Campus Placement Platform For HEI

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Abstract- *From a student's perspective, placements can bring a wide range of benefits and opportunities. Managing training and placements is a critical component of higher education institutions, where the majority of the the job work is done by hand. Colleges' manual systems involve a lot of time and labour. Through the goal of this endeavor, to develop a web platform that will address this problem. Recently, providing campus placement to successful students is considered as institutional obligation and institutions are ranked based on number of successful job placement provided in the campus for a given year along with the average salary offered. But as time progress, the model of campus placement is going to change and it is predicted that industries are thinking of adopting new model of placement through online. The project's goal is to create a platform for the college's placement administration. With the right login enabled, the system is an application that can be accessed and utilized efficiently throughout the organization. It can also be used as a tool for college placement officers to handle student placement information, which will cut down on manual labour and requires less paper. The platform receives the requested list of candidates for the businesses looking to hire person who meet their eligibility requirements. The platform also offers the capability of viewing the student's academic and personal data. A system handles student as well as company data and efficiently displays all this data to the respective placement administration.*

Keywords- Campus Placement, HEI, Job Opportunities, Job Fairs

I. INTRODUCTION

Campus placement platform for HEI, is to identify the talented and qualified students before they complete their education, as this process reduces the time for an industry to pick the candidates according to their need. Also it can be used especially for a recruiting company that is looking for graduates or interns fresh off campus or still in campus that have great potential to excel in their career. To eliminate the need of putting up notice every student about the company coming in campus looking for potential employees/Interns. The students can keep updated themselves through this platform. To enable companies to view all students detail and system can shortlist students according to their criteria instead of doing manually or waiting till students or graduates physically go to organizations apply. The portal mission to faster collaboration and networking between the HEIs, recruiters, and students, which can help to build stronger relationships and create more opportunities for all stakeholders involved.

The platform aims to simplify the recruitment process for both the recruiters and the students by providing a centralized platform to manage the entire process. The system provide a transparent and efficient system for the HEIs, which will help them to manage the placement process more effectively. The service task to enhance job opportunities for students by connecting them with a larger number of recruiters and providing them with a wider range of job options. To increase visibility for recruiters by providing them with a larger pool of qualified candidates and enabling them to reach out to students from multiple HEIs. The system is designed to be user-friendly and intuitive, with a simple and elegant user interface that can be accessed from any device with an internet connection.

The project will be designed to meet the specific needs of HEIs and will be user-friendly, scalable, and customizable. It will incorporate the latest technologies and best practices to ensure a seamless experience for both HEIs and students. Every organization, whether big or small, has challenges to overcome and managing the information of Company, College, Student, Placement, Vacancy. Placement officers have to manage the student's profile and their documents. Placement Officer has to collect the information of various companies who comes for recruitment. They have to arrange profiles of students according to various streams and notify them each time according to company requirements. Placement officers submit the information of students and if any changes or updates are required in the profile of any student, it hasto be done manually. This process is so difficult and tedious when the number of users increases.

This is tedious and time consuming. Chances of missing data are also possible. It is also difficult for collecting, managing, and updating student data as the number of students increases. It can also be used as a tool for college placement

officers to handle student placement information, which will cut down on manual labour and requires less paper. The platform receives the requested list of candidates for the businesses looking to hire person who meet their eligibility requirements. The service also offers the capability of viewing the student's academic and personal data. A system handles student as well as company data and efficiently displays all this data to the respective placement administration. Recently, providing campus placement to successful students is considered as institutional obligation and institutions are ranked based on number of successful job placement provided in the campus for a given year along with the average salary offered. But as time progress, the model of campus placement is going to change and it is predicted that industries are thinking of adopting new model of placement through online.

II. RELATED WORK

AlmahdiAlshareefet.al[1], Basically focuses on providing a simple interface for the easy collation and maintenance of all manner of student information. The creation and management of accurate, up-to- date information regarding students' academic careers is critical students and for the faculties and administration of Sebha University in Libya and for any other educational institution.

T Kannanet.a1[2], focuses on providing information to support the operation, management and decision-making functions of enterprises or organizations. In the face of huge amount of information, it is required to possess the student information management system to improve the efficiency of student management. Through this system, the standardized management, scientific statistics and fast query of student information can be realized, and thus the workload of management can be reduced.

S.R.Bharamagoudaret.al[3], focuses on simple interface for maintenance of student information. The creation and management of accurate, up-to- date information regarding a student's academic career is critically important in the university as well as colleges. Student information system deals with all kind of student details, academic related reports, college details, course details, curriculum, batch details, placement details and other resource related details too. It tracks all the details of a student which can be used for all reporting purpose, tracking of attendance, progress in the course, completed semesters, years.

Shiqiu Huang et.al[4], investigated on the Dynamic taint analysis is a prevalent approach to protect a program from malicious behaviors, but fails to provide any information about the code which is not executed. This paper describes a novel approach to overcome the limitation of traditional dynamic taint analysis by integrating static analysis Into the system and presents framework SDCF to detects of ware vulnerabilities with high code coverage.

A. Soares et.al[5], basically focuses on the users can access easily to this and the data can be retrieved easily in no time. In the student registration form, we can give personal details, educational qualifications, and professional skills and upload resume. The job details of the placed students will be provided by the administrator. The job provider and the placements coordinator to take effective actions on the web as follow-on from the information they have viewed.

Raoyuanet.al[6], The employment for college graduates is becoming a focus-point problem for the society and livelihood in China. With the rapid development of information technology and electronic commerce applications, more and more people realized that only to promote the symmetries and transparency about information can provide more equal opportunities for various graduates. In order to solve the deficiency about existed employment management system, a core business scenario is proposed in the paper for the whole process of employment.

Aishwarya s. kendleet.al[7], focuses on interactive software platform that focuses on student data management and analysis to digitise practices, providing visibility into students' success, and providing a forum for employers to streamline the hiring process. It provides insights for all participants on placement activities. Apart from the existing systems, tracking student's progress and predicting areas of improvement is the core focus.

Rafał Scherer et.al[8], Human society has entered the rapid development stage of information globalization. The Internet has come into our life in an all-round way and has an impact on all aspects. More and more social activities are gradually transferring to the Internet. In order to solve the problem of difficult employment for Chinese college students after graduation, and to conform to the general trend of the development of the times, The idea of building an employment platform for college students has emerged.

Ajay Shanker Singh et.al[9], Each student dreams of having a work offer in their hands before leaving college. A selection probability indicator lets students get an sense of where they're standing and what to do to ensure a decent selection. A placement predictor is a device that can forecast the probability or form of business that a student in the pre-final year has chances of placing. With the emergence of data mining and machine learning, through analyzing the data set

of the previous student year, numerous predictive models were applied

Hongping Chen et.al[10], In order to solve the problems of the present University information system, this paper presents a campus information portal solution based on Portal technology, which divide the campus portal system into four layers: base layer, data layer, application layer and presentation layer. This architecture to provide basic services of traditional school information systems and campus portal-specific single sign-on, data synchronization, application integration and personalization services and other functions.

III. THEORY

Existing system does all process has done by manually. Students face is that they are not made aware of the Training and Placement activity held in their institutions, hence there might have been a loss of opportunities. There is also a large communication gap between students and the placement officers as it is difficult to maintain coordination between them. The existing system is also inefficient as it could not take acknowledgment from the students attending a particular drive. Hence lots of confusion at the last moment also arises. As all this is done manually, there is a lot of workload on the placement officer. Manual and time-consuming process - In this system requires manual registration and paper-based resume submission, which can be time-consuming and prone to errors.Limited job postings - The number of job postings is often limited, and students may not be aware of all the opportunities available. Limited access to information - Students may not have access to information about the companies participating in the campus recruitment process, which can make it difficult for them to prepare for the selection process.

The proposed system for campus placement platform Training and placement department maintains the details of each student. Campus placement platform enables high-quality placements bring good benefits and positive impacts on students as well as for the colleges. During this process college finds it difficult and time-consuming to collect data from each student. In most cases they collect data manually. Working in a manual system in the colleges requires a lot of manpower and time. The placement management system is an online application that can be accessed throughout the college and outside with proper login details.Students can view the status of their upcoming campus interview.Search feature helps to admin because they check particular student is present or not.Admin can only update student details and academic records like email id, current semester, correspondence address and marks obtained in different semesters via

csvfile.Latest information about which company is visiting the campus is provided in the website which helps the students to get updated information quickly.

A 1.   *Research Methodology*

The Descriptive research design is used for the study. Finding a job can be a tough challenge in today's time. It becomes more difficult if you take admission to a college that lacks placement process assistance. Getting a job offer in a campus placement drive is one of the biggest concerns for a majority of the students in their final year. But if prepared well, it's not difficult to crack the campus placement interview. Therefore, to make sure you get the job of your dreams, preparation is the key. Now that you are aware of the complete campus placement process, it has revealed that there are different organizations characteristics, recruiting process, graduating students willing ness to accept job offers and effectiveness. Methodological limitations are also noted. Figure depicts to overcome these importance issues.

Research Methodology
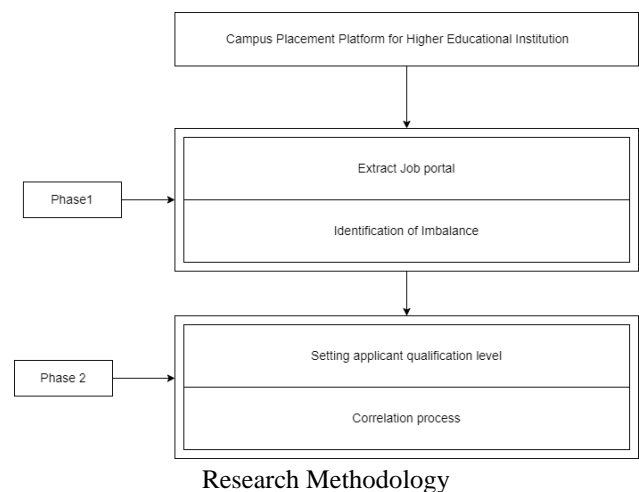
A 2.   *Algorithm Implementation*

Creating a decision tree and legalization algorithm, there is no standard format so you have many options for designing the tree data structure. Implementing a decision tree and legalization algorithm from scratch involves two main tasks. First, you must write legalize functions related to repeatedly splitting your training data into smaller and smaller subsets based on the amount of disorder in the subsets. Second, you must write code that uses the splitting functions to create a tree data structure that computes a predicted class for a given input.The method proposed in this project for campus placement belongs to the process of decision tree after legalize data. A number of methods are available to assist in extracting patterns that when interpreted provide valuable, possibly previously |unidentified, insight into the stored data.

This information can be predictive or descriptive in nature. Legalize, the pattern extraction phase of decision tree, can take on many forms, the choice is dependent on the required results.

Step 1: Gather data: Collect data related to student profiles, job openings, and placement history.

Step 2: Preprocess data: Remove missing or irrelevant data, and convert categorical data into numerical data.

Step 3: Split data: Divide the data into training and testing sets.

Step 4: Build decision tree: Use the training set to build a decision tree that determines the criteria for matching students with job openings.

Step 5: Test decision tree: Use the testing set to test the accuracy of the decision tree in predicting successful job placements.

Step 6: Prune tree: Refine the decision tree by pruning unnecessary branches to improve accuracy.

IV. EXPERIMENTS AND RESULTS

A 1. *Simulation Environment*

Determine the variables that are critical to the campus placement platform's performance, such as the number of students, the number of job postings, and the matching algorithm used. Develop a simulation model that represents the campus placement platform's functionality and incorporates the key variables Define different scenarios that represent different placement situations, such as a high demand for certain job types or a limited number of job postings. Run simulations using the defined scenarios and collect data on the platform's performance, such as the number of successful job placements, time taken for the matching process, and the percentage of job postings filled. Analyze the simulation results to identify the strengths and weaknesses of the campus placement platform and identify areas for improvement. Use the simulation results to refine the simulation model and improve the campus placement platform's performance. Continuously run simulations and refine the model to ensure the campus placement platform performs optimally.

A 2.Architecture diagram

Architecture Diagram
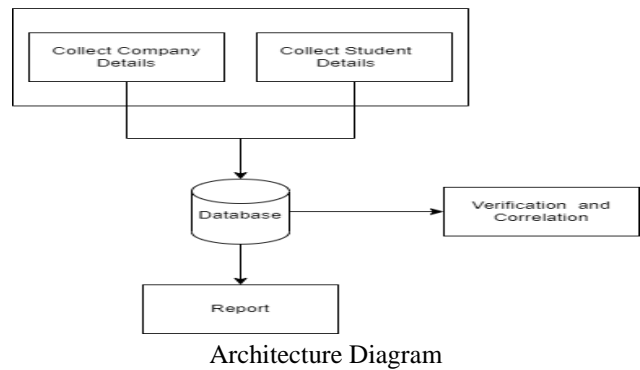
The architecture shown in Figure 2, In which all of the modules work together to form a Campus Placement Platform.
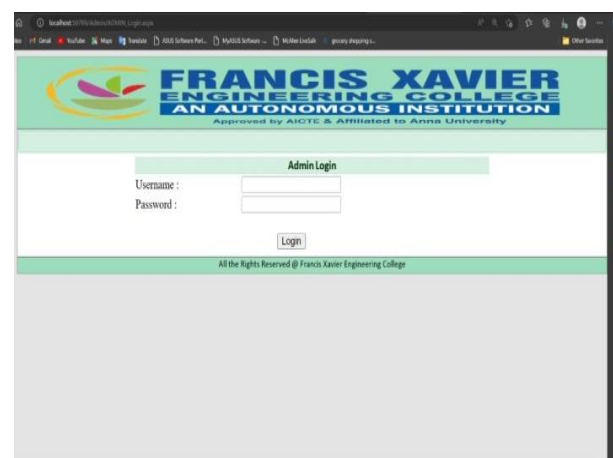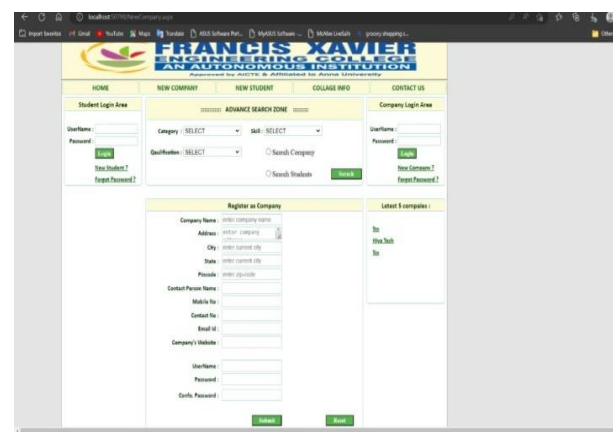

Figure 3.Admin Login
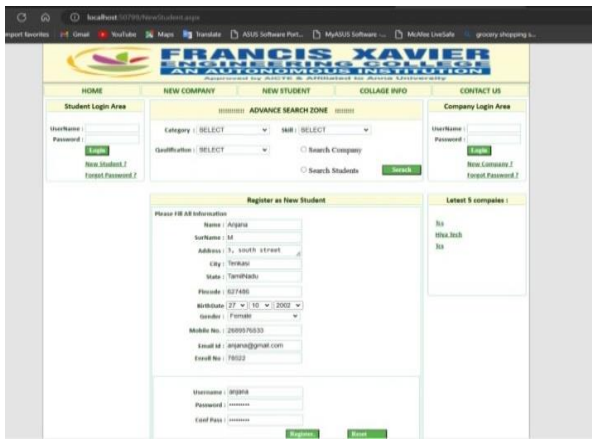

Figure 4.Company Registraion

Figure 5.Student Registration

Figure 6.Company Add Job Details

Figure 7.Student Education Details

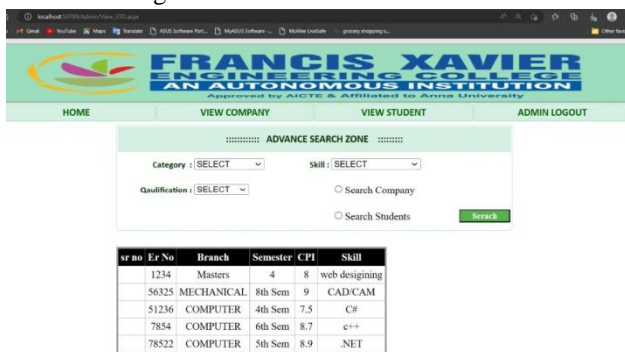Figure 8.Admin View Student Details

Figure 9. Admin View Company Details

Figure 10. Admin Notify Student

A 3. Performance Metrics

There are several performance metrics that used to measure the effectiveness of a Campus Placement Platform, including:

Design the Platform: Based on the performance metrics and data collected, you can design a user-friendly platform for students and employers to access the information. This can be done through a website or mobile application.

Marketing the Platform: To get students and employers to use the platform, you will need to market it effectively. This can be done through social media, targeted advertising, and partnerships with relevant organizations.

Update the Platform: Finally, it is important to continuously update the platform with the latest performance data and feedback. This will ensure that the platform remains relevant and useful for all stakeholders.
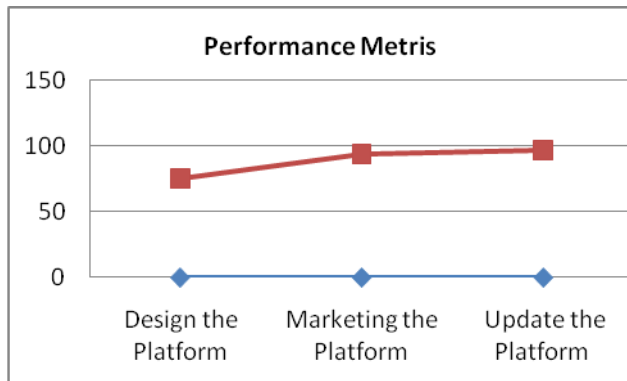
Figure 10.Performance evaluation

V. DISCUSSION AND CONCLUSION

In conclusion, a campus placement platform for a higher educational institution (HEI) can provide valuable support to students as they prepare for their future careers. By providing a centralized platform for job postings, applications, and interviews, students can save time and effort in their job search process. Additionally, the platform can offer resources and opportunities for skill development, networking, and career guidance, helping students to make informed decisions about their career paths. The admin can see the user information and will validate it, generate the student list on the basis of company criteria, company details can be provided to the user, searching and sorting can be done, and reports to be generated. Overall, a campus placement platform can be a valuable tool for higher educational institutions to help their students succeed in the job market.

VI. FUTURE SCOPE

AI-powered job matching: Utilize artificial intelligence algorithms to match job openings with student profiles, increasing the likelihood of successful job placement. Virtual job fairs: Host online job fairs that connect students with recruiters from various companies, offering greater access to opportunities for students and cost-effective recruitment for employers. Skill assessments and training: Offer online assessments and training modules to help students improve their skills and make themselves more marketable to potential employers. Career coaching and mentorship: Provide students with access to career coaches and mentors who can guide them through the job search process and help them develop skills for long-term career success. Analytics and reporting: Track and analyze placement data to identify trends and improve the effectiveness of the platform, enabling the HEI to make data-driven decisions and improve outcomes for students. Employer branding: Allow companies to showcase their brand and values on the platform, giving students a better understanding of the company culture

and values before applying for a job. Social media integration: Integrate social media platforms to enable students to build their professional networks and connect with potential employers. Alumni engagement: Provide alumni with access to the platform, allowing them to support current students and offer mentorship and job opportunities. Collaboration with industry bodies: Partner with industry bodies to facilitate industry-academia collaborations and create more job opportunities for students. Customization and personalization: Offer a personalized user experience to students, allowing them to customize their profile and preferences according to their career goals and aspirations.

REFERENCES

[1] AlmahdiAlshareef, Ahmed Alkilany, "Toward a Student Information System" published in Sebha University, Libya,Fifth international conference on Innovative Computing Technology, 2012.

[2] Prabhu T Kannan, Srividya K Bansal,"Unimate: A Student Information System", published in International Conference on Advances in Computing, Communications and Informatics, 2013.

[3] S.R.Bharamagoudar ,Geeta R.B. , S.G.Totad, "Web Based Student Information Management System" published in International Journal of Advanced Research in Computer and Communication Engineering Vol. 2, Issue 6, June 2013.

[4] ShiqiuHuang,Rzhang,zhengwei, "Static program analysis assisted dynamic taint tracking for software vulnerability discovery" published in Computers & Mathematics with Applications Volume 63, Issue 2, January 2012.

[5] Hécio A. Soares and Raimundo S. Moura, "A methodology to guide writing Software Requirements Specification document" published in Latin American Computing Conference (CLEI), 2015.

[6] Rao Yuan, Lu Shumin, "Research on Campus Recruitment Management Platform Based on Dynamic Electronic Commerce" published in The 2nd International Conference on Information Science and Engineering, 2010.

[7] Aishwarya S. Kendle, Mayur S. Nagare, "Automationand Analysis of Campus Placements in Colleges" publishein5th International Conference on Computer, Communicationand Signal Processing (ICCCSP), 2021.

[8] Beibei Zhang, Rafal Scherer, RobertasDamasevicius,"Online Job Search and Recruitment Platform for CollegeStudents Based on SSH" published in International Conference on Intelligent Computing and Human-Computer Interaction (ICHCI), 2020.

[9] Nikhil Kumar, Ajay Shanker Singh, "Campus PlacementPredictive Analysis using Machine Learning" published in2nd International Conference on Advances in Computing,Communication Control and Networking (ICACCCN), 2020.

[10] Hongping Chen, Jinhong Li, Qizhi Sun, "Campus information portal based on Portal technology" published in International Conference on Artificial Intelligence and Education (ICAIE), 2010.

[11] NileshRathod, Seema Shah, KavitaShirsat,"An Interactive Online Training & Placement System", published in International Journal of Advanced Research in Computer and Communication Engineering, Vol. 3, Issue 12,December-2013.

[12] Mr. R. J. laird, Dr. C. R. turner mima," Interactive Web based Placement Management – Principles and Practice using OPUS" published in CGU-WACE, 2008.

[13] Hitesh Kasture, SumitSaraiyya, AbhishekMalviya, PreetiBhagat,"Training & Placement Web Portal", published in International Journal on Recent and Innovation Trends in Computing and Communication ISSN: 2321-8169 Volume: 2 Issue: 3,March-2014.

[14] Prof. AnaghaKulkarni , PriyankaHajare, PriyankaKhandave , ShitalAdhav,SwatiPimpale," Implementation of Online Placement System", published in IJERMT All Rights Reserved International Journal of Emerging Research in Management &Technology ISSN: 2278 -9359 (Volume-5, Issue-1), January2016.

[15] Mr R J LAIRD," Interactive Web-based Placement Management–Principles and Practice using OPUS", published in School of Engineering, University of Ulster, Shore Road, NEWTOWNABBEY, Co. Antrim, UK, BT37 0QB, 2008.

[16] Swati Choudhary, Monica Landge, ShitalSalunke, SwarupataSutar, KirtiMhamunkar-"Advance Training and placement web portal" published in International Journal of Technical Research and Application ISSN: 2320- 8163 Volume:4 Issue: 2,March-April 2016.

[17] R. Thirumal and Dr. M. R. Sumalatha, "Campus Recruitment Management System (CRMS)," published in International Journal of Scientific & Engineering Research, vol. 7, no. 2, pp. 215-219, Feb. 2016.

[18] K. Patil, S. P. Sable, and S. S. Dandge, "Design and Implementation of Campus Placement System," published in International Journal of Scientific & Engineering Research, vol. 5, no. 7, pp. 224-227, July 2014.

[19] R. K. Jaiswal and N. Taneja, "Campus Recruitment Management System," published in International Journal of Computer Science and Mobile Computing, vol. 3, no. 1, pp. 812-818, Jan. 2014.

[20] S. S. Suryavanshi, S. V. Patil, and S. S. Hapse, "Campus Placement System," published in International Journal of Computer Science and Information Technologies, vol. 5, no. 6, pp. 8054-8057, Nov. 2014.

[21] Chen Zhang, Bo Wei, and XiangpingGao, "Design and Implementation of a Campus Recruitment System Based on Web Services" published in the International Journal of Distributed Sensor Networks, 2014.

[22] Jianjun Wu, QianweiXu, and Haojie Huang, "Campus Recruitment Management System Based on Cloud Computing", published in the Journal of Physics: Conference Series, 2019.

[23] Sijia Liu, Fang Wang, and Yunfeng Zhang, "Campus Recruitment Management System Based on Big Data", published in the Journal of Physics: Conference Series, 2020.

[24] Bo Zhang and Yongguang Cao, "Design and Implementation of Campus Recruitment System Based on Cloud Computing", published in the Journal of Software Engineering and Applications, 2015.

[25] Sujitha S., Suganthi K., and Padma M, "Campus Recruitment Management System Based on Artificial Intelligence and Machine Learning", published in the International Journal of Innovative Technology and Exploring Engineering, 2019.