



- 1.3. Graduating students conduct research and/or undergo practicum/OJT or other activities prescribed in their respective curricula.



SURIGAO STATE COLLEGE OF TECHNOLOGY
SURIGAO CITY, MAIN CAMPUS

A Narrative Report in
On-The-Job Training undertaken at
Surigao State College of Technology
Located at Narciso St., 8400, Surigao City

Presented to the Placement Office
Surigao State College of Technology
Narciso St., 8400, Surigao City, Surigao del Norte, Philippines

In Fulfillment of the Requirements of the degree of
Bachelor of Science in Electrical Engineering (BSEE)

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Summer OJT
A.Y. 2020-2021

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INTRODUCTION

"Whatever your goal in life, the beginning is knowledge and experience". It means that the knowledge that a student used in an experience is the beginning of reaching his/her goal. That is why an internship or the so-called OJT (On-the-Job Training) is created. On the job training or OJT is one method by which students is given a chance to apply the theories and computations that they have learned from the school. It also helps the students to acquire relevant knowledge and skills by performing in actual work setting.

An OJT or internship program allows students to experience the actual techniques of a certain work while using genuine tools, equipment, and papers. In effect, a student trainee's employment becomes a growth arena where he can learn more about his chosen subject and put what he's learned in school into reality.

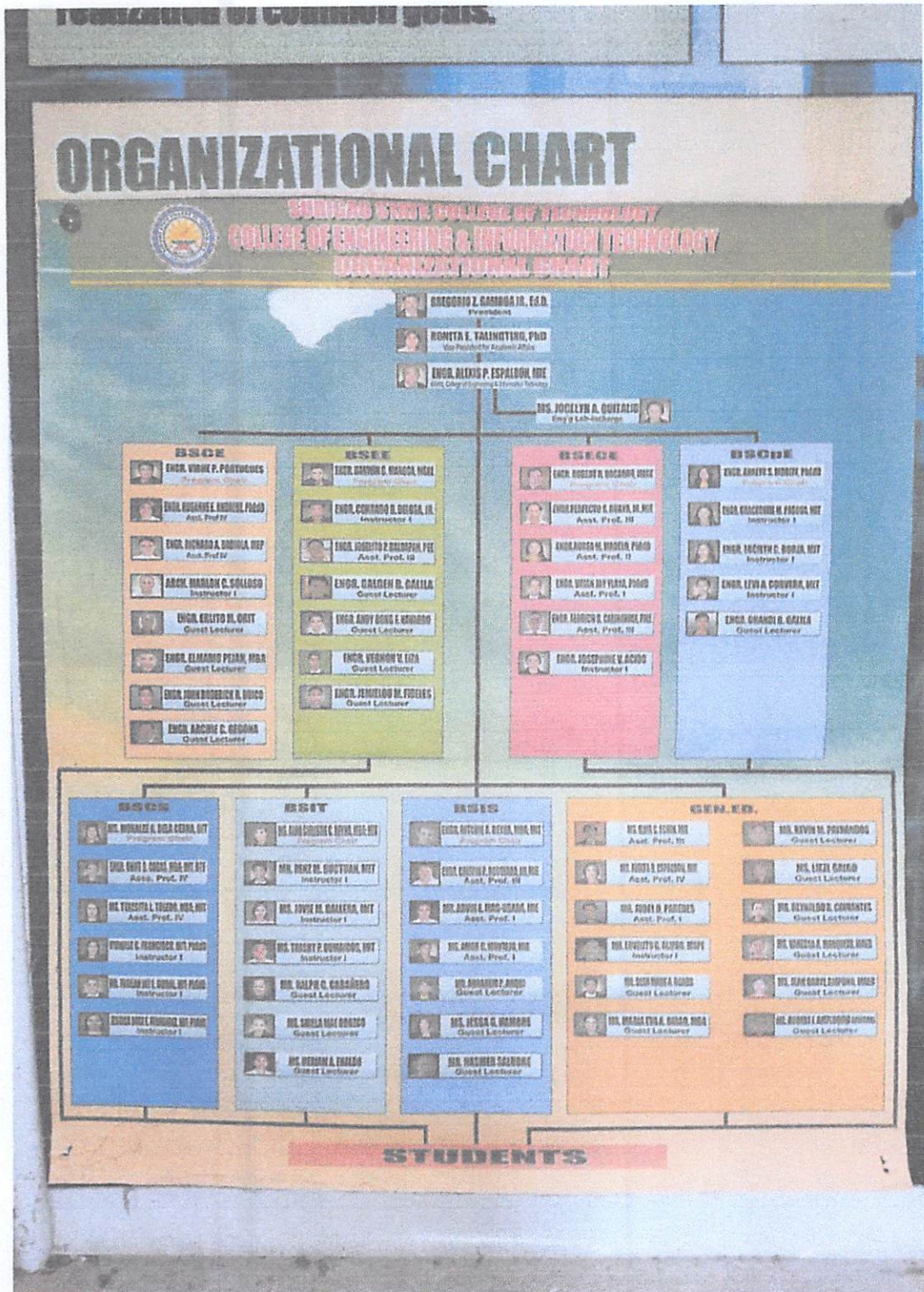
Where realism is necessary, on-the-job training is beneficial. Typically, the supervisor observes the trainees while they perform their duties. After observation, the observer provides the trainees with feedback on their performance.

For a company or an organization who willingly accept a student trainee, OJT program provides them additional manpower without expecting salary to pay back. Student trainees can bring fresh ideas, and if even given such opportunity to speak their minds freely, they may be able to contribute significantly in brainstorming sessions that will possibly help for the productivity of the company.

In the Civil Engineering OJT program, students would be trained in their selected field of interest. This gives students the chance to practice realistic job procedures with real tools, equipment, and papers. This, in turn, will undoubtedly contribute to their professional growth and development.

Supervisors are generally educating while training interns. The process of coaching trainees stretches their patience, enhances engineering skills, and makes them more sensitive to the demands and mindset of the younger generation. The supervision program also teaches them how to communicate their knowledge and respond to questions.

Company Organizational Chart



THE INDUSTRY PARTNER:

Company Picture



"For Nation's Greater Heights"



Company History



SURIGAO STATE COLLEGE OF TECHNOLOGY

SURIGAO CITY, MAIN CAMPUS

OJT DAILY ACCOMPLISHMENT REPORT

Name of Industry: Surigao State College of Technology

Address of Industry: Narciso St., 8400, Surigao City, Surigao del Norte, Philippines

Date	Activities Done	Remarks
06-23-21	OJT Orientation being discussed by Ma'am Rhoda May B. Macalam and Engr. Federico Aves	Accomplished
06-24-21	Reinstallation of AutoCAD, Reviewing Past Plans Designing Ground Floor Plan Designing Second Floor Plan	Accomplished Accomplished Accomplished
06-25-21	Roof Plan Elevations and Sections Doors and Windows Details	Accomplished Accomplished Accomplished
06-26-21	Foundation Plan, Framing Plan, Roof Beam, Roof Framing Plan	Accomplished
06-27-21	Section of Column, Walls and Two-Way Slab Detail	Accomplished
06-28-21	Stair Detail, RCB Details, and Beam Schedule	Accomplished
06-29-21	Lighting Plans, Lay-out Plans, and Rise Diagram Schedule of Loads, Circuit Breaker, Electrical Notes, and Legend of Electrical	Accomplished Accomplished
06-30-21	Plumbing Plans and Septic Plans Isometric Plan of Plumbing, Specification and Legend of Plumbing	Accomplished Accomplished
07-01-21	Perspective of Two-Storey of Residential House	Accomplished
07-02-21	Estimates Estimates and Bill of Quantities	Accomplished Accomplished
07-03-21	Design and analysis of Slabs using ETABS and excel	Accomplished

07-04-21	Design and analysis of Columns using ETABS and CSI detailing	Accomplished
07-05-21	Design and analysis of Beams using ETABS and excel Design and analysis of Tie Beams using ETABS and excel	Accomplished Accomplished
07-06-21	Design and analysis of Footings using ETABS and excel	Accomplished
07-07-21	Design and analysis of Wall Footings using excel	Accomplished
07-08-21	Design and analysis of Stairs using excel	Accomplished
07-09-21	Design and analysis of Trusses using ETABS and CSI detailing	Accomplished
07-10-21	Rebar Cutting List using excel	Accomplished

DAY 1: June 23, 2021 (afternoon)

We had an OJT orientation via zoom. Ma'am Rhoda May Macalam discussed the requirements we must comply before and after the OJT. While Engr. Federico Aves discussed the things we must finish within the allotted time for this training. We were assigned to make a complete two-storey plan of either commercial building or residential building, its structural designs of footings, columns, beams, slabs, wall footings, tie beams, stairs, and trusses, its complete estimations, and rebar cutting list.

DAY 2: June 24, 2021 (8 a.m. – 5 p.m.)

I started reinstalling my AutoCAD application. I scanned my past plans last semester to get more ideas. Then, I started making my ground floor plan using AutoCAD application. After making my ground floor plan, then proceed making my second floor plan.

DAY 3: June 25, 2021 (8 a.m. – 5 p.m.)

At 8 a.m. I started creating my roof plan. I designed it with its detailed truss. Then, I designed the elevations of my proposed two-storey residential building. I did the front, rear, left, and right elevations. After I finished doing my elevations, I continued on working on longitudinal and traverse section which are essential part of architectural plan. Next, I started creating the windows and doors details which are also essential information for the overall of the design.

DAY 4: JUNE 26, 2021 (8 a.m. – 5 p.m.)

For my structural plan, I started designing the foundation plan first from the ground floor. Then, I proceeded on making the roof beam and roof framing plan and put the details of all the structural design.

DAY 5: JUNE 27, 2021 (8 a.m. – 5 p.m.)

Still working on structural plan, I started designing the column. Then I continued working on designing the walls and two-way slab details.

Company Profile

Objectives: We strive to help CEIT of SSCT attain its goals as learning institution through;

CEIT College Dean's Office Duties:

- Supervising various campus programs
- Serving as a liaison between college administrators and student organizations
- Oversee Academic Programs
- Budgets
- Handle Student Complaints
- Working with Professors
- College Representative

VISION

To be a center of excellence in engineering and information technology education.

MISSION

To provide relevant, quality and sustainable instruction, research and extension programs and services to produce responsible and globally competitive individuals in the fields of engineering and information technology.

GOALS

1. An outcomes-based learning experience for students that fosters the application of engineering and information technology disciplines.
2. Research, innovation and creative works that promote a sustainable, just, and prosperous world.
3. Establish linkages with industry, government and other sectors in the realization of common goals.

OBE Framework

In compliance with the Commission of Higher Education (CHED) Memorandum Order Nos. 37 and 46 series of 2012, the College of Engineering and Information Technology adopts the Outcomes-Based Education (OBE) system in the implementation of its academic programs.

The center of the SSCT College of Engineering and Information Technology OBE framework is CMO 37 and 46 which specifies the standards of Outcomes-Based Education in the Philippines where the learning outcomes, learning environment, teaching-learning activities, and assessment & evaluation were all anchored on. All these activities were also based on the Program Educational Objectives (PEO) which is also based on the Vision, Mission, and Goals of the college. The PEO shall undergo accreditation process so that it can be certified in complying the Outcome-Based Education.

approving the appointment of Dr. Medina as the College President to serve the unexpired term of Dr. Lañada effective May 15, 2007. On March 4, 2009, Dr. Anastacio P. Martinez succeeded Dr. Medina and was designated as Officer-in-Charge to the Office of the President per BOT Resolution No. 661 s. 2009 who served the College until August 14, 2009. On August 15, 2009, Dr. Virginia D. Akiate who was the Regional Director of the Commission on Higher Education in CARAGA Region was designated as Officer-in-Charge of the College and was confirmed by the Board per Resolution No. 716 s. 2009 during its Special Meeting on October 30, 2009 at Almont Hotel and Inland Resort in Butuan City. Her designation as OIC ended on November 30, 2010.

The Surigao del Norte College of Agriculture and Technology (SNCAT) which was formerly the Mainit National Agricultural School (MNAS) by virtue of R.A. 5256 1983 Batas Pambansa Blg. 358 on May 26, 1969 was integrated to SSCT through a Memorandum of Agreement (MOA) entered into by and between CHED and TESDA on October 10, 2008 duly represented by TESDA Director General Emmanuel Joel J. Villanueva and Dir. Virginia D. Akiate who was then the CHED Regional Director in Caraga at the same time the Officer-in-Charge of SSCT with the presence of the two representatives of Surigao del Norte, Cong Francisco T. Matugas of District I and Cong. Guillermo A. Romarate Jr. of District II.

Under the Memorandum of Agreement, the Higher Education Programs of Surigao del Norte College of Agriculture and Technology (SNCAT) will be placed under the direct supervision of SSCT. The same was confirmed by the Board through Resolution No. 735 s. 2009 on December 28, 2009 during its 44th BOT Meeting. Dr. Georgito G. Posesano, Professor II of SSCT-Main Campus was designated on November 25, 2010 as its Campus Director.

The year 2010 marked another milestone in the history of SSCT as the new lady president, Dr. Gloria C. Gemparó, after undergoing the year-long selection process, assumed into office as the 5th College President of the Surigao State College of Technology on December 1, 2010 pursuant to BOT Resolution No. 25 s. 2010. With Dr. Gemparó at its helm, everybody hopes for a bright future as it faces 21st Century challenges in pursuit of quality and relevant education for all its constituents.

The Surigao State College of Technology is a public college in the Philippines. It is mandated to provide higher vocational, professional and technological instruction and training in the fields of agriculture, fisheries, engineering and sciences, as well as short-term technical courses. It is also mandated to provide primary consideration to the integration of research/studies for the development of the Province of Surigao del Norte. Its main campus is located in Surigao City. Surigao State College of Technology (SSCT) was formerly Surigao del Norte School of Arts and Trades, established as a trade school with the help of then Governor Jose C. Sering on August 8, 1969 by virtue of Republic Act 6057 under the supervision of Supt. Marcelo S. Bonilla of Cebu School of Arts and Trades, Cebu City.

The school formally started its operation on September 15, 1969 with borrowed technology teachers from three different schools of the province. There were 103 pioneering students in the first secondary trade and the trade technical curricula. Two 2-storey buildings were constructed upon donation of 1.2 hectares of land through the Provincial Government. Along with this, several machineries were acquired from Japan Overseas Cooperation Volunteers; Technical Vocational Education Program; Asian Development Bank; and Philippine Australian Technical Vocational Education Program which became instruments of becoming a fullfledged higher institution offering Bachelor of Science in Industrial Technology and the Bachelor of Science in Industrial Education.

From 1969 to 1988, Dr. Tomas P. Solana, the principal of Numancia National Vocational School (NNVS) served as its 1st Principal and later became the College Vocational School Superintendent II and steered SNSAT for almost two decades. Upon Dr. Tomas P. Solana's retirement in February 1988, Dr. Ernesto N. Gonzales assumed into office as the Vocational College Superintendent.

Through the efforts of the late Senator Robert Z. Barbers, R.A. 8650 merged SNSAT with the Malimono School of Fisheries, a secondary school that offered the Revised Fisheries Curriculum of 1972 under P.D. 223 in 1975, thereby creating the Surigao State College of Technology (SSCT) which was signed into law on June 5, 1998 by then President Fidel V. Ramos. With the conversion of SNSAT and Malimono School of Fisheries to a State College, there was a major review of its organization, curriculum, and programs and standards under Dr. Teresita T. Tumapon who took the seat as the 1st College President on September 25, 1998.

The chartered State College integrated a satellite campus on October 30, 2000 which is the Siargao National College of Science and Technology or SNCST situated in Del Carmen, Surigao del Norte. The integration was made pursuant to Section 8 of RA 7722 and Section 4.1 of RA 8292. Dr. Gloria C. Gempar, VIS-III of SSCT assumed as its 1st College Administrator until May 14, 1998. The retirement of Dr. Tumapon on October 2, 2003 paved the way for Dr. Reynaldo T. Peña as the 2nd College President on October 3, 2003 and after more than four (4) months of presidency, Dr. Peña opted to end his term on February 29, 2004 to assume as Regional Director of CHED –Region XI, Davao City where the then CHED Regional Director, Dr. Joanna B. Cuenca was designated as the Officer-in-Charge of the College on March 1, 2004 until March 3, 2005. Engr. Henry L. Lañada, Ph.D. assumed into office on March 4, 2005, as the 3rd College President of the Surigao State College of Technology and unexpectedly resigned on January 4, 2007 which eventually led to the designation of Dr. Jocelyn T. Medina as Acting President effective January 5, 2007 per BOT Resolution No. 490 s. 2007. On May 11, 2007, the Board passed Resolution No. 521 s. 2007

ASSESSMENT OF WORK EXPERIENCE

It was an excellent opportunity for me to further expand and broaden my knowledge and competency as a civil engineering student and for future career ambitions after graduation as one of the 3rd year students who took the Civil Engineering on-the-job training course. Throughout my journey, I've been able to use the tools and abilities that my extensive academic training in SSCT provided me with to be competent enough to pursue various chances available in the outside world.

Regardless of the pandemic, my personal objective was to work in an on-the-job training role where I could use my critical and analytical skills from my academic studies. I understand why we were not permitted to participate in typical on-the-job training, and it is to ensure the safety of all trainees in the middle of the covid-19 pandemic that is currently affecting the country. Despite the fact that we were receiving on-the-job training at home and using our school as a practice site, I was still interested in strengthening my foundation in structural planning and design. With this in mind, I applied for a student trainee position at Surigao State College of Technology. (Main Campus). Fortunately, my application was accepted.

The whole practicum requires 240 hours of training which totals to 30 days for a schedule of 8 hours per day. I started my training on June 24, 2021 after the OJT orientation. Prior to that day, Ma'am Rhoda May B. Macalam gave us a brief orientation regarding the practicum and Engr. Federico Aves stood as the supervisor for the whole training. Of course, he briefed us of our duties and responsibilities we have been tasked as a student trainee. We were assigned to make a complete two-storey plan of either commercial building or residential building using CAD, its structural designs of footings, columns, beams, slabs, wall footings, tie beams, stairs, and trusses, its complete estimations, and rebar cutting list using excel, but I also used ETABS which is an engineering software product that caters to multi-story building analysis and design for my further learning.

My schedule starts at 8:00 in the morning and ends at 5:00 in the afternoon from Monday to Sunday. My experience was personally motivating and enhancing. I was able to make documentations of the accomplishments of my work. And I was able to broaden my knowledge regarding structural planning and designing. And later on analyze it, ensuring that the building is safe enough to withstand some load factors such as deadloads, liveloads, and environmental loads. These elements were designed base on the standards set by the code. I was able to manipulate my time also in computing bill of quantities and cost estimate of the building. Of course, my academic training experience was a great help in doing such task. Additionally, I had the very opportunity to interact with my co-trainee via zoom and Google meet as we shared our own ideas on structural plans and designs.

Overall, I found the experience to be really rewarding. In addition, I was able to contribute my knowledge to the completion of the tasks. The on-the-job training I received at the Surigao State College of Technology (Main Campus) inspired me to develop and become a better civil engineering student and aspiring professional engineer in the Philippines in the near future. As a Civil Engineering student who will soon be a part of society as a working professional, the experience inspired my compassion, competence, and devotion.

DAY 6: JUNE 28, 2021 (8 a.m. – 5 p.m.)

I started working on detailing the stairs. Followed by RCB and beams in detailed. This helps to identify to what kind materials and the quantity of materials to be used.

DAY 7: JUNE 29, 2021 (8 a.m. – 5 p.m.)

For my electrical plan, I designed on lighting first, since it would be essential for a finished two-storey plan. Next is the lay-out plans then the rise diagram to where the source of the electricity. I did a quick review on electrical loads computation and then I started computing the loads of electrical plan. After computing, began on the distribution of circuit breaker. Lastly, I inputted the Electrical Legends which serves as the guide of the plan.

DAY 8: JUNE 30, 2021 (8 a.m. – 5 p.m.)

I did a quick review on the guidelines for plumbing. Then, I started making my plumbing plans and the design of the septic tank. I created the isometric plan for plumbing which will serve as a guide for the flow of waste and non-waste. Next, I browsed my other plans for specifications and Legends of Plumbing.

DAY 9: JULY 1, 2021 (8 a.m. – 5 p.m.)

I made a perspective of my house design using AutoCAD because I do not know how to use other application to make my perspective.

DAY 10: JULY 2, 2021 (8 a.m. – 5 p.m.)

This day I made the BOQ for my building.

DAY 11: JULY 3, 2021 (8 a.m. – 5 p.m.)

I opened first the ETABS to analyze if the slab design is suitable or safe. After that the data collected is then exported to excel to produce the final design.

DAY 12: JULY 4, 2021 (8 a.m. – 5 p.m.)

I opened first the ETABS to analyze if the column design is suitable or safe. After that the data collected is then exported to excel to produce the final design.

DAY 13: JULY 5, 2021 (8 a.m. – 5 p.m.)

I opened first the ETABS to analyze if the beams design is suitable or safe. After that the data collected is then exported to excel to produce the final design. Since beams and tie beams are typically the same the methods used by designing is also the same.

DAY 14: JULY 6, 2021 (8 a.m. – 5 p.m.)

I opened first the ETABS to analyze if the footing design is suitable or safe. After that the data collected is then exported to excel to produce the final design.

DAY 15: JULY 7, 2021 (8 a.m. – 5 p.m.)

I opened first the ETABS to analyze if the wall footing design is suitable or safe. After that the data collected is then exported to excel to produce the final design.

DAY 16: JULY 8, 2021 (8 a.m. – 5 p.m.)

In designing stairs, I only used Excel to perform designing and analysis of the structure. After designing I also computed the rebar required for the structure.

DAY 17: JULY 9, 2021 (8 a.m. – 5 p.m.)

I opened first the ETABS to analyze if the truss design is suitable or safe. After that the data collected is then exported to excel to produce the final design.

DAY 18: JULY 10, 2021 (8 a.m. – 5 p.m.)

After finishing all my design and analysis I made the rebar cutting list for all the structures. I minimized the total wastage of rebar so that the contractors can save money and we can easily keep track of the materials needed and used during the process.