

Universitat Politècnica de Catalunya



Doctorate Program:

Automatic Control, Robotics and Computer Vision

Shedding Light on Sewer Pipes:

**Deep Learning Perception Approaches for Autonomous Sewer
Robots**

Ferran Plana Rius

Ph.D. Candidate, INLOC Robotics Area manager

ferran@inlocrobotics.com

Dr. Josep Maria Mirats Tur

Director, INLOC Robotics CTO

jmirats@inlocrobotics.com

Dr. Marc Casas

Director, BSC Senior Researcher

marc.casas@bsc.es

Dr. Cecilio Angulo Bahón

Tutor, GREC@IDEAI Full Professor

cecilio.angulo@upc.edu

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Errata List

PhD Thesis: Shedding Light on Sewer Pipes: Deep Learning Perception Approaches for Autonomous Sewer Robots

Ferran Plana Rius

March 8, 2023

1. Page 2:

- Word correction: witch → which
- Word correction: samples → samples'

2. Page 3:

- Word correction: built → build

3. Page 4:

- Word correction: course → curse
- Word correction: Database → The database
- Word correction: give → gives

4. Page 5:

- Word correction: sub category → sub-category

5. Page 6:

- Word correction: where → were
- Word correction: it is explored → there are explored

6. Page 7:

- Word correction: if → is
- Word correction: networks → network

7. Page 10:

- Word correction: danish → Danish

8. Page 16:

- Word “more” was removed
- Word correction: belong → belongs

9. Page 19:
 - Word correction: course \rightarrow curse
10. Page 22:
 - Variables description for Equations 3.1 and 3.2 was not provided. Added the following sentence: With b as the bias component, w weights vector, x input vector and g the activation function.
11. Page 28:
 - Improved caption of Figure 3.9 with: Example of a convolutional network. 4 layers CNN, composed by an initial convolution, a pooling operation, another convolution followed by a pooling. Last layer is a fully connected layer in charge of the classification.
12. Page 30:
 - Word correction: an \rightarrow a
13. Page 32:
 - Word correction: raw \rightarrow row
14. Page 34:
 - Word “with” was removed
 - Word “the” added
15. Page 38:
 - Word correction: raw \rightarrow row
 - Word correction: whole \rightarrow hole
16. Page 41:
 - Word correction: centered \rightarrow centred
 - Word correction: extractions \rightarrow abstractions
17. Page 42:
 - Word correction: Junta \rightarrow joints
 - Figure 4.1 caption word correction: where \rightarrow were
 - Word correction: left of \rightarrow left off
18. Page 43:
 - Word “set” was removed
19. Page 44:
 - Word “per epoch” was removed

20. Page 53:

- Bad section indexing. Changed “5.0.1 Autoencoders” to “5.1 Autoencoders”

21. Page 51:

- Figure 4.6 caption had the words (left) and (right) in other to point the picture it is describing. This should be (top) and (bottom)

22. Page 76:

- Table 7.1 had a typo. Word correction: be *rightarrow* be