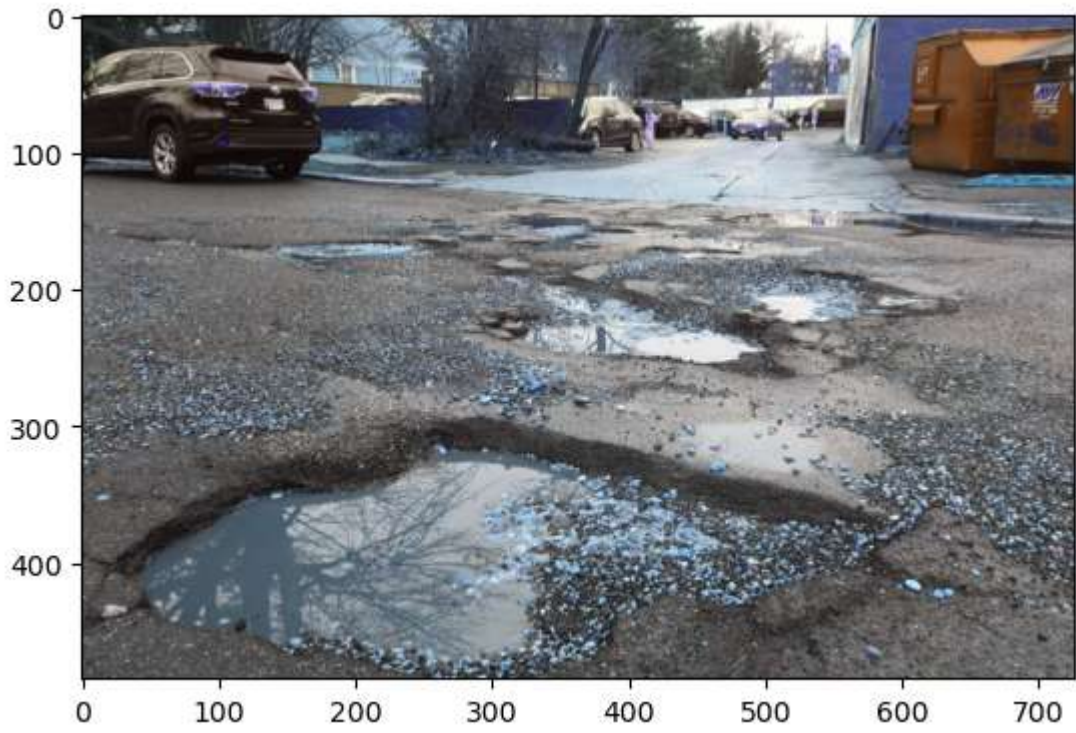


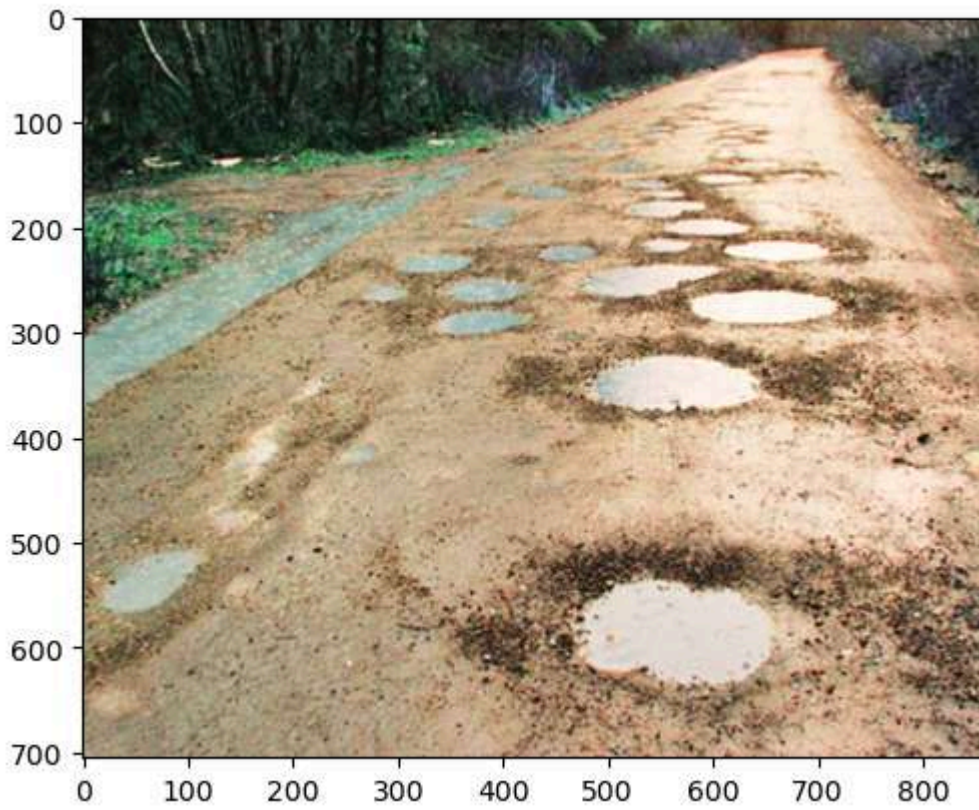




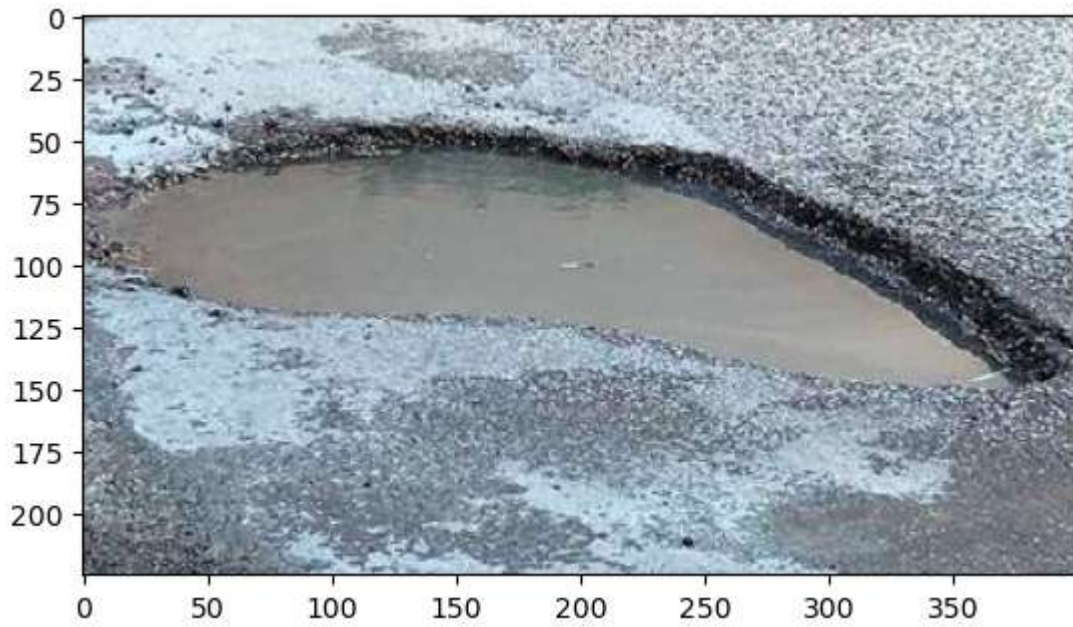




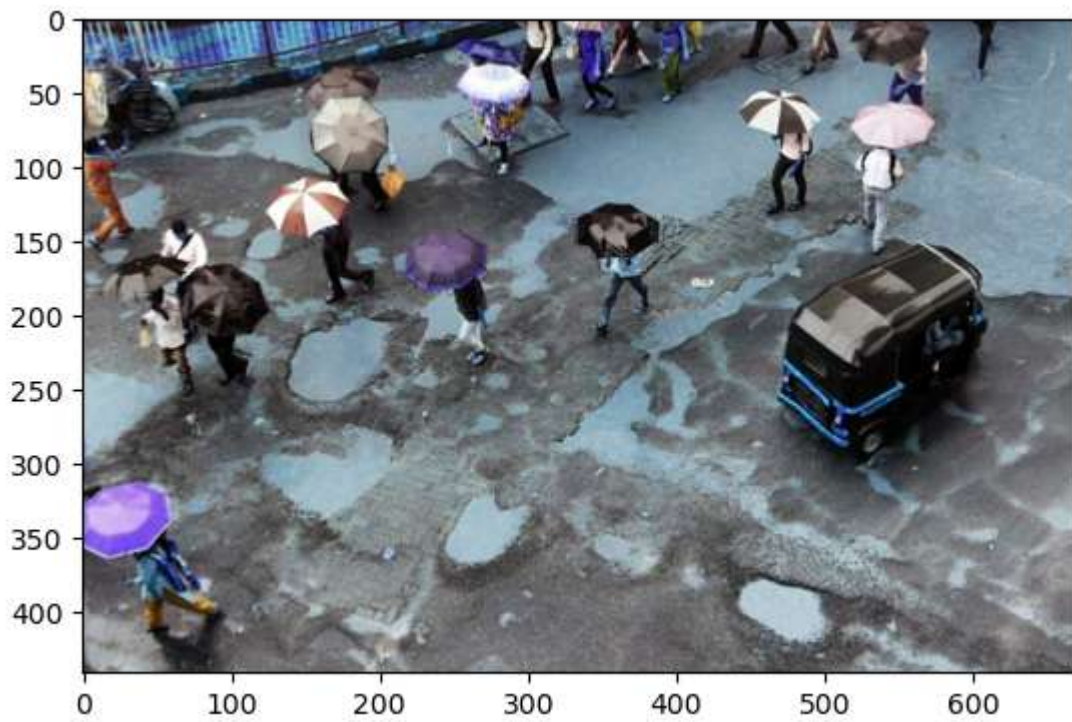
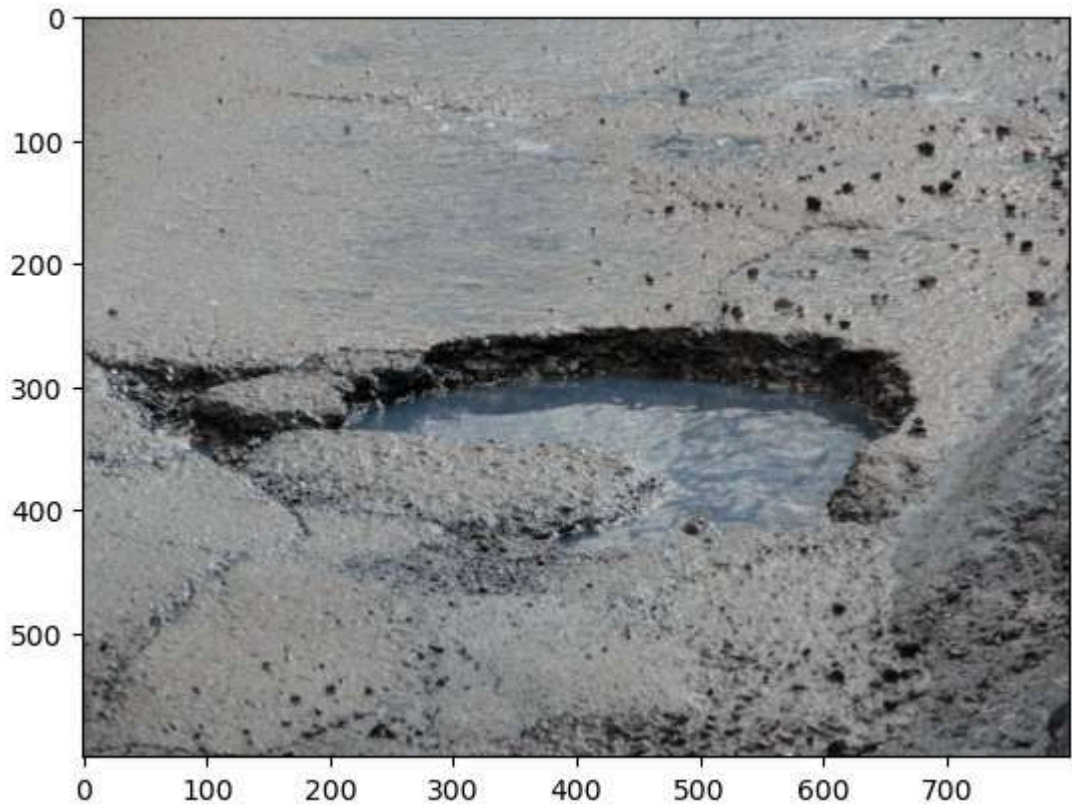


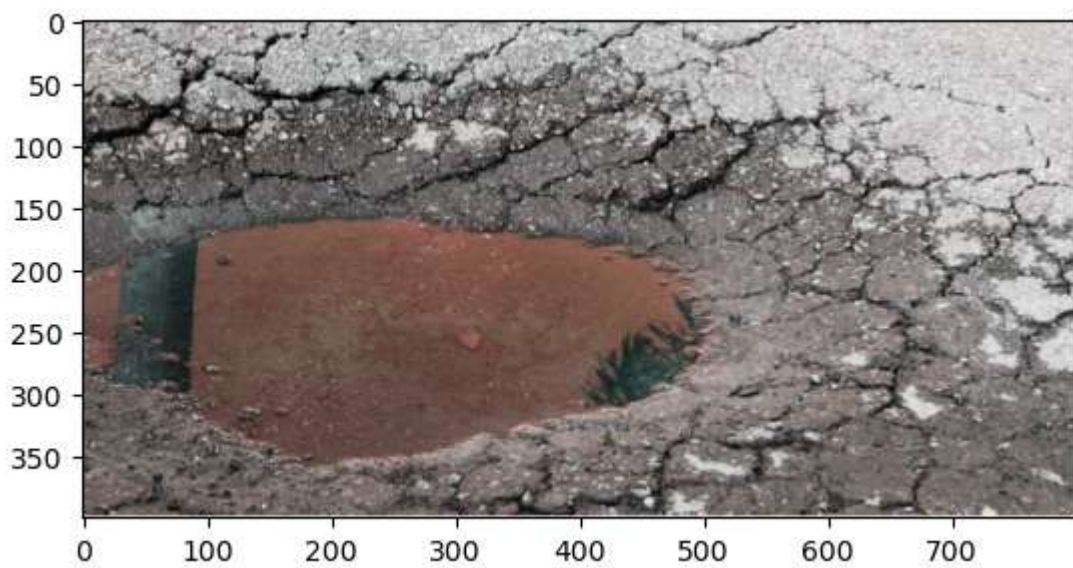
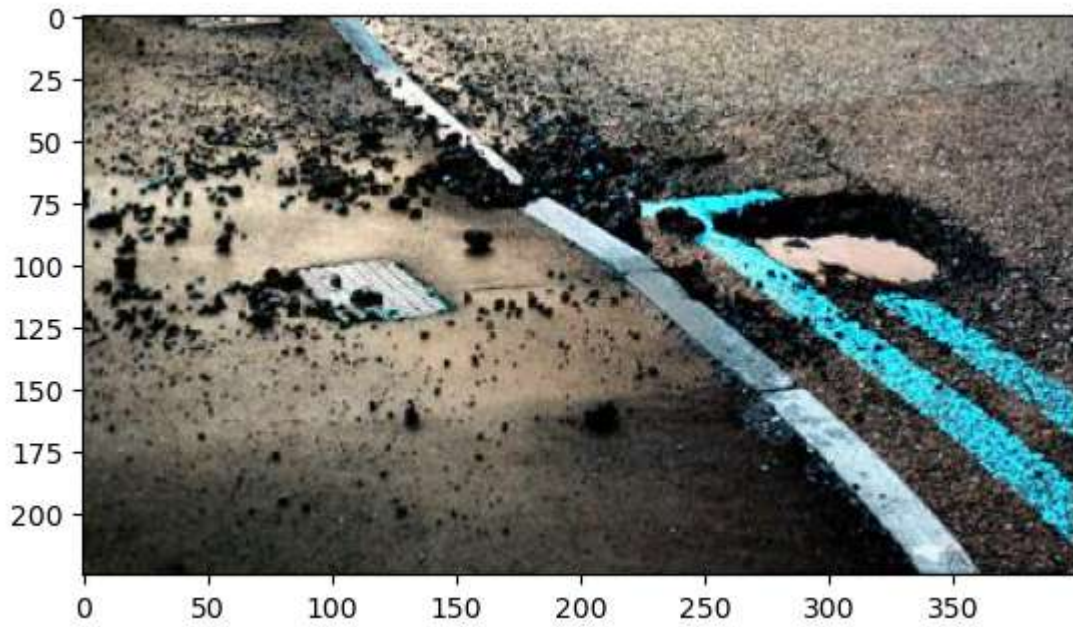


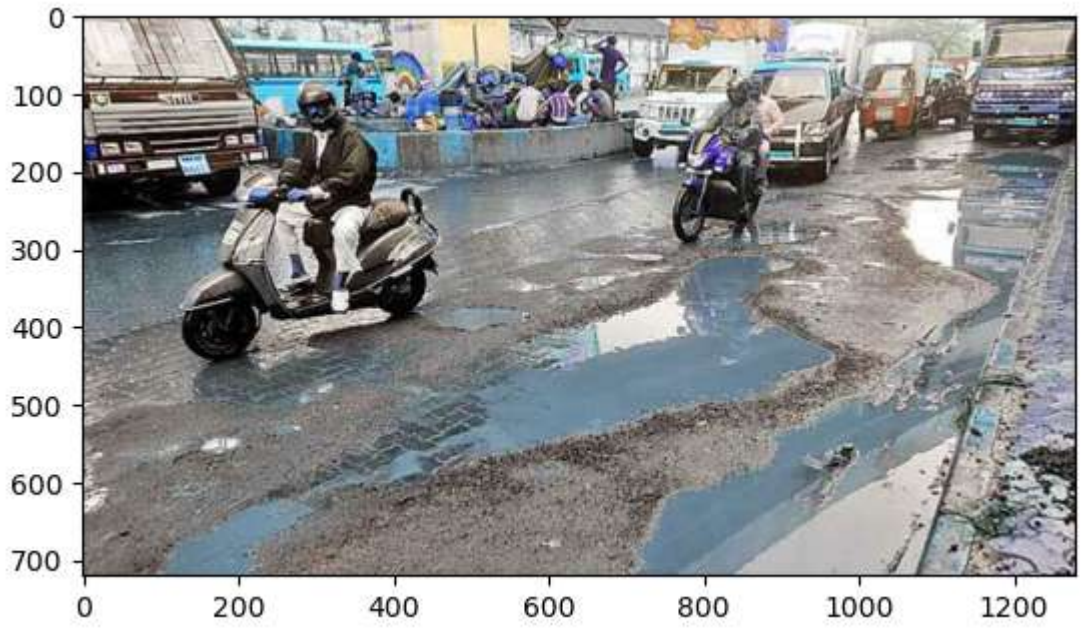


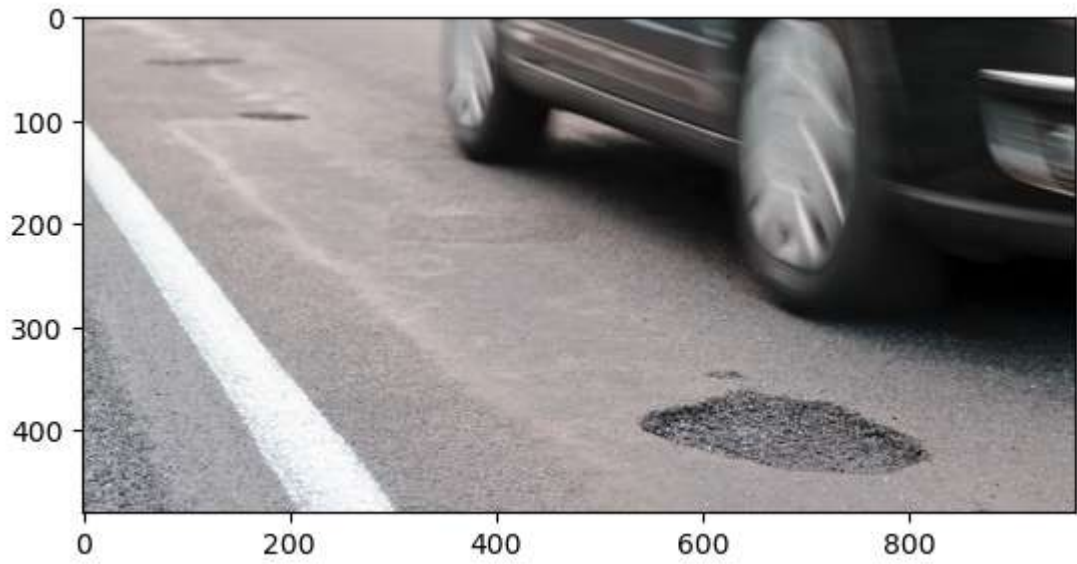




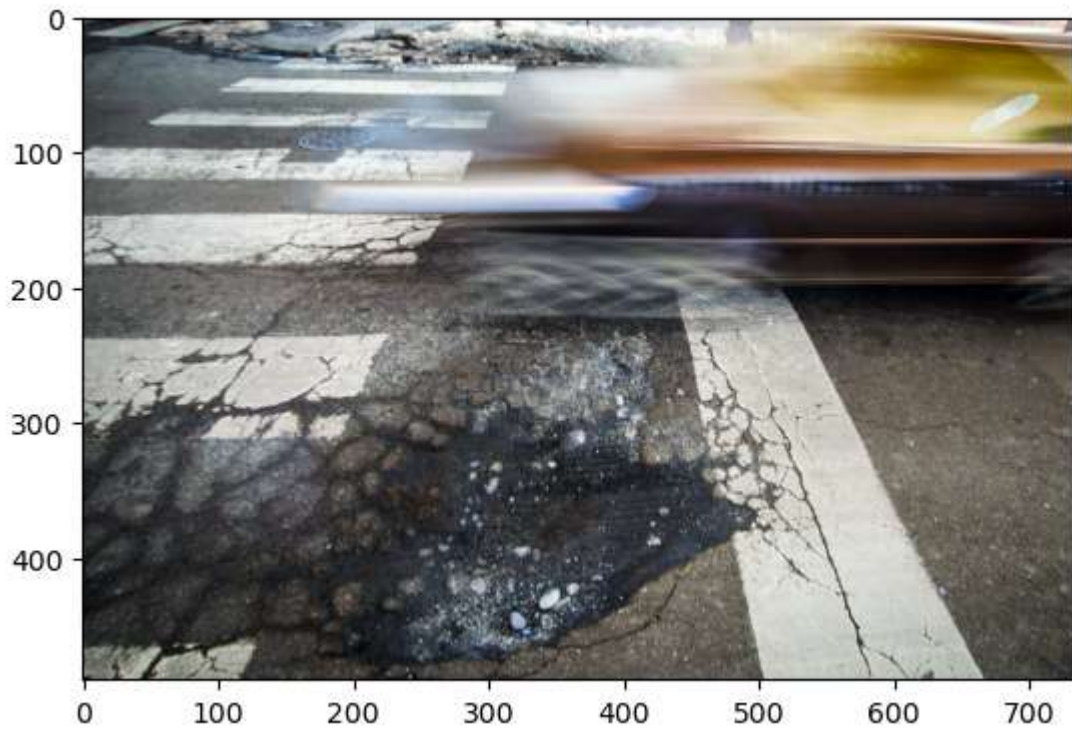




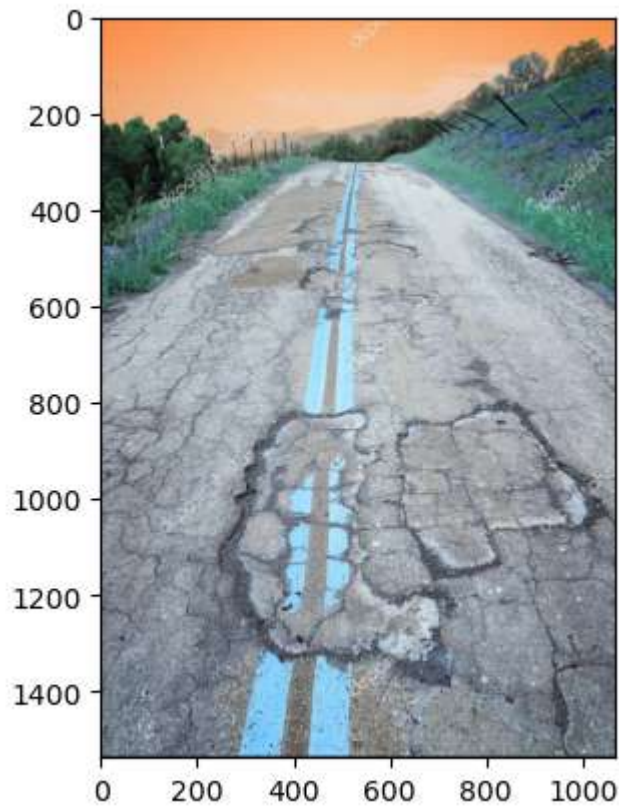


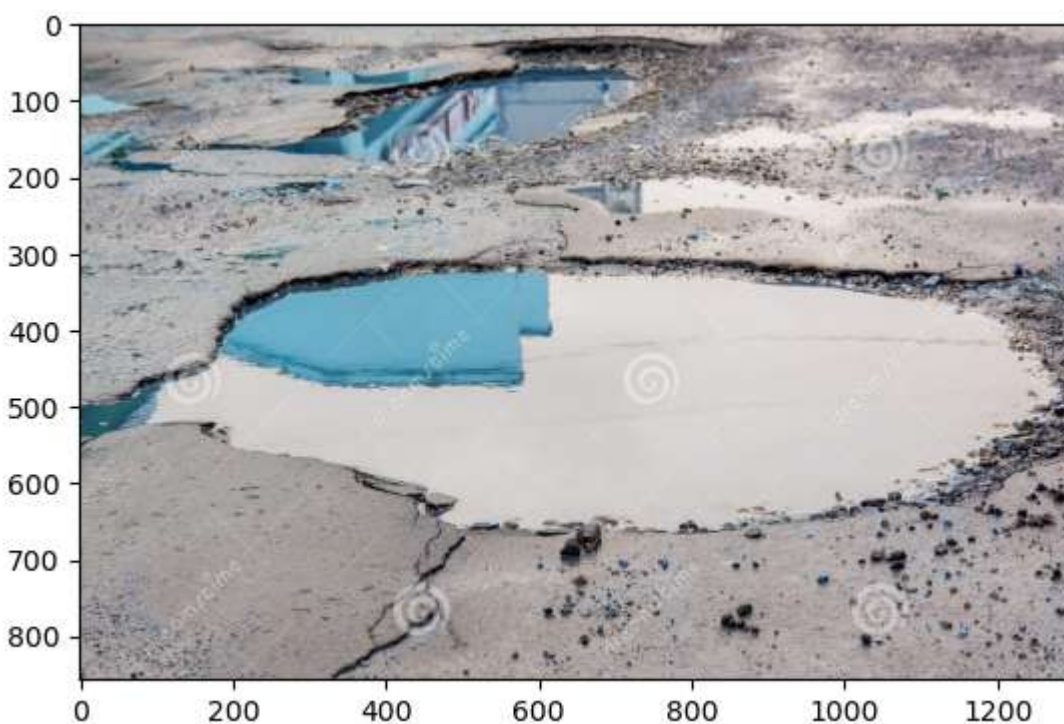






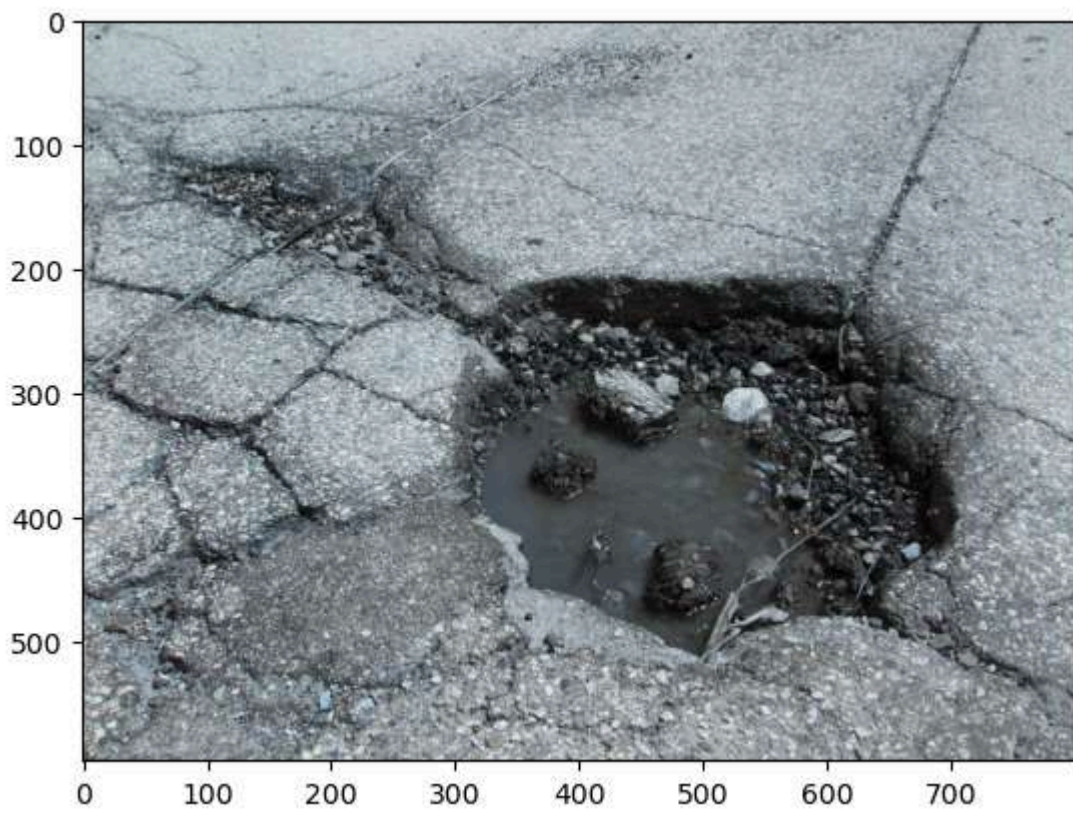


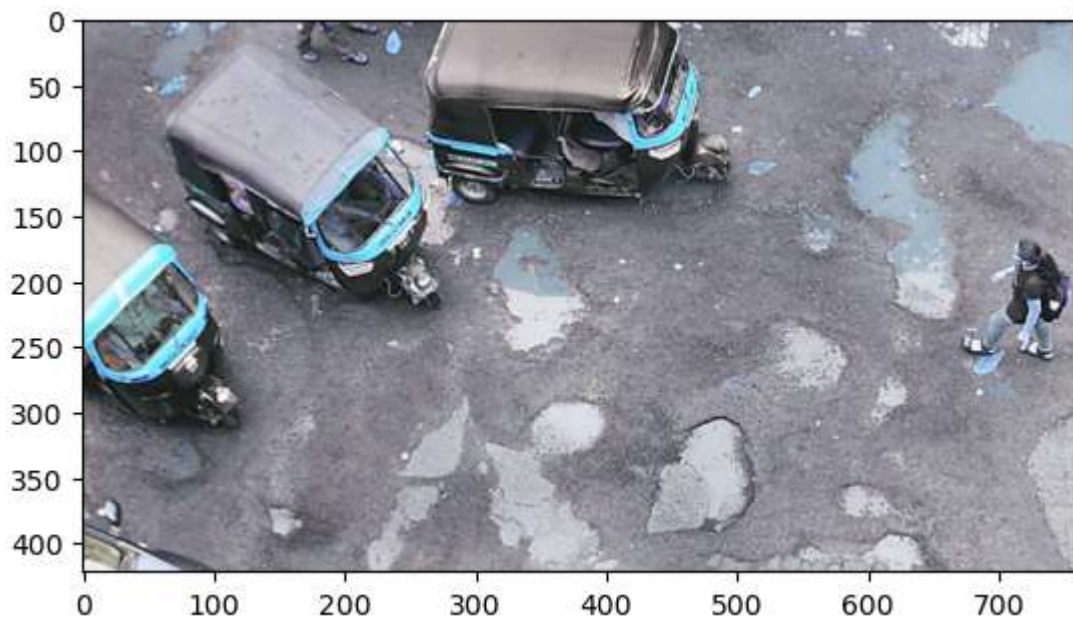


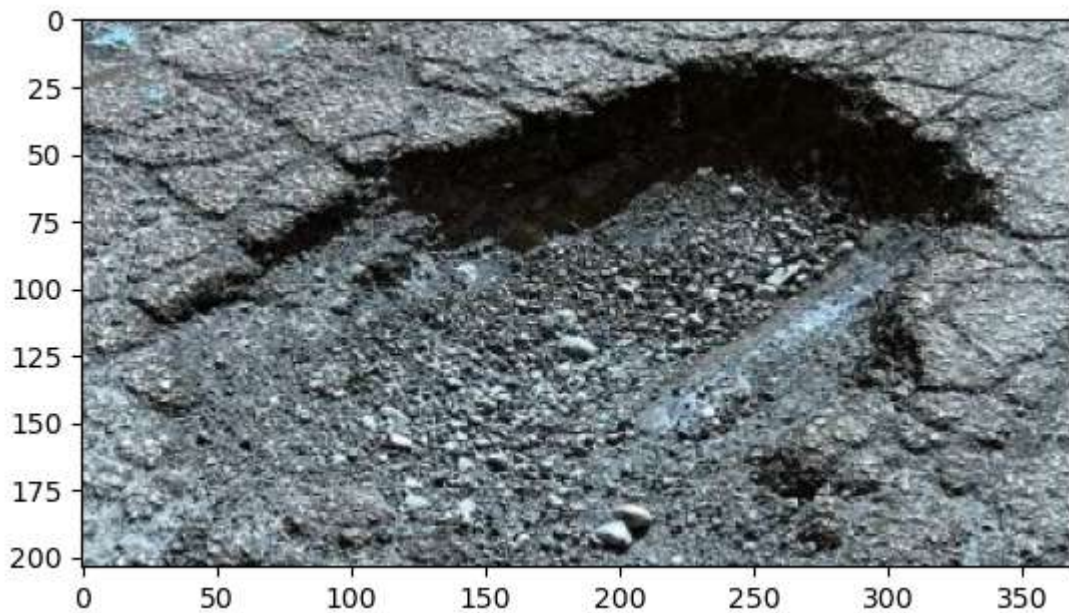












```
In [ ]: import numpy as np # linear algebra
import os # operating system
```

```
In [1]: import cv2
import matplotlib.pyplot as plt

def explore_dir(dir_path, count):
    for _, _, filenames in os.walk(dir_path):
        for i in range(count):
            img = cv2.imread(os.path.join(dir_path, filenames[i]))
            plt.imshow(img)
            plt.show()

normal_dir = 'D:/neha1/Normal'
potholes_dir = 'D:/neha1/Pothole'

explore_dir(normal_dir, 90)
explore_dir(potholes_dir, 90)
```

```

-----
NameError                                Traceback (most recent call last)
Cell In[1], line 14
     11 normal_dir = 'D:/neha1/Normal'
     12 potholes_dir = 'D:/neha1/Pothole'
----> 14 explore_dir(normal_dir, 90)
     15 explore_dir(potholes_dir, 90)

Cell In[1], line 5, in explore_dir(dir_path, count)
     4 def explore_dir(dir_path, count):
----> 5     for _, _, filenames in os.walk(dir_path):
     6         for i in range(count):
     7             img = cv2.imread(os.path.join(dir_path, filenames[i]))

NameError: name 'os' is not defined

```

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

```

In [4]: def count_files(dir_path):
        file_count = 0
        for _, _, filenames in os.walk(dir_path):
            file_count += len(filenames)
        return file_count

print('Normal images: ', count_files(normal_dir))
print('Potholes images: ', count_files(potholes_dir))

```

```

-----
NameError                                Traceback (most recent call last)
Cell In[4], line 7
     4         file_count += len(filenames)
     5     return file_count
----> 7 print('Normal images: ', count_files(normal_dir))
     8 print('Potholes images: ', count_files(potholes_dir))

Cell In[4], line 3, in count_files(dir_path)
     1 def count_files(dir_path):
     2     file_count = 0
----> 3     for _, _, filenames in os.walk(dir_path):
     4         file_count += len(filenames)
     5     return file_count

NameError: name 'os' is not defined

```

```

In [1]: import cv2
        import matplotlib.pyplot as plt

```



```
def explore_dir(dir_path, count):
    for _, _, filenames in os.walk(dir_path):
        for i in range(count):
            img = cv2.imread(os.path.join(dir_path, filenames[i]))
            plt.imshow(img)
            plt.show()

normal_dir = 'D:/neha1/Normal'
potholes_dir = 'D:/neha1/Pothole'

explore_dir(normal_dir, 200)
explore_dir(potholes_dir, 200)
```

```
-----
NameError                                Traceback (most recent call last)
Cell In[1], line 14
     11 normal_dir = 'D:/neha1/Normal'
     12 potholes_dir = 'D:/neha1/Pothole'
--> 14 explore_dir(normal_dir, 200)
     15 explore_dir(potholes_dir, 200)

Cell In[1], line 5, in explore_dir(dir_path, count)
      4 def explore_dir(dir_path, count):
--> 5     for _, _, filenames in os.walk(dir_path):
      6         for i in range(count):
      7             img = cv2.imread(os.path.join(dir_path, filenames[i]))

NameError: name 'os' is not defined
```

In [ ]: