CONFIDENTIAL: request to review Scientific Data manuscript SDATA-22-00777

1 message

scientificdata@nature.com Wed, Aug 3, 2022
<scientificdata@nature.com> at 8:03 PM
Reply-To: scientificdata@nature.com
To: director.ece@velsuniv.ac.in

Manuscript Number: SDATA-22-00777
Manuscript Title: A Dataset with Multibeam Forward Looking Sonar for Underwater Object Detection
Corresponding Author: Mr Xie

Dear Dr. Rajendran,

A manuscript has been submitted to Scientific Data, which we were hoping you would be interested in reviewing. The manuscript comes from Mr Xie et al. and is entitled "A Dataset with Multibeam Forward Looking Sonar for Underwater Object Detection"; the abstract is appended below.

Scientific Data is an open-access journal for descriptions of scientifically valuable datasets (http://www.nature.com/scientificdata). The purpose of this format is to facilitate data re-use and reanalysis by other scientists. With this focus in mind, as a reviewer, we would like you to evaluate whether the data and the description of the experimental process are complete, all controls are included, and the data are overall such that users can easily re-use them.

Our standard review period is ten days, but we are currently being quite flexible with our usual timelines. If you would need more time, please just let us know in a reply email.

To ACCEPT or DECLINE this invitation, please use the following

link:
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From there, simply follow the link to manuscript SDATA-22-00777, where you will be able to view general manuscript information followed by options to accept or decline our request.

This manuscript should be considered strictly confidential, and any associated data that is not public should only be used for the purposes of peer-review.

If you are unable to help on this occasion, we would appreciate suggestions for alternative reviewers – perhaps someone in your group might be suitably qualified? You will be able to suggest other reviewers in the online system, when you decline the invitation.

I look forward to hearing from you. Please do not hesitate to contact me by replying to this e-mail if you have any questions.

Sincerely,

Dr Guy Jones
Chief Editor
Scientific Data

Author list:
Kaibing Xie, Jian Yang, and Kang Qiu

Title: A Dataset with Multibeam Forward Looking Sonar for Underwater Object Detection

Abstract:
Multibeam forward looking sonar (MFLS) plays an important role in underwater detection. There are several challenges
to the researches on underwater object detection with MFLS. Firstly, the research is lack of available dataset. Secondly,
the sonar image, generally processed in pixel level and transformed

to sector representation for visual habit of human being, is disadvantageous to the researches in artificial intelligence (AI) areas. Towards these challenges, we present a novel dataset, underwater acoustic target detection (UATD) dataset, consisting of over 9000 MFLS images captured using Tritech Gemini 1200ik sonars. This dataset provides raw data of sonar image with annotation of 10 categories of target objects (cube, cylinder, tyres, etc). The data was collected from lake and coast. To verify the practicality of UATD, we apply the dataset to the SOTA detectors and provide corresponding benchmarks for its accuracy and efficiency under MMDetection framework. The experiment shows that UATD can serve as a MFLS dataset for underwater object detection.

Tracking System Helpdesk team at http://platformsupport.nature.com .

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