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Statistical Model to Determine that a Passenger who is a Foreign National is Carrying Drug/Entering the Country with Bad Intention

Joy Roy
Nirwan University, India

Problem Statement
How to Determine that a passenger who is a foreign national is carrying drug/Entering the Country with Bad Intention. Appropriate Statistical model can detect this based on answer To questions which should reflect his intension based on below factors
Carrying_Substance _provided _by _other
Entering_the_country_first_time
Entering_the_country_second_time
Carrying_low_amount_cash
Tour_itenary_not_clear
Reference_in_country_not_clear
Staying_place_in_country_not_clear
Amount_of_dryfood_carried_high
Amount_of_liquid_jel_cosmetics_high
Amount_of_dry_medicine_high
Amount_liquid_medicine_high
Amount_dry_cosmetics_high
Amount_of_jewelellary_cost_High
Coming_as_single_passenger
Body_language_with_finger_abnormal
Carrying_others_passport
Derive a appropriate Statistical model which determine he should block for further Investigation
Solution:
The model is:

$$\text{Logit}(p) = -28.4616 + (3.0872 \times 10^{-5})x_1 + (-3.3941 \times 10^{-5})x_2 + (1.1126 \times 10^{-4})x_3 + (-7.9547 \times 10^{-5})x_4 + (1.1126 \times 10^{-4})x_5$$
$$+(-7.9547 \times 10^{-5})x_6 + (-1.9186 \times 10^{-5})x_7 + (4.0573 \times 10^{-5})x_8 + (-6.0233 \times 10^{-5})x_9 + (-1.1153 \times 10^{-4})x_{10}$$
$$+(-1.5673 \times 10^{-4})x_{11} + (3.7948 \times 10^{-2})x_{12} + (1.1126 \times 10^{-4})x_{13} + (1.1126 \times 10^{-4})x_{14} + (-7.9547 \times 10^{-5})x_{15}$$

where:

- p is the probability that the passenger should be blocked,

$$p = \frac{1}{1 + e^{-\text{Logit}(p)}}$$

- x1= Carrying_Substance_Provided_by_Other,
- x2 = Entering_the_country_first_time,
- x3 = Carrying_low_amount_cash,
- x4 = Tour_itinerary_not_clear,
- x5 = Reference_in_country_not_clear,

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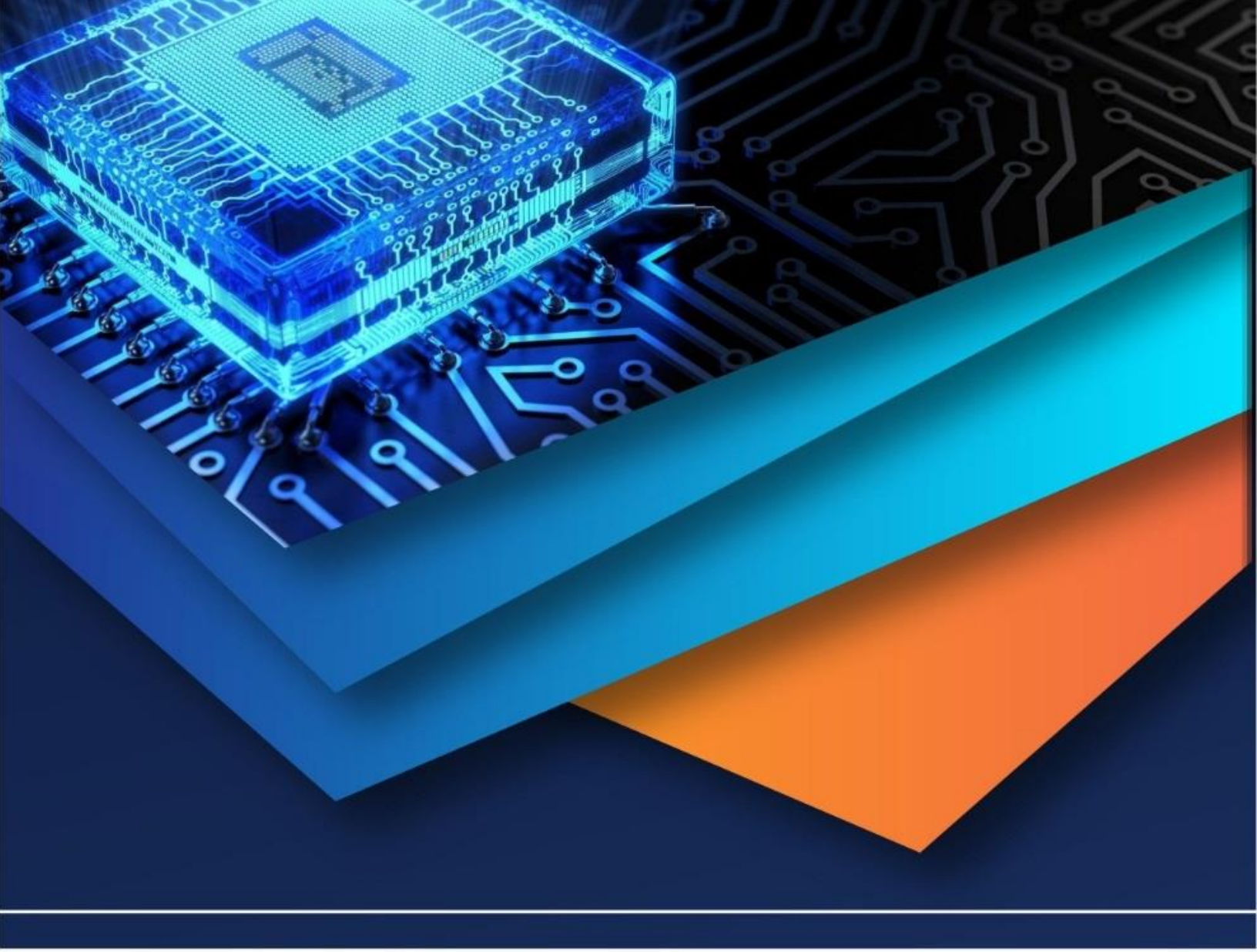
- x6 = Staying_place_in_country_not_clear,
- x7 = Amount_of_dryfood_carried_high,
- x8 = Amount_of_liquid_jel_cosmetics_high,
- x9 = Amount_of_dry_medicine_high,
- x10 = Amount_liquid_medicine_high,
- x11= Amount_dry_cosmetics_high,
- x12 = Amount_of_jewellery_cost_High,
- x13 = Coming_as_single_passenger,
- x14= Body_language_with_finger_abnormal,
- x15 = Carrying_others_passport.

If The value of p is >=.5 The passenger should be blocked for Interrogation



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