### Guru Nanak Dev Engineering College, Ludhiana Department of Computer Science and Engineering

Ref. No.: Date: 12/01/2023

#### **Notice For Honours Degree**

The students of B.Tech. (Computer Science and Engineering) (2019 batch onwards) can opt for honour degree as per the following guidelines:

1. List of subjects for session January-June, 2023 which can be opted through MOOCs:

## 4th Semester (Batch 2021-25)

S. No.	Course Id	Course Name	Institute	Duration	Click here to join the course
1		Introduction to Embedded System			https://nptel.ac.in/courses/1081
	noc23-cs06	Design	IITD	12 Weeks	<u>02169</u>
2	noc23-cs13	Privacy and Security in Online Social Media	IIITH	12 Weeks	https://nptel.ac.in/courses/1061 06146
3					https://nptel.ac.in/courses/1061
	noc23-cs19	Social Networks	IIT Ropar	12 Weeks	<u>06169</u>
4		The Joy of Computing using			https://nptel.ac.in/courses/1061
	noc23-cs20	Python	IIT Ropar	12 Weeks	<u>06182</u>
5		Getting Started with Competitive	IIT		https://nptel.ac.in/courses/1061
	noc23-cs30	Programming	Gandhinagar	12 Weeks	
6	noc23-cs37	Circuit Complexity Theory	IITK	12 Weeks	https://nptel.ac.in/courses/1061 04241
7					https://nptel.ac.in/courses/1061
	noc23-cs44	Ethical Hacking	IITKGP	12 Weeks	<u>05217</u>
8					https://nptel.ac.in/courses/1061
	noc23-cs54	Embedded Systems Design	IITKGP	12 Weeks	<u>05159</u>
9		GPU Architectures And			https://nptel.ac.in/courses/1061
	noc23-cs61	Programming	IITKGP	12 Weeks	<u>05220</u>
10		Foundations of Cyber Physical			https://nptel.ac.in/courses/1061
	noc23-cs62	Systems	IITKGP	12 Weeks	<u>05241</u>

## 6th Semester (Batch 2020-24)

## **Track 1: Software Engineering**

	Track 1. Software Engineering						
S. No.	Course Id	Course Name	Institute	Duration	Click here to join the course		
1	noc23-cs01	Randomized Methods in Complexity	IITK	12 Weeks	https://nptel.ac.in/courses/1061 04228		
2	noc23-cs03	Foundations of Cryptography	IIIT Bangalore	12 Weeks	https://nptel.ac.in/courses/1061 06221		
3	noc23-cs04	Quantum Algorithms and Cryptography	IITM	12 Weeks	https://nptel.ac.in/courses/1061 06241		
4	noc23-cs06	Introduction to Embedded System Design	IITD	12 Weeks	https://nptel.ac.in/courses/1081 02169		
5	noc23-cs08	Data Analytics with Python	IITR	12 Weeks	https://nptel.ac.in/courses/1061 07220		

6					https://nptel.ac.in/courses/1061
	noc23-cs12	Model Checking	CMI	12 Weeks	<u>06136</u>
7	noc23-cs13	Privacy and Security in Online Social Media	IIITH	12 Weeks	https://nptel.ac.in/courses/1061 06146
8	noc23-cs19	Social Networks	IIT Ropar	12 Weeks	https://nptel.ac.in/courses/1061 06169
9	noc23-cs20	The Joy of Computing using Python	IIT Ropar	12 Weeks	https://nptel.ac.in/courses/1061 06182
10					
					https://nptel.ac.in/courses/1061
	noc23-cs23	Reinforcement Learning	IITM	12 Weeks	<u>06143</u>
11					https://nptel.ac.in/courses/1061
	noc23-cs24	Deep Learning - IIT Ropar	IIT Ropar	12 Weeks	<u>06184</u>
12		Getting Started with Competitive	IIT		https://nptel.ac.in/courses/1061
	noc23-cs30	Programming	Gandhinagar	12 Weeks	<u>06231</u>
13			IIIT		https://nptel.ac.in/courses/1061
	noc23-cs34	Secure Computation: Part I	Bangalore	12 Weeks	<u>08229</u>
14			IIT Indore		
			IIT		
			Gandhi		https://nptel.ac.in/courses/1061
	noc23-cs35	Advanced Computer Networks	nagar	12 Weeks	<u>06243</u>
15		·			https://nptel.ac.in/courses/1061
	noc23-cs36	Affective Computing	IIITD	12 Weeks	06244
16		. 0			https://nptel.ac.in/courses/1061
	noc23-cs37	Circuit Complexity Theory	IITK	12 Weeks	04241
17					https://nptel.ac.in/courses/1061
	noc23-cs44	Ethical Hacking	IITKGP	12 Weeks	· · · · · · · · · · · · · · · · · · ·
18					https://nptel.ac.in/courses/1061
	noc23-cs45	Natural Language Processing	IITKGP	12 Weeks	
19					https://nptel.ac.in/courses/1061
	noc23-cs47	Blockchain and its Applications	IITKGP	12 Weeks	05235
20	110020 0011	Diocheriani and no reprioduorio		12 TTOORS	https://nptel.ac.in/courses/1061
	noc23-cs49	Programming In Java	IITKGP	12 Weeks	
21					https://nptel.ac.in/courses/1061
	noc23-cs51	Introduction To Internet Of Things	IITKGP	12 Weeks	05166
22	110020 0001	mareacener to marrier or trinige		12 TTOORS	https://nptel.ac.in/courses/1061
	noc23-cs54	Embedded Systems Design	IITKGP	12 Weeks	05159
23		, ,			
					https://nptel.ac.in/courses/1061
	noc23-cs56	Deep Learning	IITKGP	12 Weeks	
24	110020-0300	GPU Architectures And		12 VV GGR3	https://nptel.ac.in/courses/1061
4	noc23-cs61	Programming	IITKGP	12 Weeks	05220
25	1.0020 0001	Foundations of Cyber Physical		.2	https://nptel.ac.in/courses/1061
45	noc23-cs62	Systems	IITKGP	12 Weeks	
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# 6th Semester (Batch 2020-24)

# **Track 2: Network Technologies**

S. N	No.	Course Id	Course Name	Institute	Duration	Click here to join the course

1		Randomized Methods in			https://nptel.ac.in/courses/1061
	noc23-cs01	Complexity	IITK	12 Weeks	<u>04228</u>
2		Introduction to Embedded System			https://nptel.ac.in/courses/1081
	noc23-cs06	Design	IITD	12 Weeks	<u>02169</u>
3					https://nptel.ac.in/courses/1061
	noc23-cs08	Data Analytics with Python	IITR	12 Weeks	<u>07220</u>
4					https://nptel.ac.in/courses/1061
	noc23-cs12	Model Checking	СМІ	12 Weeks	<u>06136</u>
5		Privacy and Security in Online			https://nptel.ac.in/courses/1061
	noc23-cs13	Social Media	IIITH	12 Weeks	<u>06146</u>
6					https://nptel.ac.in/courses/1061
	noc23-cs19	Social Networks	IIT Ropar	12 Weeks	<u>06169</u>
7		The Joy of Computing using			https://nptel.ac.in/courses/1061
	noc23-cs20	Python	IIT Ropar	12 Weeks	<u>06182</u>
8					
					https://nptel.ac.in/courses/1061
	noc23-cs23	Reinforcement Learning	IITM	12 Weeks	<u>06143</u>
9					https://nptel.ac.in/courses/1061
	noc23-cs24	Deep Learning - IIT Ropar	IIT Ropar	12 Weeks	<u>06184</u>
10		Getting Started with Competitive	IIT		https://nptel.ac.in/courses/1061
	noc23-cs30	Programming	Gandhinagar	12 Weeks	<u>06231</u>
11			IIIT		https://nptel.ac.in/courses/1061
	noc23-cs34	Secure Computation: Part I	Bangalore	12 Weeks	<u>08229</u>
12					https://nptel.ac.in/courses/1061
	noc23-cs36	Affective Computing	IIITD	12 Weeks	06244
13					https://nptel.ac.in/courses/1061
	noc23-cs37	Circuit Complexity Theory	IITK	12 Weeks	<u>04241</u>
14					https://nptel.ac.in/courses/1061
	noc23-cs44	Ethical Hacking	IITKGP	12 Weeks	05217
15		9			https://nptel.ac.in/courses/1061
	noc23-cs45	Natural Language Processing	IITKGP	12 Weeks	05158
16		January January			https://nptel.ac.in/courses/1061
	noc23-cs49	Programming In Java	IITKGP	12 Weeks	
17					https://nptel.ac.in/courses/1061
	noc23-cs54	Embedded Systems Design	IITKGP	12 Weeks	05159
18		,			
					https://nptel.ac.in/courses/1061
	noc23-cs56	Deep Learning	IITKGP	12 Weeks	05215
19		GPU Architectures And		.2 001.0	https://nptel.ac.in/courses/1061
17	noc23-cs61	Programming	IITKGP	12 Weeks	05220
20	1.0020 0001	Foundations of Cyber Physical		12 11 00110	https://nptel.ac.in/courses/1061
20	noc23-cs62	Systems Cyber Physical	IITKGP	12 Weeks	0524 <u>1</u>
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# 6th Semester (Batch 2020-24)

## **Track 3: Data Management**

S. No.	Course Id	Course Name	Institute	Duration	Click here to join the course
1	noc23-cs01	Randomized Methods in Complexity	IITK	12 Weeks	https://nptel.ac.in/courses/1061 04228

	2	1	Г	I	1	
3 noc23-cs04 Cryptography IITM 12 Weeks 06241 https://nptel.ac.in/course 06241 noc23-cs06 Design IITM 12 Weeks 02169 5 noc23-cs12 Model Checking CMI 12 Weeks 02169 6 noc23-cs12 Model Checking CMI 12 Weeks 06146 https://nptel.ac.in/course 06169 noc23-cs13 Social Media IITH 12 Weeks 06146 https://nptel.ac.in/course 06169 noc23-cs29 Python IITR Ropar 12 Weeks 06169 https://nptel.ac.in/course 06182 noc23-cs20 Python IITM 12 Weeks 06169 https://nptel.ac.in/course 06182 noc23-cs20 Python IITM 12 Weeks 06169 https://nptel.ac.in/course 06182 https://nptel.ac.in/course 06182 noc23-cs20 Python IITM 12 Weeks 06182 https://nptel.ac.in/course 06183 https://nptel.ac	2			IIIT	40 \\/	https://nptel.ac.in/courses/1061
		noc23-cs03	,, , ,	Bangaiore	12 Weeks	
Introduction to Embedded System   ITD   12 Weeks   02169   12 Weeks   02269   12 Weeks				UTN 4	40 \\\.	
		noc23-cs04	Cryptography	IIIM	12 Weeks	
Model Checking	4		Introduction to Embedded System			https://nptel.ac.in/courses/1081
		noc23-cs06	Design	IITD	12 Weeks	<u>02169</u>
Privacy and Security in Online   IIITH   12 Weeks   06146	5					https://nptel.ac.in/courses/1061
		noc23-cs12	Model Checking	СМІ	12 Weeks	
1	6					https://nptel.ac.in/courses/1061
Noc23-cs19		noc23-cs13	Social Media	IIITH	12 Weeks	<u>06146</u>
The Joy of Computing using   ITR Ropar   12 Weeks   06182	7					https://nptel.ac.in/courses/1061
		noc23-cs19	Social Networks	IIT Ropar	12 Weeks	<u>06169</u>
10	8		The Joy of Computing using			https://nptel.ac.in/courses/1061
Noc23-cs23   Reinforcement Learning   ITM   12 Weeks   05143   10   12 Weeks   05231   11   12 Weeks   05231   11   12 Weeks   06231   12 Weeks   06231   12 Weeks   08229   12   12 Weeks   08229   12 Weeks   08229   13   14   15   15   16   16   16   16   16   16		noc23-cs20	Python	IIT Ropar	12 Weeks	<u>06182</u>
	9					
						https://nptel.ac.in/courses/1061
10		noc23-cs23	Reinforcement Learning	IITM	12 Weeks	
11			· ·	+		https://nptel.ac.in/courses/1061
11 noc23-cs34 Secure Computation: Part I Bangalore 12 Weeks 08229    IT Indore   IIT   Gandhi   https://nptel.ac.in/course 06243   https://nptel.ac.in/course 06243   https://nptel.ac.in/course 06244   https://nptel.ac.in/course 06245   https://nptel.ac.in/course 06246   https://nptel.ac.in/course 06247   https://nptel.ac.in/cours		noc23-cs30	, ,		12 Weeks	
noc23-cs34 Secure Computation: Part I Bangalore 12 Weeks 03229    IIT Indore   IIT   Gandhi   https://nptel.ac.in/course   noc23-cs35   Advanced Computer Networks   nagar   12 Weeks 06243   https://nptel.ac.in/course   noc23-cs36   Affective Computing   IIITD   12 Weeks 06244   https://nptel.ac.in/course   noc23-cs37   Circuit Complexity Theory   IITK   12 Weeks 04241     https://nptel.ac.in/course   noc23-cs44   Ethical Hacking   IITKGP   12 Weeks 05217   https://nptel.ac.in/course   noc23-cs45   Natural Language Processing   IITKGP   12 Weeks 05158   https://nptel.ac.in/course   noc23-cs47   Blockchain and its Applications   IITKGP   12 Weeks 05235   https://nptel.ac.in/course   noc23-cs49   Programming In Java   IITKGP   12 Weeks 05191   https://nptel.ac.in/course   noc23-cs51   Introduction To Internet Of Things   IITKGP   12 Weeks 05166   https://nptel.ac.in/course   noc23-cs54   Embedded Systems Design   IITKGP   12 Weeks 05159   https://nptel.ac.in/course   noc23-cs56   Deep Learning   IITKGP   12 Weeks 05159   https://nptel.ac.in/course 05159	11			<del> </del>		https://nptel.ac.in/courses/1061
IIT Indore		noc23-cs34	Secure Computation: Part I		12 Weeks	
IIT   Gandhi   https://nptel.ac.in/course   noc23-cs35   Advanced Computer Networks   nagar   12 Weeks   06243   https://nptel.ac.in/course   noc23-cs36   Affective Computing   IIITD   12 Weeks   06244   https://nptel.ac.in/course   noc23-cs37   Circuit Complexity Theory   IITK   12 Weeks   04241   https://nptel.ac.in/course   noc23-cs44   Ethical Hacking   IITKGP   12 Weeks   05217   https://nptel.ac.in/course   noc23-cs45   Natural Language Processing   IITKGP   12 Weeks   05158   https://nptel.ac.in/course   noc23-cs47   Blockchain and its Applications   IITKGP   12 Weeks   05235   https://nptel.ac.in/course   noc23-cs49   Programming In Java   IITKGP   12 Weeks   05191   https://nptel.ac.in/course   noc23-cs51   Introduction To Internet Of Things   IITKGP   12 Weeks   05166   https://nptel.ac.in/course   noc23-cs54   Embedded Systems Design   IITKGP   12 Weeks   05159   https://nptel.ac.in/course   noc23-cs56   Deep Learning   IITKGP   12 Weeks   05159   https://nptel.ac.in/course   noc23-cs56   Deep Learning   IITKGP   12 Weeks   05159   https://nptel.ac.in/course   noc23-cs56   Deep Learning   IITKGP   12 Weeks   05215   https://nptel.ac.in/course   noc23-cs56   Deep Learning   IITKGP   12 Weeks   05159   https://nptel.ac.in/course   noc23-cs56   Deep Learning   IITKGP   12 Weeks   05215   https://nptel.ac.in/course   noc23-cs56   noc23-cs56   Deep Learning   IITKGP   12 Weeks   05215   https://nptel.ac.in/course   noc23-cs56   noc	12		·			
noc23-cs35 Advanced Computer Networks  nagar  12 Weeks  06243  https://nptel.ac.in/course 06244  14 noc23-cs37 Circuit Complexity Theory  IITK  12 Weeks  06244  https://nptel.ac.in/course 04241  15 noc23-cs44 Ethical Hacking  IITKGP  12 Weeks  05217  https://nptel.ac.in/course 05217  https://nptel.ac.in/course 05217  https://nptel.ac.in/course 05158  17 noc23-cs45 Natural Language Processing  IITKGP  12 Weeks  05158  https://nptel.ac.in/course 05235  https://nptel.ac.in/course 05235  https://nptel.ac.in/course 05191  19 noc23-cs49 Programming In Java  IITKGP  12 Weeks  05166  https://nptel.ac.in/course 05166  https://nptel.ac.in/course 05159  20 noc23-cs56 Deep Learning  IITKGP  12 Weeks  05215				IIT	1	
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noc23-cs49 Programming In Java IITKGP 12 Weeks 05191  noc23-cs51 Introduction To Internet Of Things IITKGP 12 Weeks 05166  noc23-cs54 Embedded Systems Design IITKGP 12 Weeks 05159  IITKGP 12 Weeks 05166  12 Weeks 05159  12 Weeks 05159						https://nptel.ac.in/courses/1061
noc23-cs49 Programming In Java IITKGP 12 Weeks 05191  noc23-cs51 Introduction To Internet Of Things IITKGP 12 Weeks 05166  noc23-cs54 Embedded Systems Design IITKGP 12 Weeks 05159  IITKGP 12 Weeks 05159  IITKGP 12 Weeks 05159		noc23-cs47	Blockchain and its Applications	IITKGP	12 Weeks	
19 noc23-cs51 Introduction To Internet Of Things IITKGP 12 Weeks 05166  20 noc23-cs54 Embedded Systems Design IITKGP 12 Weeks 05159  21 noc23-cs56 Deep Learning IITKGP 12 Weeks 05215			Dan annuario de la la ca	UTICOD	40.147	
noc23-cs51 Introduction To Internet Of Things IITKGP 12 Weeks 05166  20 noc23-cs54 Embedded Systems Design IITKGP 12 Weeks 05159  21 noc23-cs56 Deep Learning IITKGP 12 Weeks 05215		noc23-cs49	Programming in Java	IIIKGP	12 Weeks	
20 noc23-cs54 Embedded Systems Design IITKGP 12 Weeks 05159  21 noc23-cs56 Deep Learning IITKGP 12 Weeks 05215						https://nptel.ac.in/courses/1061
noc23-cs54 Embedded Systems Design IITKGP 12 Weeks 05159  21		noc23-cs51	Introduction To Internet Of Things	IITKGP	12 Weeks	
21 https://nptel.ac.in/course noc23-cs56 Deep Learning IITKGP 12 Weeks 05215						https://nptel.ac.in/courses/1061
noc23-cs56 Deep Learning IITKGP 12 Weeks 05215		noc23-cs54	Embedded Systems Design	IITKGP	12 Weeks	<u>05159</u>
noc23-cs56 Deep Learning IITKGP 12 Weeks 05215	21					
						https://nptel.ac.in/courses/1061
		noc23-cs56	Deep Learning	IITKGP	12 Weeks	<u>05215</u>
22 GPU Architectures And <a href="https://nptel.ac.in/course">https://nptel.ac.in/course</a>	22		GPU Architectures And			https://nptel.ac.in/courses/1061
noc23-cs61 Programming IITKGP 12 Weeks 05220		noc23-cs61		IITKGP	12 Weeks	
23 Foundations of Cyber Physical https://nptel.ac.in/course	23		Foundations of Cyber Physical			https://nptel.ac.in/courses/1061
noc23-cs62 Systems IITKGP 12 Weeks 05241		noc23-cs62		IITKGP	12 Weeks	

6th Semester (Batch 2020-24)

**Track 4: Machine Intelligence** 

S. No.	Course Id	Course Name	Institute		Click here to join the course
					<b>3</b>
1		Randomized Methods in			https://nptel.ac.in/courses/1061
	noc23-cs01	Complexity	IITK	12 Weeks	<u>04228</u>
2			IIIT		https://nptel.ac.in/courses/1061
	noc23-cs03	Foundations of Cryptography	Bangalore	12 Weeks	<u>06221</u>
3		Quantum Algorithms and			https://nptel.ac.in/courses/1061
	noc23-cs04	Cryptography	IITM	12 Weeks	<u>06241</u>
4		Introduction to Embedded System			https://nptel.ac.in/courses/1081
	noc23-cs06	Design	IITD	12 Weeks	<u>02169</u>
5					https://nptel.ac.in/courses/1061
	noc23-cs08	Data Analytics with Python	IITR	12 Weeks	<u>07220</u>
6					https://nptel.ac.in/courses/1061
	noc23-cs12	Model Checking	CMI	12 Weeks	<u>06136</u>
7		Privacy and Security in Online			https://nptel.ac.in/courses/1061
	noc23-cs13	Social Media	IIITH	12 Weeks	<u>06146</u>
8					https://nptel.ac.in/courses/1061
	noc23-cs19	Social Networks	IIT Ropar	12 Weeks	<u>06169</u>
9		The Joy of Computing using			https://nptel.ac.in/courses/1061
	noc23-cs20	Python	IIT Ropar	12 Weeks	<u>06182</u>
10					
					https://nptel.ac.in/courses/1061
	noc23-cs23	Reinforcement Learning	IITM	12 Weeks	<u>06143</u>
11		Getting Started with Competitive	IIT		https://nptel.ac.in/courses/1061
	noc23-cs30	Programming		12 Weeks	<u>06231</u>
12			IIIT		https://nptel.ac.in/courses/1061
	noc23-cs34	Secure Computation: Part I	Bangalore	12 Weeks	<u>08229</u>
13			IIT Indore		
			IIT		
			Gandhi		https://nptel.ac.in/courses/1061
	noc23-cs35	Advanced Computer Networks	nagar	12 Weeks	<u>06243</u>
14					https://nptel.ac.in/courses/1061
	noc23-cs37	Circuit Complexity Theory	IITK	12 Weeks	<u>04241</u>
15					https://nptel.ac.in/courses/1061
	noc23-cs42	Cloud Computing	IITKGP	12 Weeks	<u>05167</u>
16					https://nptel.ac.in/courses/1061
	noc23-cs44	Ethical Hacking	IITKGP	12 Weeks	<u>05217</u>
17					https://nptel.ac.in/courses/1061
	noc23-cs47	Blockchain and its Applications	IITKGP	12 Weeks	<u>05235</u>
18					https://nptel.ac.in/courses/1061
	noc23-cs49	Programming In Java	IITKGP	12 Weeks	<u>05191</u>
19					https://nptel.ac.in/courses/1061
	noc23-cs51	Introduction To Internet Of Things	IITKGP	12 Weeks	<u>05166</u>
20					https://nptel.ac.in/courses/1061
	noc23-cs54	Embedded Systems Design	IITKGP	12 Weeks	<u>05159</u>
21		GPU Architectures And			https://nptel.ac.in/courses/1061
	noc23-cs61	Programming	IITKGP	12 Weeks	<u>05220</u>

ŀ		110020 0002	6th Semester (			<u>03271</u>
ı		noc23-cs62	Systems	IITKGP	12 Weeks	052/11
ĺ	22		Foundations of Cyber Physical			https://nptel.ac.in/courses/1061

Track 5: Algorithm Design and Programming

O N	0 1	Track 5: Algorithm D			9
S. No.	Course Id	Course Name	Institute	Duration	Click here to join the cours
1		Randomized Methods in			https://nptel.ac.in/courses/106
	noc23-cs01	Complexity	IITK	12 Weeks	<u>04228</u>
2			IIIT		https://nptel.ac.in/courses/106
	noc23-cs03	Foundations of Cryptography	Bangalore	12 Weeks	<u>06221</u>
3	222222	Quantum Algorithms and	11784	10 \\\ a also	https://nptel.ac.in/courses/106
4	noc23-cs04	Cryptography	IITM	12 Weeks	06241
4	noc23-cs06	Introduction to Embedded System Design	IITD	12 Weeks	https://nptel.ac.in/courses/108 02169
5	110023-0300	Design	111111111111111111111111111111111111111	12 WCCKS	https://nptel.ac.in/courses/106
	noc23-cs12	Model Checking	СМІ	12 Weeks	06136
6		Privacy and Security in Online			https://nptel.ac.in/courses/106
	noc23-cs13	Social Media	IIITH	12 Weeks	<u>06146</u>
7					https://nptel.ac.in/courses/106
	noc23-cs19	Social Networks	IIT Ropar	12 Weeks	<u>06169</u>
8		The Joy of Computing using	UT D	40 14/	https://nptel.ac.in/courses/106
0	noc23-cs20	Python	IIT Ropar	12 Weeks	<u>06182</u>
9					1 11
	2222 2222	Deinfersen ent Learning	11784	10 Weeks	https://nptel.ac.in/courses/106 06143
10	noc23-cs23	Reinforcement Learning	IITM	12 Weeks	
10	noc23-cs24	Deep Learning - IIT Ropar	IIT Ropar	12 Weeks	https://nptel.ac.in/courses/106 06184
	110023-0324	Getting Started with Competitive	IIT	12 WEEKS	https://nptel.ac.in/courses/106
	noc23-cs30	Programming		12 Weeks	06231
11			IIIT		https://nptel.ac.in/courses/106
	noc23-cs34	Secure Computation: Part I	Bangalore	12 Weeks	<u>08229</u>
12			IIT Indore		
			IIT		
			Gandhi		https://nptel.ac.in/courses/106
	noc23-cs35	Advanced Computer Networks	nagar	12 Weeks	<u>06243</u>
13					https://nptel.ac.in/courses/106
1.4	noc23-cs36	Affective Computing	IIITD	12 Weeks	<u>06244</u>
14	noc23-cs37	Circuit Complexity Theory	IITK	12 Weeks	https://nptel.ac.in/courses/106 04241
15	110020-0307	Chount Complexity Theory	IIIIX	17 AACCV2	https://nptel.ac.in/courses/106
13	noc23-cs42	Cloud Computing	IITKGP	12 Weeks	osion of the laction
16	110020-0342	Cicac Computing		15 AA CCV3	https://nptel.ac.in/courses/106
10	noc23-cs44	Ethical Hacking	IITKGP	12 Weeks	05217
17				12 11 00110	https://nptel.ac.in/courses/106
	noc23-cs45	Natural Language Processing	IITKGP	12 Weeks	05158
18					https://nptel.ac.in/courses/106
	noc23-cs47	Blockchain and its Applications	IITKGP	12 Weeks	<u>05235</u>
19					https://nptel.ac.in/courses/106

	noc23-cs51	Introduction To Internet Of Things	IITKGP	12 Weeks	<u>05166</u>
20					https://nptel.ac.in/courses/1061
	noc23-cs54	Embedded Systems Design	IITKGP	12 Weeks	<u>05159</u>
21					
					https://nptel.ac.in/courses/1061
	noc23-cs56	Deep Learning	IITKGP	12 Weeks	05215
22		GPU Architectures And			https://nptel.ac.in/courses/1061
	noc23-cs61	Programming	IITKGP	12 Weeks	<u>05220</u>
23		Foundations of Cyber Physical			https://nptel.ac.in/courses/1061
	noc23-cs62	Systems	IITKGP	12 Weeks	<u>05241</u>
		8th Semester	(Batch 20	19-23)	
S. No.	Course Id	Course Name	Institute	Duration	Click here to join the course
					, and the second
1		Randomized Methods in			https://nptel.ac.in/courses/1061
	noc23-cs01	Complexity	IITK	12 Weeks	04228
2		Quantum Algorithms and			https://nptel.ac.in/courses/1061
	noc23-cs04	Cryptography	IITM	12 Weeks	06241
3		Introduction to Embedded System			https://nptel.ac.in/courses/1081
	noc23-cs06	Design	IITD	12 Weeks	<u>02169</u>
4					https://nptel.ac.in/courses/1061
	noc23-cs12	Model Checking	СМІ	12 Weeks	<u>06136</u>
5		Privacy and Security in Online			https://nptel.ac.in/courses/1061
	noc23-cs13	Social Media	IIITH	12 Weeks	<u>06146</u>
6					https://nptel.ac.in/courses/1061
	noc23-cs19	Social Networks	IIT Ropar	12 Weeks	<u>06169</u>
7		The Joy of Computing using			https://nptel.ac.in/courses/1061
	noc23-cs20	Python	IIT Ropar	12 Weeks	<u>06182</u>
8					https://nptel.ac.in/courses/1061
	noc23-cs23	Reinforcement Learning	IITM	12 Weeks	<u>06143</u>
9		Getting Started with Competitive	IIT		https://nptel.ac.in/courses/1061
	noc23-cs30	Programming	Gandhinagar	12 Weeks	<u>06231</u>
10			IIIT		https://nptel.ac.in/courses/1061
	noc23-cs34	Secure Computation: Part I	Bangalore	12 Weeks	<u>08229</u>
11					https://nptel.ac.in/courses/1061
	noc23-cs36	Affective Computing	IIITD	12 Weeks	<u>06244</u>
12					https://nptel.ac.in/courses/1061
	noc23-cs37	Circuit Complexity Theory	IITK	12 Weeks	<u>04241</u>
13					https://nptel.ac.in/courses/1061
	noc23-cs44	Ethical Hacking	IITKGP	12 Weeks	<u>05217</u>
14					https://nptel.ac.in/courses/1061
	noc23-cs54	Embedded Systems Design	IITKGP	12 Weeks	<u>05159</u>
15		GPU Architectures And			https://nptel.ac.in/courses/1061
	noc23-cs61	Programming	IITKGP	12 Weeks	<u>05220</u>
16		Foundations of Cyber Physical			https://nptel.ac.in/courses/1061
	noc23-cs62	Systems	IITKGP	12 Weeks	<u>05241</u>

- 2. The subjects should be chosen other than in the study scheme 2018 of B.Tech. (CSE).
- 3. 18 to 20 credits can be earned through MOOCs to secure an honour degree.
- 4. The student cannot choose the course having similar contents, already studied by him/her through MOOCs.
- 5. Fill in the details at <a href="https://forms.gle/4xLkB5AA4M1iNJes8">https://forms.gle/4xLkB5AA4M1iNJes8</a> immediately after registering for MOOC's course and the duly filled proforma (available on the departmental weblink) must be submitted in department office by January 30, 2023.
- 6. Choice of one course other than the parent branch is allowed from the following list.

S. No.	Course Id	Course Name	Institute	Duration	Click here to join the course
1		Non-conventional energy			https://nptel.ac.in/courses/12110
	noc23-ge04	Resources	IITM	12 Weeks	<u>6014</u>
2		Rural Water Resources			https://nptel.ac.in/courses/10510
	noc23-ge12	Management	IITB	12 Weeks	
3		Groundwater hydrology and			https://nptel.ac.in/courses/10510
	noc23-ge13	management	IITB	12 Weeks	<u>1214</u>
4					https://nptel.ac.in/courses/12710
	noc23-ge16	Entrepreneurship Essentials	IITKGP	12 Weeks	<u>5007</u>
5		Introduction To Environmental			
		Engineering And Science -			
		Fundamental And Sustainability			https://nptel.ac.in/courses/12710
	noc23-ge17	Concepts	IITKGP	12 Weeks	<u>5018</u>
6		Fundamental of Fluid Mechanics			
		for Chemical and Biomedical	l		https://nptel.ac.in/courses/12710
	noc23-ge23	Engineers	IITG	12 Weeks	
7			l		https://nptel.ac.in/courses/12710
	noc23-ge25	Engineering Statistics	IITB	12 Weeks	<u>1233</u>

HOD(CSE)

# Department of Computer Science and Engineering MOOCSs Course Performa for Honours Degree

Session: January-June 2023

<b>University Roll No.:</b>		
Name	:	
Semester	:	
Track	:	
<b>Contact Number</b>	:	
Course Id	:	
Course Name	:	

**Signature of Student**