

As part of the BACUDA (Band of Customs Data Analysts) project, the World Customs Organisation (WCO) has developed a neural network model called "Dual-Attentive-Tree-aware-Embedded" (DATE) to assist Customs administrations in better detecting fraud-risky transactions.

The WCO [BACUDA project](#) was launched in September 2019 as a collaborative research platform focused on data analytics. [Nigeria Customs](#) are implementing a pilot test to verify its performance at the Tin Can (in Lagos) and Onne (in Port-Harcourt) seaports. The model uses an Artificial Intelligence (AI) module called "ATTENTION" that can detect potential fraudulent transactions more accurately than the other traditional machine learning models, and using less data (such as XGBoost/eXtreme Gradient Boosting, a machine learning model used by many organisations, like insurances, for identifying fraudulent claims by aggregating and analysing historical data on their clients).

The [DATE model](#) is being developed as an [open source](#) programming language and is based on the concept of predictive analytics, a statistical method aimed at making predictions about customs frauds and undervaluation practiced by importers, by screening a series of historical data extracted from the IT Customs Management System and by using cutting-edge analytics techniques such as statistical modelling and machine learning.

WCO BACUDA experts are developing a user guide/manual of the DATE model that will be made available soon on the WCO website. For more information on the use of data analysis techniques by Customs we recommend a recent article we published on the [World Customs Journal](#).

