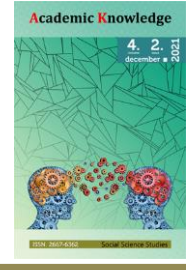


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Perception on Graduate Employment Trends of Jigme Namgyel Engineering College Under Roayl University of Bhutan

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Programme,
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Employment,
New Programme,
Intervention.

ABSTRACT

Higher education institutions are always challenged with the relevance of the programme that they offer in meeting the requirements of the job market. In today's dynamic job market, the stakeholders always strive to have the best of the best employee for contribution in their organization. There is thus a challenge of making strategic intervention in the existing programme in higher education followed by initiation of a new programme that is on the demand. This data is based on the survey conducted on the graduates' status and their employability within the span of SIX months to ONE year immediately after their graduation. The result obtained from the study is promising that the college is doing fairly well in introducing the right as well as a relevant programme but on the other hand, there are increased number of graduates available in the job market each year. This is already creating a burden in the small job market available in Bhutan. The employment statistics of Jigme Namgyel Engineering College (JNEC) seem fairly placed in comparison to its national statistics but there is a need to explore further to build employability skills and competencies of its graduates for the job markets. As a result, the study recommends the need for fostering a clear understanding of the national and international job markets with possible supports that are available and necessary to remap its approaches for further enhancing the skills development programmes of its graduates.

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1. INTRODUCTION

The role of an academic institution is to provide a platform for quality academic as well as research activities. As a result, it is often believed that it enriches knowledge contributions (Dhamdhare 2016: 162). Equal importance is to equip the graduates for the very dynamic workplace. The industrial revolutions demand ready graduates for job markets and there are needs to equipped graduates with multiple job-related attributes which are more focused on fulfilling the requirements of the job with satisfaction and contributions too. Graduates’ employment has thus been one important factor that can reflect on the performance of an academic institution over some time goals (Abas & Imam, 2016: 119-120).

In terms of graduate employment, a researcher in the context of China has realized that those graduates from research universities are having higher employability followed by the graduates of management, economy, and engineering (Khong Jun, 2017). The same study also highlighted the reputation of the university playing a significant role in terms of graduate's employability. On the other hand, unemployment is seen as one of the economic concerns as shared by a researcher where it is a function of expectation, uncertainty and searching costs which can sum it as fluctuation of the expected returns at the time of graduation and there on (Hwang 2017). This reflects the market dependence on graduate employment and furthermore like mismatch in supply and demand, imbalance in terms of individual perspectives and the actual reality, skills and ability to hire.

The data maintained by Statistica shows the detail of the unemployment rate of Bhutan where there is significant growth between 2019 to 2020 and these can be the indicator that COVID-19 pandemic impacts on the unemployment rates (Statista 2021).

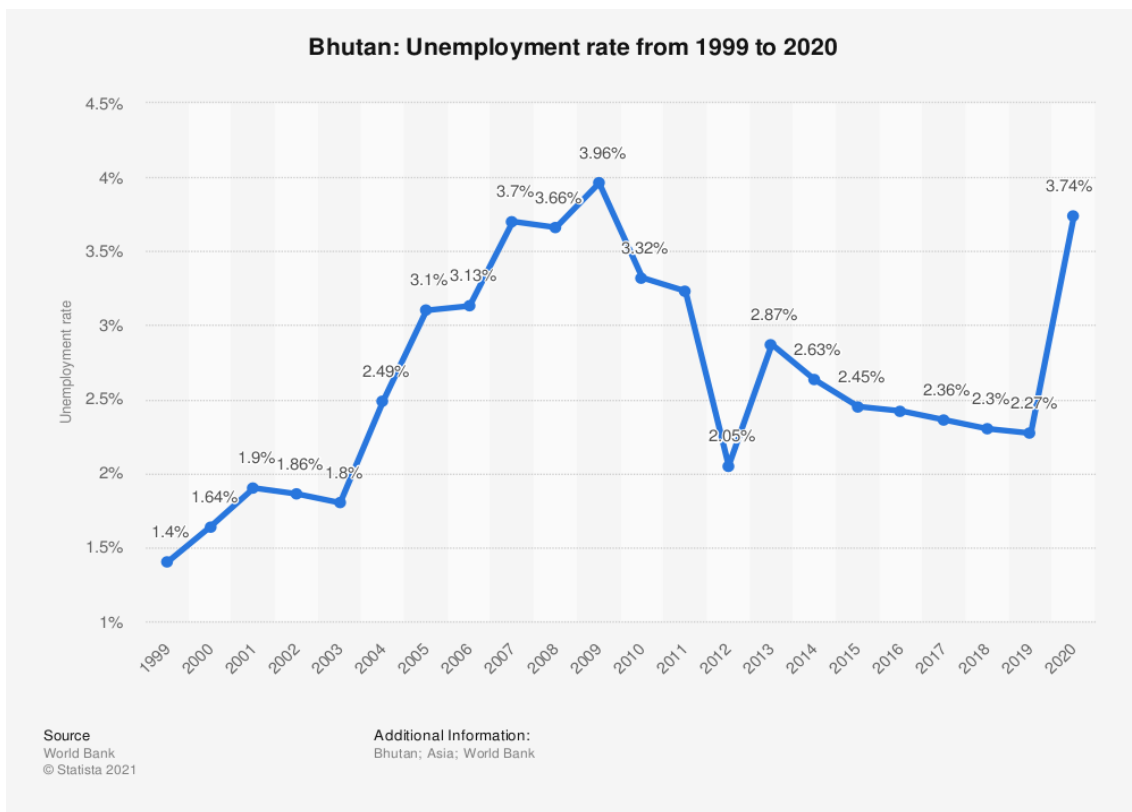


Figure 1. Bhutan Unemployment rate (Source: Adapted from Statista, 2021)

Jigme Namgyel Engineering College (JNEC) located at Dewathang, Bhutan is one of the constituent colleges under the Royal University of Bhutan. The same college was renamed JNEC in 2015 from its former name Jigme Namgyel Polytechnic (JNP). The College with its diverse activities always aspires to become a center of excellence in applied engineering and management programs, continuing education programs, material testing and certification, science, consulting, and community services. This is being supported by its approaches to provide programmes of applied engineering and management which are guided by the socio-economic development needs of the country. As a result, the need for equipping the graduates with knowledge and skills that are needed for the dynamic needs of the job markets.

1.1 Graduate Employment and its Impacts

With the uncertainty of the labour market, the focusses on graduate employability have become a concern in higher education (Tomlinson, 2012). The focus for graduate employability is of importance for academic institutions as well as policymaker where the former always strive to produce the graduates that are highly sought in the job market whereas the latter always expects the institutions to produce quality and job-ready graduates. One of the studies pointed that the unemployment status of graduates would have low self-esteem within themselves (Onoyase 2019: 119). This has demanded the actions from academic institutions as well as policymakers to underline their roles and responsibilities which need to be executed effectively.

Researchers also highlighted the serious consequences of graduate unemployment which can be in the form of threatening engagements like crime, corruption, dependency as well as drug abuse (Farah & Ali 2018: 55) and also have psychological health issues (Mutambara, J. et al. 2019: 19).

JNEC on the other hand keep on stressing on meeting the expectations of its stakeholders through the engagement of stakeholders in its academic matters. Some of the vivid examples that JNEC keep prioritizing includes;

- Framing the curriculum that is more oriented towards the needs of the stakeholders.
- Having a dynamic curriculum.
- Engaging the stakeholders in academic and research collaboration as well as consultations.
- Incorporating the concept of field attachment to students at workplaces of relevant stakeholders.
- Engaging in project works through problem-based learning (PBL) mode to engage the communities in understanding and solving emerging issues.
- Collecting feedback from graduates and employers for quality assurance as well as enhancement.
- Engaging experts through a joint research project for planning new modules and programm.

Such framework as of now proved to be successful and handy in realizing the vision of JNEC in producing and providing quality graduates enriched with the values of the Gross National Happiness (GNH) to the job market.

2. METHOD

The study made use of the secondary data from the published sources and literature review to explore and highlight the critical outcome of the research. The primary data are also collected from the graduates on their employment status regularly and record extracted. The data collection is through a phone call to the graduates and also cross-check with the friends of the same batchmates. The data are analyzed to come up with figures, tables and charts to indicate the trends and further analysis of the results. Research is a mixed method that is backed with relevant statistics to come up with the findings and conclusions.

3. RESULT AND DISCUSSION

3.1. Overview of the Graduates Statistics

The research makes use of the Graduates' statistics of JNP/JNEC from 2010 till 2019. Overall graduates' statistics are as follow:

Table 1: Graduates trends from 2010-2019 of JNP/JNEC

Year	No of Graduates
2010	107
2011	131
2012	156
2013	150
2014	195
2015	250
2016	331
2017	323
2018	364
2019	336

The above table reflects the graduates that have completed the programmes from JNP/JNEC in the last 10 years and entered the job market. It reflects that in each year the trend of graduates completing the programmes and joining the job market is increasing.

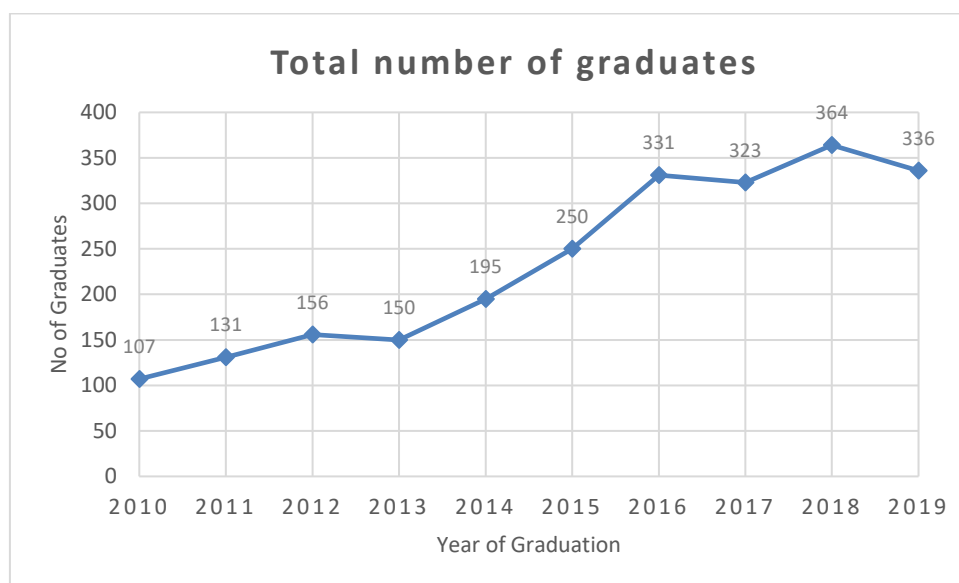


Figure 2. Graduating students’ trend of JNP/JNEC

From figure 2 above, it is evident that there is a sharp increase in the number of graduates. The college has been offering only 3 programmes in 2010 and that has been increased to 8 programme graduates in 2019.

3.2 Overview of the Graduates Employment Statistics

Table 2. Graduates’ employment trends from 2010-2019 of JNP/JNEC

Year	No of Graduates	Graduates employed	Graduates unemployed	Percentage of Graduates employed within 1 year of graduation
2010	107	107	0	100
2011	131	131	0	100
2012	156	149	7	95.51
2013	150	118	32	78.67
2014	195	100	95	51.28
2015	250	169	81	67.60
2016	331	195	136	58.91
2017	323	173	150	53.56
2018	364	163	201	44.78
2019	336	151	185	44.18
2020	233	144	89	61.80

The table above shows the trend of graduates employed within SIX months to ONE year of their graduation. The number of graduates getting employed is on the decline as

noticed from the statistics. Many attributes have their direct or indirect contribution to employment trends. One of the prominent indicators is the increase of graduating students. Also, almost all of the graduates are competing in a national job market which is already small.

The employment trend curves are as follows.

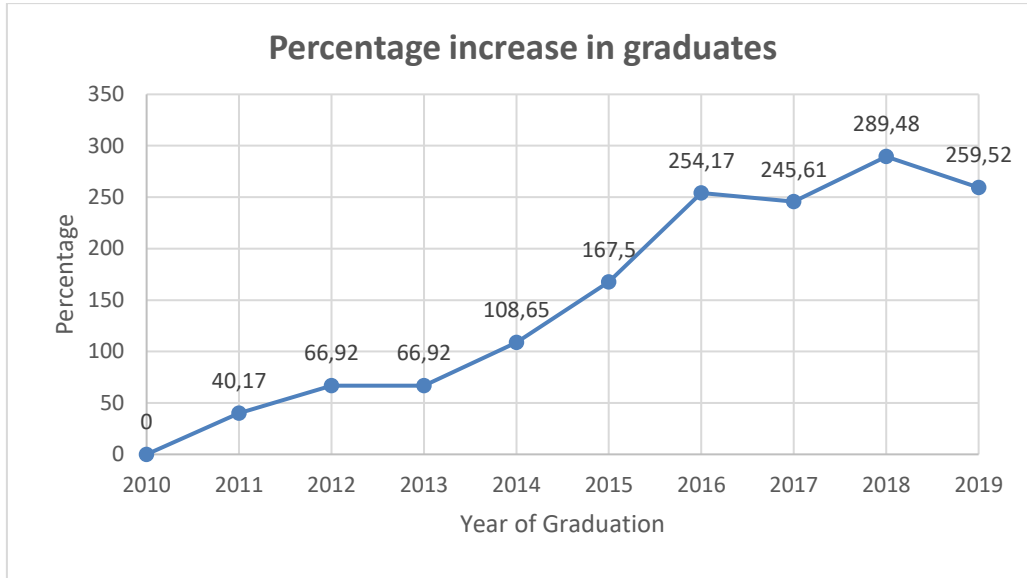


Figure 3. Graduates’ growth in past 10 years

From figure 3 above, it is observed that the graduates’ number has been constantly increasing since 2010. Taking the count of 2010 as zero, the increase in graduates has been 289.48% in 2018 and 259.52% in 2019 which is quite a significant growth.

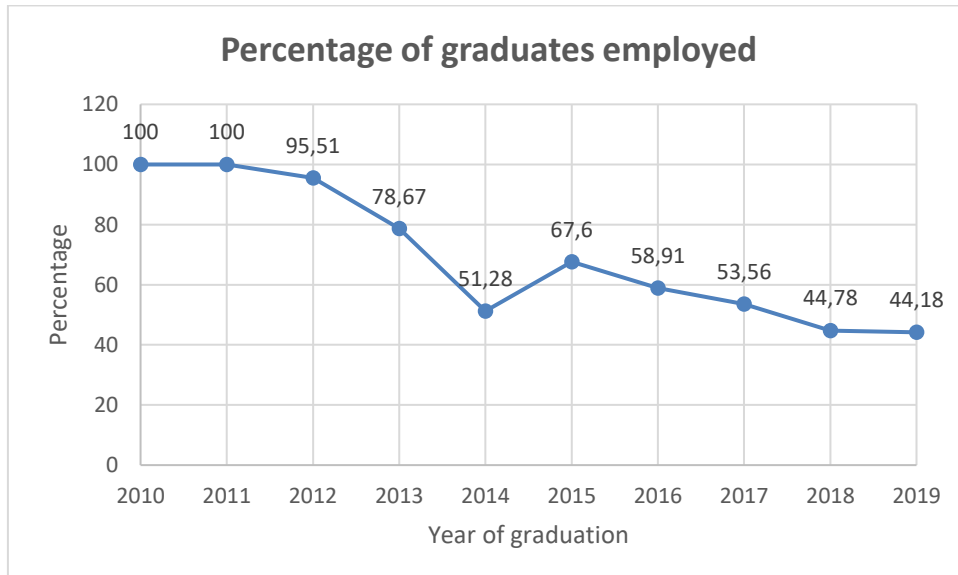


Figure 4. Graduate’s employment statistics

From figure 4 above, it is observed that the employment trends have been dropping from 100% in 2010 to 44.18% in 2019. This statistic includes the graduate’s undertaking

entrepreneurship, further study, internship and employment after their graduation and within 6 months to one year of graduation.

Further to this, a survey was conducted recently to find out the graduates' employment statistics of last three years to see if there are any alarming issues related to employment are there to be addressed. The details of the findings are as follow.

Table 3. Programme wise graduates and their employment status

Year	% of Graduates employed							
	Civil	Electrical	Mechanical	ECE	CSN	MPM	Surveying	Power Eng.
2010	100	100	100	-	-	-	-	-
2011	100	100	100	-	-	-	-	-
2012	100	87.23	100	-	-	-	-	-
2013	100	55.56	80	-	-	-	-	-
2014	57.69	23.26	74.07	-	45.45	-	-	-
2015	70.54	55.32	89.19	72.73	42.31	-	-	-
2016	63.97	69.39	61.11	34.48	44.9	-	62.5	-
2017	51.64	52.5	57.45	54.55	48.84	66.67	54.84	-
2018	32.52	63.64	26.53	63.64	55.56	57.69	41.38	-
2019	25	66.67	36.73	36.36	53.13	40	54.55	95.65

The major programme that was on offer at JNEC is 'Civil Engineering', 'Electrical Engineering' and 'Mechanical Engineering' with 1st batch of the student from 'Computer System and Networking (CSN)' graduating in 2014 followed by 'Electronics and Communication Engineering' in 2015, 'Surveying' in 2016, 'Material and Procurement Management' in 2017 and 'Power Engineering' in 2019.

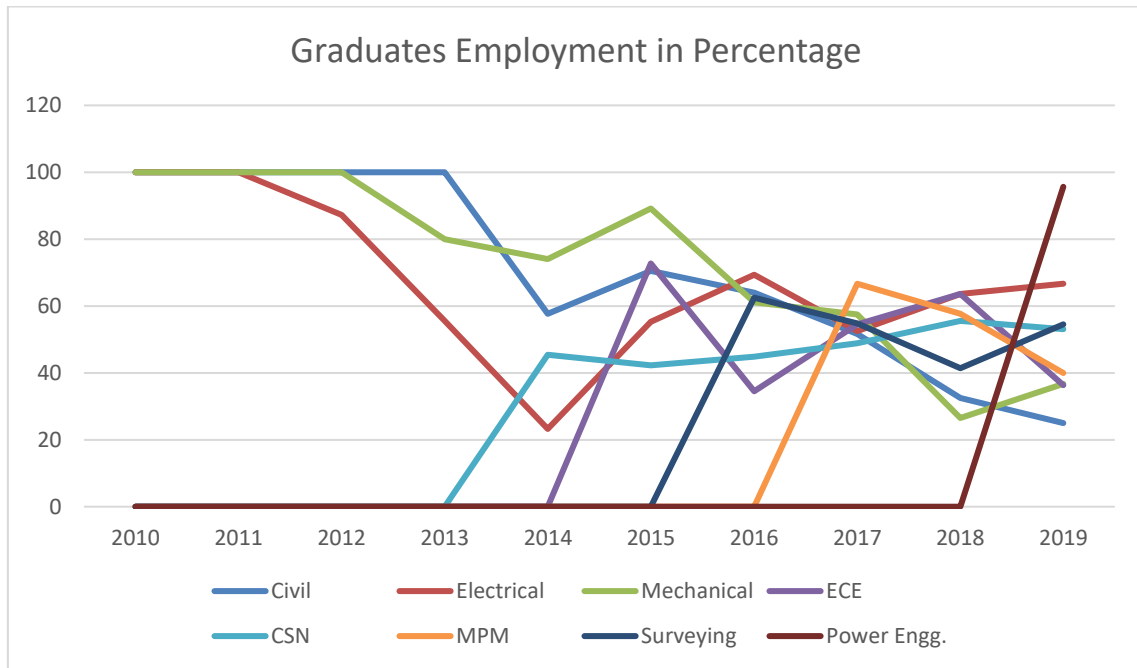


Figure 5. Graduates’ employment status from a different programme

It is observed that there is a decline in percentage employment of the graduates from all programme offered at college. Even it is noticed that the new programme graduate employment also falling for almost all programme. It is also observed that the overall employment of graduates from all programmes are below 60% except electrical engineering in recent time. Furthermore, the new programme in power engineering has seen good employment status for its first batch of graduates with a promise on this programme. It is also noticed that the overall employment status of the graduates within SIX months to ONE year from most of the programme is within the range of 40-60%.

The labour force survey report-2020 of Bhutan recorded the following employment rate in a country (NSB, Bhutan 2020). It clearly reflects the challenges in the domain of employment that Bhutan is facing in recent time and that has been aggregated further decline due to the current pandemic. The report also highlighted that the employment-to-population ratio of the country stands at 64.4% and the overall youth unemployment estimation at 22.6%. This gives great comparisons to shows that JNEC is fairly placed in terms of graduate employment.

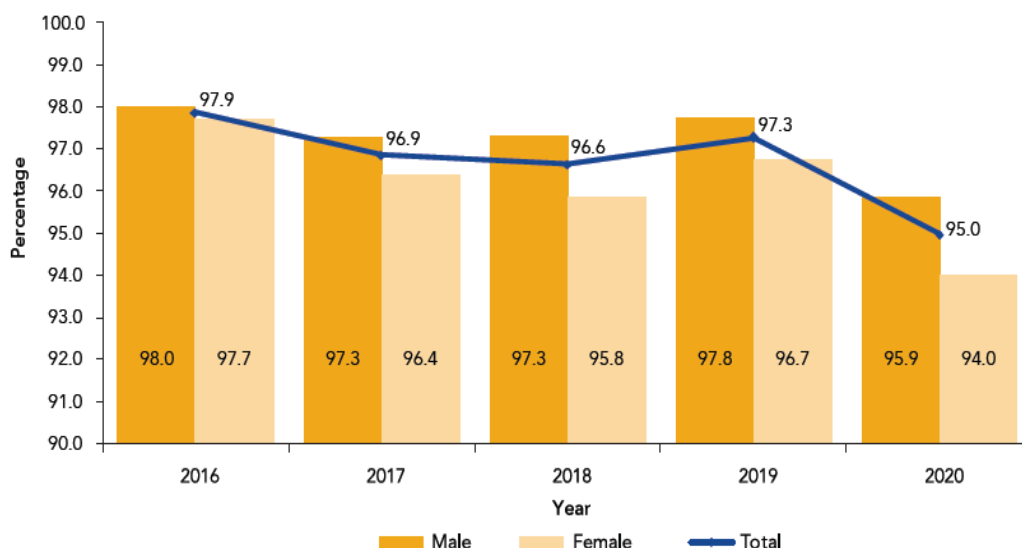


Figure 6. Employment Rate by Sex (2016-2020) [Source: Adapted from labour force survey report-2020 of Bhutan]

Researchers have pointed out that the dynamic of the job market is playing a crucial role in graduate employment [Onoyase 2019: 121]. Such changes might be contributed by the government policies, attention as well as shifting needs of the society. Factors like development priorities, lack of employment skills, unable to clear recruitment interviews are some talked aspects concerning graduate's employment. Also need of employability skills that are essential parameters of concern (Brewer 2013: 1; Rowe 2017: 87) along with possible exploration on the 'Key to employability' (Pool & Sewell 2007: 278-279) and the CareerEDGE model of graduate employability (Pool 2016: 337). Furthermore, key competency like continuous learning, engaging in teamwork and collaboration, willingness to work and work beyond, self-control and greater analytical thinking are more sought (Pang, E. et al. 2018: 55-56). Such prospects are felt essential to be explored and do a detailed analysis of graduate employability.

4. CONCLUSION

It is fairly overserved that JNEC in the past year has been actively engaged in providing quality education, training and skills development. The main challenges that are seen are the increase in the number of graduates graduating each year after completion of their programme but there are declines in the overall employment status which are surveyed for a span of SIX months to ONE year after their graduation. The study highlighted that the number of graduates is increased due to an increase in the number of programme in the college. It is also important to understand the trend of graduates and employment status of the graduates from the various programmes where the result shows there is need for interventions in our programme in terms of the number of students that we can enrol for each of these programmes and on the other hand explore a more relevant applied programme that can be offered to meet the requirements of the job market.

Though college has been striving in enhancing the graduate employability through periodic review of curriculum, collecting graduates and employers' feedback, engaging stakeholders in consultation meetings marking active engagement with stakeholders, incorporating field exposure visits as well as field attachments, engaging stakeholders for guest sessions and infusing entrepreneurship cultures. The thirst is driven towards developing and supporting the employability skills of the graduates. Still from the result and appropriate literature, this study recommends that it would be worthy for college to exercise multiple studies to figure out all contribution aspects of graduates' unemployment and its consequences. There could be a significant contribution that might have been added in current time due to pandemic that too contributes towards job market dynamics of the graduates. The overall average employments of the college are quite well currently too but that should not be a point to explore more rigor strategies to enhance employability skills and competencies during and post-pandemic situations.

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