Serve Code:       Cance Castification:       Cance C		Course Name:	Introdu	uction to	o Visual	and Int	eractive	e Progra	amming	ł							Version Number:	VE1		
Special:         Constructional thinking is able to all to solve a problem thicking by applying values and therearts on segmenting determents. Solvers will have the essential able required in designing and manual set interactive and agentheme. The module will cover the following four determines determines and therearts are an and therearts and therearts and therearts and therearts are an and therearts and therearts and therearts and therearts and therearts are an and therearts are are an and therearts and therearts are are an and therearts and therearts are are		Course Code:	CT005-	4-0													Effective Date:	01 Jan 202		
Sympatic:         Implementing of Nazional Subtions regarities of platform, language, or application domain. This module will over the following four elements: decomposition, pattern recegnition, subtracting, and approximate approximate and approximate a		Course Classification:	Major	(Core)																
Number of of Academic Suff:         n         n           Sensatur and Yaar         Sensatur and Yaar         Sensatur and Yaar         Sensatur and Yaar           Credit Value:         2         Credit Value:         2           Course Learning Outcomes of Computational Thinking (C, P.IO.)         CO.2         Apply the elements of computational Thinking (C, P.IO.)           Course Learning Outcomes (C)         CO.2         Apply the elements of computational Thinking (C, P.IO.)         CO.2           Course Learning Outcomes (C)         CO.2         Up the valual interactive programming tools to develop an application. (AJ. P.OE)         Course Learning Outcomes (C)           Course Learning Outcomes (C)         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V	2	Synopsis:	impler	menting	g softwa	are sol	utions r	solve egardl	a prob ess of p	lem log platfor	gically b m, lang	oy appi guage,	lying vi or appl	sual an lication	d interactive programming elements. Stuc domain. This module will cover the follow	lents will learn the essential s ring four elements: decompo	skills required in de ssition, pattern recc	signing and ognition,		
Suff:         2         0         0         0           3			1	Aziah	Binti A	bdollal	h													
See Programme Specification offerest:         See Programme Specification requisite (or any):         See Programme Specification requisite (or any):           Credit Value:              e              e              e              e              e              e              e              e              e              e              e              e              e              e              e              e              e              e              e              e              e              e              e              e              e              e              construction of Year             for the Second of Computational Thinking to solve as problem (G, R, G2) Course Learning             course Learning             course Learning             course to the Programme Learning Outcomes, Teaching Methods and Assessment Methods               e              e              e              example of the Course Learning             outcomes to the Programme Learning Outcomes, Teaching Methods and Assessment Methods               Assessment Methods               Assessment Methods            Course Learning             outcomes				Dr Ma	srina A	kmal B	inti Sall	eh												
offere:         (Module may be delivered on multiple programmes and therefore in different year/senseter)           Credit Value:         4           Credit Value:         4           Programmes and therefore in different year/senseter)         (Control on multiple programmes and therefore in different year/senseter)           Credit Value:         4           Credit Value:         4           Course learning Outcomes (Co)         (Col 0         Describe the principles of Computational Thinking (Ci, P.O))           Course learning Outcomes (Co)         (Col 0         Describe the visual interactive programming tools to develop an application. (Ci, P.OS)           Course learning Outcomes (Col 0         Use the visual interactive programme tools to develop an application. (Ci, P.OS)         Course learning Outcomes (PLO)         Research (Ci, P.OS)           Mapping of the Course Learning Outcomes. Teaching Methods and Assessment Methods         Research (Ci, P.OS)         Research (Ci, P.OS)         Research (Ci, P.OS)           Course Learning Outcomes         Programme Learning Outcomes (PLO)         Teaching Methods         Assessment Methods           Course Learning Outcomes         Research (Ci, P.OS)         Research (Ci, P.OS)         Research (Ci, P.OS)         Research (Ci, P.OS)           Course Learning Outcomes         Research (Ci, P.OS)         Research (Ci, P.OS)         Research (Ci, P.OS)         Research (Ci, P.OS)		Semester and Year	-	ogrami	me Spe	cificati	on													
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Course Learning Outcomes (LO)         Image: Course Learning Outcomes to the Programme Learning Outcomes, Teaching Methods and Assessment Methods           Mapping of the Course Learning Outcomes to the Programme Learning Outcomes, Teaching Methods and Assessment Methods         Teaching Methods         Assessment Methods           Course Learning Outcomes to the Programme Learning Outcomes, Teaching Methods and Assessment Methods         Teaching Methods         Assessment Methods           Course Learning Outcomes to the Programme Learning Outcomes, Teaching Methods and Assessment Methods         Teaching Methods         Assessment Methods           Course Learning Outcomes         Vision of the programme Learning Outcomes, Teaching Methods and Assessment Methods         Teaching Methods         Assessment Methods           Course Learning Outcomes         Vision of the programme Learning Outcomes, Teaching Methods and Assessment Methods         Teaching Methods         Assessment Methods           Course Learning Outcomes         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q			CL	.02	Apply	the ele	elements of computational thinking to solve a problem (C3, PLO2)													
Outcomes (LL0)       Image: Club in the course Learning Outcomes, Teaching Methods and Assessment Methods         Mapping of the Course Learning Outcomes to the Programme Learning Outcomes, Teaching Methods and Assessment Methods         Course Learning Outcomes to the Programme Learning Outcomes, Teaching Methods and Assessment Methods         Course Learning Outcomes to the Programme Learning Outcomes (PLO)         Image: Course Learning Outcomes         Outcomes         Image: Outcomes			CL	.03	Use th	ne visua	al intera	active p	orogran	mming	tools t	o deve	lop an	applica	tion. (A1, PLO6)					
Image: Note of the course learning Outcomes to the Programme learning Outcomes, Teaching Methods and Assessment Methods       Teaching Methods       Assessment Methods         Mapping of the Course learning Outcomes to the Programme learning Outcomes, Teaching Methods and Assessment Methods       Teaching Methods       Assessment Methods         Course learning       Image: Note of the Outcomes of the Outcomes (PLO)       Image: Note of the Outcomes of the Outcomes (PLO)       Image: Note of the Outcomes of the Outcome																				
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Indicate the primary causal link between the CLO and PLO by ticking 'v' in the appropriate box.		Outcomes CL01 CL02 CL03 CL03 Mapping with MC Cluster of Learnin Outcomes Indicate the primar	angle         PEO 1           V         V           Image: Constraint of the second	v √ (2 (2 (2) (2) (2) (2) (2) (3) (3) (3) (3) (3) (3) (3) (3	PEG 20		PLO 5	V C3D	PLO 7	PLO 8					Lecture and Tutorial Tutorial Tutorial	Final Project - Do	Exam			
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C1 = Knowledge & Understanding, C2 = Cognitive Skills, C3A = Practical Skills, C3B = Interpersonal Skills, C3C = Communication Skills, C3D = Digital Skills, C3E = Numeracy Skills, C3F = Leadership, Autonomy & Responsibility, C4A = Personal Skills, C4B = Entrepreneurial Skills, C5 = Ethics & Professionalism Transferable Skills (if applicable)		Outcomes         CL01         CL02         CL03         Understand         Mapping with MC         Cluster of Learnin         Outcomes         Indicate the primar         C1 = Knowledge & L         C3E = Numeracy Sk	Ling         Ling <thling< th="">         Ling         Ling         <thl< td=""><td>V C2</td><td>P 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td><td>Stells</td><td>g PLO S</td><td>v √ C3D C3D V C3D</td><td>PLO7</td><td>Pio 8</td><td>B = Inte</td><td>rperso</td><td>nal Skil</td><td></td><td>Lecture and Tutorial Tutorial Tutorial</td><td>Final Project - Do</td><td>Exam</td><td></td></thl<></thling<>	V C2	P 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Stells	g PLO S	v √ C3D C3D V C3D	PLO7	Pio 8	B = Inte	rperso	nal Skil		Lecture and Tutorial Tutorial Tutorial	Final Project - Do	Exam			
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C1 = Knowledge & Understanding, C2 = Cognitive Skills, C3A = Practical Skills, C3B = Interpersonal Skills, C3C = Communication Skills, C3D = Digital Skills,         C3E = Numeracy Skills, C3F = Leadership, Autonomy & Responsibility, C4A = Personal Skills, C4B = Entrepreneurial Skills, C5 = Ethics & Professionalism         Transferable Skills (if applicable)         (Skills learned in the course of study which can be useful and utilized in other settings)       1       Cognitive skills         2       Digital Skills       2       Digital Skills		Outcomes         CL01         CL02         CL03         Units         Mapping with MC         Cluster of Learnin         Outcomes         Indicate the primar         C1 = Knowledge & I         C3E = Numeracy Sk         Transferable Skills (if ap         (Skills learned in the could on	angle         Picon           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V	V V C2 C2 k betw ding, C2	Pio contraction of the second	se CLO and second secon	g PLOS S A A A A A A A A A A A A A A A A A A	PEO 6 √ C3D C3D V C3D V V V V V V V V V V V V V	PLO7	Pio 8	B = Inte	rperso	nal Skil		Lecture and Tutorial Tutorial Tutorial	Final Project - Do	Exam			
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C1 = Knowledge & Understanding, C2 = Cognitive Skills, C3A = Practical Skills, C3B = Interpersonal Skills, C3C = Communication Skills, C3D = Digital Skills,         C3E = Numeracy Skills, C3F = Leadership, Autonomy & Responsibility, C4A = Personal Skills, C4B = Entrepreneurial Skills, C5 = Ethics & Professionalism         Transferable Skills (if applicable)         (Skills learned in the course of study which can be useful and utilized in other settings)         1       Cognitive skills         2       Digital Skills         3		Outcomes         CL01         CL02         CL03         Units         Mapping with MC         Cluster of Learnin         Outcomes         Indicate the primar         C1 = Knowledge & I         C3E = Numeracy Sk         Transferable Skills (if ap         (Skills learned in the could on	angle         Picon           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V           V         V	V V C2 C2 k betw ding, C2	Pio contraction of the second	PLO 4 cLO au cLO	g POS S Ind PLO I I IIIs, C3A Cogniti Digital	v v C3D C3D v v c3D v v v v v v v v v v v v v	PLO 7	n the approximation of the second sec	B = Inte	rperso	nal Skil		Lecture and Tutorial Tutorial Tutorial	Final Project - Do	Exam			
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									eaching /	Activit	ies**	
	Course Content Outline and Subtopics	CLO*			F	ace-to-	Face (F2F) Online/ Technology-				NF2F	Total SLT
				Phy	sical				echnolog ynchron		Independent Learning (Asynchronous)	
			L	т	Р	0	L	т	Р	0	,	
-	Introduction to Computers and Programming	1	2								2	
-	Introduction to Computational Thinking and Problem Solving Data and Variables	1	2				1				4	
3		1	2								2	
4	Boolean Expressions	1	2								4	
5	Control Structure:Selection and Loop	1	4								8	
6	List	1	3								6	
7	Procedures & Functions	1	4				1				8	
8	Object Oriented Programming	1	3								6	
9	Computational Thinking Concepts and Application	2		2							4	
	Planning and Design	2										
10	Develop Application Using Visual Programming Tool			2							6	
11		3		1							1	
12	Create Application Using Various Programming Concepts	3		4							7	
13	Creating Application Using Object-Oriented Programming	3		4							7	
14	Creating Application Using Functions & Procedures	3		4				1			8	
15	Creating Application with Advanced Design	3	1	5			1	1			8	
16		1	1				1					
17												
18												
19												
20												
											SUB-TOTAL SLT:	
					F	ace-to-	-Face (F	2F)			NF2F	
	Continous Assessement	%		Phy	/sical				echnolog		Independent Learning for Assessment (Asynchronous)	
							mea	lated (S	ynchron	ous)		
	Project - Documentation	15									8	
	Project -Implementation	35		(	).5						12	
3												
5												
											SUB-TOTAL SLT:	
					F	ace-to-	-Face (F	2F)			NF2F	
	Final Assessement	%		Phy	/sical		Or	line/ T	echnolog	y-	Independent Learning for	
				,	sical		med	iated (S	ynchron	ous)	Assessment (Asynchronous)	
1	Final Exam	50						1	5		9	
2			<u> </u>				<u> </u>					
3			<b> </b>									
4 5							-					
5		I	<u> </u>				<u>I</u>				SUB-TOTAL SLT:	
											SLT for Assessment:	
											GRAND TOTAL SLT:	
А											for F2F Physical Component:	
в		[Total F2F P	hysical	/(Tota	I F2F P	hysical					dependent Learning) x 100)] endent Learning Component:	
	[(Total F2F Online + Total Ind	lependent Leo	arning)	/( Tota	al F2F F	Physica	ıl + Tota			% SL1	for All Practical Component:	
с									% SLT fo	Pract r F2F	ical + % F2F Online Practical] Physical Practical Component	
	[Total F2]	F Physical Pra	ctical /	( Total	F2F Ph	ysical	+ Total	F2F Or	line + To	tal In	dependent Learning) x 100)] Online Practical Component	
C1	[Tota]	F2F Online Pr	actical	/ (Tot	al F2F F	Physica	l + Tota	al F2F C			ndependent Learning) x 100]	
C1 C2					ve Lear	ning Ti	ime (EL	т)			Γ	
C2		cticum using	50% of	Effecti				1				
C2 ease tie	ck (V) if this course is Industrial Training/ Clinical Placement/ Pra	cticum using	50% of	Effecti							L	
C2 ease tic ote: Indicate	ck (v) if this course is Industrial Training/ Clinical Placement/ Prac the CLO based on the CLO's numbering in Item 8										L	
C2 ease tic ote: Indicate	ck (V) if this course is Industrial Training/ Clinical Placement/ Prac					ny rela	ited stai	ndards o	an be ex	empte	L d from complying to the minimum	n 80% ODL delivery ru

12	References (include required and further readings, and should be the most current)	Essential References: Mailund, T. (2021). Introduction to Computational Thinking: Problem Solving, Algorithms, Data Structures, and More (1st ed.). Apress, ISBN-10: 1484270762 and ISBN-13: 978-1484270769. Sweigart, A. (2021). Scratch 3 programming playground: Learn to program by making Cool Games (2nd ed.). No Starch Press, ISBN-10: 1718500211 Other References: Tin Yu, C., & TomorrowSKILLS, H. (2020). Introduction to Block Based Programming: with Snap! (STEM Programming and Coding). HobbyPRESS TomorrowSKILLS. Mc Manus, S. (2019). Scratch Programming in easy steps (2nd ed.). In Easy Steps Limited, ISBN-10: 1840788593 and ISBN-13: 978-1840788594						
13	Other additional information (if applicable)							
Note: Nur	ote: Number of PLO indicated is purely for illustration purposes only and the number is subjected to the curriculum design.							