Sri Lanka Institute of Information Technology

PROJECT REGISTRATION FORM

(This form should be completed and uploaded to the Cloud space on or before XXXXXXXXX)

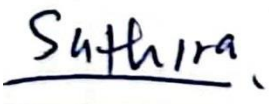
The purpose of this form is to allow final-year students of the B.Sc. (Hon) degree program to enlist in the final-year project group. Enlisting in a project entails specifying the project title and the details of four members in the group, the internal supervisor (compulsory), the external supervisor (may be from the industry), and indicating a brief description of the project. The description of the project entered on this form will not be considered as the formal project proposal. It should however indicate the scope of the project and provide the main potential outcome.

PROJECT TITLE (As per the accepted Topic Assessment Form)	A mobile application to improve online learnability to visually impaired elementary school children
RESEARCH GROUP (As per the Topic Assessment Form)	Elearning and Education
PROJECT NUMBER	TMP-23-310 (Will be assigned by the RP Team)

PROJECT GROUP MEMBER DETAILS: (Please start with the group leader's details)

	STUDENT NAME	STUDENT NO.	CONTACT NO.	EMAIL ADDRESS
1	Sathsarani B.A.D.A	IT20160098	071 5598517	it20160098@my.sliit.lk
2	Dias S.T.D	IT20247836	078 8588499	it20247836@my.sliit.lk
3	Liyanage A.L.D.K.S	IT20146474	071 0768126	it20146474@my.sliit.lk
4	Nayanananda W.A.K.D	IT20237622	076 2776476	it20237622@my.sliit.lk

SUPERVISOR, CO_ SUPERVISOR Details

SUPERVISOR Name	**CO-SUPERVISOR Name**
Ms. Chathurangika Kahandawaarachchi	**Mr. Sathira Hettiarachchi**
Signature	**Signature**
	
DATE	**DATE**
16.03.2023	16.03.2023

EXTERNAL SUPERVISOR Details (if any, may be from the industry)				
				Attach the email as Appendix 3
Name	Affiliation	Contact Address	Contact Numbers	Signature/Date

ACCEPTANCE BY CDAP MEMBER (This part will be filled by the RP team)		
Name	Signature	Date

PROJECT DETAILS

Brief Description of your Research Problem: (extract from the topic assessment form)
Progressive inclusion of disabled students, a marginalized section of society, at higher levels of education is one of the imperatives of inclusive growth. It is an essential step toward full participation and stability in life. E-learning is critical in reducing the learning difficulties and differences of disabled students in the era of technology enhanced learning. Several initiatives have recently been implemented to make the environment more accessible to the disabled, such as the installation of elevators, ramps, wheelchair access, and support workers. Although these have not resulted in the abolition of the digital divide. Some impairments, such as dyslexia and dyscalculia, make higher education difficult for these students. Similarly, people with low/no vision currently lack access to appropriate technologies such as screen readers, magnifiers, and so on to access e-content. Students with visual impairments appear to be more disadvantaged than students with other disabilities, putting them at a disadvantage. It advocates for the use of assistive technologies to improve learning by reducing learning complexities. Although these assistive technologies allow disabled people to access e-learning content, they have not been proven to be completely successful for all. Furthermore, these are not always inexpensive. As a result, some disabled students may be unable to afford these. Furthermore, the design of the learning system does not take into account the specific needs of disabled students. As a result, we cannot consider them to be disability-aware e-learning systems. Individuals with disabilities will require personalized information in specific formats; therefore, assistive and adaptive technology must be designed to provide universal access to knowledge.

Description of the Solution: (extract from the topic assessment form)
We intend to help vision-impaired primary students overcome the difficulty of learning subjects in the primary stream. It is a smart mobile device application that they can use to learn and improve their knowledge. The application includes a tutor recommendation module based on the student's knowledge level, virtual tutor and voice calculator, brain improvement gaming module, and supportive voice bot. We develop an accessibility mode and incorporate it into each UI design in a mobile application. Furthermore, the application would support tutor recommendation modules, virtual tutor and voice calculator, and gaming modules in voice. We plan to create a voice bot in three languages: Sinhala, English, and Tamil. This mobile application offers additional assistance to the visually impaired beginner.

Main expected outcomes of the project: (extract from the topic assessment form)

Introducing an E-learning platform based on mobile applications for visually impaired primary students. It can be a useful tool for ensuring that they have a right to gain knowledge and equal educational opportunities by making educational content accessible, interesting, and interactive for students who are visually impaired.
In here we mainly focus on tutor recommendation modules, virtual tutor and voice calculator, and gaming modules in voice. We plan to create a voice bot in three languages: Sinhala, English, and Tamil.

Sub Objective 1:

Create a tutor recommendation module based on the student's knowledge level.

- Build a proper voice-based online examination for visually impaired students. This system should read the question that is displayed on the screen and obtain the student's response via voice commands.
- Analyze student knowledge level based on exam marks.
- Analyze the knowledge level of student's examination and recommend the appropriate tutor automatically.
- Create an accessibility mode and include it in the UI design.

Sub Objective 2:

Virtual tutor and Voice calculator.

- The system will schedule a meeting with the virtual tutor.
- Simple voice base calculator - Calculator can do addition, subtraction, multiplication and division mathematical calculations
- Develop a review & rating module.
- Create an accessibility mode and include it in the UI design.

Sub Objective 3:

Gaming Module for brain improvement

- Develop identifying the sounds of animals will be one of the games on our website.
- Develop synonyms of telling game
- Develop fun spelling games.
- Create an accessibility mode and include it in the UI design.

Sub Objective 4:

Supportive voice bot

- Develop a voice bot into 3 languages: Sinhala, English and Tamil.
- Construct subject base questions & answers.
- Create an accessibility mode and include it in the UI design.

WORKLOAD ALLOCATION (**extract from the topic assessment form after correcting the suggestions given by the topic assessment panel.**)

(Please provide a brief description of the workload allocation)

MEMBER 1	Sathsarani B.A.D.A IT20160098

- Develop a voice bot into 3 languages: Sinhala, English and Tamil.
- Construct subject base questions & answers.
- Create an accessibility mode and include it in the UI design.

MEMBER 2	Dias S.T.D IT20247836

- The system will schedule a meeting with the virtual tutor.
- Simple voice base calculator - Calculator can do addition, subtraction, multiplication and division mathematical calculations
- Develop a review & rating module.
- Create an accessibility mode and include it in the UI design.

MEMBER 3	Liyanage A.L.D.K.S IT20146474

- Develop identifying the sounds of animals will be one of the games on our website.
- Develop synonyms of telling game.
- Develop fun spelling games.
- Create an accessibility mode and include it in the UI design.

MEMBER 4	Nayanananda W.A.K.D IT20237622

- Build a proper voice-based online examination for visually impaired students. This system should read the question that is displayed on the screen and obtain the student's response via voice commands.
- Analyze student knowledge level based on exam marks.
- Analyze the knowledge level of student's examination and recommend the appropriate tutor automatically.
- Create an accessibility mode and include it in the UI design.

DECLARATION (Students should add the Digital Signature)

"We declare that the project would involve material prepared by the Group members and that it would not fully or partially incorporate any material prepared by other persons for a fee or free of charge or that it would include material previously submitted by a candidate for a Degree or Diploma in any other University or Institute of Higher Learning and that, to the best of our knowledge and belief, it would not incorporate any material previously published or written by another person in relation to another project except with prior written approval from the supervisor and/or the coordinator of such project and that such unauthorized reproductions will construe offences punishable under the SLIIT Regulations.

We are aware, that if we are found guilty for the above mentioned offences or any project related plagiarism, the SLIIT has right to suspend the project at any time and or to suspend us from the examination and or from the Institution for minimum period of one year".

	STUDENT NAME	**STUDENT NO.**	**Signature**
1	Sathsarani B.A.D.A	IT20160098	
2	Dias S.T.D	IT20247836	
3	Liyanage A.L.D.K.S	IT20146474	
4	Nayanananda W.A.K.D	IT20237622	

Appendix 1:

Conceptual diagram

System Overview