Batangas State University Balayan
Caloocan, Balayan, Batangas

College of Industrial Technology
Minutes of the Meeting

Date/Time: December 21, 2020/4:00 – 5:00

Proposed Title: Design and Development of aTeeth Guardian

Name of Researchers: CalbayarLito, Calingasan April Mae, Mendoza Rose Isabel, Talaoc Ivan Gabriel

Panel Members:
Chair: Engr. Rhobert E. Alvarez, DT
Members: Engr. Armando E. Arzobal
Dr. Marian Panganiban

	Comments/Suggestions:
Machine/Output	➢ There are two dashboards: Patient and Doctor ➢ The project is intended as a scheduling application for patients and a management and record system for doctors who are registered in the app. ➢ The record system will show the patient's record ➢ Same program, same flowchart but different record/data. Change the subject or profession from dentist to pedia. ➢ Use at least 3 pediatricians. Interview them regarding the information to be inputted in the system. ➢ The approach of the study shall remain unchanged. Only the subject will be changed.
Research Title	➢ **NEW TITLE:** Design and development of a Pediatrics Management System
Chapter 1 – The Problem and Its Background	
Introduction	➢ Indicate statistics/number of patients that consultpediatricians. ➢ Revise the intro to include the problems mentioned during the oral presentation. However, this time as applied to pediatricians. ➢ Enrich the justification on the problems experienced with the existing system or set-up in emergency response. Elaborate on the gap. ➢ The discussion should be from general to specific. ➢ Remember that the contents of the paragraph should be linked to one another ➢ Observe the proper sequence in discussing the research problem. Chapter 1 should be the researchers' based on their understanding of the topic. References are just used to support the claims or statements. ➢ Consider this flow in your discussion: Begin with a general idea usually an area or industry under which your topic will fall> need for the equipment and material used in the said area/industry>actual situation i.e. there are existing automated technologies/machinesin the said

	industry/area that are used to perform the operations (tasks) which are usually accomplished by workers. Give examples. Include many examples> carefully develop the story until you can introduce the problem, that is, your topic>provide scenarios in the problem area (your topic) (available technologies)>indicate the problems associated with the available/existing technologies or machines. ➢ Enrich the justification of why developing your machine is necessary. ➢ State the gap. What is needed? What do we have? The gap between what we have and what is needed will be bridged by the proposed topic. In the second to the last paragraph, mention the problems experienced with the machines or the existing set-up in the field of study (your topic) that have been identified to justify the need to conduct the study. ➢ Compare the proposed study not only with the manual method. Rather, compare your study with the existing machines/methods in the market. ➢ Include also in your discussion the scenarios showing the problem with the existing machines to justify your motives in modifying them (the gap between the existing studies and your proposed study). ➢ State a concluding statement, the solution, which is your topic, in the last part of the introduction. No further elaboration. For example, you may state that "it is in this light that the design and development of an innovated check-out counter were conceptualized.
Objectives of the Study	➢ Provide a general objective for the study. ➢ Follow the prescribed format in writing the objectives of the study: 1. Evaluate the existing _____(indicate the related management systems which will be evaluated) in terms of: 1.1. Design 1.2. Operation 1.3. Safety 2. Design a (your project) in terms of: 2.1. Software Design 2.2. Flowchart 3. Determine the tools and materials needed in the development of the (indicate your proposed output) 4. Develop the (indicate your proposed output) 5. Test and evaluate the (indicate your proposed output) in terms of: *Identify the testing parameters based on the functions or operation of the machinethat will be tested and evaluated. Arrange the parameters sequentially based on the project's operation.*
Scope, Limitation, and Delimitation	**Scope:**

	The discussion should not be about the features of the machine. Rather, focus on what you have to study to develop the machine. You may refer to the objectives of the study in writing this part. How can you complete the project? What are the considerations? These are the ideas of the scope. In writing this part, refer to the objectives of the study. In writing the content of the scope, consider using phrases such as "the main focus of the study", "the main consideration of the study", "part of the study", "vital part of the study", "it is included followed by the ideas stated in the objectives i.e. design, development and testing, and evaluation. *Ex: The main consideration of the study is the design and development of .. Part of also of the study is the evaluation of the existing (see your objective) which will serve as a reference in the design of the proposed output.* *Finally, it is a vital part of the study to test the developed machine in terms of (indicate the testing parameters) …* **Limitation** ➢ Limit the scope of the study. ➢ The 2nd paragraph is for the limitation of the study. In writing this part, provide the limitations of the study based on the scope. To what extent of thescope ((based on the parameters) is covered by the study. *For example, in scope, you will evaluate the existing machine, but to what extent are you going to evaluate the said machines? You may indicate that the evaluation of the existing machine will be limited only in terms of design, operation, and safety.* ➢ In terms of design, state the extent of operation that the machine is only capable of in aspects such as (consider your design parameters). ➢ Be specific with the capability of the machine. *Ex: The size of the sprinklers will range from 10mm to 1 inch. The machine can sprinkler up to 1 meter.* ➢ Use signals for limitations e.g. within, up to, limited to, can .. but only up to…, etc. **Delimitation** ➢ State those that are not included in the study. ➢ The 3rd paragraph is about the delimitation. State the features/functions/operations that are not included in the study.
Significance of the Study	➢ Please observe the standard format in presenting the beneficiaries of the study.

	➢ Include only those who will be directly benefited by the study. ➢ State only the direct benefits that will be gained by the recipients from the study.
Definition of Terms	➢ Follow the appropriate format. ➢ Use a single-sentence definition. ➢ Define the technical terms both conceptually and operationally. ➢
Chapter 2 – Review of Related Literature	
Conceptual Literature	➢ Think/Include topics or literature that can help you in developing the machine. ➢ Literature should focus on the technical knowledge needed in developing the output. - *Example: If the study will utilize motors, the researchers need to include the technical knowledge on the Design and Operating Principles of AC Motors. The content will focus on the design and circuit of the motors because this concept will be needed in designing the output.* - *Another example is the Conversion of Electrical Energy to Mechanical Energy since there are mechanisms that require electricity to run the mechanical parts.* - *If automation is needed then another topic will be Automation systems.* ➢ The conceptual literature should consist of specific discussions of various authors for each topic. There should be figures and diagrams included supplementing these discussions so the readers can easily understand the processes and concepts. ➢ Topics in the literature are not about the components although they may be mentioned in the explanation. ➢ Topics are more general in scope which will include the concepts (components included), theories, knowledge, that you need to know to complete the project. ➢ Elaborate on each topic. The topic can have a 4 to 5-page discussion since it is not only concentrated on the work of a single author. A specific topic should have 2 to 3 authors or more. All authors with a relevant contribution to the field of study should be included in the paper. ➢ The discussion should be technical. Thus, there should be diagrams and figures to supplement the explanations of the author. ➢ The discussion should be parallel to the ideas conveyed by the topic. ➢ Observe the standard format in labeling figures and tables

Research Literature	➢ The discussion in the research literature should focus on the main objective, design, materials used, operation, and results of the previous study (Narrate in your own words).
Synthesis	➢ Align the syntheses of the conceptual literature with topics. Synthesize the ideas of the authors and discuss clearly how the theories and principles you presented in the conceptual literature contribute to your study. ➢ The synthesis of the research literature should present clearly how the previous and the present studiesbecome similar and different in terms of the purpose, design, materials used, principles of operation, and application. ➢
Conceptual Framework/Conceptual Paradigm	➢ connect the arrows to the frames of the Input, Process, and Output. ➢ Consider the following contents as you prepare the conceptual framework. **Input** Gathered Information Technical Knowledge and Skills Tools and Equipment Needed **Process** Planning Designing Developing Testing and Evaluating **Output** Developed (indicate your proposed output) ➢ Align your discussion with the contents of the frames or the figure.
Chapter 3 – Development Method and Procedures	➢ Align the methodology with the objectives of the study. i.e. Evaluation stage, Design Stage, Material Selection Stage, Development Stage, Testing, and evaluation stage. ➢ Make the research methods and procedures clear and specific. **Evaluation of the Existing Machine:** ➢ Explain how the existing machines are evaluated such as conducting research, interviewing key persons, performing actual visits to check the design of the existing machines, and using the existing machines to evaluate their design, operation, and safety. ➢ Include all the methods that you will use to evaluate the existing machines. **Design Stage:** ➢ Include the design considerations as part of the discussion.

	Material Selection: ➢ Will answer how the materials will be chosen i.e. canvassing of materials, buying online, fabricating the materials ➢ Include the methodologies that will ensure the acquisition of the materials needed in developing the machine. ➢ The ideas will revolve around the following: • canvassing for materials, • looking for locally available materials • looking for materials in the internet • buying/ordering materials abroad or online. • In case of unavailability of materials, the researchers will replace them with an alternative/similar material that has the same function. • Fabrication of specific materials if it is unavailable. **Development Stage:** ➢ Discuss the specific procedures on how you will develop the machine. Consider this: • The output will be developed based on the construction layout and schematic diagram • Other statements such as "ensuring the durability, and quality of the project" shall follow. • Mention that you will ensure the appropriate connection of the electrical components to avoid loose connections that might affect the functionality of the machine. ➢ Provide an elaborate discussion on how the machine will be developed. **Testing and Evaluation:** ➢ Be specific about how the major components of the machine will be tested. ➢ Discuss in detail how each component will be tested ➢ There should be a methodology of testing for the major components. ➢ Explain in detail how the testing parameters will be tested. ➢ Bear in mind that the statements in Chapter 3 will serve as the basis in testing and evaluating the machine *For example:* *Repeatability tests will be conducted to ensure the accuracy and effectiveness of the machine.* *Preliminary testing will be conducted to test the individual components that might affect the operation of the machine such as sensors and their ability to give signals to other components, the timer, and its ability to provide an accurate time or signal needed for the operation of other components.* *For final testing, you may focus on how the machine will be tested based on the testing parameters set in your objectivesYou may include the number of testing trials to be conducted to ensure the efficiency of the machine.*

	GANTT CHART ➢ The planning stage will cover the months of August to December while designing will be in January. ➢ Observe the standard format of the university in labeling/titling tables.
Bibliography	➢ Use APA style for referencing for books, journals, conference proceedings, thesis, and electronic references
Other Comments: ➢ There might be additional comments in the final defense which were not discussed during the pre-oral defense	

Prepared by:
SIGNED.
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