

## MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

## **CURRICULUM FOR**

## DOCTOR OF PHILOSOPHY IN COMPUTER SCIENCE

This Degree Programme Was approved by the Commission for University Education on:

Authorised Signature

**APRIL 2020** 

Meru University of Science and Technology is 9001:2015 ISO Certified



## **Table of Contents**

Table	of Contents	i
	GENERAL INFORMATION	•
<b>1.1</b> 1.1	Vision and Mission of the Institution	1
1.2	Philosophy of the Institution	
1.3 1.3 1.3	University Admission Requirements  .1 Minimum University Entrance Requirements  .2 Procedure of Application for Admission to the University	2 2 2
<b>1.4</b> 1.4.	Academic Resources	2
1.4.	2 Academic Staff	$-\frac{2}{2}$
1.5.	Programs Offered by the Institution	2 3 5
2.0 T	THE CURRICULUM	_ 0
2.1	Title of the Proposed Program	_ 0 6
2.2	Philosophy of the Program	_ 6
2.3.2 2.3.2 2.3.3	Rationale of the Program	_ 6 _ 6
2.4	Goal of the Program	_ ′
2.5	Expected Learning Outcomes of the Program	_
2.6	Mode of Delivery of the Program	7
2.7 Academic Regulations for the Proposed Program  2.7.1 Admission Requirements for the Proposed Program  2.7.2 Regulations on Credit Transfer  2.7.3 Course Requirements  2.7.4 Student Assessment Policy/Criteria		_ 8 _ 8 _ 8
2.7.5	Grading System	_ 8

2.7.6 Examination Regulations	
2.7.7 Moderation of Examinations	
2.7.8 Graduation Requirements	
2.7.9 Classification of Degrees	
2.7.10 Regulations for Theses	
28 Course Franks in	10
2.9 Management and Administration of the Programme	
2.9.1 Duration of the Programme	1(
2.9.2 Management of the Program	1(
2.10 Courses/Units offered for the program	10
2.10.1 Course Distribution Table	12
2.10.1 (b) Research Requirements	12
2.10.2 Expected Learning Outcome Matrix	13
2.10.3 Course Coding Details	16
2.11 Courses Distribution per Academic Year	16
3.0 COURSE DESCRIPTIONS	19
CCS 8100: Advanced Data Structures & Algorithms	. 19
CCS 8101: Advanced Research Methods in Computer Science	20
CCS 8102: Advanced Cryptography and Network Security	
CCS 8103: Artificial Intelligence	23
CCS 8150: Directed Reading in Computer Science	24
CCS 8151: Scientific Writing and Research Ethics	
CCS 8152: Advanced Data Mining	27
CCS 8153: Advanced Topics in Theoretical Computer Science	28
CCS 8154: Advanced Mobile and Wireless Networking	30
CCS 8155: Software Design and Architecture	31
4.0 APPENDICES	34
4.1 Appendix I: Facilities	
4.2 Appendix II: Equipment and Teaching Materials	36
4.3 Appendix III: Core Texts	38
4.4Appendix IV: Journals	
4.5 Appendix V: Academic Staff	
4.6 Appendix VI: Stake-Holders Minutes	46
4.7 Appendix VII: MUST Postgraduate Regulations on Thesis Writing	
4.8 Appendix VIII: University Policy on Curriculum Development	