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NPTEL (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » **Image Signal Processing (course)**

Announcements (announcements) **About the Course (preview)** Ask a Question (forum) Progress (student/home) Mentor (student/mentor)

Programming assignment: Non-local means filtering

Due on 2020-12-03, 23:59 IST

Click here (<https://drive.google.com/file/d/1BVc-fLWjMJEGkKp9SwtX9nAlgBtGIYKI/view?usp=sharing>) for View the Question .

It is recommended to initially work on this assignment using Google Colaboratory ("Colab" for short is a free Jupyter notebook environment provided by Google that allows you to run Python in your browser). The introduction videos for Colab will be shared in discussion forum. Being said that, this is a recommended way to do the assignments. You can always directly work on NPTEL website.

Follow these instructions to work on the assignment in google-colab.

- Click on this Assignment-11 (<https://drive.google.com/file/d/1e9eiakxcD9HREpD8KY0J9J6sRN60iLk/view?usp=sharing>) file. Use these images (<https://drive.google.com/drive/folders/1MmKX90fgshvxThqCcO6L2cg1Kx4vB8y?usp=sharing>).
- Make a copy of it in your drive.
- Right click and open the file using Google Colaboratory(You first need to log in to your google account).

When you're ready to verify/submit your assignment, paste the missing code snippets below.

Sample Test Cases

	Input	Output
Test Case 1	nlm filtering	ok
Test Case 2	nlm filtering	ok

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Course outline

How does an NPTEL online course work?

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Week 8

Week 9

Week 10

Week 11

- Applications of Restoration, and Image Deblurring (unit? unit=27&lesson=100)
- Haddamard's conditions and Least squares solution (unit? unit=27&lesson=101)
- Min-norm solution and Norm of Linear operator (unit? unit=27&lesson=102)
- Numerical stability analysis (unit?unit=27&lesson=103)
- Image Deblurring (unit? unit=27&lesson=104)
- Tikhonov-Miller Regularization (unit? unit=27&lesson=105)
- Programming assignment: Non-local means filtering (/noc20_ee83/progassignment? name=129)**
- Image Signal Processing : Week 11 Feedback Form (unit?unit=27&lesson=157)
- Quiz : Quiz 3 (assessment? name=178)
- Lecture Materials (unit? unit=27&lesson=185)
- Week 11 solutions (unit? unit=27&lesson=191)

Week 12

Tutorials

Download Videos

Live Session

**December 8 Programming
test - Session 1(10AM-11AM)**

**December 8 programming
test - Session 2 (8PM to
9PM)**