NATIONAL POLYTECHNIC UNIVERSITY OF ARMENIA

Review Referral

Dear Mr/Ms M.G. Usepyan

Please, make a review on NPUA <u>Institute of Information and Communication Technology and Electronics</u> Institute/Faculty <u>TT019a</u> academic group <u>«Software Engineering»</u> specialty's <u>«Software Engineering»</u> Bachelor's degree study program student <u>Andy Pierre Younes</u> Thesis on the following topic <u>"Development of a Machine Learning Algorithm for Restoring Damaged Images".</u>

/Director of the Institute/Dean

S.A.Manukyan, Ph.D.,

Assoc. Professor

Head of Chair

G.I.Margarov, Ph.D., Professor

Diploma Thesis review

The NPUA <u>IICTE</u> Institute/Faculty <u>TT019a</u> group full-time study program student <u>Andy Pierre</u> <u>Younes's</u> Diploma Thesis *aligns* with the requirements, it is assessed as <u>excellent</u> and the student is recommended to be *awarded* «Bachelor of Informatics» Qualification on <u>«Software Engineering»</u> Specialty.

Reviewer	oll.	M.G. Usepyan
Seal	signature	(last name, first name, middle name)
Position	Lecture	er

The considerations on the Diploma Thesis quality are presented on the opposite side of the page

Main queries to be used for the evaluation of Diploma Thesis (D.Th.)

V .	QUERY		
1	The content of D.Th. aligns with the requirements of the task		
2	The topic of D.Th. is up-to-date and has a perspective significance		
3	Modern methods of design and investigation are used in the D.Th.		
4	The D.Th. is drawn up in accordance with the current requirements		
5	The vocational section of D.Th. is implemented at the proper level		
6	Some applied software packages or algorithmic languages are used in the D.Th. to solve the given tasks		
7	The student used necessary technical literature and reference manuals concerned the topic of D.Th.	Yes	
8	The quality of performance of graphical section aligns with the requirements	Yes	
9	The economic section of D.Th. is implemented at the proper level and is in line with the topic of D.Th.	Yes	
1	The section of life sustenance aligns with the topic of D.Th. and is implemented at the proper level	Yes	
1	The section of nature protection aligns with the topic of D.Th. and is implemented at the proper level	Yes	

Remarks:			
. The model's per	formance is limited when p	processing large-siz	ed images, resulting in
	lation, and decolorization is		
processed image.			
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Suggestions:			
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2			
Reviewer _	M.G.Usepyan		A. Le
	(last name, first name, middle name)	signature	

SUPERVISOR'S REVIEW

on

Bachelor Student at NPUA IICTE, TT019a Academic Group

Andy Pierre Younes's Diploma Thesis

"Development of a Machine Learning Algorithm for Restoring Damaged Images"

Andy Younes's diploma thesis consists of introduction and problem statement sections, 3 main chapters, as well as separate chapters on economic, ecological, and life safety sections. The thesis is summarized with a conclusion followed by a reference list.

The first chapter presents a literature review of the existing image restoration techniques and machine learning algorithms. The chapter ends with the problem statement.

The second chapter presents the traditional algorithm integration, the hybrid approach, as well as training hybrid approach for image restoration.

The third chapter presents the steps of the implementation for the automated system developed within the framework of the diploma thesis. The chapter also covers the programming environment, the technology stack, the functionality, as well as dashboard and visualization of image restoration results.

The thesis is complete, aligns with the requirements, and can be used for some class of damaged image restoration purposes. While preparing the thesis Andy established herself as a conscientious student, fulfilling the assigned tasks properly.

If properly defended, the thesis deserves an excellent grade, and Andy Younes is recommended to be awarded "Bachelor of Informatics" qualification in "Software Engineering".

Supervisor

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A.H. Grigoryan, Ph.D., Associate Professor