- This assignment is to be done as a group of two students.
- Submit the .ipynb or .m files along with the images you used/generated as a zip file in moodle. DO NOT just share the link to your notebook (if you are using google colab).
- Mention the source if you have copied any code block or line from there. Writing the list of references/sources is mandatory.
- Usage of OpenCV or builtin library is allowed, except where it is mentioned not to.
- State any assumptions you make. Include also any approaches that you try and did not work. The analysis is more useful, than just applying a method.
- Add comments to each line of your code. **Also include your observations/reasons and explanation as part of the notebook or matlab comment.**
- Images for this assignment are uploaded in moodle as a zip file `comp_assgn2_images.zip`

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1. [5 marks] Consider the low-contrast image ('`low-contrast-photography-1.jpg`')given in the folder.
   (a) [3 marks] Improve the contrast of the image and at the same time maintain the color ratio in the original image. Experiment with possible contrast enhancement techniques and produce a good contrast image.
   (b) [2 marks] Applying the algorithm you developed to some other low-contrast color image and demonstrate how well your algorithm works.
2. [2 marks] Remove the ink-dot effect from the image '`man_with_dots.jpg`' and make it more natural-looking. Justify your approach.
3. [3 marks] Remove the interference pattern in the image '`astronaut-interference.tif`'. Describe your steps and include appropriate intermediate images/plots to motivate your filter or enhancement choice.
4. [5 marks] Consider the image '`car_motion_blur.jpg`'. The original image has been blurred using a motion blur kernel. Try restoring the original image. You can experiment with simple motion blur kernels of various sizes.
5. Bonus: Consider the image '`Rover_first_movement.jpg`' from Chandrayaan moon mission. Apply any possible enhancements to make the image look better or enhance some details in the image (say the emblem, flag, etc).