



IJRASET

International Journal For Research in
Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 13 **Issue:** IV **Month of publication:** April 2025

DOI: <https://doi.org/10.22214/ijraset.2025.69667>

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Statistical Model to Find Whether Employee will Back to Office or Not at the End of WFH

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I. INTRODUCTION

Nowdays different companies are asking their employees to come to office And reduce or stop working from Home. Then Question Arises How a manager will understand Whether an employee will come to office

II. SOLUTION

I have developed a model using sigmoid function of logistics regression to determine whether Probability of coming to office is 0 or 1

we have considered 10 variables which are independent of each other

age=A; experience=E, NTS= native_town_same; HA=has_ailment;;

MYK=is_mother_with_young_kids

SAP=stays_with_ailing_parents

HLH=has_litigation_inhometown;

HHL=has_high_loan

EXPM=experience_level_mid

EXPS=experience_level_senior

RT=role_technical

then $p < \text{probability employee will come to office} > = \frac{1}{1 + e^{(-z)}}$

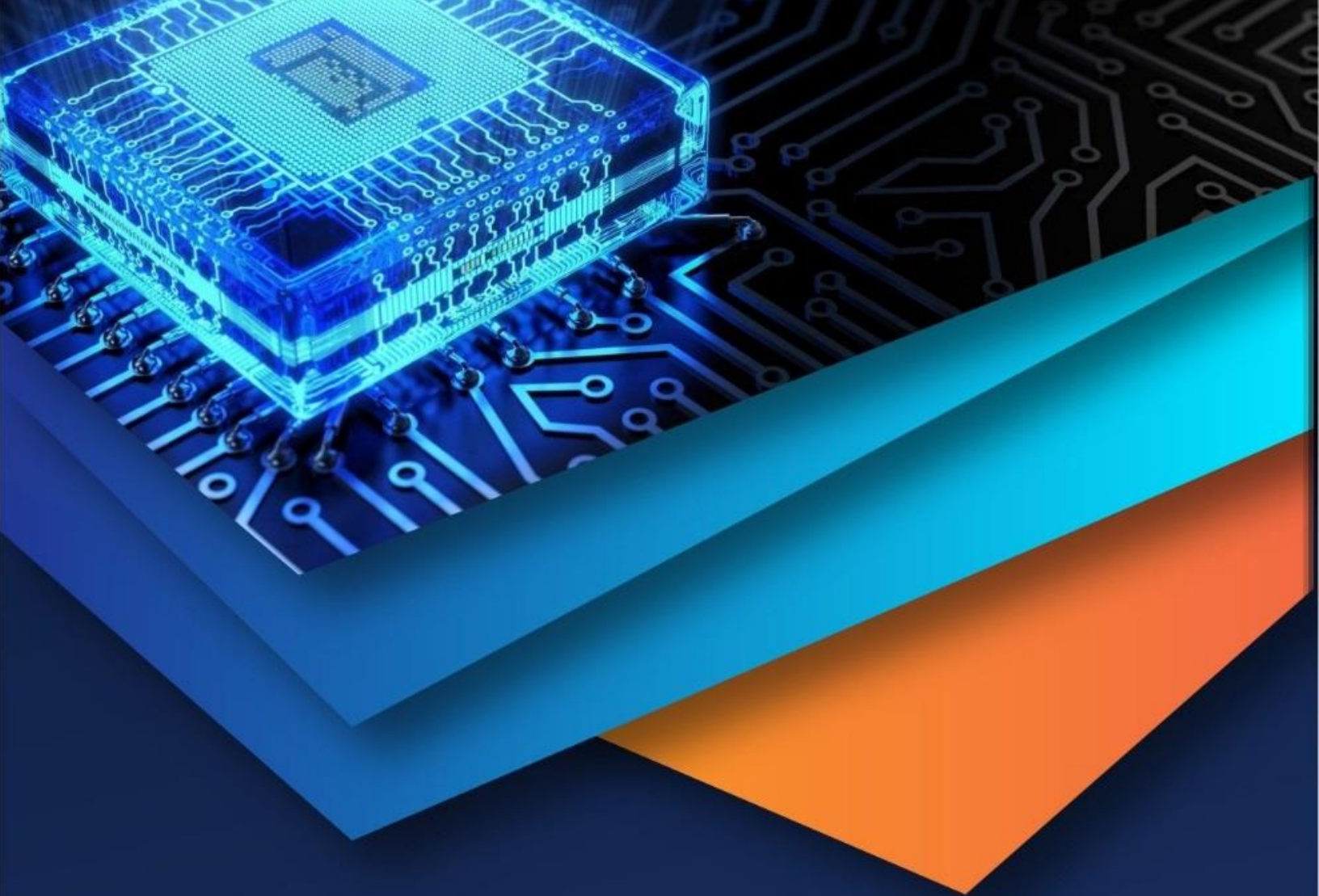
this is sigmoid function demonstrate logistics regression in ML statistics

assumption- all above 10 independent variable are not related with each other

where $z = 3.3382 - 0.1043A + 0.1111E + 0.1583NTS - 3.1658HA - 1.9852MYK - 1.61152SAP - 1.3185HLH$

$+ 3.5049HHL - 0.0300EXPM + .5758EXPS - 1.2013RT$;

If above 10 variable is given by hr/manager he can determine whether an employee will come to office; this is statistical modelling using logistics regression



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