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Appendix A

December 15, 2023

Dear Respondent,

Good day!

We are currently pursuing our Bachelor of Science in Computer Science (BSCS) degree at Iloilo Science and Technology University (ISAT U) at La Paz, Iloilo City. As part of the requirements of the said degree program, we are conducting our Thesis entitled *Smart Eye: Real-Time Traffic Light Color Detection with Audio and Text Assistive Technology for Color Blind Drivers using YOLO Algorithm*.

In this regard, we would like to request your participation and expertise for the completion of this research by evaluating our system and filling up the attached questionnaire.

Your answers to the survey questions will be taken with high regard and rest assured that everything written here will remain confidential.

Thank you very much and God bless.

Respectfully yours,

EUGENE S. ALONZO
KYLE LORACE A. ESPINOSA
JOHN IRIS N. QUIAMBAO
JENNIFER C. SOLDEVILLA
BSCS students, ISAT U

Noted by:

LENNY M. AMAR, Ph. D.
Thesis Adviser, ISAT U

ERNEST ANDREIGH C. CENTINA, MSCS
BSCS Thesis Coordinator, ISAT U

Appendix B

Respondent's Profile

Please fill up this form. All data inputted will not be disclosed in the thesis paper. This document will only be used to establish the respondent's credibility.

Name: _____

Company: _____

Present Position: _____

Educational Background:

Highest Educational Attainment:

[ ] Undergraduate / Student

[ ] Bachelor's degree

[ ] Master's degree

[ ] Doctorate

[ ] Others: _____

Course:_____

School graduated from: _____

Expertise:

_____
_____
_____
_____

_____

Respondent's Signature

Survey Questionnaire

Instruction:

Please tick (√) the rating that best applies to each statement about the system **Smart Eye: Real-Time Traffic Light Color Detection with Audio and Text Assistive Technology Mobile Application for Color Blind Drivers using YOLO Algorithm.**

(5 – Strongly Agree, 4 – Agree, 3 – Undecided, 2 – Disagree, 1 – Strongly Disagree)

User Defined Criteria	5	4	3	2	1
Functionality					
1. Detect traffic lights and their color using the YOLO algorithm.					
2. Display text and play audio of traffic light color status.					
3. Evaluate the system based on ISO 25010					
Usability and User Experience					
1. Appropriateness recognizability. (The users recognize the appropriate need for the system)					
2. Learnability. (The users can use the system with effectiveness, efficiency, freedom from risk, and satisfaction in a specified context of use to achieve specified goals of learning)					
3. Operability. (The system is easy to operate and control)					
4. User error protection. (The system protects users against making errors)					
5. User interface aesthetics. (The user interface enables pleasing and satisfying interaction for the user)					
6. Accessibility. (The system is designed to be used by different types of users)					

_____

Signature

Thank you very much for taking part in this survey. God bless!

Appendix C

Respondent's Profile

Please fill up this form. All data inputted will not be disclosed in the research paper. This document will only be used to establish the respondent's credibility.

Name: _____

Company: _____

Present Position: _____

Educational Background:

Highest Educational Attainment

[ ] Undergraduate / Student

[ ] Bachelor's degree

[ ] Master's degree

[ ] Doctorate

Course: _____

School graduated from: _____

Field of Expertise:

_____

_____

_____

_____

Respondent's Signature

Survey Questionnaire

Instruction:

Please tick (√) the rating that best applies to each statement about the system entitled **Smart Eye: Real-Time Traffic Light Color Detection with Audio and Text Assistive Technology Mobile Application for Color Blind Drivers using YOLO Algorithm.**

(5 – Strongly Agree, 4- Agree, 3 – Undecided, 2 – Disagree, 1 – Strongly Disagree)

ISO 25010 Quality Characteristics	5	4	3	2	1
Functionality Suitability					
1. Functional completeness. (The system's set of functions covers all the specified tasks and user objectives)					
2. Functional correctness. (the system provides the correct results with the needed degree of precision)					
3. Functional appropriateness. (The system's functions facilitate the accomplishment of specified tasks and objectives)					
Performance efficiency					
1. Time behavior. (The system's response and processing times and throughput meet requirements.)					
2. Resource utilization. (The amounts and types of resources used by the system meet requirements.)					
3. Capacity. (The maximum limits of a product or system parameter meet requirements.					
Compatibility					
1. Co-existence. (The system can perform its required functions efficiently while sharing a common environment and resources with other products, without detrimental impact on any other product)					
2. Interoperability. (The system can exchange information and use the information that has been exchanged**.)**					
Usability					
1. Appropriateness recognizability. (The users recognize the appropriate need of the system)					
2. Learnability. (The users can use the system with effectiveness, efficiency, freedom from risk and satisfaction in a specified context of use to achieve specified goals of learning)					
3. Operability. (The system is easy to operate and control)					
4. User error protection. (The system protects users against making errors)					
5. User interface aesthetics. (The user interface enables pleasing and satisfying interaction for the user)					
6. Accessibility. (The system is designed to be used by different types of users)					
Reliability					
1. Maturity. (the system is reliable under normal operation)					
2. Availability. (the system is reliable in times it is required to be used)					
3. Fault tolerance. (The system operates as intended despite the presence of hardware or software faults)					

ISO 25010 Quality Characteristics	5	4	3	2	1
4. Recoverability. (In the event of an interruption or a failure, the system can recover the data directly affected and re-establish the desired state of the system)					
Security					
1. Confidentiality. (The system ensures that data are accessible only to those authorized to have access)					
2. Integrity. (The system prevents unauthorized access to, or modification of, computer programs or data.)					
3. Non-repudiation. (The system records transactions and can be proven to have taken place so that the transactions cannot be repudiated later)					
4. Accountability. (The transactions can be traced uniquely to the entity).					
5. Authenticity. (The identity / function of the resource is the same as it was discussed).					
Maintainability					
1. Modularity. (the system is composed of discrete components such that a change to one component has minimal impact on other components)					
2. Reusability. (A part of a system can be used in more than one system, or in building other systems).					
3. Analysability. (The impact of the intended change to one or more parts of the system can be assessed, diagnosed for deficiencies or failures, or be identified on which parts to be modified.)					
4. Modifiability. (The system can be effectively and efficiently modified without introducing defects or degrading existing quality)					
5. Testability. (test criteria can be established for the system and tests can be performed to determine whether those criteria have been met)					
Portability					
1. Adaptability. (The system can effectively and efficiently be adapted for different or evolving hardware, software or other operational or usage environments.)					
2. Installability. (The system can be successfully installed and/or uninstalled in a specified environment.					
3. Replaceability. (The system can replace another specified software product for the same purpose in the same environment)					

Source: ISO/IEC 25010. http://iso25000.com/index.php/en/iso-25000-standards/iso-25010?limit=3&limitstart=0

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Signature

Thank you very much for taking part in this survey. God bless!