THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學

MEMO

To :	Chair, BoE / Interim Head / Chief Supervisor / Co-supervisor / Research Student ✓
From :	Ms Ada So, EO (RO)

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PhD Examination – Mr XU Jun (COMP)
1st External Examiner/2nd ~~External Examiner~~:
Dr Antoni Bert CHAN

------- For your information, I enclose the Examiner's Report(s) received from the above member(s) of the Board of Examiners (BoE). The Chair of the BoE will be asked to make a decision on whether the oral examination can proceed upon the receipt of comments from all of the members of the BoE.

Ms Ada So
Executive Officer
Research Office

External Examiner's Report

Xu Jun (Department of Computing), PhD candidate
Thesis Title: Nonlocal Self-Similarity Based Prior Modeling for Image Denoising

Part A :
Does the thesis submitted by Mr Xu Jun form an adequate basis for an oral examination?

(Please tick) : [X] Yes [ ] No

Part B :
The ratings and comments below will be released to members of the Board of Examiners before the oral examination. Can they be released to the candidate after the oral examination?

(Please tick) : [X] Yes [ ] No

<u>**Part C :**</u>

Comments to be released to the candidate <u>before</u> the oral examination:

Chapter 2
- Sec 2.3.1: A Laplacian prior is used in (2.14). It would be interesting to see results when other priors (e.g., Gaussian) are used.
- Sec 2.4.1: Different parameters (c, delta, eta) with seemingly arbitrary settings are used for each noise level. How sensitive is the algorithm to the choice of parameters?

Chapter 6
- The thesis states several times that the noise in real-world noisy images is not AWGN. Given the new dataset, it would be interesting to test this assumption, by looking at the noise distributions for different ISO, color channels, etc., and also the correlations between noise across channels.
- Pg 144: discriminative methods will also be sensitive to the resolution (DPI) of the images in the training set.

Minor Typos:
- In Table 3.2 (and other similar tables), it's unclear what the 3 sub-rows (with dashed lines) are in each row.
- Pg 63: "Table II" – bad latex reference (appears in other places)
- Pg 74: first full paragraph has duplicated text from Pg 72 and 73 ("During the last decade…").
- Pg 126: "nosie"
- Tables 6.5, 6.6: it would be helpful to mark the methods that are proposed in this thesis.

Signature : _____

Name : Dr Antoni Bert CHAN

Institution : City University of Hong Kong

Date : ___2018/03/02_____