## **Accepted Manuscript**

Appearance-Invariant Place Recognition by Discriminatively Training a Convolutional Neural Network

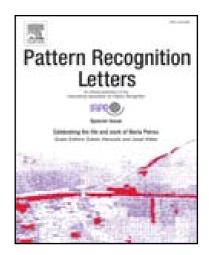
Manuel Lopez-Antequera, Ruben Gomez-Ojeda, Nicolai Petkov, Javier Gonzalez-Jimenez

PII: S0167-8655(17)30138-1 DOI: 10.1016/j.patrec.2017.04.017

Reference: PATREC 6801

To appear in: Pattern Recognition Letters

Received date: 19 April 2016 Revised date: 14 February 2017 Accepted date: 23 April 2017



Please cite this article as: Manuel Lopez-Antequera, Ruben Gomez-Ojeda, Nicolai Petkov, Javier Gonzalez-Jimenez, Appearance-Invariant Place Recognition by Discriminatively Training a Convolutional Neural Network, *Pattern Recognition Letters* (2017), doi: 10.1016/j.patrec.2017.04.017

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

#### ACCEPTED MANUSCRIPT

### Research Highlights (Required)

To create your highlights, please type the highlights against each \item command.

It should be short collection of bullet points that convey the core findings of the article. It should include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point.)

- A convolutional neural network embedding to perform place recognition is introduced.
- A triplet similarity loss is chosen to allow for weakly supervised training.
- The network is trained with triplets of images presenting seasonal or other changes.
- The method is tested against state of the art solutions in challenging datasets

•

### Download English Version:

# https://daneshyari.com/en/article/4970137

Download Persian Version:

https://daneshyari.com/article/4970137

<u>Daneshyari.com</u>