SACAIR 2023

Shared Task

SATELLITE IMAGE CLASSIFICATION

COMPETITION

PRIZES

The top three candidates will be awarded prizes up to the value of **R10 000!** Additionally, they will also be given the opportunity to publish their work in a conference proceedings.

IMPORTANT DATES

Competition opens: **September 25th 2023 at 00:00**

Competition closes: **November 25th 2023 at 23:59**

RULES AND REGULATIONS:

- This Competition is only open to full-time registered students at a tertiary institution in the Republic of South Africa.
- Submissions must include an extended abstract, the source code and a short video demonstration explaining the architecture/simulation of the submitted solution.
- Participants are expected to reproduce and defend their work.

DATASET:

https://drive.google.com/file/d/1zhIuxt4CauCXU7TklDqbJ8r1v7scjPhu/view?usp=sharing

SUBMISSION LINK:

https://cmt3.research.microsoft.com/SACAIR2023/Submission/Index

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DETAILS

The South African Conference for Artificial Intelligence 2023 (SACAIR 2023) presents the **Satellite Image Classification Competition**. The past years have witnessed great progress in remote sensing (RS) image interpretation and its wide applications. With RS images becoming more accessible than ever before, there is an increasing demand for the automatic interpretation of these images.

Image classification in low-resource contexts is a challenging problem that tests the ability of machine learning models to correctly classify images with limited amounts of training data. It is important that we develop models which are able to perform accurately with little training data because we are not always presented with an abundance of training data to exploit when designing and training a model. This Shared Task adapts the Satellite Image Classification dataset to create a limited data problem with class imbalance.

You are required to design, implement and train a model that will accurately classify satellite images into one of four classes. You are also required to write a short description of the architecture of your model, and the training methodology and discuss the model's performance. The performance of your model will be measured by accuracy. This means that a class prediction will be required for every input image in our test set. The best performing submission, along with the second and third best will be invited to present their solutions at the **SACAIR2023 Unconference** to be held on the **4th of December at 26 Degrees South**.

For more information on SACAIR 2023, please visit: https://2023.sacair.org.za/