



Politecnico di Milano
AA 2018 - 2019

Computer Science and Engineering

IMAGE ANALYSIS AND COMPUTER VISION PROJECT

BACKGROUND SUBTRACTION

Results report:

Webcam: A13 - km. 33,0 Ferrara Sud shelter itinere Nord

Andrea Mazzeo - 895579
Daniele Moltisanti - 898977

DAILY FRAME

Ground truth:



Model identified:



Results:

True positive	True negative	False positive	False negative
1891	226186	249	916

Precision: 88.36%

Accuracy: 99.49%

NIGHT FRAME

Ground truth:



Model identified:



Results:

True positive	True negative	False positive	False negative
7468	210830	6298	4684

Precision: 54.25%

Accuracy: 95.21%

MIDDAY BACKGROUND DETECTION

Background detected with accuracy of 96.39% with threshold of 10

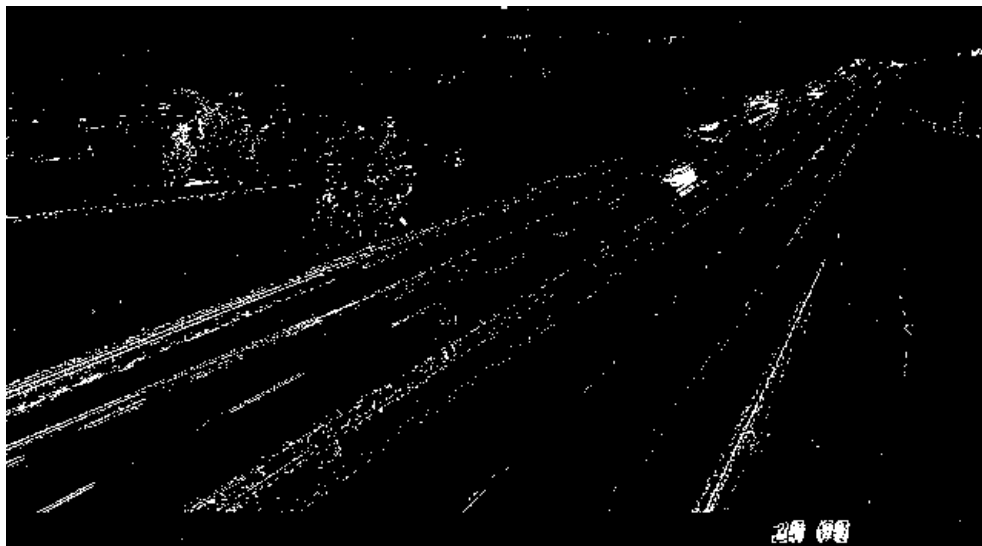
Original frame:



Background detected:



Error plotted with threshold of 12:



SUNSET BACKGROUND DETECTION

Background detected with accuracy of 60.11% with threshold of 10

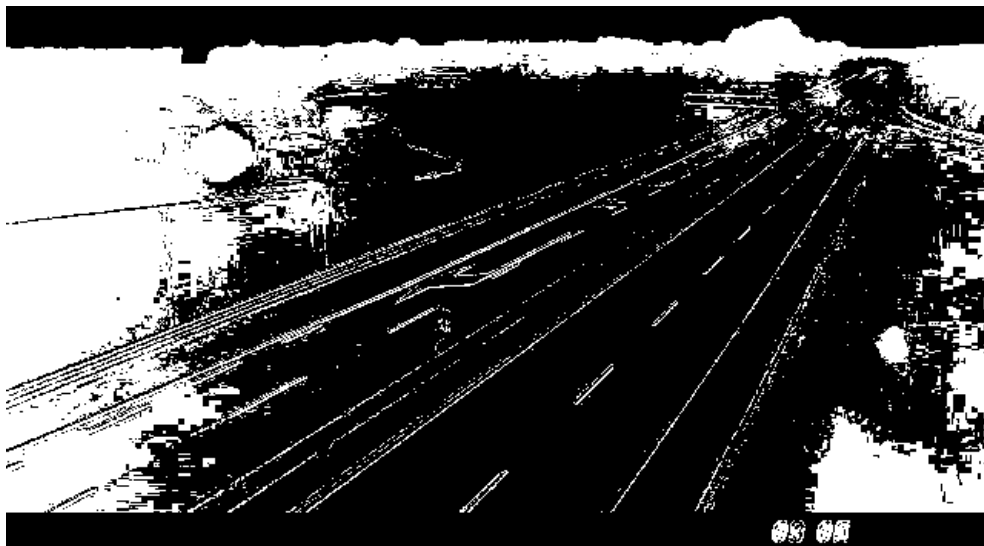
Original frame:



Background detected:



Error plotted with threshold of 12:



MIDNIGHT BACKGROUND DETECTION

Background detected with accuracy of 97.47% with threshold of 10

Original frame:



Background detected:



Error plotted with threshold of 12:



SUNRISE BACKGROUND DETECTION

Background detected with accuracy of 96.94% with threshold of 10

Original frame:



Background detected:



Error plotted with threshold of 12:

