ENGG4950V - Develop a Telemedicine platform for the rural communities in Sri Lanka.
(3 Credits) 2024-2025 Spring

Course Details

Course instructor: Dr. Malinda ABEYNAYAKE

SIGHT Teaching Team

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Course description

Two Leaves Trust, guided by the motto "A Holistic Approach for Sustainable Development," is dedicated to instilling hope and fostering a sense of belonging among selected families and individuals in the tea plantation communities of Haptale, Sri Lanka. Two Leaves Trust is embarking on a new initiative to provide healthcare access for the tea plantation community through the implementation of a telemedicine service. This project aims to provide continuous, easily accessed healthcare support to individuals in current home-based caregiving (about 15 residents are staying in this facility run by two leaves trust) and remote tea plantation community, particularly targeting isolated individuals and those facing mental and physical challenges. Additionally, it seeks to assist villagers requiring medical support for long-term chronic illnesses.

The current healthcare system in the region faces significant challenges, including limited accessibility due to remote locations and mountainous terrain, transportation difficulties with poor pavement, long waiting times at hospitals, and a lack of personalized care resulting from

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overwhelming patient numbers. In response, Two Leaves Trust is introducing a tele-medicine platform to bridge these gaps and bring quality healthcare directly to the local community.

Key initial steps have been taken to lay the foundation for this program, including the identification of dedicated doctors (Sri Lankans who are living abroad), the setup of essential workflow and standardised practice of the telemedicine operation, as well as the establishment of computer and audio support systems. The trust is streamlining the process of providing medications to locals following consultations, ensuring a comprehensive healthcare experience.

Course ILOs / Objectives

- Develop a passion for lifelong learning by exploring global health challenges, broadening their perspectives on social issues, and fostering an appreciation for arts, culture, and technological advancements.
- Acquire professional and technical knowledge in global health while understanding the ethical, responsible, and compassionate considerations in designing healthcare solutions.
- Apply user-centered design principles to develop a telemedicine support platform that meets the needs of diverse stakeholders, ensuring accessibility and usability.
- Demonstrate project implementation skills by conducting stakeholder analyses, facilitating initial training sessions, and integrating feedback to refine healthcare technology solutions.

Class time: 3 hours per week, based on the individual's/ team's availability.

Course Outline

- The schedule may be subject to minor changes depending on the circumstances.
- The arrangements for different teams may vary slightly based on project nature.

Week 1	- Kickstart Meeting/Introduction to the course - Confirm team time - Skills assessment - Finalize Project Objectives during the 1st Team Meeting
Week 2	- Design Thinking Workshop - Prepare for Literature Review

Week 3	• Extensive Literature Review on existing solutions/technologies & global market:
Week 4	• Feedback session with project partner and finalize project objectives
Week 5	• Project update session with teaching team.
Week 6	• 1st Project Evaluation
Week 7	• Project development
Week 8	• Share the partner about the updates
Week 9	• 2nd Project Evaluation
Week 10	• Project development
Week 11	• Submit project implementation plan
Week 12	• Final Project demonstration
Week 13	• Submission of Final Documentation & Personal Reflections • Course debrief

Assessment scheme

Assessment components	Percentage
Literature Review: Presentation on existing solutions & global market	15%
1st Project Evaluation	15%
2nd Project Evaluation	15%
Final Project demonstration	25%
Final Documentation & Personal Reflections	20%
Communication with partner	10%

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