

Two Pass Adaptive Histogram Based Method for Restoration of Foggy Images

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What is the need?



Highways



Airports



Train Accidents



Elephant Crushed

What is the need?



Defense



Rescue Operations



Remote Sensing
and
Exploration Missions



Surveillance

Understanding the problem



- Aero-suspension of water droplets
- Light diffusion
- Contrast Degradation
- Density of fog and distance of scene

Possible solutions?

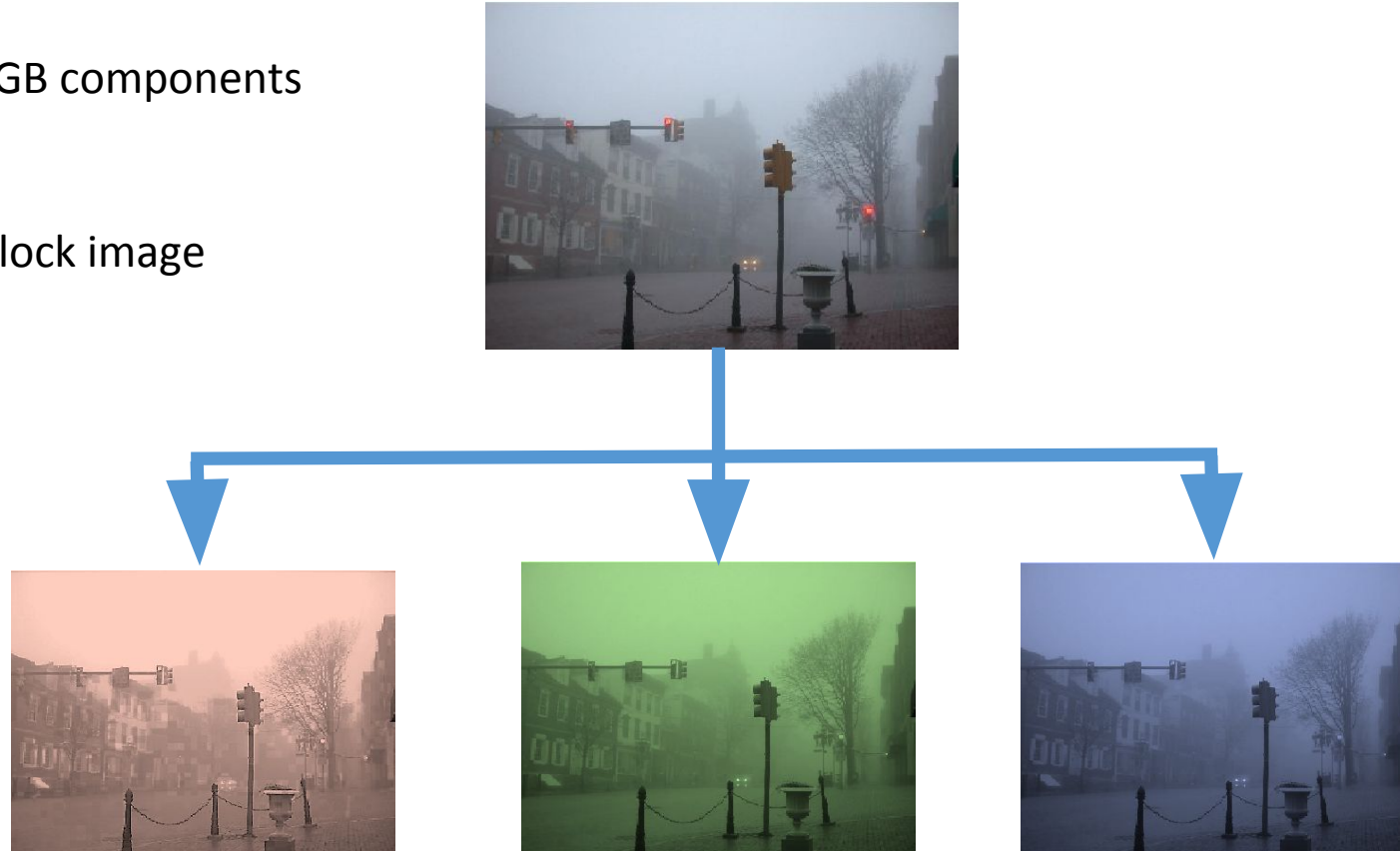


- Filtering out foggy pixels
- Replacing the voids with appropriate color
- Contrast Restoration

What we do

Pass-1

- Break image into RGB components
- Apply CLAHE
- Overlapping blocks
- Convert into RBG block image



What we do

Pass-2

- RGB to HIS conversion
- Apply CLAHE on Intensity component
- Hue and Saturation unchanged
- Block segments based processing
- HIS to RGB conversion



a) Original Image



b) Image after Pass1



c) Image after Pass2

Results: Comparative Analysis



a) Original Image

b) CLAHE

c) Haze Removal

d) Visibresto

e) Proposed Algorithm

About PRIA

11th

International Conference. The first conference was hosted 22 years back in 1991.

8

H-index

This index represents the average number of citations the journal receives back after publication.

6

days long conference with hundreds of seminars, demos, live panel discussions and interaction with top researchers around the world.

Biggest

International conference in the Russian Federation and Central and Eastern Europe for pattern recognition & image analysis



PRIA-10-2010

facts

- 16 invited papers
- 10 lectures
- 78 oral presentations
- 104 posters
- 202 scientists, researchers and students

Thank You