

COVID-19 Pandemic Effects on the Employability of Bachelor of Science in Information Technology Graduates of Nueva Ecija University of Science and Technology

Ellen Jane G. Reyes¹; Arlie C. Santos²

¹College of Information and Communications Technology
Nueva Ecija University of Science and Technology
San Isidro Campus, San Isidro, Nueva Ecija Philippines 3106

²College of Information and Communications Technology
Nueva Ecija University of Science and Technology
San Isidro Campus, San Isidro, Nueva Ecija Philippines 3106

Publication Date: 2026/07/07

Abstract: This study generally aimed to trace the status and employment of BSIT graduates of Nueva Ecija University of Science and Technology, San Isidro Campus, for Academic Years 2019-2020 and 2020-2021. A mixed-methods research design was used in this study: a quantitative method was employed to collect and analyze data via Google Forms, and a qualitative method was used to conduct online interviews with BSIT graduates to understand further their insights and experiences in job searching during the COVID-19 pandemic. There were 99 graduates in total, but only 55 responded to the study. The researchers used a mixed-method research design for this study, this method is a research approach whereby researchers collect and analyze both quantitative and qualitative data within the same study. Based on the tallied results, there is a high employability rate for technical support positions in the Philippines with regular/permanent status. Most employed respondents landed their jobs in less than a month, as recommended by someone with initial gross monthly earnings of 10,000 to 15,000 pesos. The findings also revealed that, from the respondents' perspective, the BSIT curriculum is relevant to their first job. Most of the self-employed respondents were online resellers, contented with no boss setup, and the flexibility of time. Most unemployed respondents consider family concerns and a lack of work experience as hindrances to employability. They finance their daily living via savings from their previous job. Interview responses from the present study indicated that graduates considered their BSIT education useful, particularly in programming, computer operations, and other technical skills.

Keywords: COVID-19, Employability, Information Technology.

How to Cite: Ellen Jane G. Reyes; Arlie C. Santos (2026) COVID-19 Pandemic Effects on the Employability of Bachelor of Science in Information Technology Graduates of Nueva Ecija University of Science and Technology. *International Journal of Innovative Science and Research Technology*, 11(6), 2780-2787.
<https://doi.org/10.38124/ijisrt/26jun1575>

I. INTRODUCTION

It is very evident that the COVID-19 pandemic made a drastic change in human life. This pandemic causes a lot of changes in the whole world; in fact, according to the World Health Organization (October 2020), the COVID-19 pandemic has led to a dramatic loss of human life worldwide and presents an unexpected challenge to the public health, food system, and workforce. The economic and social disruption caused by the pandemic is devastating (City, 2020).

At the onset of the pandemic, several precautionary measures were implemented. It includes the prohibition of face-to-face classes to minimize the contact of people and to prevent the spread of the disease. Despite the challenges caused by the pandemic, people should find ways to move forward. As stated by Susan Grajek and D. Christopher Brooks, the COVID-19 pandemic is prompting many colleges and universities to abruptly and comprehensively adopt online

learning, remote work, and other activities to help contain the spread of the virus. In the past decade, institutions have recognized the importance of advising, early alerts, degree planning, and other services to help students attain their academic goals affordably and efficiently. A wide range of new applications and technologies to support student success are now available and may prove invaluable to help students adapt to fully remote learning. (Educause,2020).

Spurka and Straubb discussed the effect of the COVID-19 pandemic on work and careers of individuals within flexible employment relationships, outlining potential impacts of the COVID-19 pandemic on the careers of those employees and examining how the pandemic could contribute to the ramification of flexible employment relationships. According to Davison, the lockdown has required most office workers to fully embrace online remote working and digital work tools such as collaboration platforms and video conferencing tools to enable them to work 100% remotely in new, innovative

ways. According to Richter, the lockdown has allowed many employees to connect and meet in new ways, and to work more flexibly, establishing new forms of management and independent working styles. This has driven many employers to develop their organizational and data management frameworks by using online tools to access resources and data. At the same time, the data security protection requirements have increased significantly during the COVID-19 lockdown. A recent study by Ivanti has found that IT security demands have increased by 66% due to online remote working, with most online issues coming from malicious emails, non-compliant employee behavior, and software vulnerabilities.

Based on the previous statement, we can say that the pandemic opens more opportunities to people in the field of Information and Technology. They have advantages compared to others because they are considered technology-oriented people and well-versed in the different platforms that are being used to assist and perform the jobs of the employees.

One of these is the Nueva Ecija University of Science and Technology, a renowned university in Region III, Philippines, that offers and produces BS Information Technology graduates every year. The challenges of COVID-19 and the total lockdown motivate the researcher to continually track graduates and assess curriculum relevance in these difficult times.

II. OBJECTIVES OF THE STUDY

The main objective of the study is to trace the BSIT graduates of NEUST San Isidro Campus of A.Y. 2019- 2020 and A.Y. 2020-2021

Specifically, this employability study sought to answer the following questions:

- What is the general profile of the respondents in terms of:
 - ✓ Civil status
 - ✓ Gender
- What is the educational background of the respondents in terms of:
 - ✓ Enrollment in graduate studies
 - ✓ Other course pursued
 - ✓ Reason for pursuing advanced studies
 - ✓ Skills learned in college that apply to career
 - ✓ Examination or certifications passed
- What is the profile of employed respondents regarding:
 - ✓ IT-Related Job
 - ✓ Name and classification of the company
 - ✓ Current position in the company
 - ✓ Employment status
 - ✓ First Job after college
 - ✓ Duration to find the first job
 - ✓ How did they find their first job
 - ✓ Place of work
 - ✓ Reasons for accepting the job
 - ✓ Duration to land the job
 - ✓ Initial gross monthly earning in their current job
- What is the profile of self-employed respondents regarding:
 - ✓ Business classification
 - ✓ Position in the business
 - ✓ Reasons for being self – employed
 - ✓ Monthly earnings of their business

- What is the profile of unemployed respondents regarding:
 - ✓ Reasons for being unemployed
 - ✓ Situations while looking for a job
 - ✓ How they finance their everyday living
- What are the challenges encountered by the respondents in applying for a job during the COVID-19 pandemic?
- Is your learning in this course enough to make you employable? If not, what are those gaps that need to be addressed by the university?

III. METHODOLOGY

The researchers used a mixed-method research design for this study. Mixed methods is a research approach whereby researchers collect and analyze both quantitative and qualitative data within the same study (Hamilton). Quantitative research establishes statistically significant conclusions about a population by studying a representative sample of the population (Creswell) and qualitative research describes an event in its natural setting (Abusabha, R. & Woelfel, M.L.)

A quantitative method was employed by collecting and analyzing data via a Google form, and the qualitative method was used by conducting online interviews with BSIT graduates to further understand their insights and experience in looking for a job during the COVID-19 pandemic.

The respondents of the study were the forty-one (41) BSIT graduates of A.Y. 2019–2020 and fifty-eight (58) graduates of A.Y. 2020–2021, with a total of 99 graduates. The researchers used a modified Commission on Higher Education Graduate Tracer Survey designed in Google Forms. The modified questionnaire consists of three parts, namely: general information, educational background, and employment data. The modified questionnaire was planned and created by researchers. Suggestions for modifications and improvements were made, and it was set for a dry run and tested by selected BSIT students.

The researchers extracted the data of BSIT graduates with personal information from the Registrar's Office of the campus. After getting the list, the links were disseminated to graduates' email accounts, group chat, and messenger to gather data. When the employed graduates were identified, a follow-up online interview was conducted. The questions given were: 1) What are the challenges you encountered in applying for a job during the COVID-19 pandemic? and 2) Is your learning in this course enough to make you employable?

Upon completion of the data gathering procedure, responses were tabulated to facilitate the analysis during the interpretation of data. The data gathered were tallied, analyzed, and interpreted. Descriptive statistics such as frequency counts, percentages, and ranking were used in this study.

The formula is presented below.

$$P = \frac{f}{N}$$

Where:
P= Percentage
f= is the frequency
N= total responses

IV. RESULTS AND DISCUSSIONS

This section provides the presentation of the results of the study. Corresponding analysis and interpretation regarding some of the presented data were discussed.

Table 1 The Respondents of the Study

Employed Variables	Frequency	Percentage
IT Related Job		
Yes	21	55.26%
No	17	44.74%
Company Classification		
Information Technology	22	57.89%
Manufacturing	8	21.05%
Bank	3	7.89%
Education	4	10.53%
Health	1	2.63%
Employment Status		
Regular	27	71.05%
Contractual	9	23.68%
Temporary	2	5.26%
Position		
Computer Network Professional	8	21.05%
Database Designers and Administrators	1	2.63%
Software Developers	2	5.26%
Web and Multimedia Developers	1	2.63%
Technical Support	14	36.84%
Administrative Assistant	4	10.53%
Marketing Specialist	4	10.53%
Quality Assurance Analyst	2	5.26%
Merchandiser	2	5.26%
How did the respondents find their first job		
As a walk-in applicant	14	36.84%
Recommended by someone	23	60.53%
Arranged by the school's job placement officer	-	-
Family business	1	2.63%
Job Fair or Public Employment Service Office (PESO)	-	-
Place of Work		
Local	35	92.10%
Abroad	3	7.89%
Reasons for Accepting the Job		
High Salary and Benefits	5	13.16%
Career Challenge	21	55.26%
Related to Special Skills	12	31.58%
Duration to Land the Job		
Less than a month	13	34.21%
1 to 6 months	12	31.57%
7 to 11 months	5	13.16%
1 year to less than 2 years	8	21.05%
Initial Gross Monthly Earning		
Below P 5,000.00	2	5.26%
P 5,000.00 to less than P 10,000.00	7	18.42%
P 10,000.00 to less than P 15,000.00	12	31.58%
P 15,000 to less than 25,000	8	21.05%
P 25,000.00 and above	9	23.68%

Table 1 shows the respondents of the study, with ninety-nine (99) graduates, fifty-five (55) or 55.55% responded to the survey. The percentage presented is enough to represent the BSIT population.

The respondents experienced online classes for one to two years and graduated virtually. The untracked graduates were not considered as respondents of this study as online learning setup results in students learning within their home and causes them to isolate themselves, avoid social contact, and lessen the interaction with their friends, family, and other loved ones (Ramos et al., 2022).

Table 2 The General Profile of the Respondents

Profile Variables	Frequency	Percentage
Civil Status		
Single	52	94.55%
Married	3	5.45%
Gender		
Male	39	70.91%
Female	16	29.09%

Table 2 shows the general profile of the respondents, with the fifty-five (55) respondents, 52 or 94.54% were single, and 39 or 70.90% were male. The table implies that the respondents remain single to be more focused on their career, and the BSIT course is a male-dominating course.

Table 3 The Educational Attainment of the Respondents

Educational Profile	Frequency	Percentage
Enrollment in the graduate studies		
Yes	8	14.54%
No	47	85.45%
With Units in MSIT		
Yes	8	14.55%
No	47	85.45%
Examination or certifications passed		
Civil Service Examination	4	7.27%
NAPOLCOM	1	1.82%
Microsoft Azure Certification	1	1.82%
No certification	49	89.09%

Table 3 shows the educational attainment of the respondents, with fifty-five (55) respondents; only 8 or 14.54% were enrolled in graduate studies with MSIT units. Table 4 shows the profile of the employed respondents, with fifty-five (55) respondents, twenty-one (21) or 55.26% working for IT related companies that matches the twenty (22) or 57.89% Information Technology company classification. Even though this is the first job of the respondents, twenty-seven (27) or 71.05% have regular employment status, with a greater proportion of fourteen (14) or 36.84% for technical support.

On the examination or certifications passed, four (4) or 7.27% passed the Civil Service Examination, and only one (1) or 1.81% passed the NAPOLCOM and Microsoft Azure Certifications. It implies that a few of the graduates were interested in pursuing graduate studies and passed government examinations and certifications.

Table 4 The Profile of the Employed Respondents

Academic Year	Total Number of Graduates	Total Number of Respondents	Percentage
2019-2020	41	24	24.24%
2020-2021	58	31	31.31%
Total	99	55	55.55%

Table 4 shows the profile of the employed respondents, with fifty-five (55) respondents, twenty-one (21) or 55.26% working for IT related companies that matches the twenty (22) or 57.89% Information Technology company classification. Even though this is the first job of the respondents, twenty-seven (27) or 71.05% have regular employment status, with a

greater proportion of fourteen (14) or 36.84% for technical support.

Twenty-three (23) or 60.52% of respondents found their first job as recommended by someone, and thirty-five (35) or 92.10% work locally. The main reason for accepting the job is career challenge (55.26%), and it took the employed respondents (34.21%) less than a month to land their first job. As such, stepping stone, twelve (12) or 31.57% are earning P 10,000.00 to less than P 15,000.00.

The results of this study match those of Andaya et al (2024). They found that graduates with degrees like Bachelor of Science in Computer Science, Bachelor of Science in Information and Technology, and Bachelor of Science in Game Development from a university in the Philippines are still highly employable. During the COVID-19 pandemic, 82% of them found jobs.

A similar study by Aribé & Rojo (2024) examined the outcomes of Bukidnon State University BSIT graduates from 2020 to 2022. They found that 71.43% of respondents had jobs. Most of them 97.50% worked in the Philippines in the ICT sector (62.59%). These graduates earned salaries between \$175 and \$350 per month (60%). In their study, 76.19% of 2022 graduates had jobs that matched their degree. This is similar to the employability results of this study. Earlier groups had better matches. The researchers found that 55.26% of jobs were related to IT, which is similar to their results. This study and others show that graduates with these degrees can find work easily.

The previous study found that 71.05 % of the people who answered the questions had already gotten a job. Andaya and other people who did a study in 2024 found that 93 % of the computing graduates who had jobs had regular jobs, which means that computing graduates have very stable jobs. Even though the percentage in this study is not as high, both studies show that computing graduates can get jobs even during the pandemic or after it is over. Computing graduates can get jobs, and that is a good thing for computing graduates.

The present study found that 34.21 % of graduates got their job in under one month after they finished school. This is much the same as what Andaya et al. (2024) found, where 31% of graduates found a job in under one month and 30% found one in one to three months. The study comparisons indicate that people who study computing usually do not have to look for a job for long because companies are always looking for people with digital and technology skills. This is different from what Cofino et al (2024) found, where, in 2020, it took graduates longer to find a job. In 2020, 48% of graduates could find a job in under six months, which is a big drop, and this was because of the COVID-19 pandemic. The number of graduates who took six months to a year to find a job went up to 32%, which means it took them longer to find a job. The number of graduates who took more than a year to find a job also went up a lot, to 20%.

The present study revealed that 92.10% of respondents were employed locally. This finding is comparable to the study of Andaya et al. (2024), where 87% of employed graduates were working within the Philippines, and only 13% were employed abroad. The similarity suggests that most computing graduates continue to find adequate employment opportunities in the local labor market despite globalization and opportunities for overseas employment.

Interview responses from the present study indicated that graduates considered their BSIT education useful, particularly in programming, computer operations, and other technical skills. Likewise, Andaya et al. (2024) found that graduates rated the competencies and skills acquired from their programs as very relevant to their jobs, with problem-solving and technical skills receiving the highest ratings. The findings of both studies demonstrate that computing curricula effectively develop the technical competencies needed in the workplace.

Table 5 The Profile of the Self-Employed Respondents

Status	Total Number of Respondents	Percentage
Employed	38	69.09%
Self-employed	8	14.55%
Unemployed	9	16.36%
TOTAL	55	100%

Table 5 shows the profile of the self-employed respondents, with eight (8) respondents, 7 or 87.50% manufacturing business, with the reason of no boss (75%), and half or 50% earning below P 5,000.00.

This indicates that most self-employed BSIT graduates have ventured into entrepreneurial activities outside their field of specialization. The findings suggest that graduates may be utilizing available market opportunities and local business demands rather than pursuing technology-based enterprises.

It is also evident that the monthly earnings of their businesses are below P 5,000.00 pesos. While critical in safeguarding public health against the spread of COVID-19, the enhanced community quarantine and other quarantine/lockdown measures (henceforth referred to as ECQ) dramatically limited business activities throughout much of the Philippines (Asian Development Bank,2020)

During the pandemic period, many graduates explored entrepreneurial opportunities as alternative sources of income amid labor market disruptions and limited employment opportunities (Spurk & Straub, 2020).

Table 6 The Profile of the Unemployed Respondents

Unemployed Variables	Frequency	Percentage
Unemployment Status		
Unemployed (endo, resigned, separated)	5	55.56%
Never been employed (no work since graduation)	4	44.44%
Reasons for being unemployed		
Family concern and decided not to find a job	3	33.33%
Health related reason(s)	1	11.11%
Lack of work experience(s)	3	33.33%
No job opportunity	2	22.22%
Due to the COVID-19 Pandemic	-	-
Situations while looking for a job		
Reviewing for professional examination	2	22.22%
Staying at home due to the COVID-19 pandemic	7	77.78%
How do they finance their everyday living		
Help from parents	4	44.44%
Saving(s)	5	55.55%
Insurance from a resigned job	-	-

Table 6 shows the profile of the unemployed graduates, with nine (9) respondents, 5 or 55.55% were unemployed during the conduct of this study due to the end of contract, resigned, or separated from work. An equal 33.33% of reasons for being unemployed were family concerns, a decision not to find a job, and a lack of work experience. The seven (7) or 77.77% unemployed respondents were staying at home due to the COVID-19 pandemic while looking for another job opportunity, and five (5) or 55.55% finance their everyday living by saving from their previous work.

This suggests that personal responsibilities and insufficient workplace experience continue to hinder employment opportunities among graduates. Notably, none of the respondents directly identified the COVID-19 pandemic as a reason for unemployment, indicating that graduates may have already adjusted to post- pandemic labor market conditions.

Table 7 The Employment Status of the Respondents

Business Variables	Frequency	Percentage
Business Classification		
Information Technology	1	12.50%
Manufacturing	7	87.50%
Bank	-	-
Education	-	-
Health	-	-
Reasons for being self-employed		
Flexibility	2	25.00%
More opportunities to earn money	-	-
No job opportunity	-	-

Family reason	-	-
No boss	6	75.00%
Monthly earnings of the Business		
Below P 5,000.00	4	50.00%
P 5,000.00 to less than P 10,000.00	-	-
P 10,000.00 to less than P 15,000.00	-	-
P 15,000 to less than 25,000	1	12.50%
P 25,000.00 and above	3	37.50%

From the 38 employed, 20 were set for online interviews to follow up on their challenges encountered in applying for a job during the COVID-19 pandemic, are they learning enough to make them employable, and what are their suggestions to improve the curriculum? Here are some of their responses.

What are the challenges you encountered in applying for a job during the COVID-19 pandemic?

The respondents experienced difficulties in finding employment due to limited job openings, business closures, and the transition to online recruitment. These challenges increased competition among job seekers and made the employment process more demanding.

Sample Participant Statements:

"One of the big challenges when applying during a pandemic is that it is too difficult to find a specific job since there are only a few companies to apply for work-at-home positions..."

"...because the application was usually only online, and the interview was conducted via phone..."

"It is hard to find a place to apply if you do not really try hard to find a job, especially when the pandemic was at its height, because most of the establishments were trying to close. Only essentials are operating"

"It is really difficult during the pandemic; I was only referred by my acquaintance..."

"There are things I can do that have helped me a little bit become IT, like assembling a computer, using Microsoft, and editing basic"

"My knowledge as an IT student is useful when I apply as an IT professional, especially in programming. But still, when I start working at the company, I figure out that I will learn more"

Is your learning in this course enough to make you employable? If not, what gaps need to be addressed by the university?

The respondents emphasized the need for the curriculum to keep pace with technological advancements by integrating emerging technologies, current industry practices, and future trends into classroom instruction.

Sample Participant Statements:

"The studies, experiences, and attitude that I have gained while studying in the NEUST-SIC BSIT course serve as a foundation to be a professional IT. For me, it is much better to encourage students to talk in English; more often, IT companies prefer to hire employees who can communicate in English."

"Yes, enough if you have a company that will wait for you when you graduate. Yes, if no work experience is needed by the company, apply. There are companies that hire fresh graduates"

"Always interact with the students and teach them the topic that is currently popular or will be popular so that they can be used after they graduate"

V. CONCLUSION

This tracer study seeks to examine the employability of BSIT graduates during the peak of the COVID-19 pandemic and the hard lockdown. It is favorable to know that the employed graduates have IT-related jobs and work in Information Technology companies.

The findings are similar to the study of Albino & Albino (2022), where 86.60% of BSCS graduates of President Ramon Magsaysay State University, Castillejos, Zambales, from A.Y. 2015-2020 were employed in related fields to the course completed. The researchers’ findings are also similar to the study by Buraga (2021) on BSIT graduates at Isabela State University, with 46.11% of jobs related to their course, Information and Communications Technology. The tracer study of Cofino et al. (2024) indicated that most participants are presently engaged in employment, predominantly in private companies or organizations. Their BSIT graduates encountered delays that prolonged beyond one year, mainly due to the repercussions of the COVID-19 pandemic.

At the same institution, Mina et al. (2020) stated that prior to the pandemic, BSIT graduates of 2017 and 2018 have 72% employment rate, indicating a relatively favorable labor market environment and strong employability among graduates. The study of Reyes & Salas (2021) indicated a 58.90% employment rate for BIT 2019 graduates, reflecting a decline in employment opportunities as the effects of the pandemic began to impact the economy and labor market. The current study for BSIT 2020 and 2021 graduates showed 69.09% employment rate, which is higher than that of the 2019 graduates but slightly lower than the pre-pandemic employment rate reported by Mina et al. (2020).

The increase from 58.90% to 69.09% suggests a gradual recovery of employment opportunities and improved labor market conditions following the disruptions caused by the COVID-19 pandemic. This improvement may also be attributed to the growing demand for digital skills and information technology professionals as organizations accelerated digital transformation initiatives during the post-pandemic period.

Despite not yet reaching the pre-pandemic employment level of 72.00%, the current employment rate demonstrates the resilience and adaptability of BSIT graduates in responding to changing workforce demands. The findings indicate that the BSIT program continues to produce graduates who are competitive in the labor market, although challenges related to

job alignment, work experience, and industry placement remain.

VI. SUGGESTIONS

The findings of this study reveal that while the employability of BSIT graduates has improved from the height of the COVID-19 pandemic and approaches pre-pandemic levels, challenges related to unemployment, job alignment, work experience, and professional credentialing remain evident.

Consistent with tracer studies conducted in Philippine higher education institutions, graduate employability is significantly influenced by industry exposure, technical competencies, professional certifications, and institutional support mechanisms (Albina & Sumagaysay, 2020; Mina et al., 2020). Therefore, strategic interventions are necessary to further enhance the placement of OJT in the company, Mina et al. (2021), readiness (Reyes&Gonzales,2021), employability, competitiveness, and career outcomes of future BSIT graduates.

Table 7 Proposed Measures to Employ BSIT Graduates

Concern	Reason	Strategies	Responsible Person/s
Employment rate (69.09%) remains slightly below the pre-pandemic employment rate (72%)	Continuing labor market competition and skills mismatch	Strengthen industry-academe partnerships and expand internship-to-employment programs with IT companies and government agencies	Program Chair, OJT Coordinator, Industry Linkage Office
A significant number of graduates are employed in administrative rather than specialized IT positions	Limited technical specialization and certifications	Offer specialized training in software development, cybersecurity, networking, cloud computing, and data analytics	Faculty, Curriculum Committee, Training Office
Unemployment is primarily due to a lack of job opportunities and work experience.	Insufficient industry exposure and professional networks	Expand OJT placements, strengthen alumni referral systems, and organize regular career fairs and employer engagement activities	OJT Coordinator, Alumni Office, Career Services Office
Limited employment in highly specialized IT sectors	Rapid technological changes and evolving industry requirements	Regularly review and update the BSIT curriculum based on industry trends and employer feedback	Curriculum Committee, Academic Affairs Office

REFERENCES

[1].

Abusabha, R. & Woelfel, M.L. (2003). Qualitative vs. Quantitative Methods: Two Opposites that Make a Perfect Match. *Journal of the American Dietetic Association*. 103(5). 566-575.

[2].

Andaya et. Al, Employability of Computing Students in the Age of Disruption: A Graduate Tracer Study. (2024). *European Journal of Education and Pedagogy*, 5(1), 82-87. <https://doi.org/10.24018/ejedu.2024.5.1.793>

[3].

Aribe, S. G., Jr., & Rojo, J. L. Q. (Year). *Tracing pandemic-era IT graduates: Educational outcomes and employability in the post-COVID labor market*. *Journal Name*, Volume(Issue), page–page. <https://doi.org/xxxxx>

[4].

Asian Development Bank. (2020). *The COVID-19 impact on Philippine business: Enterprise survey evidence*. Asian Development Bank. <https://www.adb.org/sites/default/files/publication/622161/covid-19-impact-philippine-business-enterprise-survey.pdf>

[5].

A. Richter, M. Leyer, M. Steinhüser. Workers united: digitally enhancing social connectedness on the shop floor. *Int. J. Inf. Manag.*, 52 (2020), Article 102101

[6].

City, P. S. M. M. (2020). IMPACT OF COVID-19 ON PEOPLE'S LIVELIHOODS, THEIR HEALTH AND OUR FOOD SYSTEMS. *Saudi Medical Journal*. <https://smj.org.sa/content/smj/41/11/1274.full.pdf>

[7].

Cofino, C. L., Tee, S. M. R., Enquilino, D. L. B., Alegre, G. E., Alpas, C. G., Lacson, L. K. C., Chu, C. M. L., & Abarillo, A. A. (2024). *Engaging BSIT graduates: A study on employability of the Bachelor of Science in Information Technology (BSIT) of Central Philippines State University-Main Campus*.

[8].

CMO 53, S. 2006

[9].

Creswell, J.W. (2003). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. (2nd ed.). Thousand Oaks: Sage Publications.

[10].

D. Spurka, C. Straubb. Flexible employment relationships and careers in times of the COVID-19 pandemic *J. Vocat. Behav.*, 119 (2020), Article 103435

[11].

Educause Review, retrieved from <https://er.educause.edu/blogs/2020/3/how-technology-can-support-student-success-during-covid19>

[12].

Global Transitions Challenges and Opportunities of Remptely Working From Home During COVID-19 *Pandemic Volume 3*, 2021, Pages 99-108

[13].

Hawes, F. M., Marrapodi, M. E., & Colligan, A. (2021). Technology Preparedness and the Impact on a High-Quality Remote Learning Experience: Lessons From COVID-19. <https://doi.org/10.33423/jhetp.v21i11.4662>

[14].

J. Zhang, Y. Hayashi, L.D. Frank. COVID-19 and transport: findings from a world-wide expert survey

[15].

Kamaruddin MIH, Ahmad A, Husain MA, Abd Hamid SN (2021). "Graduate employability post-COVID-19: the case of a Malaysian public university". *Higher Education, Skills and Work-based Learning*, Vol. 11 No. 3 pp. 710–724, doi: <https://doi.org/10.1108/HESWBL-05-2020-0114>

[16].

Mina, J. C., Reyes, E. J. G., & Salas, R. F. (2020). A tracer study of bachelor of science in information technology (BSIT) graduates of nueva ecija university of science and technology (NEUST), San Isidro campus. *International Journal of English Literature and Social Sciences*, 5(4), 1337-1344.

- [17]. Mina, J., Garcia, M., & Reyes, E. J. G. (2020). Industry Partners' feedback on the OJT performance of Bachelor of Science in Information Technology (BSIT) Students. *International Journal of Advanced Engineering, Management and Science (IJAEMS)*, 6(4), 2454-1311.
- [18]. National Collaborating Centre for Methods and Tools. Appraising qualitative, quantitative, and mixed methods studies included in mixed studies reviews: the MMAT. Hamilton, ON: BMJ Publishing Group, 2015. <http://www.nccmt.ca/resources/search/232> (accessed May 2017)
- [19]. Reyes, E. J., & Gonzales, J. (2020). BSIT Students Readiness: An Assessment of Students' Engagement in Online Learning at Nueva Ecija University of Science and Technology, San Isidro Campus during COVID-19 Pandemic. *International Journal for Science and Advance Research in Technology*.
- [20]. Reyes, E. J. G., & Salas, R. F. (2021). Employability of bachelor of science in information technology (BSIT) graduates of Nueva Ecija University of Science and Technology-San Isidro Campus. *International Journal of Advanced Engineering, Management and Science*, 7(2), 01-08.
- [21]. Ramos, J., Manaloto, A. J., Cruz, S. A. D., Cervera, D. A., Ramirez, C., & Tus, J. (2022). The Self-Efficacy and Loneliness of College Students Amidst the COVID-19 Pandemic. *Psychology and Education: A Multidisciplinary Journal*, 2(1), 7-13.
- [22]. Rosa, A. P. D., & Galang, G. (2021). Bachelor of science in information technology at Bulacan State University: A graduate tracer study. *International Journal of English Literature and Social Sciences*.
- [23]. R.M. Davison. The transformative potential of disruptions: a viewpoint. *Int. J. Inf. Manag.*, 55 (2020), Article 102149
- [24]. Spurk, D., & Straub, C. (2020). Flexible employment relationships and careers in times of the COVID-19 pandemic. *Journal of vocational behavior*, 119, 103435.
- [25]. Velasquez, R. J. Z. (2024). Determinants of Work Performance of Hotel Employees in Cabanatuan City. *International Journal of Advanced Engineering Management and Science*. <https://doi.org/10.22161/ijaems.107.11>