



COMP704 Research and Development Project

**VN01** 3D acupuncture healthcare data management and treatment system

# Project Overview

**Supervisor:**

Dr Nhan Le Thi

**Team Members:**

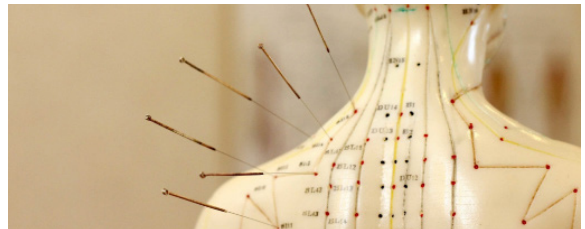
21142643	Chuong Pham Dinh
21142377	Nhan Nguyen Cao
21142355	Tan Le Tran Ba
21142358	Trang Ho Ngoc Thao

**Version:**

1.0

**Date:**

24<sup>th</sup> October 2022



# TABLE OF CONTENTS

<b>DOCUMENT VERSION CONTROL .....</b>	<b>2</b>
<b>1. DOCUMENT INFORMATION .....</b>	<b>2</b>
<b>2. DOCUMENT SIGN-OFF .....</b>	<b>2</b>
<b>3. DOCUMENT VERSIONS .....</b>	<b>2</b>
<b>I. PROJECT BACKGROUND .....</b>	<b>3</b>
<b>II. PROJECT DESCRIPTION.....</b>	<b>4</b>
<b>III. PROJECT SCOPE AND OBJECTIVES .....</b>	<b>5</b>
<b>III.1. GOALS &amp; OBJECTIVES .....</b>	<b>5</b>
III.1.1. PROJECT GOALS & OBJECTIVES.....	5
III.1.2. PERSONAL GOALS & OBJECTIVES .....	5
<b>III.2. PROJECT SCOPE DESCRIPTION .....</b>	<b>6</b>
III.2.1. WHAT IS TO BE INCLUDED – IN SCOPE?.....	6
III.2.2. WHAT IS NOT TO BE INCLUDED – OUT OF SCOPE?.....	6
<b>III.3. PROJECT REQUIREMENTS.....</b>	<b>6</b>
<b>IV. REFERENCES.....</b>	<b>7</b>

## DOCUMENT VERSION CONTROL

### 1. DOCUMENT INFORMATION

Document code     **PO**

Document title     **Project Overview**

Version             **1.0**


Authors             **Nhan Nguyen Cao, Trang Ho Ngoc Thao**

Distributed by     **Project VN01 team**

File name           **PO\_Project Overview\_1.0.pdf**

Release definition **Only released as a finished document**

### 2. DOCUMENT SIGN-OFF

ID	Member	Role	Signature	Timestamp
21142355	Tan Le Tran Ba	Project Manager		25 Oct 2022 20:25

### 3. DOCUMENT VERSIONS

Version	Timestamp	Description	Responsible members
<b>1.0</b>	24 Oct 2022 18:45	Basic information about the Project, based on the description from the Project Prospectus document.	<b>Nhan Nguyen Cao</b> (21142377) <b>Trang Ho Ngoc Thao</b> (21142358)

## I. PROJECT BACKGROUND

Traditional Chinese Medicine (TCM) has long been one of the most fascinating subjects studied by several researchers in a variety of professions. The system, which is supposed "thousands of years old and has changed little throughout the centuries" (Chinese Medicine, n.d.), contains some of the cures for many illnesses or symptoms that Western medicine cannot simply treat. Acupuncture is one of the most widely used types of TCM that is today practiced in many nations, from the East to the West of the entire world.

According to traditional Chinese medicine, the purpose of acupuncture is to regulate the flow of life force (often referred to as Qi) and energy in your body. It involves inserting extremely tiny needles through your skin at specific locations known as acupuncture points (Acupuncture, 2022). It is indisputable that people who use acupuncture to treat their pain in various body sections might have favorable results.

The human body possesses more than 360 acupuncture points, which are employed in different combinations in clinical settings, according to traditional Asian medicine. Each point combination used in acupuncture treatment is based on the meridian system, which acts as a whole and not only in one specific organ or region of the body. Because the acupuncture points in the body are what causes acupuncture's main effects, where they are located and how they should be combined determines whether a treatment will be successful or not. The experts in the sector face significant difficulty in figuring out how to combine them for improved treatments of common ailments or discomfort.

Therefore, a needed solution in the field of acupuncture is having a related data and treatment management system to assist acupuncturists with the right treatments.

## II. PROJECT DESCRIPTION

The project's goal is to offer a remedy for raising the efficiency and logistical standards of acupuncture treatments. The ultimate system output, called the 3-D acupuncture healthcare data management and treatment system, is a 3-D model website of the human body that shows the acupuncture points and meridian system and allows users to interact with it directly. The solution will be offered as a Web application with a responsive user interface and experience for desktop and mobile devices.

The data-based system with 3-D model aimed to give acupuncturists a platform, to support the finding, and choose the combinations for treating diseases, or for improving patient data and managing the acupuncture treatments, but it could also be used as a way to increase interactions between the doctor and patient, improving the experience of both parties during treatment.

## III. PROJECT SCOPE AND OBJECTIVES

### III.1. GOALS & OBJECTIVES

#### III.1.1. PROJECT GOALS & OBJECTIVES

Our detailed goals and objectives for the project of the 3-D acupuncture healthcare data management and treatment system include:

- Acquire an understanding of acupuncture, the basic concept, and principles of the technique in healing pain and treating common diseases.
- Acquire an understanding of the findings of existing experiments on advanced technology to the scope of acupuncture, as an inspiration for the project.
- Being able to come up with proposals about applying advanced technology in acupuncture modeling, to better the functionalities and resolve the problems of some existing solutions in the market.
- Provide a 3-D model of a cut-off human body, with acupuncture points marked and related internal organs, and components included to guide and instruct the implementation of acupuncture treatment.
- Provide a data-based management and information system, from the research of experiments done by experts, for better guidance of acupuncture points combination in treating specific diseases.

#### III.1.2. PERSONAL GOALS & OBJECTIVES

From the perspective of each member of our group, our goals and objectives for this project include achieving the following skill sets:

- Technical skills
  - Paper research skill
  - Data mining techniques
  - Programming skills: Web Development skills with 3-D rendering products
  - Testing skills
  - Version control and source management skills
- Soft skills
  - Project management and development skills: SCRUM Framework, Agile methodologies
  - Documentation skill
  - Brainstorming skill
  - Team-work skill
  - Communication skill
  - Human relation skill

## **III.2. PROJECT SCOPE DESCRIPTION**

The research phase includes upskilling and acquiring useful knowledge and information related to acupuncture treatments, and experiments in the field. The final product includes a 3-D model platform for acupuncture treatments, with acupuncture points and a human body model displayed.

### **III.2.1. WHAT IS TO BE INCLUDED – IN SCOPE?**

- A research about the experiments of applying advanced technologies into the field of acupuncture treatment.
- Collection of data from experiments, and article papers, to be stored as a database for the system to promote commonly used acupuncture points combinations for curing specific diseases.
- A 3-D model website for interacting and understanding acupuncture treatments.
- A 3-D model website for experimenting, and justification of different treatments using acupuncture for specific diseases.
- A data-based information base for recommendations about acupuncture points combinations to be used for diseases.

### **III.2.2. WHAT IS NOT TO BE INCLUDED – OUT OF SCOPE?**

- Advanced 3-D animation for visualizing acupuncture treatments.
- Recommending or providing information about diseases that are not available in the database, management system, or those not commonly cured by acupuncture.
- Inclusion of deep medical knowledge of the internal organs and blood vessels, as well as explain or provide information about how they can be beneficial from acupuncture treatment from an advanced point of view.

## **III.3. PROJECT REQUIREMENTS**

Since the list of Functional Requirements and Non-Functional Requirements for the Project is updated many times during the implementation, especially during the first phases of Project Proposal and Research, there would be another documents (the Scope Statements – ScS documents) responsible for managing the list of Requirements for the project.

## IV. REFERENCES

*Acupuncture.* (2022, April 30). Retrieved from Mayo Clinic:  
<https://www.mayoclinic.org/tests-procedures/acupuncture/about/pac-20392763>

*Chinese Medicine.* (n.d.). Retrieved from Johns Hopkins Medicine:  
<https://www.hopkinsmedicine.org/health/wellness-and-prevention/chinese-medicine>