Course offerings in 2020-21 Semester II (Spring)

Version-3 (24.12.2020)

UG Programmes

CD	AD	CNO	CName	Credits	Faculty Name(s)
B.Tech II year II Semester – CSE&CSD & LCD2K20					
In	CS	CS6.301	Design and Analysis of Software Systems	3-1-0-4	Ramesh Loganathan
Pr	CS	CS7.301	Machine, Data and Learning	3-1-0-4	Praveen P
In	HS	HS8.102	Intro to Human Sciences	3-1-0-4	Nimmi Rangaswamy (Coordinator)
Pr	SC	SC1.111	Science II	3-1-0-4	Nita Parekh + Marimuthu Krishnan
In	CS	CS1.302	Automata Theory (H2)	3-1-0-2	Srinathan K
Pr	CS		Theory/Foundation Breadth Elective-1	3-1-0-2	
In	CS		Theory/Foundation Breadth Elective-2	3-1-0-2	
In	CS		Theory/Foundation Breadth Elective-3	3-1-0-2	
In	HS	OC3.102	Value Education II	0-2-0-2	Radhika M (Coordinator)
			Total 18-8-0-26		
Theory/Foundations Courses					
		CS9.312	Introduction to Quantum Information and Computation (H2)	3-1-0-2	Indranil Chakrabarty
		EC5.205	Introduction to Coding Theory (H1)	3-1-0-2	Lalitha V
Systems/Applications Courses					
		CS3.302	Software Programming for Performance (H2)	3-1-0-2	Deepak Gangadharan
		CS7.303	Digital Signal Analysis (H2)	3-1-0-2	Anil Kumar V
		CS9.301	Introduction to Brain and Cognition (H1)	3-1-0-2	Bapi Raju S + Kavita Vemuri
		CS7.302	Computer Graphics (H2)	3-1-0-2	Avinash Sharma
B.Tech II year II Semester ECE & ECD & LED2K20					
Pr	EC	EC5.203	Communication Theory	3-1-0-4	Sachin Chaudhari
In	OT		Maths elective	3-1-0-4	
Pr	EC	EC6.202	Intro to Processor Architecture (H1)	3-1-0-2	Deepak Gangadharan
In	HS	HS8.102	Intro to Human Sciences	3-1-0-4	Nimmi Rangaswamy (Coordinator)
Pr	EC		Stream Foundation-1	3-1-0-2	
Pr	EC	EC2.201	VLSI Design	3-1-0-4	Syed Azeemuddin + Abhishek Srivastava
In	HS	OC3.102	Value Education II	0-2-0-2	Radhika M (Coordinator)
			Total 15-7-0-22		
Electives for UG2 ECE/ECD/LED Students					
		EC2.203	Intro to Bio Electronics (H2)	3-1-0-2	Syed Azeemuddin + Prabhakar
		EC5.205	Introduction to Coding Theory(H1)	3-1-0-2	Lalitha V
B.Tech II year II Semester CND					
In	CS	CS2.201	Computer System Organization	3-1-0-4	Deepak Gangadharan
Pr	CS	CS7.301	Machine, Data and Learning	3-1-0-4	Praveen P
In	CS	CS6.301	Design and Analysis of Software Systems	3-1-0-4	Ramesh Loganathan
Pr	CNS	SC1.204	Thermodynamics (H1)	3-1-0-2	Harjinder Singh
Pr	CNS	SC1.205	Statistical Mechanics (H2)	3-1-0-2	Harjinder Singh
Pr	CNS	SC2.203	Biomolecular Structures (H1)	3-1-0-2	Marimuthu Krishnan
Pr	CNS	SC2.202	Organic Chemistry (H2)	3-1-0-2	Bhaswar Ghosh
In	CS	CS1.302	Automata Theory (H2)	3-1-0-2	Srinathan K
In	HS	OC3.102	Value Education II	0-2-0-2	Radhika M (Coordinator)
			Total 18-8-0-24		
B.Tech II year II Semester CLD					
Pr	CL	CL1.204	Language Typology and Universals	3-1-0-4	Dipti M Sharma

PR	CL	CS7.401	Introduction to NLP	3-1-0-4	Manish Shrivastava
Pr	CS	CS7.303	Digital Signal Analysis (H2)	3-1-0-2	Anil Kumar V
Pr	CS	CS6.301	Design and Analysis of Software Systems	3-1-0-4	Ramesh Loganathan
Pr	CS	CS7.301	Machine, Data and Learning	3-1-0-4	Praveen P
In	HS	HS8.102	Introduction to Human Sciences	3-1-0-4	Nimmi Rangaswamy (Coordinator)
In	CS	CS1.302	Automata Theory (H2)	3-1-0-2	Srinathan K
In	HS	OC3.102	Value Education II	0-2-0-2	Radhika M (Coordinator)
			Total 18-8-0-26		
B.Tech II year II Semester CHD					
In	CS	CS2.201	Computer System Organization	3-1-0-4	Deepak Gangadharan
Pr	CS	CS7.301	Machine, Data and Learning	3-1-0-4	Praveen P
In	CS	CS6.301	Design and Analysis of Software Systems	3-1-0-4	Ramesh Loganathan
Pr	HS	HS0.302	Research Methods in Human Sciences	3-1-0-4	Aniket Alam
Pr	HS	HS7.301	Science, Technology and Society	3-1-0-4	Radhika Krishnan
In	CS	CS1.302	Automata Theory (H2)	3-1-0-2	Srinathan K
Pr	HS	HS2.302	Gender, Kinship, and State Law **(H2)**	3-1-0-2	Rama Srinivasan
In	HS	OC3.102	Value Education II	0-2-0-2	Radhika M (Coordinator)
			Total 21-9-0-26		
B.Tech III year II Semester – CSE:					
In	CS		BTP I / CSE-Honours 2	0-2-6-2	
Pr	CS		Bouquet Course – 2	3-1-0-4	
OT	[+]		Bouquet Course – 3	3-1-0-4	
OT	[+]		HSS Elective - 2	3-1-0-4	
OT	[+]		Open Elective - 2	3-1-0-4	
In	CS	CS3.305	Computer Networks (H1)	3-1-0-2	Shatrunjay Rawat
			Total 15-7-6-20		
B.Tech III year II Semester – CSD & LCD2K19					
Pr	CS		BTP I / CSE-Honours 2	0-2-6-2	
Pr	CS		Bouquet Course – 2	3-1-0-4	
Pr	CS		Bouquet Course – 3	3-1-0-4	
In	HS		HSS Elective - 2	3-1-0-4	
In	OT		Open Elective - 2	3-1-0-4	
Pr	CS		Stream Elective - 2	3-1-0-4	
In	CS	CS3.305	Computer Networks (H1)	3-1-0-2	Shatrunjay Rawat
			Total 18-8-6-24		
B.Tech III year II Semester – ECE:					
OT	[+]	SC1.111	Science II	3-1-0-4	Nita Parekh + Marimuthu Krishnan
Pr	EC		Open Elective 2	3-1-0-4	
Pr	EC		Stream Elective - 2	3-1-0-4	
In	HS		HSS Elective - 2	3-1-0-4	
In	EC		BTP-I/ECE-Honours Project 2	0-2-6-2	
			Total 12-6-6-18		
B.Tech III year II Semester – ECD & LED2K19					
OT	[+]	SC1.111	Science II	3-1-0-4	Nita Parekh + Marimuthu Krishnan
Pr	EC		Open Elective 2	3-1-0-4	
Pr	EC		Stream Elective - 2	3-1-0-4	
Pr	EC		Stream Elective - 3	3-1-0-4	
In	HS		HSS Elective - 2	3-1-0-4	
Pr	EC		ECE-Honours Project 2	0-2-6-2	
			Total 15-7-6-22		

			B.Tech III year II Semester – CND		
Pr	CNS		CNS-Honours Project II	0-2-6-2	
In	HS	HS8.102	Intro to Human Sciences	3-1-0-4	Nimmi Rangaswamy (Coordinator)
Pr	CNS		CNS Elective-1	3-1-0-4	
Pr	CNS		CNS Elective-2	3-1-0-4	
Pr	CS		CS Elective-2	3-1-0-4	
Pr	OT		CCNSB Seminar	0 Cr.	
			Total 12-6-6-18		
			B.Tech III year II Semester – CLD:		
In	SC	SC1.111	Science II	3-1-0-4	Nita Parekh + Marimuthu Krishnan
Pr	CL		CL-Honours Project 2	0-2-6-2	
Pr	CL		CL-Stream Elective 1	3-1-0-4	
Pr	CS		CS Elective 1	3-1-0-4	
In	OT		Open Elective - 1	3-1-0-4	
In	HS		HSS Elective - 2	3-1-0-4	
In	CS	CS3.305	Computer Networks (H1)	3-1-0-2	Shatrunjay Rawat
			Total 18-8-6-24		
			B.Tech IV year II semester – CSE:		
Pr	CS		Bouquet Core (*)	3-1-0-4	
			Elective (CS / Free)	3-1-0-4	
			Elective (CS / Free)	3-1-0-4	
OT	[+]		Science/Maths/Humanities/Engg	3-1-0-4	
OT	[+]		Science/Maths/Humanities/Engg	3-1-0-4	
			Total 15-5-0-20		
			B.Tech IV year II semester - CSD and LCD2K18		
Pr	CS		Bouquet Core (*)	3-1-0-4	
OT	[+]		Science/Maths/Humanities/Engg	3-1-0-4	
OT	[+]		Science/Maths/Humanities/Engg	3-1-0-4	
			Elective (CS / Free)	3-1-0-4	
Pr	CS		Research Stream/CS Course	3-1-0-4	
		CSE494	CSE-Honours Project IV	0-0-8-4	
			Total 15-5-8-24		
			B.Tech IV year II Semester – ECE:		
O	[+]		Science/Maths/Humanities	3-1-0-4	
OT	[+]		Science/Maths/Humanities	3-1-0-4	
Pr	EC		EC Elective	3-1-0-4	
Pr	EC		EC Elective	3-1-0-4	
			Free Elective	3-1-0-4	
			Total 15-5-0-20		
			B.Tech IV year II Semester – ECD and LED2K18		
OT	[+]		Science/Maths/Humanities	3-1-0-4	
OT	[+]		Science/Maths/Humanities	3-1-0-4	
Pr	EC		EC Elective	3-1-0-4	
Pr	EC		EC Elective	3-1-0-4	
			Free Elective	3-1-0-4	
		ECE494	ECE-Honours Project IV	0-0-8-4	
			Total 15-5-8-24		
			B.Tech IV year II Semester – CND		
Pr	CS		Bouquet Core	3-1-0-4	
Pr	CNS	SCI473	CNS-Honours Project IV	0-0-8-4	
Pr	CNS		CNS Elective	3-1-0-4	
OT	[+]		CNS Elective	3-1-0-4	

	EG		Engg Elective	3-1-0-4	
			Free Elective	3-1-0-4	
		SCI400	CCNSB Seminar	0 Cr	
			Total 15-5-8-24		

B.Tech IV year II Semester - CLD

OT	[+]		Humanities Elective	3-1-0-4	
Pr	CS		Bouquet Core	3-1-0-4	
Pr	??		CL-Elective	3-1-0-4	
Pr	CS		CS Elective	3-1-0-4	
In	CS	CSE494	Honours Project IV	0-0-8-4	
			Total 12-4-8-20		

PG Programmes

CD	AD	CNO	CName	Credits	Faculty Name(s)
M.Tech I year II Semester - CSE					
			Bouquet core	3-1-0-4	
			Bouquet core	3-1-0-4	
			Area electives	3-1-0-4	
			Breadth Elective/Project/Independent Study	3-1-0-4	
			Total 12-4-0-16		
M.Tech II year II Semester – CSE					
			Area elective / Bouquet core	3-1-0-4	
			Area elective / Bouquet core	3-1-0-4	
			Area /CS/Open elective	3-1-0-4	
			Area /CS/Open elective	3-1-0-4	
			Total 12-4-0-16		
M.Tech I year II Semester – CSIS					
		CSE538	System and Network Security	3-1-0-4	Ashok Kumar Das
		CSE418	Principles of Information Security	3-1-0-4	Ankit Gangawal
			Bouquet core elective	3-1-0-4	
			Bouquet core elective	3-1-0-4	
			Total 12-4-0-16		
M.Tech II year II Semester – CSIS					
		CSE704	PG-Project (8 Cr)	0-0-16-8	
		CSE581	Information Security Audit and Assurance	3-1-0-4	Shatrunjay Rawat
			Bouquet/Area/C/IT Elective	3-1-0-4	
			Total 6-2-16-16		
M.Tech I Year II Semester – CASE					
		CS0.302	Computing Tools	3-1-3-4	Vikrampudi
			Electvie I	3-1-0-4	
			Electvie II	3-1-0-4	
			Elective III	3-1-0-4	
			Elective IV (Half Course)	3-1-0-2	
			Total 15-5-3-18		
M.Tech II Year II Semester – CASE					
			Elective	3-1-0-4	
			Elective	3-1-0-4	
			Elective	3-1-0-4	
			Elective	3-1-0-4	
			Total 12-4-0-16		
M.Tech II Year II Semester – Bioinformatics					
		SCI400	CCNSB Seminar	0 Cr	Deva Priyakumar

		SC3.303	Advanced Bioinformatics	3-1-0-4	Nita Parekh
		SCI860	Computational Biology Project / Elective	0-0-8-4	
			Domain/IT elective	3-1-0-4	
			Domain/IT elective	3-1-0-4	
			Total 9-3-8-16		

Electives

		CNO	CName	Credits	Faculty Name(s)
Electives for CND Students					
		SCI761	Topics in Nanosciences	3-1-0-4	Tapan Kumar Sau
		SC1.315	Nonlinear Dynamics	3-1-0-4	Vinod PK
		SC3.303	Advanced Bioinformatics	3-1-0-4	Nita Parekh
		SC1.320	Introduction to Particle Physics	3-1-0-4	Subhadip Mitra
		SCI477	Machine Learning for Natural Sciences	3-1-0-4	Nita Parekh + Girish Varma + Prabhakar B
		SC2.301	Physics of Soft Condensed Matter	3-1-0-4	Marimuthu Krishnan
Electives for CLD Students					
		CLG452	Linguistic Data 2: Collection & Modeling	3-1-0-4	Parameswari Krishnamurthy, HCU
		CS4.501	Social Computing	3-1-0-4	Vasudeva Varma
ECE Electives (Also applicable as CSE/Open Electives)					
Note for UG ECE/ECD Students: Please read carefully the guidelines for choosing of ECE Electives before registering.					
	Signal Processing Stream				
		Level 1			
		ECE442	Time Frequency Analysis	3-1-0-4	Anil Kumar V
		ECE431	Signal Detection and Estimation Theory	3-1-0-4	Praful Mankar
		Level 2			
		EC5.405	Medical Image Analysis	3-1-0-4	Jayanthi Sivaswamy
		CSE578	Computer Vision	3-1-0-4	Anoop Namboodiri
		CSE471	Statistical Methods in AI	3-1-0-4	Vineet Gandhi
	Communications Stream				
		Level 1			
		ECE431	Signal Detection and Estimation Theory	3-1-0-4	Praful Mankar
		EC5.205	Introduction to Coding Theory	3-1-0-2	Lalitha V
		Level 2			
		EC2.405	Applied Electromagnetics	3-1-0-4	K R Sarma
		ECE537	Topics in Coding Theory	3-1-0-4	Prasad Krishnan
	VLSI and Embedded Systems Stream				
		Level 1			
		EC2.404	Design Verification and System Verilog	3-1-0-4	Ganesh Bhuthekar
		ECE463	Digital VLSI Design	3-1-0-4	Zia Abbas
		Level 2			
		EC2.405	Applied Electromagnetics	3-1-0-4	K R Sarma
		ECE562	Flexible Electronics	3-1-0-4	Aftab Hussain
	Robotics Stream				
		Level 1			
		EC4.403	Robotics: Planning and Navigation	3-1-0-4	Madhava Krishna K
		EC4.402	Intro to UAV Design	3-1-0-4	Harikumar Kandath
		Level 2			
		CSE578	Computer Vision	3-1-0-4	Anoop Namboodiri
		CSE471	Statistical Methods in AI	3-1-0-4	Vineet Gandhi

		ECE551	Advances in Robotics & Control	3-1-0-4	Spandan Roy
Electives for PG CASE Students					
		CES442	Disaster Management	3-1-0-4	Sunitha P
		CE1.603	Advanced Structural Analysis	3-1-0-4	Pravin Kumar Venkat Rao + Venkateshwarlu M
		CEW612	Design of Hydraulic Structures	3-1-0-4	Shaik Rehana
		CES617	Stability of Structures	3-1-0-4	Sunitha P
		CES641	Earthquake Engineering	3-1-0-4	Pradeep Kumar R
		CEG461	Remote Sensing	3-1-0-4	RC Prasad
		CEG422	Green Buildings	3-1-0-4	Vishal Garg
		CES771	CASE Project	4 credits	
Electives for PG Bioinformatics Students					
		SC1.315	Nonlinear Dynamics	3-1-0-4	Vinod PK
		SCI761	Topics in Nanosciences	3-1-0-4	Tapan Kumar Sau
Bouquet Courses - Registration Limit: 200					
	Theory Courses				
		CSE481	Optimization Methods	3-1-0-4	Jawahar CV
		CS1.406	Adv. Algorithms	3-1-0-4	Kishore Kothapalli
	Systems Courses				
		CS4.401	Data Systems	3-1-0-4	Krishna Reddy
		CSE461	Software Engineering	3-1-0-4	Raghu Reddy
		CSE431	Distributed Systems **(Max:100) Prerequisite: Operating Systems. Networks desirable**	3-1-0-4	Lini Thomas
	AI Courses				
		CSE471	Statistical Methods in AI	3-1-0-4	Vineet Gandhi
		CSE578	Computer Vision	3-1-0-4	Anoop Namboodiri
CSE/Open Electives					
		CS7.401	Introduction to NLP	3-1-0-4	Manish Shrivastava
		CSE538	System and Network Security	3-1-0-4	Ashok Kumar Das
		CSE595	ICTs for Development **(Free Elective)**	3-1-0-4	Nimmi Rangaswamy
		CSE581	Information Security Audit and Assurance	3-1-0-4	Shatrunjay Rawat
		CS4.501	Social Computing	3-1-0-4	Vasudeva Varma
		CSE578	Computer Vision	3-1-0-4	Anoop Namboodiri
		CSE498	Introduction to Game Theory	3-1-0-4	Sujit Gujar
		CSE563	Internals of Application Servers	3-1-0-4	Ramesh Loganathan
		CSE586	Cognitive Neuroscience	3-1-0-4	Kavita Vemuri
		CSE588	Music, Mind, and Technology **(Max:30)**	3-1-0-4	Vinoo Alluri
		CSE567	Usability Engineering	3-1-0-4	Priyanka Srivastava
		CS7.601	Deep Learning: Theory and Practices **(Max:80)**	3-1-0-4	Naresh Manwani
		CS4.403	Distributed Data Systems **(Max:30)**	3-1-1-4	Kamal Karlapalem
		CS1.501	Advanced Optimization: Theory and Applications	3-1-0-4	Pawan Kumar
		CS9.422	Behavioral Research: Statistical Methods **(H2)**	3-0-1-2	Bapi Raju S + Vinoo Alluri
Engineering Electives (Random Selection) Max. no of students for each course is given in the brackets					
		CES442	Disaster Management **(40)**	3-1-0-4	Sunitha P
		CEG461	Remote Sensing **(40)**	3-1-0-4	RC Prasad
		CEG462	Hydro Informatics **(40)**	3-1-0-4	Shaik Rehana
		CEG422	Green Buildings **(40)**	3-1-0-4	Vishal Garg

Math Electives (Random selection) Maximum no. of students for the following courses is: 50 each					
		IMA303	Differential Equations	3-1-0-4	Lakshmi Burra
		IMA409	Multivariate Analysis	3-1-0-4	Venkateshwarlu M
		MA4.302	Linear Partial Differential Equations and Variational Calculus	3-1-0-4	Samyadeb Bhattacharya
Science Electives (Random selection) Max. no of students for each course is given in the brackets					
		SC2.316	Molecular Modeling and Simulations **(50)**	3-1-0-4	Deva Priyakumar
		SC1.315	Nonlinear Dynamics**(40)**	3-1-0-4	Vinod PK
		SC1.320	Introduction to Particle Physics **(40)**	3-1-0-4	Subhadip Mitra
		SCI761	Topics in Nanosciences **(25)**	3-1-0-4	Tapan Kumar Sau
		SCI477	Machine Learning for Natural Sciences**(10)**	3-1-0-4	Nita Parekh + Girish Varma + Prabhakar B
		SC2.301	Physics of Soft Condensed Matter **(40)**	3-1-0-4	Marimuthu Krishnan
Humanities Electives for UG3 and UG4 (Random selection) Max. no of students for each course is 40					
		HSS482	Digital Humanities Project	0-0-8-4	CEH Faculty (Register with faculty consent only)
		HSS317	Ethics	3-1-0-4	Don Dcruz
		CSE595	ICTs for Development	3-1-0-4	Nimmi Rangaswamy
		HS1.202	Readings in Indian Literatures	3-1-0-4	Sushmita Banerjee
		HSS337	Comprehension of Indian Music	3-1-0-4	TK Saroja
		HS3.301	Alternate Religious Traditions in Indian History	3-1-0-4	Nilam Kakati
		HSS318	Introduction to Philosophy of Technology	3-1-0-4	Ashwin Jayanthi
		HS1.203	Literature, History and Belonging in Hyderabad	3-1-0-4	Nazia Akhter
		HSS445	Literature –American Classics	3-1-0-4	Aruna Chaluvadi
		HS7.301	Science, Technology and Society **(Max: 15)**	3-1-0-4	Radhika Krishnan

Sd/-   Sd/-

Date: 4.12.2020   **Dean (Academics)**   **Director**