Strengthening the curriculum and training program to enhance human resource competency

Skills mismatch and Labour market needs

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Abstract

The main objective of this project was to examine the curriculum and training program developed by CTEVT in order to strengthen them. The need to examine them arose from the fact that Nepal needs skillful human resource competencies to employ them in the national as well as international markets. Despite of different technical and non-technical training programs and certificate level degree programs, youths of Nepal are facing unemployment or even underemployment. Due to increasing unemployment and underemployment, people of Nepal are directly/indirectly compelled to cross the border to work. The work they do in other countries very rarely coincides with their academic qualifications. On the other hand, Nepal has to depend on the human resources of other countries to perform different technical tasks.

With the hope to achieve the objective of the project, curricula of diploma programs in Electrical Engineering, Electronics Engineering, and Electrical and Electronics Engineering were studied. In addition, a visit to Korea Nepal Institute of Technology was also made. Besides these, different online articles, publications, and journals among others as well reviewed. Publications from CTEVT were also reviewed. One of the major online sources was UNESCO-UNEVOC website. A small attempt has also been made to find out the possibility of automation technology to be implemented in the industries of Nepal. Due to time constraints and other technical and sometimes adaptive challenges, the best outcome could not be achieved. However, it might be of some help to those who wish to continue the same project or other projects that closely resemble this.

Keywords TVET, Human resources, Curriculum, Automation, Labor market, Skills-mismatch

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Acronyms

CTEVT	Council for Technical Education and Vocational Training
DACUM	Developing A Curriculum
DDC	Dairy Development Committee
GoN	Government of Nepal
KNIT	Korea Nepal Institute of Technology
KOICA	Korea International Cooperation Agency
KU	Kathmandu University
OECD	Organization for Economic Cooperation and Development
SCID	Systematic Curriculum and Instructional Development
SSRP	School Sector Reform Program (SSRP)
TU	Tribhuvan University
TVET	Technical vocational Education and Training
UNESCO	United Nations Educational Scientific and Cultural Organization

Executive Summary

Background

The main objective of this project was to examine the curriculum and training program developed by CTEVT in order to strengthen them. The need to examine them arose from the fact that Nepal needs skillful human resource competencies to employ them in the national as well as international markets. Despite of different technical and non-technical training programs and certificate level degree programs, youths of Nepal are facing unemployment or even underemployment. Due to increasing unemployment and underemployment, people of Nepal are directly/indirectly compelled to cross the border to work. The work they do in other countries very rarely coincides with their academic qualifications. On the other hand, Nepal has to depend on the human resources of other countries to perform different technical tasks.

Methodology

To address the project aim, following methods were applied:

- Review of curricula developed by CTEVT
- Online researches and literature reviews regarding TVET and labor market needs
- Field visits to KNIT and DDC (Dairy Development Committee), Butwal
- Interview with the teachers of KNIT
- Discussion with the mentor from Daayitwa Abhiyaan Team

Key Findings

- The curriculum is very much sophisticated in terms of the contents of the subject.
- As curricula are academic documents, it is necessary to have a standardized use of English language.
- KNIT has modern infrastructures

- Need for guest lecturers
- Insufficient funds due to which they are not able to provide alternative source of energy for electricity

Key Recommendations

- From the curricula reviewed, one recommendation that is found to be essential is the development of curriculum manual. The manual should contain the information on the extent to which a topic should be delivered to the students.
- In the context of Nepal it would be a great idea to introduce waste management and recycling technology. Waste pollution and its management is of great concern in Nepal. CTEVT can play significant role if it can gather interested stakeholders and start working for developing curriculum for a diploma/certificate level study in waste management and recycling technology.
- Introduction to automation technology as short-term training course may help to produce workforce capable of working in industries to produce time efficient, cost effective, and quality products/goods. It would be a good idea to focus the automation technology suitable for agriculture in the beginning. Further extension of this kind of course can help in international employment.
- Regular meetings with the teachers of the technical institutions and getting feedbacks from them about the interest students are developing and problems faced by the students to grasp the course contents. This helps in the revision of the curriculum. Additionally, regular researches on the type of curriculum that is being imparted in the developed as well as other developing countries are necessary to make the curriculum stronger.

1 Introduction

"Human Resource Development relates to education, training, and utilization of human potentialities for social and economic progress. According to UNDP (United Nations Development Plan), there are five energizers of HRD. They are education, health and nutrition, environment, employment, and political and economic freedom. These energizers are interlinked and interdependent, but education is the basis for all, an essential factor in the improvement of health and nutrition, for maintaining a high quality of environment for expanding and improving labor pools, and for sustaining political and economic responsibility." (CTEVT Research and Information Division, 2014.)

Nepal is yet an agrarian economy. More than 74% of its population is involved in agriculture that contributes to one-third of the GDP (Gross Domestic Product) of Nepal. The technology used in this sector is still traditional which involves labor-intensive jobs. This has resulted in low production (Global Demand). However, there are employment opportunities especially in cash crop farming and agro processing (CTEVT Research and Information Division, 2014). It is also an opportunity to use automation technology, however, low level it could be in agriculture to increase the production.

One of the major weaknesses in developing countries' skill development system is lack of industry participation and ownership in training. The vast majority of firms are small and medium sized ones and their investment in training is insufficient as they lack the required resources or they have a short planning horizon. (OECD.)

1.1 Skills and their importance in a nation

Skills are the key to prosperity of nations and to better lives for individuals in the 21st century. They contribute to economic growth both directly, through increased productivity, and indirectly, by creating greater capacity of workers and firms to adopt new technologies and ways of working and to spur innovation (OECD, 2010a; OECD, 2011, Martinez-Fernandez and Sharpe, 2010). Conversely, skills shortages and mismatches between the supply of and demand of skills lower potential for growth and waste resources if they are more than just temporary adjustments (Quintini, 2011).

Skills-formation systems must respond effectively to the immediate needs of individuals and firms. An important challenge for governments is to ensure that skills systems respond to the needs of unemployed young people and displaced workers through effective training and retraining and to support efforts aiming at recovery and sustainable jobs growth. (OECD, 2011)

Nepali workforce should be able to compete both in the national as well as international level. Technical advancement is taking place every day, but workforce from Nepal is yet migrating to other countries in search jobs. Out-migration of human resource in itself is not an encouraging sign, and further disappointing fact is that only lower proportion of migrants from Nepal are involved in skilled jobs. Despite the fact that large number of institutions throughout Nepal is imparting TVET, it is believed that alarming number of migrant workers from Nepal are unskilled (61.1 percent). Moreover, 27.1%, 3.4%, and 0.4% correspond to semi-skilled, skilled, and highly skilled respectively (Gurung, 2007; Global Demand).

It has been reported that 450,000-labor force are entering annually in the labour market, but the job creation capacity of the country is lower than the number (MoF, 2011). This has resulted in the migration of these entrants to foreign lands for employment not taking into account the nature of work and the salary (Global Demand). Figure shows rapid rise in labour permits issued to migrant workers of Nepal.

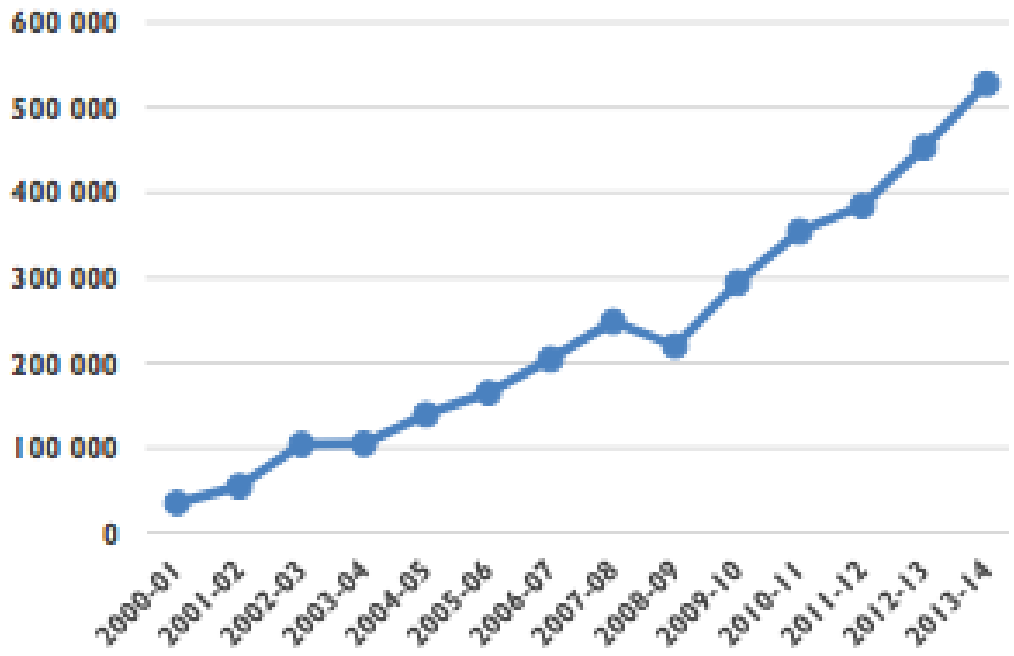

Figure 1 Rapid rise in labour permits issued to migrant workers of Nepal

To address such problems of out-migration, lack of skilled workforce, and shortcomings in the educational policy of Nepal, various factors need to be reviewed and amended. One of the many factors is the curriculum of the educational programs being imparted, and the subject of interest in this report is the curriculum of TVET programs. This report, which is written as a part of strengthening the curriculum and training program of CTEVT to enhance human resource competency, tries to find out the shortcomings/problems existing in the curriculum of diploma program in electrical and electronics engineering. In addition, a small effort to find possibility of implementation of automation technology in the industries of Nepal was also carried out during the project.

1.2 Technical Vocational Education and Training (TVET)

"The TVET in most of the developing countries is expected to play two crucial roles in the national sustainable development. The first role is to provide training opportunities and career advancement avenues for the increased school leavers. The second role is to provide skilled manpower that is needed at all levels of the economy. The skills so developed should be able to lead to self-reliance in the absence of salaried employment and enhance the industrialization process."

“For a TVET system to be able to play its role effectively, it is important to ensure that there exists and enabling and TVET friendly environment nationwide. Such an enabling environment can be achieved by putting in place harmonized national TVET policies, provision of adequate funds, developing positive social attitudes towards training and enhanced management. The increased public funding will increase the subsidy among the poor households through loans and bursaries to needy trainees. “

TVET is regarded as non-academic technical education and practical training that develop the skills and knowledge of apprentices (learners of trades or crafts) working in different sectors of industry and trainees/students trained in different technical vocational institutes, centers, and schools. In most developing countries

“In order to develop a nation’s economy and society in different developing countries, it is important to note, that in average two-thirds of the population in most of the developing countries generally work in jobs that require a skill level which is usually associated with vocational education and training.”

“It has been always a challenge to change the mindset of parents, the community and stakeholders about vocational education being second choice to academic education. People tend to view TVET in a negative way, as education and training meant for those who have failed in the society. Most parents (even the ones with TVET background) want to see their children becoming engineers, doctors, lawyers, etc., just because they believe this will give them better job opportunities. This challenge is vital to development of TVET and it is apparently one of the major obstacles to improve the social status of TVET.”

“In contrary to what is happening in developing countries, the employers and enterprises in most of the developed countries are queuing up to hire graduates of TVET programs and there are more requests from employers and enterprises each year than there are graduates. This means graduates of TVET institutions in developed countries earn income better than graduates from other high institutions. This in turn means parents in developed countries are fighting to get their children into those TVET institutions – even though TVET institutions are normally considered to be a dead-end option for the least bright vs. regular institutions. “

"Another negative image of TVET in developing countries is the social class. A plumber can be making as much money as an engineer but at the end of the day, he is still a plumber with a lower social status. Money does not always equal higher social status. Apparently in some circles, a university degree is still the ticket to social mobility even if it does not lead to employment or more money. How do we change the perception so that parents use a different yardstick to measure their success as parents is an important issue? This is interesting question and part of the answer to the question is better quality of TVET will lead to higher performance and productivity of TVET trained graduates and hence higher wages and more job chances."

"There are many challenges for TVET in developing countries in terms of systematic professional development of instructors/trainers/teachers demands. They are posed with problems on how to use new technology and keep up with teaching methods of various vocational training. This topic is one of the most important issues when dealing with Quality Assurance of TVET as one of the major objectives of TVET reforming in developing countries. "

"Considering that workforce-development is one key-issue for the overall development of developing countries, it is necessary that the best brains, which usually gather in academic communities, also care for education and training at that intermediate level. There are not many developing countries, where 'vocational disciplines' are implemented through respective academic subjects at universities. "

"The lack of appropriately trained TVET personnel in the developing countries and the rigid curriculum requirements of TVET courses and programs generally limit the ability of training providers to accept sustainable vocational education as a valuable education. Therefore such barriers provide challenges for the TVET sector in developing countries that should be resolved and areas where higher education can contribute, should be identified. "

Development of a competency based curriculum and materials through a series of workshops by an *ad hoc* committee composed of technical/vocational practitioners, experts from academe, representatives from industry, and other related experts (Valles, 2012).

1.2.1 TVET in Nepal

In the context of Nepal, industrial reforms and a meaningful industrial service need much time to reach an accepted level of development. To achieve it, skilled workforce is a must. The education policy of Nepal emphasizes on formal education system that hardly provides any skill, and as a result of which workforce, which by no means expects a white collar job is produced. In this regard, the Government of Nepal (GoN) has launched School Sector Reform Program (SSRP) with the aim of introducing soft skill in school education. In addition, Technical Vocational Education and Training (TVET) Skills Development Policy, 2012 has envisaged to establish the inclusive and equitable approach of the whole interested citizens by making wide extension of the opportunities of TVET so as to prepare capable, efficient, competitive, and productive human resource for the economic development of the country and to create opportunity of employment for all.

Council for Technical Education and Vocational Training (CTEVT), Tribhuvan University (TU), Kathmandu University (KU), BP Koirala Medical Science and National Medical Science are the major national bodies providing technical and vocational education particularly for non-university programs. Moreover, CTEVT is only the agency that offers both technical and vocational education as well as vocational training as it leads in policy formulation, coordination, quality assurance, and program implementation. (CTEVT Research and Information Division, 2014)

Presently in Nepal, substantial number of training institutions under both governmental and private sectors is providing vocational training programs related to different trades and sectors. Yet, the graduates of these programs are not getting satisfactory jobs as per their skills and competency. Serious mismatch between the skills imparted during the training and the actual market needs was found, and this mismatch is found in international market than the domestic market. (Council for Technical Education and Vocational Training, 2015.)

1.3 Skills Mismatch: Match between the workforces' skills and labour market

Skills mismatch, the gap between the skills required on the job and those possessed by individuals, raises the question of the ability of societies to capitalize on their workforces. Skills are also a critical asset for individual workers and firms in a rapidly changing globalized world. When individuals have substantially more skills than required for their jobs, those individuals as well as enterprises and economies are prevented from reaping benefits of their skills investment such as higher wages, productivity growth, and innovation. Recent years have seen policy-makers and social partners across the world become increasingly concerned with the match between their workforce's skills and their labor markets' needs. (Davos-Klosters, 2014.) Table 1 shows different types of skills mismatches, including skill shortages, qualification mismatches, and skill gaps (OECD, 2011).

Table 1 Forms of Skills Mismatch (OECD, 2011)

Skill shortage	Demand for a particular type of skill exceeds the supply of people with that skill at equilibrium rates to pay.
Qualification mismatch	The level of qualification and/or the field of qualification is different from that required to perform the job adequately
Over-(Under-) qualification/education	The level of qualification/education is higher (lower) than required to perform the job adequately.
Skill gap	The type or level of skills is different from that required to perform the job adequately
Over-(Under-) skilling	The level of skill I higher (lower) than required to adequately perform the job

Despite the government of Nepal spending relatively higher in the education domain over the years, desired results are yet to be seen. There are multifaceted challenges at different levels in the education sector of Nepal. (Abhiyaan.) Imparting high budgets is not only the solution to producing workforce that can match the skills required by the actual labor market needs. Therefore strategic policy plan for producing skill-matching workforce is the necessary element. This has to be considered as a very serious matter by the government as well as the institutions imparting TVET education.

CTEVT can play a vital role in this regard as it is the only organization that is working for the upliftment of TVET in Nepal.

1.4 Curriculum and its Importance

Curriculum is defined as the formal mechanism through which intended educational aims are achieved. The curriculum process is described by those factors that bring about learning. In other words, both learning and instruction are central to the curriculum process. Teachers may make informal changes to the curriculum leaving out or adding contents or change the way in which it is taught and assessed by them. They may make such changes without the formal assent of the accrediting agency (Heywood, 2005.)

The curriculum plays the most important role for a course to be successful and at the same time meaningful in regard to job opportunities. The curriculum should be designed in such a way that skilled human resources could be produced that can meet the actual labour market needs. The design and development of curriculum should be carried out with great care as it is the building block of skilled human resources. Enough researches that involve statistical analyses, literature analyses, and workshops and discussions with different educational institutions are essential for a curriculum to be qualitative and productive. There might be a lot many other factors to be considered before and after the curriculum design.

Curriculum matters mainly because of its potential impacts on students. The fundamental purpose of curriculum development is to ensure that students receive integrated, coherent learning experiences that contribute towards their personal, academic, and professional learning and development. Curriculum development is the key process in determining the quality of learning and teaching that occurs with the educational institutions, and hence the quality of graduates. (Centre for University Teaching, 2015.)

1.5 Systematic Curriculum and Instructional Development (SCID)

The Ohio State University, College of Education and Human Ecology (CETE) has devised a systematic process model, Systematic Curriculum and Instructional Development (SCID). SCID that has been

successful for curriculum development customized to complement the needs of career and technical educators as well as business and industry trainers. SCID has five phases: design, development, implementation, evaluation, and 22 comprehensive components. SCID is a complementary to the DACUM[1] workshop. (Nielsen, para 1-2.)

[1] DACUM is a quick, effective, relatively low-cost method of analyzing jobs and occupation. It has been used worldwide for more than 40 years.

2 Council for Technical Education and Vocationa Training (CTEVT[2])

Council for Technical Education and Vocational Training (CTEVT), established in 1989 (2045 B.S.), is a national autonomous apex body of Technical and Vocational Education and Training (TVET) sector. It is committed to produce technical and skillful human resources necessary for the nation. CTEVT mainly involves in policy formulation, quality control, preparation of competitive curriculum, development of skill standards of various occupations, and testing the skills of the people. It also conducts various research studies, and training needs assessment. (COUNCIL FOR TECHNICAL EDUCATION & VOCATIONAL TRAINING.) Figure shows CTEVT building located at Sanothimi, Bhaktapur, Nepal.

Figure 2 CTEVT building, Sanothimi, Bhaktapur (COUNCIL FOR TECHNICAL EDUCATION & VOCATIONAL TRAINING)

[2] More information about CTEVT can be gathered from its website www.ctevt.org.np.

2.1 CTEVT as UNESCO-UNEVOC[3] Center for Nepal

UNESCO-UNEVOC is a UNESCO's specialized Centre for technical and vocational education and training (TVET). It assists UNESCO's 195 member states to strengthen and upgrade their TVET systems. It acts as part of the United Nations mandated to promote peace, justice, equity, poverty alleviation, and greater social cohesion. (COUNCIL FOR TECHNICAL EDUCATION & VOCATIONAL TRAINING,para 2.)

2.2 International Relations and Linkages of CTEVT

CTEVT has good relations and linkages with international development partners and communities ever since its establishment. TVET programs are more expensive than general education. Therefore, to expand the physical facilities and institutional capacity of TVET in Nepal, CTEVT has developed relations and linkages with Asian Development Bank (ADB), Swiss Agency for Development and Cooperation (SDC), Department for International Development (DFID), and United Mission to Nepal (UMN) among others. (CTEVT, para 1.)

2.3 Curriculum Division of CTEVT

The aim of the curriculum is to produce competent and highly employable middle-level technical workforce. The contents of the individual subjects prescribed in the curriculum are incorporated in the light of '**must to know and must to do**' principle (CTEVT). The responsibilities of the curriculum division of CTEVT are as follows:

- Improve all curricula to be used within the TVET system
- Advise and assist other agencies to develop curricula
- Maintain curricular database and instructional materials
- Design new curricula as per the needs identified by the council as well as TVET providers
- Revise the curricula as per labor market demands

(COUNCIL FOR TECHNICAL EDUCATION & VOCATIONAL TRAINING)

[3] More information about UNESCO-UNEVOC may be gathered from its webpage, http://www.unevoc.unesco.org/go.php

3 Methodology

To address the project aim, following methods were applied:

- Review of curricula developed by CTEVT
- Online researches and literature reviews regarding TVET and labor market needs
- Field visits to KNIT and DDC (Dairy Development Committee), Butwal
- Interview with the teachers of KNIT
- Discussion with the mentor from Daayitwa Abhiyaan Team

3.1 Limitations of the Project and its outcomes

- Data analysis was not a part of this project, and thus is not included in this report.
- This report is limited to the curriculum of Electrical and Electronics engineering and possibility of implementing automation technology in Nepalese industries.
- Due to time constraints and unavailability of necessary/exact documents, the project could not be carried out as anticipated by the fellow.

3.2 Curricula Review

The curriculum for Diploma in Electrical and Electronics Engineering (DEE) was studied to find out its shortcomings. In the course of studying, few findings came to be visible. In addition, possible implementation of automation technology in the industrial sectors of Nepal was researched.

The DEE program is three years long, and it covers a lot of things that is related to electrical and electronics engineering. It covers language studies for communication, basics and advanced electrical engineering courses, electronics courses, finance and management courses, and courses related to automation technology such as Programmable Logic Controller (PLC) Basics and microprocessors. Students also have liberty to choose optional subject(s) at the end semester of study. Some of the common optional subjects include micro hydro power and solar power among others.

At a glance, the curriculum seems to be quite good. However, if analyzed properly, the course burden on the students seems to be quite a lot. Most of the students begin this diploma course after

completing School Leaving Certificate (SLC). It would not be easy for them to cope with the overwhelming subjects and rather they would only study to pass the course, but gain practical understandings.

If the three years course content is compared to six years of bachelors and masters studies, it will be difficult for one to find any difference. The topics included in the curriculum seems exactly the same as that of a combined syllabus for completing bachelor's and master's s degrees. At least the fellow has such experience.

Other important finding is regarding the use of English language. The use of English language lacks homogeneity and correct usage of grammar. The reason for non-homogeneity may be different person preparing the curriculum for different courses. The person preparing the curriculum for respective course who is expert in the course may not have apt knowledge in English language. Therefore, it is advisable to employ someone who holds an expert knowledge in English language usage. It would be even better if the person being employed for this job has knowledge on the subject matters.

It is absolutely true that the curricula are designed to inform and help the teachers to provide with the outline of the matters to be covered in the course, but it would be better if anybody else who wants to study the curriculum understands it. Therefore, abbreviations/acronyms should be discouraged. To make it clearer, let us take an example of three-phase wiring system, a term quite common in electrical engineering. For persons who know about electrical engineering, power electronics, and/or power distribution systems, it would be quite obvious to them if 3ph is written in place of three-phase, but a normal person would not understand it.

3.3 Visit to Korea Nepal Institute of Technology (KNIT)

A short visit to KNIT (Korea-Nepal Institute of Technology) was made to find out the curriculum implementation in diploma courses and to get feedbacks from the teachers and other staffs of the institute. During this visit some general questions regarding the curriculum and the institute were

asked to the teachers. Moreover, the major concern was to find out about the courses that deal in automation technology.

KNIT has all necessary infrastructures to provide a strong base to produce graduates with the knowledge of automation technology and its implementation. However, students studying there are not interested in such courses. They already have a mindset that they will be working as electrical technician or some other kind of technicians.

3.3.1 Korea Nepal Institute of Technology (KNIT[4])

Korea Nepal Institute of Technology (KNIT) is a technical diploma providing institution, situated in Butwal, Nepal. This institute is run by CTEVT (Council for Technical Education and Vocational Training), and was funded and supported by Korea International Cooperation Agency (KOICA) financially as well as technically. KNIT has been providing diploma courses in three different disciplines - Mechanical, Electrical and Electronics, and Automobile. This document emphasizes on Electrical and Electronics Program. (KNIT, para 1)

Figure 3 KNIT building, Tamnagar, Butwal

[4] Additional information about KNIT can be gathered from its website http://www.knit.edu.np/.

4 Results/Findings

The results presented here are based on the analysis of the fellow after his study of the curricula, KNIT visit, and study of different documents that are directly/indirectly related to curriculum, human resources, and skills development. Therefore, the readers of this report might find it vague. Out of many difficulties, the most difficult part of this project felt by the fellow is the need for a strong team to conduct the research and concrete findings and recommendations for this kind of project.

4.1 Curricula review results

- The curriculum is very much sophisticated in terms of the contents of the subject.
- As curricula are academic documents, it is necessary to have a standardized use of English language.

4.2 KNIT visit results

The visit was meant to find out about the subjects related to automation technology offered there in the diploma program in electrical and electronics engineering. However, the anticipated works could not be carried out there, and the aim was diverted to general matters related to the institution itself and the courses offered there. However, the followings are some of the outcomes and/or information gathered from the visit and the interviews with the teachers:

- KNIT has modern infrastructures
- Need for guest lecturers
- Insufficient funds due to which they are not able to provide alternative source of energy for electricity
- Felt for a need to introduce moral behavior course for the students
- One of the teachers also told that the curriculum design is has calculated longer teaching hours than the available teaching hours.

5 Recommendations

The recommendations listed below are solely based on the fellow's understanding and analyses.

- From the curricula reviewed, one recommendation that is found to be essential is the development of curriculum manual. The manual should contain the information on the extent to which a topic should be delivered to the students.
- In the context of Nepal it would be a great idea to introduce waste management and recycling technology. Waste pollution and its management is of great concern in Nepal. CTEVT can play significant role if it can gather interested stakeholders and start working for developing curriculum for a diploma/certificate level study in waste management and recycling technology.
- Introduction to automation technology as short-term training course may help to produce workforce capable of working in industries to produce time efficient, cost effective, and quality products/goods. It would be a good idea to focus the automation technology suitable for agriculture in the beginning. Further extension of this kind of course can help in international employment.
- Regular meetings with the teachers of the technical institutions and getting feedbacks from them about the interest students are developing and problems faced by the students to grasp the course contents. This helps in the revision of the curriculum. Additionally, regular researches on the type of curriculum that is being imparted in the developed as well as other developing countries are necessary to make the curriculum stronger.
- Organizing seminars, or workshops, or presentations on the significances of TVET programs in both public and private educational institutions. This will help in raising awareness among people who think TVET programs to be of low level.
- It would useful and significant to transform CTEVT from a mere technical and vocational education council to a polytechnic university, and run bachelor's level polytechnic studies.
- All the TVET programs should focus on entrepreneurship so that graduates/trainees could have knowledge and freedom to start a new enterprise or business of their own. Thus they can be self-employed, which would reduce the unemployment of Nepal to certain extent.

- Development of highly effective TVET instructors could strengthen the curriculum. The TVET instructors should be expert regarding the market needs and demands, and should not only be a person with the theoretical knowledge.
- As it is seen that there is lack of skilled workers abroad, TVET providing institutions can produce workforce/human resource that meet the international standards. Therefore, it is necessary for CTEVT to establish linkages with the industries of developed and emerging economies around the globe.
- Being a developing country and economically dependent majorly on agriculture, CTEVT with its TVET institutions should conduct researches that promote innovation in the field of agriculture.

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7 Appendices

7.1 Photographs

Figure 4 A snap taken at KNIT with the faculty members of CTEVT

Figure 5 The fellow with the Director of DDC, Butwal

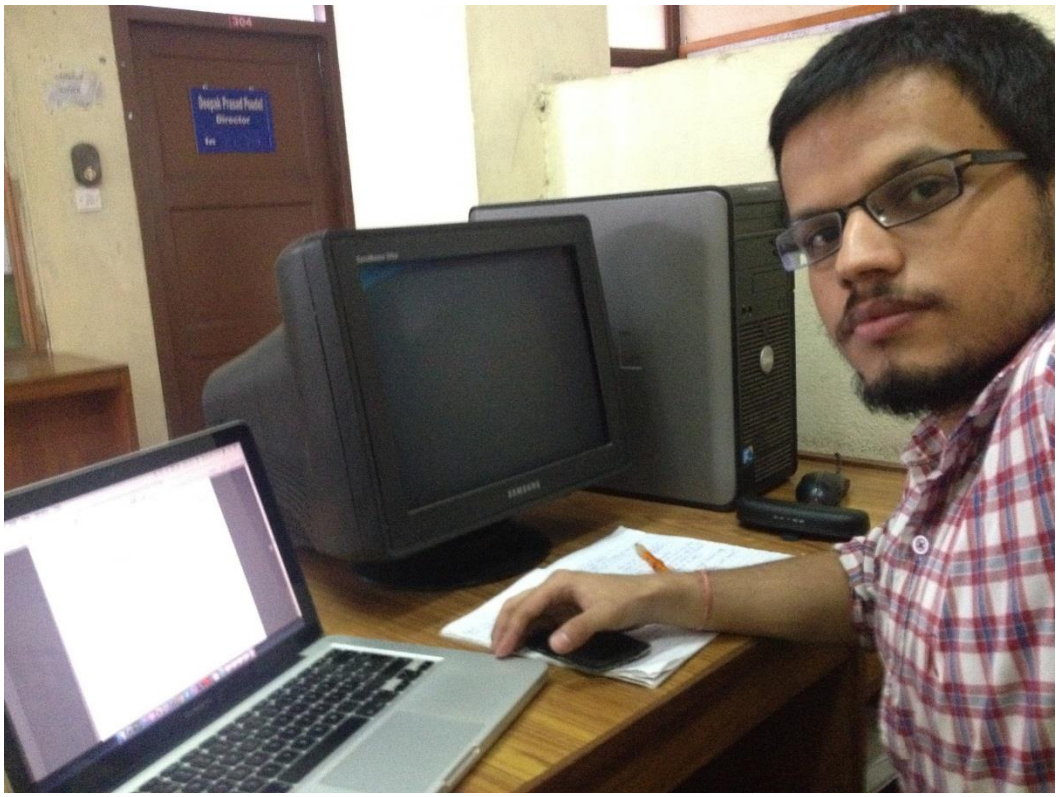

Figure 6 Snap showing the workspace provided to the fellow by CTEVT