

AI in Career Readiness: Enhancing Internship Experiences for Undergraduate Students

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Abstract: An internship is a vital professional learning opportunity where students engage in meaningful projects that are directly aligned with their field of study and career interests. In today's competitive labour market, internships not only provide firsthand practical experience but also serve as a crucial platform for integrating emerging technologies, including Artificial Intelligence (AI), to enhance career readiness. This study is to understand the impact of internship programs on the professional development and employability skills of undergraduate students, with a special focus on how AI-driven tools can augment these experiences. The findings indicate that internship experiences, when enriched with AI-based career counselling, analytics, and virtual collaboration tools, significantly bolster students' confidence, technical proficiency, and soft skills, thereby improving their overall job readiness. The results underscore that an AI-aligned internship model not only prepares students for the modern workforce but also provides employers with a strategic advantage by nurturing future-ready talent.

Keywords: Internship, professional development, employability skills, job readiness, Artificial Intelligence

1.0 Introduction

The integration of Artificial Intelligence (AI) in higher education has been transformative, reshaping traditional models of teaching and learning. AI technologies have the potential to enhance educational experiences by providing personalized learning, improving student engagement, and driving better academic outcomes. With the rapid development of AI-powered tools such as Large Language Models (LLMs), predictive analytics, and intelligent tutoring systems, the higher education sector is undergoing a significant shift towards a more data-driven and technology supported

learning environment. These AI systems can automate routine tasks, such as grading and feedback, while simultaneously offering adaptive learning pathways tailored to individual students' needs (Bankins, S. Et el., 2024). As educational institutions face increasing pressures to deliver more effective learning outcomes, AI offers solutions that not only enhance academic performance but also streamline administrative processes. For instance, predictive analytics can help identify at-risk students, allowing for early interventions to prevent dropouts (Ostrov et el., 2017). AI powered chatbots provide around-the-clock support, offering students immediate assistance with coursework, questions, and emotional well-being (Prihar et el. 2022). AI makes learning more dynamic and interactive by giving students individualized, real-time feedback—something that traditional teaching approaches often cannot deliver. Significant gains in accuracy, productivity, teamwork, and learning outcomes have shown the value of artificial intelligence in software engineering. Waseem M. Das et al. (2023) investigated how generative AI technologies, in particular ChatGPT, affected undergraduate students' software development experiences when ChatGPT was utilized as a support tool. After evaluating ChatGPT's efficacy, advantages, drawbacks, and impact on education, the study came to the conclusion that ChatGPT fills in a lot of skill gaps in software development education by improving productivity, accuracy, and teamwork. Additionally, it enhances participants' interpersonal skills and basic comprehension.

One way to think of an internship is as a training program designed to give any student hands-on experience to enhance the abilities to apply the knowledge acquired in the syllabus. The conceptual understanding acquired in the college will not enable someone to become job ready. Internship serves to enhance and reinforce a student's domain and expertise which aids a student to get exposed to the realistic, real-time difficulties and solutions. This will also assist institutions to generate educated, talented, and employable technical workforce. Internship will additionally make the learner gain interpersonal and teamwork skills, leadership attributes, aptitude for communication, and improvement of abilities to secure a better career opportunity. AICTE define Internships as "educational and career development opportunities, providing practical experience in a field or discipline. They are structured, short-term, supervised placements often focused around particular tasks or projects with defined timescales. An internship may be compensated, non-compensated or some time may be paid." Guile and Lahiff (2013) described good internships as providing an experience of working that helps graduates in developing expertise in technical knowledge, interpersonal skills, but also helping to develop entrepreneurial flair so they can assist a business to grow and build social capital, that is, the networks to help them to secure permanent/contract-based employment or self-employment. Students are perceiving internship as a vehicle for augmenting their education, and as a means of gaining a competitive edge in the marketplace for new jobs. (Andrew Cannon & Mark J. Arnold, 2010). Internships are considered important as they help students in career connections and networking opportunities that only start with internship openings. Frequently,

with the completion of a successful internship, students are usually offered their first full-time jobs maybe with the same organization (Diane Galbraith, 2019). The internship process shall give confidence to the students in achieving their employability skills when such internship is done in reputed MNC companies, which will help in placement once they graduate. (B. Vamsi Krishna, Dr. J. Selwyn Babu, 2021). One common way to integrate classroom learning with practical experience is through internships. These programs are designed to improve students' learning outside of the classroom and increase their employability once they graduate. Three parties are involved in the internship process: employers, students, and the university.

Nonetheless, the structure of curricula varies amongst and even within institutions. Thus, the key to the overall success of undergraduate student internship programs is understanding the optimal program structures. Higher education institutions provide student internship as an academic aspect of their curriculum as a productive way to give students real-world experience and boost their employability after graduation. As a best practice, many colleges and universities allow students to choose between classroom instruction and practical experiences in the real world. Internships help students to acquire skills, which is difficult to be learnt in the classroom environment, as well as employers obtain access to low-cost labour and reduced recruitment costs (Maertz, Stoeberl, & Marks, 2014).

The phrase "professional development" in education can refer to a broad range of formal education, specialized training, or advanced professional learning meant to assist students in enhancing their professional knowledge, competence, skill, and effectiveness. The importance of professional development has grown in bridging the knowledge and skill gap that exists between academic work and what is needed for successful employment. It has been shown to be a powerful motivating tool for luring and keeping top talent while fostering development and expansion in any kind of workplace. Many strategies are typically used in professional development, such as lesson study, mentoring, coaching, communities of practice, reflective supervision, and technical support (Powell et al, 2010). The term "professional development" in the context of education refers to a broad category of specialized instruction. The goal of improving the professional knowledge, competency level, skill set, and effectiveness of students is achieved through both formal education and advanced professional learning. (Taylor et al, 2017).

Giving graduates the capacity to think critically and produce value from the knowledge they have assimilated during their studies is the aim of various educational establishments. Higher education plus practical skills are viewed as a way to acquire knowledge rather than expertise in India. According to many academics, the main objective of higher education is to provide students with an atmosphere where they may use their body of knowledge to become proficient problem solvers and rational persuaders by applying their critical and logical thinking skills. (Moodie & Wheeahan, 2011). However, the professional sector is seeking graduates who can begin their professions

with the confidence and competence of task-oriented operations. In other words, graduates with a set of skills that have the potential to be employed (Bridgstock, 2009). The work-ready strategy supports the notion that organizations should limit their operations to the intellectual level of academic competency while giving priority to the operational and practical competence of the workplace. Graduates are expected to have the skills and task-oriented responsibilities needed to function in a professional work environment, yet students today lack these abilities. Morton and Moore (2017). While learning outside of the classroom aims to reinforce and reassure the application of theoretical knowledge, intellectual mindset to practical skills, and affective disposition, classroom learning manifests itself to achieve overall academic excellence and mastery in subjects (Kuh, 2000; Storey, 2010). A student's readiness for academic success, achieving career goals, and ultimately being employable depends on the integration of in-class (curricular) and extracurricular (out-of-classroom) internship programs (Williams, 2002).

Internships can be strategically aligned with students' career goals and skill development needs when they are supported by effective career counselling. Internships and career counselling have a significant impact on students' readiness for the workforce. (Muhammad Hakiki et al, 2023). This integration facilitates the smooth transition from scholastic pursuits to professional roles. Work readiness is described as a skill that relates to a set of accomplishments, one's comprehension and attitude, or a quality that allows graduates to possibly land the desired job. (Yusof & Jamaluddin, 2015). Work Readiness can be explained as an ability of a graduate to possess certain skills, knowledge, labour market awareness which helps the graduate to make a positive contribution once they are recruited.

Higher education in India is perceived mainly as a means of acquiring knowledge rather than mastery, even when integrated with practical skills, opines Erica-Mae L. Barriga et al. (2023). The employability approach, which espouses the view that training can be conducted on a theoretical academic competency level, fully favours skill impartation of an operational and practical nature in the workplace. Moore & Morton (2017) comment that graduates must, since this is not yet the case in the industry, possess the requisite skills and participative behaviours that will enable them to be productive as employees. The modernization of the curriculum of universities is an attempt to better prepare their graduates for the challenges posed by contemporary labour markets. Perfecting employability skills among graduates is imperative given the rising competition in the labour market.

“Employability skills are defined as skills required to gain employment, and to progress within an enterprise so as to achieve one's potential and contribute successfully to enterprise strategic directions.” (DEST 2022). Employability is a highly valued indicator relating to the competency of employees. Employability skill framework is useful for the ever-changing dynamics between higher education institutions and the labour market. (Minjun Tong and Tianyue Gao. Yorke (2004) described employability skills as a set of

achievements that graduates develop skills which help graduates in understandings and in upskilling personal attributes so that graduates are likely to gain employment and be successful in their chosen profession, which may benefit the graduates, the employers, the society, and the economy in large. Employers place a high value on employability skills, also known as soft skills, which are a collection of transferable abilities and character traits necessary for productive work output. Unlike technical skills, these employability skills are generic in nature, rather than job-specific, and are common to all work roles and workplaces across all industry types - for instance, communication and teamwork (Article in University of Sydney). A graduate as a job aspirant is to consistently develop and enhance their skills to remain relevant and attractive to the job market. (Naomi Borg, 2020). Skills related to employability can be learned, improved, and developed. Employers, educational institutions, and students working together will be successful in instilling these qualities in individuals, albeit there is obviously no one-size-fits-all method or trick. In the past, learning new skills on the job was always the best option. Sufia Rehman (2014) Personal knowledge and job-related skills, such as technical and collaborative abilities, are examples of internal factors; labor market conditions, such as supply and demand, are examples of external factors.

(Tholen, 2014). According to Paddi (2014), a graduate with proficiency in teamwork, communication, analytic & critical thinking, and IT skill are the most sought after. According to Munro (2007), Employability skills include the capacity to improve productivity at work in an organization in addition to effective written and verbal communication abilities. critical thinking, which is considered the foundation of both academic and organizational success.

1.1 Research Questions

- Is there a significant relationship between internship program and professional development of an undergraduate student?
- Is there a significant relationship between internship programs and enhancement of employability skills in undergraduate students?
- Is there a significant gap of employability skills between the requirements and expectations of employers, and the actual level of these skills of an undergraduate student?

1.2 Objectives:

- To understand the effect of internship on professional development of an undergraduate.
- To assess the effectiveness of internship on enhancement of employability skills of an undergraduate.
- To analyse the role of AI in enhancing the internship experiences of undergraduate students.

2.0 Literature Review:

Over the past few years, as noted by PP. N. & Anantharaman, robotics-based solutions have expanded from manufacturing plants to residential applications. Concurrently, deep learning techniques are yielding dependable results and displacing traditional methodologies in spheres like computer vision, natural language processing, speech processing, and so on. The objective, therefore, is to provide interested student interns with a brief overview of various research internship projects within the broader ambit of "Deep Learning applied to Robotics" in 2023. The findings indicated that customer success mechanisms monitor the skill gap in software development training by enhancing productivity, performance, and collaboration. In addition, soft skills and basics got awakened within the participants. The research underscores the need for the judicious application of technology while underscoring the requirement of integrating AI technologies such as ChatGPT in education to remedy skill gaps and bolster efficiency (Waseem M. Das et al., 2023).

Professional apprenticeships, which started with The Trade Guilds of Europe in the eleventh and twelfth centuries, are where internships got their start. Young apprentices were taken on by master craftsmen and tradesmen, who employed them during their growing up years until they graduated as a trained person and began receiving a wage. A lot of the time, apprentices decided to stick with the trainers who taught them. This guild system eventually gave way to growing modernisation and the formal professional education system developed. (Sides & Mrvica, 2007). The primary purpose of apprenticeship is monitor, train, and help in fill the skill gaps (Reginald Bray's 1911 book). Fatimah Mohammed Ahmed Burayk et al (2023) highlighted that based on the responses of the instructor-in-training, the researcher aimed to consider and assess the effectiveness of the internship program. Graduates who participated in internships experienced professionalism and could secure a respectable pay in their initial job. Additionally, students acquire skills that will benefit them in the workplace. For business students, internships are essential learning opportunities because they foster both professional and personal development. Diane Galbraith, Sunita Mondal, (2020) in their research paper highlighted the relevance of internship in employability. The paper highlighted the relevant information concerning to the internship experiences and the importance in aiding of career connections and concluded that one of the major issues that students encounter, is securing an internship but continuing the successful completion of internships is a predominant requirement in future career success which equates to another positive attribute of this form of on-the-job training. Internships are considered as learning tools for job success. Thiayzan Qubati Kamal Tamim, in their thesis (2021) explored that a graduates' employability opportunities are caused by students' involvement in internships and identifying the preferable skill sets that are required by employers. The findings clearly showed there is a significant relation between the dependent variables (internship programs), which affect the independent variable (graduates' employability).

Sanjeev Kumar in his research paper (2023) emphasised on the conceptual aspect of employability, relating to the measurement and role of employability along with developing higher education system. The research paper indicated that the traditional education has seen a shift towards softskills, valueadded and employability courses. The paper highlighted that there is a barrier between employers' requirement for higher education and the government's employability related initiatives. To achieve this the researcher suggested career guidance and placement cell, training skills development program etc. are to be provided by the universities to enhance employability skills in students. Sidiq Supriyanto (2023) mentioned in his research, that students who have completed more internships will be prepared for the workforce. Therefore, work is to be done to enhance the internship experience for students. A student is more prepared for the workforce if they are more motivated to enter the workforce. Teachers must always give students guidance and motivation before class starts to increase student motivation. They should also regularly offer counselling services to help students who need it. Diane Galbraith, Sunita Mondal, (2020) in their research paper highlighted the relevance on internship in employability. This paper highlighted the relevant information concerning to internship experiences and the importance in aiding in career connections. The paper highlighted that one of the major issues that graduate's encounter is clinching an internship but continued that successfully completing of internships is a requirement for future career success. Which is equal to another predominant aspect of any on-the-job training. Internships are considered as learning techniques for job success. the effect of internship on the personal development as internship boosts confidence and morale of the Interns(students) as they can identify their strengths and shortcomings which may help them to gain confidence and self-motivation to work for themselves and reach for that personal development. The data also highlights that internship has a positive impact on professional development of an intern as completing tasks efficiently and a competent workflow, helps an intern to understand the assignments and process of tasks and it helps to increases their productivity and in turn help the organization to succeed. Imade Suarta etal, in her research paper (2017) mentioned that employability is not merely an attribute of the new graduate but requires a continuous refreshing of the skills throughout a person's working life. Graduates' realistic knowledge, logical ability, dedication to work, communication & IT skills, management skills and positive attitudes are highly concerned factors among employers According to the researcher, employability skills are the technical and knowledge-skills used at the workplace along with general capabilities and personal attributes. Above all, these abilities are not job-specific ones; rather, such skills embrace all jobs at all levels and apply across all industries. In their research paper (2012), Omar et al. conducted a survey using survey research methodology and explicated that the employability skills of the graduates continued at a moderate level, which could hamper their employment opportunities. In order to solve the issue, a researcher had recommended that educational institutions should

help the students develop such employable skills from an organizational perspective. Employability skills should be developed in a way that integrates into the curriculum so that students leave these institutions with the abilities that companies require. Kalufya, Lucas Mwakajinga in their research paper (2016) have done a study to understand employability skills in Tanzania and highlighted that there is significant difference in priorities of the employability skills possessed by final year students and that which is perceived by employers. Skills like self-awareness, application of knowledge and team working were the most sort out skills from organization point of view but such skills were lagging in students. It was also understood that there was significant correlation between final year students and employers' perceptions on the importance of employability skills. In his essay, Andreas Kornelakis (2020) continued the discussion over employability skills, especially in the higher education of the UK. The article examined small group teaching as a form of small group teaching to assist teachers in responding to industry perspectives regarding employability skills in the higher education sector. The essay attempts to make a distinction regarding the various kinds of employability skills as identified by employer surveys using pedagogical theory and practice and try to match them with different small group teaching activities. According to that work, traditional practices in small group teaching cannot be used for implementing work-integrated learning, which follows marketization and digitization trends, in order to bridge the skills gap between graduates and labour-market expectations. This paper looks at the advantages of teaching strategies such as role-play, Oxford Union-style debates, problem-solving case studies, and presentations in the development of employability skills. Digitalization brought in a lot of challenges to the labour market which is being overpowered by marketization in higher education which can be a reason for the tensions in relation to the development of employability skills and there is only one way to resolve this tension is to rethink the relevance of traditional small-group teaching and learning practices and techniques for employability. Dr. Farhath Nazneen in his research paper (2022) understood the certain elements play a significant role for students' career growth as well as the importance of the University's educational programs assist students to achieve employability was also investigated. The study highlighted that the talents acquired throughout their higher education that helped students succeed in their careers include effective communication, critical thinking, programming skills, entrepreneurship development.

Robert Gill (2018) gave a narrative describes how communication departments in higher education in Victoria, Australia, have created a platform whereby graduating students can interact with business executives directly to prepare them better for the transition from college to professional work in the fields of media and communication. Erni Tanius, Suhana bt Susah (2013) highlighted in their research paper that graduates have a high degree of employability skills as they are prepared in terms of listening, teamwork, and collaboration as well as innovation, and they are fully aware of the skill areas that require improvement. According to the study, a policy marker should be created to

create standards for work skill readiness to ensure that the workforce and industry have the necessary skills. The researcher also mentioned the role of universities, employers, and government in augmenting a situation where courses are being offered for the student's overall development. M. Booma Kumari (2020) in her research paper concluded that educating students about the importance of being prepared for the workforce upon graduation is the first step. One of the most crucial sets of skills to become employable is being prepared for a job. The study's goal is to evaluate our students' readiness for the workforce in Chennai. J. Hooley, et al (2022) highlighted the purpose of this research as to understand the graduate employability including hard and soft skills and to identify the factors impacting these skills. This paper attempted to investigate the justifications for employability provision at eighteen universities (the total number of higher education institutions). The paper examined several important models related to higher education institutions and articulated their justification for interacting with employability. Elza Lourens and Magda Fourie-Malherbe in their research paper (2016) highlighted the challenges that graduates face in relation to underemployment. It is recommended that recent graduates cultivate a "workplace identity" to increase their employability. An empirical study demonstrates that a graduate needs to develop their skills holistically rather than relying solely on their qualifications. The researchers recommended that employers and higher education institutions provide targeted support to recent graduates as they make the transition from college to the workforce, particularly when they are starting their first job.

2.1 Hypothesis

Ho: There is no significant effect of internship on professional development and enhancement of employability skills of undergraduates

H_iA: There is a significant effect of internship on professional development of undergraduates

H_iB: There is a significant effect on enhancement of employability skills of undergraduates

3.0 Research Methodology:

The descriptive nature is the essence of this study looking for evidence-based research with an accurate and precise interpretation. This particular approach was meant to provide analysis on how internship programs contribute to university students' employability skills and professional development. The research was centred on the juniors of which 100 percent response was received from 100 graduating students, drawn from a variety of colleges throughout Hyderabad. Of the participants in the study, 39.6 percent were male while the other 60.04 percent were female, with particular programs of study in computer, art, business administration, accounting, and engineering. A major proportion of them were involved in internships in the area of sales, finance, business analytics, and business services.

The data was collected through a self-structured questionnaire in three sections:

Variables	Model R	R Squ	Adj R	Sig F	Unstd Coeff		P value	T	Sig
					B	Std err			
V1	0.19	0.03	0.02	0.72	3.43	0.69	3.48E-06	4.93	< 0.05
V2	0.23	0.05	-0.00	0.52	4.55	0.67	1.27E-09	6.75	< 0.05
V3	0.19	0.03	-0.02	0.72	3.43	0.69	3.48E-06	4.93	< 0.05
V4	0.27	0.07	0.0141	0.29	3.95	0.59	1.73E-09	6.68	< 0.05

- Profile of the respondents;
- The reason why respondents participated in the internship;
- Impact of internships on professional growth. The statistical analysis used was Coefficient of Regression and Anova.

4.0 Analysis and Interpretation

Professional development

V1: Practical experience; V2: Conceptual Knowledge; V3: Clarity on goal setting;

V4: Expansion of networking

Interpretation:

Multiple regression is measured using statistical tool excel. The values of model R are 0.19, 0.23, 0.19, 0.27. The values can also be checked manually applying the formula of intercept for the data reliability. The significant value of F to measure Anova is 0.72, 0.52, 0.72, 0.29 which are not less than 0.05, failing to establish independent relationship between the independent variables of measuring Internship. To measure regression, the standard coefficient value of beta is 3.43, 4.55, 3.43, 3.95. Considering p value as the standard value to analyse significance of data, the p values of all independent variables are 3.48E-06, 1.27E-09, 3.48E-06, 1.73E-09 signifies that all the independent variables have significant impact on professional development.

The regression analysis explains that all the independent variables (V1, V2, V3, V4) have a significant influence on the dependent variable, because of their indication of their low p-values (<0.05) and high t-values. But the point of contention is that the R Square values between 0.03 and 0.07 which indicate that each individual model shows and elaborates only a small percentage of variance in the actual outcome variable. This

implies that although these variables are statistically significant predictors, the dependent variable are influenced by other factors which may not have been captured in the current model.

Employability skills

Variables	Model R	R Squ	Adj R	Sig F	Unstd Coeff		P value	t	Sig
					B	Std err			
V1	0.31	0.10	0.04	0.12	3.58	0.65	3.69E-07	5.47	<0.005
V2	0.32	0.10	0.04	0.10	3.37	0.69	4.94E-06	4.85	<0.005
V3	0.33	0.11	0.05	0.07	3.53	0.70	2.35E-06	5.03	<0.005
V4	0.21	0.04	-0.01	0.62	2.72	0.67	0.000116	4.02	<0.005
V5	0.26	0.07	0.01	0.31	3.56	0.55	6.44E-09	6.39	<0.005
V6	0.23	0.05	-0.00	0.49	2.72	0.00	0.000116	4.02	<0.005

V1: identify skills needed

V2: expand professional networking

V3: professional upgradation

V4: Decision making

V5: Teamwork

V6: AI

Interpretation: The regression analysis which was done using the six dimensions of employability skills (V1-V6) gives a thought-provoking insight on the impact of individual skill attributes and their contribution to the employability of undergraduates(students). The results explains that each independent variable has a positive and significant influence on employability skills, as the evidence of p-values suggest a well below the 0.005 threshold. This suggests that all six dimensions help to predict employability positive results, concluding that each of the attribute is relevant in creating an atmosphere of students' readiness for the job market. Even though all predictors are relevant, the relevance of each individual model is a highlight, as R Square values are ranging from 0.04 to 0.11. This points out that each variable, when studied independently, highlights a small portion of the variance on employability

skills. Variable V₃ exhibited the best relationship ($R = 0.33$, $R^2 = 0.11$), and later V₁ and V₂ ($R^2 = 0.10$). This analysis helps us to conclude the importance of each variable on validating employability which is multi-dimensional construct which is impossible to be fully judged by any single factor alone.

These findings give us glimpse of the importance of adopting a skill set that is to be developed in such a way that the approach helps in preparing students to be job ready. Each skill dimension is able to help in a meaningful impact and their combined impact is more impactful than individual or isolated impact. This helps us to conclude the importance of Higher educational institutions to propagate integrating curriculum with skill development initiatives which brings self-awareness, networking technical improvement, adaptability, and professional development. In conclusion, the analysis concludes that the variables prominently influence employability skills, but the R Square values hints at introducing multiple interrelated skill factors as a combination. It can be concluded that employability skills are a combination of personal, professional, and contextual factors, and the analysis of the study confirm that a well-structured, comprehensive skill enhancement and engagement programs are very much necessary for building the student readiness and competitiveness in the job market.

4.1 Discussion:

The study aims to determine and quantify the impact of internships on undergraduate students. The scale to measure internship were identified from previously published sources. Professional development and employability are the two dependent variables identified through thorough review of literature. Measuring these two dependent variables are considered as key outcomes of undergoing a professional internship which is identified as research gap as well. Professional internship given by organisations act as a platform for the students to have exposure, gain knowledge and experience and to undergo deep self-analysis. It helps students to understand organisation culture and expectations of the organisation upon employees. Hence the scale to measure professional development and employability skills insights more on gaining practical experience, identify the need of internship and self-evaluation. The above table explains the regression values and Anova values also. From the above table, the values of Anova shows that the significant F is not less than 0.05 hence the variables are not independent. The hypothesis to measure independence of variables is rejected and thus null hypothesis saying that there is no significant dependence of variables on each other is accepted failing to accept alternative hypothesis. But any ways, taking p value as the standard value to measure effect of internship on dependent variables, the values of V₁ and V₂ are less than 0.000 showing that they are significant. Hence the study proves that the need of imparting practical exposure to the students as a part of curriculum is essential. The platform of practical work experience benefits the students for their skill development.

5.0 Conclusion

The study reveals a substantial positive result of internship programs on the aspect of acquiring new skills and enhancement of overall employability skills among undergraduates in Hyderabad. The hands-on experience gained during internships significantly contributes to the development of practical skills relevant to their respective fields. Through this study, the researcher arrived at the conclusion that internship programs significantly improve graduates' skills from the employer's view and understanding and graduates as well as it have an experience of professional development. The infusion of Artificial Intelligence (AI) into internship programs is set to redefine how internship programs align academic curricula with the changing needs of the digital enterprise. Nyale et al. (2024) substantiate that AI frameworks can help convert academic programs into adaptable, industry-relevant learning curricula with an enhanced focus on digital skills and employability for graduates. Through the embedding of AI tools and techniques into internship programs, educational institutions will better prepare students for the dynamic requirements of any labour market. The findings indicate that employers' and graduates' opinion of the significance of employability skills in securing a good job may be possible because of hands on experience such as internship. The study also demonstrated the importance of internship programs which guide the undergraduates to acquire the skills necessary to be ready for the workforce. The aim of the study has been positively attained, the questions raised could be addressed, and its hypotheses also has been validated, which proves that internship programs have given under graduates the employability skills that are best needed as well as help a student to grow professionally.

The results demonstrate that internship have a notable influence on the professional development of undergraduates in building their confidence and morale. These findings underscore the significant influence of the training period on personal growth and social interactions, emphasizing the importance of internships as a catalyst for individual development. The findings give a perspective that internships help in professional development of a student as he/she gains practical experience under the guidance of an expert or supervisor which is very useful for the student to retrieve the learnings after graduation and when place in an organization. An excellent way to make use of and apply practices is through internships, which help learners make the connection between theoretical concepts and practical exposure functional workplace operations. Therefore, every indication of productivity derived from the respondents' experiences in internship programs determines or enhances their professional development. An intern's immediate experiences provide important factors that can impact their personal and professional development. These experiences can include both positive and negative aspects, which can either enlighten and strengthen an intern's personality or provide encouragement and confidence to pursue growth.

5.1 Recommendations

Given the study's findings, the researcher suggests a series of actions and recommendations for all parties involved to improve graduates' employability. Listed below are some of these suggestions:

- The Ministry of Higher Education should come up with and implement policies for adding structured internships for students in all HEIs in the country, to assure that graduate's would be experienced with industry required skills before they complete their education.
- The need to train the students is imminent. The programs should be done in collaboration with the industry and should align with current and future job market needs, which are in demand.
- AI-driven career counselling platforms should be integrated at the HEI level, which will analyse a student based on their skills, interests, and industry trends, to recommend tailored internship opportunities that will help them make informed career choices.
- AI-based analytics by employers should help in conducting a periodical assessment of their interns' progress, providing feedback in real-time, and spotting possible top candidates for full-time offers, therefore streamlining the hiring process.
- Fostering internships will be a good way to expose students to the employers, and employers shall inspect in advance the highly talented students. In such a manner, reflections can also be placed for structured mentorship and ground-level exposure, leading to reduced hiring risks and expenses in forming the future employees.
- Virtual and hybrid internships should be encouraged by HEIs and AI-assisted platforms for remote collaboration, project management, and real-time communication between interns and employers.
- AI-based skill assessment tools in internship programs should be adopted to evaluate students' competencies before, during, and after an internship, to allow for continual improvement and better readiness for a career.
- There should be continuing partnerships set up among the universities, the industries, and the artificial intelligence development firms so that students may have an opportunity to be able to work with the state-of-the-art tools and get practical experience that will apply to modern workplaces.
- Through AI-powered data analysis, continuously monitor and evaluate the relevance of internship programs should be held to assess their effectiveness, notice learning outcomes of students, and revise programs for future textual improvements.
- Financial and logistic ensures should be sought by students, including the AI-based platforms that allow students to be matched with internships they can do from their homes closer to the office to reduce travel time or pay which could compromise their safety.
- One of the most important advantages of offering internships by organizations is the opportunity to select and nurture the youth who are instilled with talent. Hiring expenses will be reduced for employers because they can screen and interview

candidates before making full-time job offers. The following is a list of advantages companies can get from providing internships:

- a. To give existing employees free access to creative and challenging assignments.
- b. To have an advantage of staff retention.
- c. To help the organisation in applying the most recent strategies.
- d. To maintain a professional relation with universities to tap the right talent during recruitment drives.
- e. To help the company achieve CSR through its internship drives which can be considered as a phenomenal tool to maintain public relations.

5.2 Limitations

The responses by the graduates may be biased due to the lack of information. The researcher could not reach a great number of graduates who had internships because of time limit. 85 Although the researcher continues to believe that using quantitative research for this study was the best option, instruments like questionnaires are not intended to gather precise data. If qualitative research was included with this study, it could gain more credibility. An focus group, observation, or interview, for instance, might provide more proof to support the information.

5.3 Implication of the Study:

For future research, I suggest that more studies be conducted on a broader demographic. It is a necessity to take forward research to determine the factors that contribute to a student's inability to advance after completing an internship. Other methodological approaches should also be used in research. There is a need for more research on internship scheduling. Such studies would help determine whether early internship inclusion in a student's academic career has any benefits. This would provide more details about how stakeholders might profit from a more consistent ratio of internship to classroom instruction.

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