



GLOBAL ACADEMY OF TECHNOLOGY

(Autonomous Institution Affiliated to VTU, Belagavi)

Accredited by NAAC with 'A' Grade,

NBA Accredited - CSE, ISE, ECE, EEE, ME, CV

Ideal Homes Township, Raja Rajeshwari Nagar, Bengaluru-560098



Scheme and Syllabus of III to VIII Semester

(Autonomous System of 2022 Scheme)

Bachelor of Engineering (B.E)

in

COMPUTER SCIENCE AND ENGINEERING

H. N. Rajashekar Swamy

Dean Academic
Global Academy of Technology,
Rajarajeshwarinagar, Bengaluru-98

Swamy

Vision

To achieve academic excellence and strengthen the skills to meet emerging challenges of computer science and engineering.

Mission

- M1: To impart strong theoretical foundation in the field of Computer Science and Engineering accompanied with extensive practical skills.
- M2: To inculcate research and innovation spirit through interaction with industry and carry out projects that address societal needs.
- M3: Instill professional ethics and values with a concern for environment.

Shekhar



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B.E. in Computer Science and Engineering -Scheme of Teaching and Examinations 2023

Outcome Based Education (OBE) and Choice Based Credit System (CBCS)

(Effective from the academic year 2023-24)



III SEMESTER

Sl. No	Course and Course Code		Course Title	Teaching Department (TD) and Question and Paper Setting Board (PSB)	Teaching Hours /Week				Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Self-Study	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	BS	22MAT31A	Discrete Mathematics-I	TD: MAT, PSB: MAT	L	T	P	S	03	50	50	100	3
2	IPCC	22CSE32	Data Structures (Integrated)	TD: CSE, PSB: CSE	3	0	2		03	50	50	100	4
3	IPCC	22CSE33	Digital Design and Computer Organization (Integrated)	TD: CSE, PSB: CSE	3	0	2		03	50	50	100	4
4	PCC	22CSE34	Operating Systems	TD: CSE, PSB: CSE	2	2	0		03	50	50	100	3
6	ETC	22CSE35	Introduction to Web Technology	TD: CSE, PSB: CSE	3	0	0		03	50	50	100	3
7	AEC	22CSE36	Unix and Shell Programming (Integrated)	TD: CSE, PSB: CSE	2	0	2		03	50	50	100	3
Total										300	300	600	20

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Skswamy

PCC: Professional Core Course, **PCCL:** Professional Core Course laboratory, **UHV:** Universal Human Value Course, **MC:** Mandatory Course (Non-credit), **AEC:** Ability Enhancement Course, **SEC:** Skill Enhancement Course, **L:** Lecture, **T:** Tutorial, **P:** Practical **S= SDA:** Skill Development Activity, **CIE:** Continuous Internal Evaluation, **SEE:** Semester End Evaluation. **K :** The letter in the course code indicates common to all the stream of engineering. **PROJ:** Project /Mini Project. **PEC:** Professional Elective Course.

Professional Core Course (IPCC): Refers to Professional Core Course Theory Integrated with practical of the same course. Credit for IPCC can be 04 and its Teaching– Learning hours (L : T : P) can be considered as (3 : 0 : 2) or (2 : 2 : 2). The theory part of the IPCC shall be evaluated both by CIE and SEE. The practical part shall be evaluated by only CIE (no SEE). However, questions from the practical part of IPCC shall be included in the SEE question paper. For more details, the regulation governing the Degree of Bachelor of Engineering /Technology (B.E./B.Tech.) 2022-23

National Service Scheme /Physical Education/Yoga: All students have to register for any one of the courses namely National Service Scheme (NSS), Physical Education (PE)(Sports and Athletics), and Yoga(YOG) with the concerned coordinator of the course during the first week of III semesters. Activities shall be carried out between III semester to the VI semester (for 4 semesters). Successful completion of the registered course and requisite CIE score is mandatory for the award of the degree. The events shall be appropriately scheduled by the colleges and the same shall be reflected in the calendar prepared for the NSS, PE, and Yoga activities. These courses shall not be considered for vertical progression as well as for the calculation of SGPA and CGPA, but completion of the course is mandatory for the award of degree.

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(Effective from the academic year 2023-24)



IV SEMESTER

Sl. No	Course and Course Code		Course Title	Teaching Department (TD) and Question Paper Setting Board (PSB)	Teaching Hours /Week				Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Self-Study	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	BS	22MAT41A	Discrete Mathematics-II	TD: MAT, PSB: MAT	L	T	P	S					
2	IPCC	22CSE42	Object Oriented Programming with Java (Integrated)	TD: CSE, PSB: CSE	2	2	0		03	50	50	100	3
3	IPCC	22CSE43	Design and Analysis of Algorithms (Integrated)	TD: CSE, PSB: CSE	3	0	2		03	50	50	100	4
4	PCC	22CSE44	Software Engineering	TD: CSE, PSB: CSE	3	0	2		03	50	50	100	4
6	ETC	22CSE45	Data Visualization (Integrated)	TD: CSE, PSB: CSE	2	2	0		03	50	50	100	3
7	AEC	22CSE46	Full Stack Frameworks -Frontend (Integrated)	TD: CSE, PSB: CSE	3	0	0		03	50	50	100	3
Total									03	50	50	100	3
									300	300	600	20	

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Skennam

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V SEMESTER

Sl. No	Course and Course Code		Course Title	Teaching Department (TD) and Question and Paper Setting Board (PSB)	Teaching Hours /Week				Examination				Credits	
					Theory Lecture	Tutorial	Practical/ Drawing	Self -Study	Duration in hours	CIE Marks	SEE Marks	Total Marks		
														L
1	HSMS	22CSE51	Management, Economics and Finance for IT Engineers	TD: CSE PSB: CSE	3	0	0		03	50	50	100	3	
2	IPCC	22CSE52	Database Management Systems	TD: CSE PSB: CSE	2	2	2		03	50	50	100	4	
3	PCC	22CSE53	Computer Networks	TD: CSE PSB: CSE	3	2	0		03	50	50	100	4	
4	PCCL	22CSE54	Full Stack Framework (Back End)	TD: CSE PSB: CSE	0	0	2		03	50	50	100	1	
5	PEC	22CSE55x	Professional Elective - I	TD: CSE PSB: CSE	3	0	0		03	50	50	100	3	
6	PROJ	22CSEP56	Mini Project	TD: CSE PSB: CSE	0	0	4		03	100		100	2	
7	AEC	22RMIK57	Research Methodology and IPR	Any Department	2	2	0		03	50	50	100	3	
8	MC	22CIVK58	Environmental Studies	TD: CV/Env/Chem PSB:CV	2	0	0		02	50	50	100	2	
9	MC	22NSK59	National Service Scheme (NSS)	NSS coordinator	0	0	2			100		100	0	
		22PEK59	Physical Education (PE) (Sports and Athletics)	Physical Education Director										
		22YOK59	Yoga	Yoga Teacher										
Total											550	350	900	22

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Professional Elective Course - I			
22CSE55A	Computer Graphics	22CSE55C	Theory of Computation
22CSE55B	Robotic Process Automation	22CSE55D	Distributed Systems
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National Service Scheme /Physical Education/Yoga: All students have to register for any one of the courses namely National Service Scheme (NSS), Physical Education (PE)(Sports and Athletics), and Yoga(YOG) with the concerned coordinator of the course during the first week of III semesters. Activities shall be carried out between III semester to the VI semester (for 4 semesters). Successful completion of the registered course and requisite CIE score is mandatory for the award of the degree. The events shall be appropriately scheduled by the colleges and the same shall be reflected in the calendar prepared for the NSS, PE, and Yoga activities. These courses shall not be considered for vertical progression as well as for the calculation of SGPA and CGPA, but completion of the course is mandatory for the award of degree.			
Mini-project work: Mini Project is a laboratory-oriented/hands on course that will provide a platform to students to enhance their practical knowledge and skills by the development of small systems/applications etc. Based on the ability/abilities of the student/s and recommendations of the mentor, a single discipline or a multidisciplinary Mini- project can be assigned to an individual student or to a group having not more than 4 students.			
CIE procedure for Mini-project: (i) Single discipline: The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two faculty members of the Department, one of them being the Guide. The CIE marks awarded for the Mini-project work shall be based on the evaluation of the project report, project presentation skill, and question and answer session in the ratio of 50:25:25. The marks awarded for the project report shall be the same for all the batches mates. (ii) Interdisciplinary: Continuous Internal Evaluation shall be group-wise at the college level with the participation of all the guides of the project. The CIE marks awarded for the Mini-project, shall be based on the evaluation of the project report, project presentation skill, and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.			
No SEE component for Mini-Project.			
Professional Elective Courses (PEC): A professional elective (PEC) course is intended to enhance the depth and breadth of educational experience in the Engineering and Technology curriculum. Multidisciplinary courses that are added supplement the latest trend and advanced technology in the selected stream of engineering. Each group will provide an option to select one course. The minimum number of students' strengths for offering a professional elective is 10. However, this conditional shall not be applicable to cases where the admission to the program is less than 10.			

Shewary



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(Effective from the academic year 2023-24)



VI SEMESTER

Sl. No	Course and Course Code		Course Title	Teaching Department (TD) and Question Paper Setting Board (PSB)	Teaching Hours /Week				Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Self-Study	Duration in Weeks	CIE Marks	SEE Marks	Total Marks	
1	IPCC	22CSE61	Cloud Computing	TD: CSE PSB: CSE	2	2	2		03	50	50	100	4
2	PCC	22CSE62	Machine Learning	TD: CSE PSB: CSE	3	2	0		03	50	50	100	4
3	PEC	22CSE63x	Professional Elective - II	TD: CSE PSB: CSE	3	0	0		03	50	50	100	3
4	OEC	22CSE64x	Open Elective - I	TD: CSE PSB: CSE	3	0	0		03	50	50	100	3
5	PROJ	22CSEP65	Major Project Phase - I	TD: CSE PSB: CSE	0	0	4		03	100	--	100	2
6	PCCL	22CSEL66	Machine Learning Lab	TD: CSE PSB: CSE	0	0	2		03	50	50	100	1
7	AEC/ SDC	22CSE67x	Ability Enhancement Course/ Skill Development Course - III	TD & PSB: Concerned Department	If the course is offered as a Theory				01	50	50	100	1
					1	0	0						
					If course is offered as a practical								
8	MC	22NSK68	National Service Scheme (NSS)	NSS coordinator	0	0	2		100	---	100	0	
		22PEK68	Physical Education (PE) (Sports and Athletics)	Physical Education Director	0	0	2						
		22YOK68	Yoga	Yoga Teacher									
9	IKS	22IKSK69	Indian Knowledge System	Any Department	1	0	0		01	50	50	100	0
10	MC	22UHV69	Universal Human Values	Any Department	1	0	0		01	50	50	100	0
Total										600	400	1000	18

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Professional Elective Course			
22CSE63A	Blockchain Technology	22CSE63B	Compiler Design
22CSE63C	Computer Vision	22CSE63D	Advanced Java
Open Elective Course			
22CSE64A	Introduction to Data Structures	22CSE64B	Fundamentals of Operating Systems
22CSE64C	Mobile Application Development	22CSE64D	Introduction to AI
Ability Enhancement Course / Skill Enhancement Course - III			
22CSE67A	Android App Development	22CSE67B	MongoDB
22CSE67C	Selenium Testing	22CSE67D	DevOps
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Professional Core Course (IPCC): Refers to Professional Core Course Theory Integrated with practical of the same course. Credit for IPCC can be 04 and its Teaching-Learning hours (L : T : P) can be considered as (3 : 0 : 2) or (2 : 2 : 2). The theory part of the IPCC shall be evaluated both by CIE and SEE. The practical part shall be evaluated by only CIE (no SEE). However, questions from the practical part of IPCC shall be included in the SEE question paper. For more details, the regulation governing the Degree of Bachelor of Engineering /Technology (B.E./B.Tech.) 2022-23			
National Service Scheme /Physical Education/Yoga: All students have to register for any one of the courses namely National Service Scheme (NSS), Physical Education (PE)(Sports and Athletics), and Yoga(YOG) with the concerned coordinator of the course during the first week of III semesters. Activities shall be carried out between III semester to the VI semester (for 4 semesters). Successful completion of the registered course and requisite CIE score is mandatory for the award of the degree. The events shall be appropriately scheduled by the colleges and the same shall be reflected in the calendar prepared for the NSS, PE, and Yoga activities. These courses shall not be considered for vertical progression as well as for the calculation of SGPA and CGPA, but completion of the course is mandatory for the award of degree.			
Professional Elective Courses (PEC): A professional elective (PEC) course is intended to enhance the depth and breadth of educational experience in the Engineering and Technology curriculum. Multidisciplinary courses that are added supplement the latest trend and advanced technology in the selected stream of engineering. Each group will provide an option to select one course. The minimum number of students' strengths for offering professional electives is 10. However, this conditional shall not be applicable to cases where the admission to the program is less than 10.			
Open Elective Courses: Students belonging to a particular stream of Engineering and Technology are not entitled to the open electives offered by their parent Department. However, they can opt for an elective offered by other Departments, provided they satisfy the prerequisite condition if any. Registration to open electives shall be documented under the guidance of the Program Coordinator/ Advisor/Mentor. The minimum numbers of students' strength for offering Open Elective Course is 10. However, this condition shall not be applicable to class where the admission to the program is less than 10.			
Project Phase-I : Students have to discuss with the mentor /guide and with their help he/she has to complete the literature survey and prepare the report and finally define the problem statement for the project work.			

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Scheme A- VII SEMESTER (Swappable VII and VIII SEMESTER)

Sl. No	Course and Course Code		Course Title	Teaching Department (TD) and Question and Paper Setting Board (PSB)	Teaching Hours /Week				Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Self -Study	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	IPCC	22CSE71	Deep Learning	TD: CSE PSB: CSE	3	0	2		03	50	50	100	4
2	IPCC	22CSE72	Cryptography & Network Security	TD: CSE PSB: CSE	3	0	2		03	50	50	100	4
3	PCC	22CSE73	Internet of Things	TD: CSE PSB: CSE	3	2	0		03	50	50	100	4
4	PEC	22CSE74x	Professional Elective-III	TD: CSE PSB: CSE	3	0	0		03	50	50	100	3
5	OEC	22CSE75x	Open Elective- II	TD: PSB:	3	0	0		01	50	50	100	3
6	PROJ	22CSEP76	Major Project Phase-II	---	0	0	12		03	100	100	200	6
Total									400	300	700	24	

Professional Elective Course

22CSE74A	Data Warehousing Techniques	22CSE74C	Augmented Reality and Virtual Reality
22CSE74B	Natural Language Processing	22CSE74D	Big Data Analytics

Open Elective Course

22CSE75A	Introduction to DBMS	22CSE75C	Software Engineering
22CSE75B	Introduction to Algorithms	22CSE75D	Introduction to Networks

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Note: VII and VIII semesters of IV years of the program

(1) Institutions can swap the VII and VIII Semester Schemes of Teaching and Examinations to accommodate research internships/ industry internships after the VI semester.

(2) Credits earned for the courses of VII and VIII Semester Scheme of Teaching and Examinations shall be counted against the corresponding semesters whether the VII or VIII semesters is completed during the beginning of the IV year or the later part of IV years of the program.

Professional Elective Courses (PEC): A professional elective (PEC) course is intended to enhance the depth and breadth of educational experience in the Engineering and Technology curriculum. Multidisciplinary courses that are added supplement the latest trend and advanced technology in the selected stream of engineering. Each group will provide an option to select one course. The minimum number of students' strengths for offering professional electives is 10. However, this conditional shall not be applicable to cases where the admission to the program is less than 10.

Open Elective Courses:

Students belonging to a particular stream of Engineering and Technology are not entitled to the open electives offered by their parent Department. However, they can opt for an elective offered by other Departments, provided they satisfy the prerequisite condition if any. Registration to open electives shall be documented under the guidance of the Program Coordinator/ Advisor/Mentor. The minimum numbers of students' strength for offering Open Elective Course is 10. However, this condition shall not be applicable to class where the admission to the program is less than 10.

PROJECT WORK (21MEP75): The objective of the Project work is

- (i) To encourage independent learning and the innovative attitude of the students.
- (ii) To develop interactive attitude, communication skills, organization, time management, and presentation skills.
- (iii) To impart flexibility and adaptability.
- (iv) To inspire team working.
- (v) To expand intellectual capacity, credibility, judgment and intuition.
- (vi) To adhere to punctuality, setting and meeting deadlines.
- (vii) To install responsibilities to oneself and others.
- (viii) To train students to present the topic of project work in a seminar without any fear, face the audience confidently, enhance communication skills, involve ingroup discussion to present and exchange ideas.

CIE procedure for Project Work:

(1) **Single discipline:** The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide.

The CIE marks awarded for the project work, shall be based on the evaluation of the project work Report, project presentation skill, and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

(2) **Interdisciplinary:** Continuous Internal Evaluation shall be group-wise at the college level with the participation of all guides of the college. Participation of external guide/s, if any, is desirable. The CIE marks awarded for the project work, shall be based on the evaluation of project work Report, project presentation skill, and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

SEE procedure for Project Work: SEE for project work will be conducted by the two examiners appointed by the University. The SEE marks awarded for the project work shall be based on the evaluation of project work Report, project presentation skill, and question and answer session in the ratio 50:25:25.

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Scheme A- VIII SEMESTER (Swappable VII and VIII SEMESTER)

Sl. No	Course and Course Code		Course Title	Teaching Department (TD) and Question Paper Setting Board (PSB)	Teaching Hours /Week				Examination				
					Theory	Tutorial	Practical / Drawin	Self-Study	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	PEC	22CSE81x	Professional Elective -IV (Online Courses)	TD: CSE PSB: CSE	3	0	0		03	50	50	100	3
2	OEC	22CSE82x	Open Elective - III (Online Courses)	TD: CSE PSB: CSE	3	0	0		03	50	50	100	3
3	INT	22CSEI83	Internship (Industry/Research) (14 - 20 weeks)	---	0	0	12		03	100	100	200	10
Total									200	200	400	16	

Professional Elective Course (Online courses)

22CSE81A	BOS will publish courses based on the availability	22CSE81C	BOS will publish courses based on the availability
22CSE81B	BOS will publish courses based on the availability	22CSE81D	BOS will publish courses based on the availability

Open Elective Courses (Online Courses)

22CSE82A	BOS will publish courses based on the availability	22CSE82C	BOS will publish courses based on the availability
22CSE82B	BOS will publish courses based on the availability	22CSE82D	BOS will publish courses based on the availability

L: Lecture, T: Tutorial, P: Practical S= SDA: Skill Development Activity, CIE: Continuous Internal Evaluation, SEE: Semester End Evaluation. TD- Teaching Department, PSB: Paper Setting department, OEC: Open Elective Course, PEC: Professional Elective Course. PROJ: Project work, INT: Industry Internship / Research Internship / Rural Internship

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Note: VII and VIII semesters of IV years of the program

Swapping Facility

- Institutions can swap VII and VIII Semester Scheme of Teaching and Examinations to accommodate **research internships/ industry internships/Rural Internship** after the VI semester.
- Credits earned for the courses of VII and VIII Semester Scheme of Teaching and Examinations shall be counted against the corresponding semesters whether VII or VIII semester is completed during the beginning of IV year or later part of IV year of the program.

Elucidation:

At the beginning of IV years of the program i.e., after VI semester, VII semester classwork and VIII semester **Research Internship /Industrial Internship / Rural Internship** shall be permitted to be operated simultaneously by the University so that students have ample opportunity for an internship. In other words, a good percentage of the class shall attend VII semester classwork and a similar percentage of others shall attend to Research Internship or Industrial Internship or Rural Internship.

Research/Industrial /Rural Internship shall be carried out at an Industry, NGO, MSME, Innovation centre, Incubation centre, Start-up, centre of Excellence (CoE), Study Centre established in the parent institute and /or at reputed research organizations/institutes.

The mandatory Research internship /Industry internship / Rural Internship is for 14 to 20 weeks. The internship shall be considered as a head of passing and shall be considered for the award of a degree. Those, who do not take up/complete the internship shall be declared to fail and shall have to complete it during the subsequent University examination after satisfying the internship requirements.

Research internship: A research internship is intended to offer the flavour of current research going on in the research field. It helps students get familiarized with the field and imparts the skill required for carrying out research.

Industry internship: Is an extended period of work experience undertaken by students to supplement their degree for professional development. It also helps them learn to overcome unexpected obstacles and successfully navigate organizations, perspectives, and cultures. Dealing with contingencies helps students recognize, appreciate, and adapt to organizational realities by tempering their knowledge with practical constraints.

Rural Internship: Rural development internship is an initiative of Unnat Bharat Abhiyan Cell, RGIT in association with AICTE to involve students of all departments studying in different academic years for exploring various opportunities in techno-social fields, to connect and work with Rural India for their up liftment.

The faculty coordinator or mentor has to monitor the student's internship progress and interact with them to guide for the successful completion of the internship. The students are permitted to carry out the internship anywhere in India or abroad. University shall not bear any expenses incurred in respect of the internship.

With the consent of the internal guide and Principal of the Institution, students shall be allowed to carry out the internship at their hometown (**within or outside the state or abroad**), provided favorable facilities are available for the internship and the student remains regularly in contact with the internal guide. **University shall not bear any cost involved in carrying out the internship by students.** However, students can receive any financial assistance extended by the organization.

Professional Elective /Open Elective Course: These are ONLINE courses suggested by the respective Board of Studies. Details of these courses shall be made available for students on the VTU web portal.

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B.E. in Computer Science and Engineering Scheme of Teaching and Examinations 2023

Outcome Based Education (OBE) and Choice Based Credit System (CBCS)

(Effective from the academic year 2023-24)



Scheme B-VI SEMESTER for the candidates who seek a two-semester internship with project work /Start-up

Sl. No	Course and Course Code		Course Title	Teaching Department (TD) and Question Paper Setting Board (PSB)	Teaching Hours /Week				Examination				Credits	
					Theory Lecture	Tutorial	Practical/ Drawing	Self-Study	Duration in hours	CIE Marks	SEE Marks	Total Marks		
1	IPCC	22CSE61	Cloud Computing	TD: CSE PSB: CSE	L	T	P	S	03	50	50	100	3	
2	PCC	22CSE62	Machine Learning	TD: CSE PSB: CSE	3	0	0		03	50	50	100	4	
3	PEC	22CSE63x	Professional Elective - II	TD: CSE PSB: CSE	4	0	0		03	50	50	100	3	
4	OEC	22CSE64x	Open Elective - I	TD: CSE PSB: CSE	3	0	0		03	50	50	100	3	
5	PCCL	22CSEL65	Machine Learning Lab	TD: CSE PSB: CSE	0	0	2		01	50	50	100	1	
6	AEC	22CSE66X	Ability Enhancement Course/Skill Development Course V	TD: CSE PSB: CSE	If the course is offered as a Theory				03	50	50	100	2	
					2	0	0							
					If course is offered as a practical									
7	MC	NSK23657	National Service Scheme (NSS)	NSS coordinator	1	0	2		03	100	-	100	0	
		PEK23657	Physical Education (PE) (Sports and Athletics)	Physical Education Director	0	0	2							03
		YOK23657	Yoga	Yoga Teacher										03
8	IKS	IKSK23608	Indian Knowledge System	Any Department					01					
9	MC	22UHV69	Universal Human Values	Any Department	0	0	12		03	100	0	100	0	
					1	0	0		01	50	50	100	0	
Total									550	350	900	16		

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H.M. Rajashekar Swar
Dean Academic

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B.E. in Computer Science and Engineering Scheme of Teaching and Examinations 2023

Outcome Based Education (OBE) and Choice Based Credit System (CBCS)

(Effective from the academic year 2023-24)



Scheme B: VII and VIII semesters for the candidates who seek an internship with project work

Sl. No	Course and Course Code		Course Title	Teaching Department (TD) and Question Paper Setting Board (PSB)	Teaching Hours /Week				Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Self -Study	Duration in hours	CIE Marks	SEE Marks	Total Marks	
					L	T	P	S					
1	IPCC	22CSE71	Deep Learning To be completed in 5th /6th semester	TD: CSE PSB: CSE	3	0	2		03	50	50	100	4
2	IPCC	22CSE72	Cryptography & Network Security To be completed in 5th /6th semester	TD: CSE PSB: CSE	3	0	2		03	50	50	100	4
3	PCC	22CSE73	Internet of Things To be completed in 6th semester	TD: CSE PSB: CSE	4	0	0		03	50	50	100	4
4	PEC	22CSE74x	Professional Elective Course (MOOC Courses)	TD: CSE PSB: CSE	3	0	0		03	50	50	100	3
5	OEC	22CSE75x	Open Elective Courses (MOOC courses)	TD: CSE PSB: CSE	3	0	0		01	50	50	100	3
1	PEC	22CSE81x	Professional Elective -IV (Online Courses)	TD: CSE PSB: CSE	3	0	0		03	50	50	100	3
2	OEC	22CSE82x	Open Elective - III (Online Courses)	TD: CSE PSB: CSE	3	0	0		01	50	50	100	3
3	PROJ	22CSEP83	Project – Outcome of Training	TD: CSE PSB: CSE	0	0	12		03	100	100	200	8
4	INT	22CSEI84	Internship (Industry/Research) (02 semesters)	TD: CSE	0	0	12		03	100	100	200	10
Total									650	650	1300	42	

Sk. Swamy

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