SDM COLLEGE OF ENGINEERING AND TECHNOLOGY, DHARWAD

DEPARTMENT OF CIVIL ENGINEERING

SCHEME FOR UNDERGRADUATE

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:50:24 +05'30'

7th and 8th semester

VII Semester B. E.

Course Code	Course Title	Teaching		Examination				
		L-T-P (Hrs/ Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration In hours
11UCVC700	Design of RC Structures-II	3-0-0	3	50	100	3		
11UCVC701	Quantity Surveying and Estimation	3-0-0	3	50	100	3		
11UCVC702	Design of Steel Structures-I	3-0-0	3	50	100	3		
11UCVL703	Environmental Engineering Laboratory	0-0-2	1	50			50	3
11UCVL704	Mini Project/ Internship	0-0-3	2	50			50	3
11UCVL705	Project Phase – I	0-0-4	4	50			50	3
11UCVE7XX	Elective – III	4-0-0	4	50	100	3		
11UCVE7XX	Elective – IV	4-0-0	4	50	100	3		
11UCVE7XX	Elective – V	4-0-0	4	50	100	3		
Total		**21-0-10**	**28**	**450**	**600**		**150**	

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:50:42 +05'30'

Elective Courses

Course Code	Course Title	Teaching		Examination				
		L-T-P (Hrs/ Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration In hours
11UCVE706	Waste Water Engineering	4-0-0	04	50	100	3		
11UCVE707	Ecology and Environment	4-0-0	04	50	100	3		
11UCVE708	Advanced fluid mechanics	4-0-0	04	50	100	3		
11UCVE709	Geographic Information System	4-0-0	04	50	100	3		
11UCVE710	Solid waste management	4-0-0	04	50	100	3		
11UCVE711	Bridge Engineering	4-0-0	04	50	100	3		
11UCVE712	Earthquake resistant structures	4-0-0	04	50	100	3		
11UCVE713	Air Pollution & Control	4-0-0	04	50	100	3		
11UCVE714	Underground Structures	4-0-0	04	50	100	3		
11UCVE715	Traffic Engineering	4-0-0	04	50	100	3		
11UCVE716	Quality Management System in Civil Engineering	4-0-0	04	50	100	3		
11UCVE717	Composite Materials	4-0-0	04	50	100	3		

CIE: Continuous Internal Evaluation **SEE**: Semester End Examination
L: Lecture **T**: Tutorials **P**: Practical **S**: Self-study
*SEE for theory courses is conducted for 100 marks and reduced to 50 marks.

KURAKUNDI RAGHAVENDRARAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:50:56 +05'30'

VIII Semester B. E.

Course Code	Course Title	Teaching		Examination				
		L-T-P-S (Hrs/ Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration In hours
11UCVC800	Design of Steel Structures-II	2-0-0	2	50	100	4		
11UCVL801	Seminar on current topic	0-0-3	2	50			50	3
11UCVL802	Project Phase – II	0-0-10	10	50			50	3
11UCVE8XX	Elective-VI	4-0-0	4	50	100	3		
11UCVE8XX	Elective-VII	4-0-0	4	50	100	3		
11UCVE8XX	Elective-VIII	4-0-0	4	50	100	3		
Total		**14-0-13**	**26**	**300**	**400**		**100**	

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:51:06 +05'30'

Elective Courses

Course Code	Course Title	Teaching		Examination				
		L-T-P-S (Hrs/ Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration In hours
11UCVE803	Structural Dynamics	4-0-0	04	50	100	3		
11UCVE804	Industrial Wastewater Treatment	4-0-0	04	50	100	3		
11UCVE805	Theory of Elasticity	4-0-0	04	50	100	3		
11UCVE806	Ground Improvement Techniques	4-0-0	04	50	100	3		
11UCVE807	Construction Equipment & Management	4-0-0	04	50	100	3		
11UCVE808	Finite Element Methods	4-0-0	04	50	100	3		
11UCVE809	Design of Industrial Structures	4-0-0	04	50	100	3		
11UCVE810	Advanced Foundation Design	4-0-0	04	50	100	3		
11UCVE811	Advanced Design of Steel Structures	4-0-0	04	50	100	3		
11UCVE812	Environmental Impact Assessment	4-0-0	04	50	100	3		
11UCVE813	Reinforced Earth Structures	4-0-0	04	50	100	3		
11UCVE814	Urban Transport Planning	4-0-0	04	50	100	3		
11UCVE815	Construction Contract Management	4-0-0-0	04	50	100	3		

CIE: Continuous Internal Evaluation **SEE**: Semester End Examination
L: Lecture **T**: Tutorials **P**: Practical **S**: Self-study
*SEE for theory courses is conducted for 100 marks and reduced to 50 marks.

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:51:32 +05'30'

HOD, Civil Engineering

15 Scheme

I Semester B. E. (Common to all Branches)
Physics Group

Course Code	Course Title	Teaching		Examination				
				CIE	Theory (SEE)		Practical (SEE)	
		L-T-P-S (Hrs/Week)	Course Credits	Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration in hours
15UMAC100	Engineering Mathematics – I	4-0-0-0	4	50	100	3	-	-
15UEEC100	Basic Electrical Engineering	4-0-0-0	4	50	100	3	-	-
15UPHC100	Engineering Physics	4-0-0-0	4	50	100	3	-	-
15UPHL100	Engineering Physics Lab	0-0-2-0	1	50	-	-	50	3
15UMEC100	Elements of Mechanical Engineering	3-0-0-2	4	50	100	3	-	-
15UMEL100	Workshop Practice	0-0-2-0	1	50	-	-	50	3
15UCVC100	Engineering Mechanics	3-0-0-4	4	50	100	3	-	-
15UHUA101	Kannada	2-0-0-0	Audit	100	-	-	-	-
15UHUA102	Constitution of India & Professional Ethics	2-0-0-0		100	-	-	-	-
Total		**22-0-4-6**	**22**	**550**	**500**		**100**	

CIE: Continuous Internal Evaluation **SEE**: Semester End Examination
L: Lecture **T**: Tutorials **P**: Practical **S**: Self-study
*SEE for theory courses is conducted for 100 marks and reduced to 50 marks.

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:51:43 +05'30'

15 Scheme

II Semester B. E (Common to all Branches)
Physics Group

Course Code	Course Title	Teaching		Examination				
				CIE	Theory (SEE)		Practical (SEE)	
		L-T-P-S (Hrs/Week)	Course Credits	Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration in hours
15UMAC200	Engineering Mathematics – II	4-0-0-0	4	50	100	3	-	-
15UEEC200	Basic Electrical Engineering	4-0-0-0	4	50	100	3	-	-
15UPHC200	Engineering Physics	4-0-0-0	4	50	100	3	-	-
15UPHL200	Engineering Physics Lab	0-0-2-0	1	50	-	-	50	3
15UMEC200	Elements of Mechanical Engineering	3-0-0-2	4	50	100	3	-	-
15UMEL200	Workshop Practice	0-0-2-0	1	50	-	-	50	3
15UCVC200	Engineering Mechanics	3-0-0-4	4	50	100	3	-	-
15UHUA201	Kannada	2-0-0-0	Audit	100	-	-	-	-
15UHUA202	Constitution of India & Professional Ethics	2-0-0-0		100	-	-	-	-
Total		**22-0-4-6**	**22**	**550**	**500**		**100**	

CIE: Continuous Internal Evaluation **SEE**: Semester End Examination
L: Lecture **T**: Tutorials **P**: Practical **S**: Self-study
*SEE for theory courses is conducted for 100 marks and reduced to 50 marks.

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:51:55 +05'30'

15 Scheme

III Semester B. E.

Course Code	Course Title	Teaching		Examination				
		L-T-P-S (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration In hours
15UMAC300	Engineering Mathematics – III	4-0-0-0	04	50	100	3		
15UCVC300	Building Construction	4-2-0-0	04	50	100	3		
15UCVC301	Mechanics of Materials	4-0-0-0	04	50	100	3		
15UCVC302	Fluid Mechanics	4-2-0-0	04	50	100	3		
15UCVC303	Basic Surveying	3-0-0-0	03	50	100	3		
15UCVC304	Applied Engineering Geology	3-0-0-0	03	50	100	3		
15UCVL305	Basic Material Testing Laboratory	0-0-2-0	01	50			50	3
15UCVL306	Basic Surveying Practice Laboratory	0-0-2-0	01	50			50	3
Total		**22-4-4-0**	**24**	**400**	**600**		**100**	

CIE: Continuous Internal Evaluation **SEE**: Semester End Examination

L: Lecture **T**: Tutorials **P**: Practical **S**: Self-study

*SEE for theory courses is conducted for 100 marks and reduced to 50 marks.

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:52:06 +05'30'

15 Scheme

IV Semester B. E.

Course Code	Course Title	Teaching		Examination				
		L-T-P-S (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration In hours
15UMAC400	Engineering Mathematics-IV	4-0-0-0	04	50	100	3		
15UCVC400	Structural Analysis – I	4-2-0-0	04	50	100	3		
15UCVC401	Advanced Surveying	4-0-0-0	04	50	100	3		
15UCVC402	Hydrology	3-2-0-0	03	50	100	3		
15UCVC403	Building Planning & Drawing	1-0-3-0	03	50	100	3		
15UCVC404	Concrete Technology	3-0-0-0	03	50	100	3		
15UCVL405	Advanced Surveying Practice	0-0-2-0	01	50			50	3
15UCVL406	Applied Engineering Geology Lab	0-0-2-0	01	50			50	3
Total		**19-4-7-0**	**23**	**400**	**600**		**100**	

CIE: Continuous Internal Evaluation **SEE**: Semester End Examination
L: Lecture **T**: Tutorials **P**: Practical **S**: Self-study
*SEE for theory courses is conducted for 100 marks and reduced to 50 marks.

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:52:17 +05'30'

15 Scheme

V Semester

Course Code	Course Title	Teaching		Examination				
		L-T-P (Hrs/ Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration In hours
15UCVC500	Structural Analysis-II	4-0-0	04	50	100	3		
15UCVC501	Design of RC Structural Elements	4-2-0	04	50	100	3		
15UCVC502	Geotechnical Engineering – I	4-0-0	04	50	100	3		
15UCVC503	Highway Engineering	4-0-0	04	50	100	3		
15UCVC504	Irrigation Engineering	3-0-0	03	50	100	3		
15UCVC505	Environmental Engineering - I	4-0-0	04	50	100	3		
15UCVL506	Fluid Mechanics Laboratory	0-0-2	01	50			50	3
15UCVL507	Computer Aided Design Laboratory	0-0-2	01	50			50	3
Total		**23-2-4**	**25**	**400**	**600**		**100**	

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:52:27 +05'30'

15 Scheme

VI Semester B. E.

Course Code	Course Title	Teaching		Examination				
		L-T-P (Hrs/ Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration In hours
15UCVC600	Management, Entrepreneurship & Protection of Intellectual Property	4-0-0	04	50	100	3		
15UCVC601	Geotechnical Engineering–II	4-0-0	04	50	100	3		
15UCVC602	Environmental Engineering–II	3-0-0	03	50	100	3		
15UCVC603	Quantity Surveying and Estimation	3-0-0	03	50	100	3		
15UCVL604	Geo-technical Engineering Lab.	0-0-2	01	50			50	3
15UCVL605	Concrete & Highway Lab	0-0-2	01	50			50	3
15UCVL606	Extensive Survey	0-0-4	02	50			50	3
15UCVEXXX	Elective – 1	4-0-0	04	50	100			
15UCVEXXX	Elective – 2	4-0-0	04	50	100			
Total		**22-0-8**	**26**	**450**	**600**		**150**	

CIE: Continuous Internal Evaluation **SEE**: Semester End Examination

L: Lecture **T**: Tutorials **P**: Practical **S**: Self-study

*SEE for theory courses is conducted for 100 marks and reduced to 50 marks.

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:52:42 +05'30'

Elective Courses

Course Code	Course Title	Teaching		Examination				
		L-T-P (Hrs/ Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration In hours
15UCVE607	Design of Masonry Structures	4-0-0	04	50	100	3		
15UCVE608	Matrix Method of Structural Analysis	4-0-0	04	50	100	3		
15UCVE609	Advanced Design of Special RC Structures	4-0-0	04	50	100	3		
15UCVE610	Numerical methods in Civil Engineering	4-0-0	04	50	100	3		
15UCVE611	Advanced Structural Analysis	4-0-0	04	50	100	3		
15UCVE612	Photogrammetry and Remote Sensing	4-0-0	04	50	100	3		
15UCVE613	Earth & Earth Retaining Structures	4-0-0	04	50	100	3		
15UCVE614	Ground Water Hydrology	4-0-0	04	50	100	3		
15UCVE615	Watershed Management	4-0-0	04	50	100	3		
15UCVE616	Harbour, Dock & Tunnel Engineering	4-0-0	04	50	100	3		
15UCVE617	Railway and Airport Engineering	4-0-0	04	50	100	3		

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:52:52 +05'30'

15 Scheme

VII Semester B. E.

Course Code	Course Title	Teaching		Examination				
		L-T-P (Hrs/ Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration In hours
15UCVC700	Advanced Design of RC Structures	4-0-0	4	50	100	3		
15UCVC701	Design of Pre-Stressed Concrete Structures	4-0-0	4	50	100	3		
15UCVC702	Design of Steel Structures-I	3-0-0	3	50	100	3		
15UCVL703	Environmental Engineering Laboratory	0-0-2	1	50			100	3
15UCVL704	Internship /Mini Project	0-0-3	4	50			100	3
15UCVL705	Project Phase – I	0-0-4	2	50			100	3
	Elective – III	4-0-0	4	50	100	3		
	Elective – IV	4-0-0	4	50	100	3		
	Elective – V	4-0-0	4	50	100	3		
Total		**23-0-9**	**30**	**450**	**600**		**300**	

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:53:01 +05'30'

Elective Courses

Course Code	Course Title	Teaching	
		L-T-P-S (Hrs/ Week)	Credits
15UCVE715	Introduction to Bridge Engineering	4-0-0	04
15UCVE716	Structural Dynamics	4-0-0	04
15UCVE717	Underground Structures	4-0-0	04
15UCVE718	Advanced Foundation Design	4-0-0	04
15UCVE719	Design of Industrial Structures	4-0-0	04
15UCVE720	Solid Waste Management	4-0-0	04
15UCVE721	Air Pollution & Control	4-0-0	04
15UCVE722	Traffic Engineering	4-0-0	04
15UCVE723	Wastewater Engineering	4-0-0	04
15UCVE724	Construction Contract Management	4-0-0	04

CIE: Continuous Internal Evaluation **SEE**: Semester End Examination
L: Lecture **T**: Tutorials **P**: Practical
*SEE for theory courses is conducted for 100 marks and reduced to 50 marks.

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:53:13 +05'30'

15 Scheme

VIII Semester B. E.

Course Code	Course Title	Teaching		Examination				
		L-T-P-S (Hrs/ Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration In hours
15UCVC800	Design of Steel Structures-II	2-0-0	2	50	100			
15UCVL801	Seminar on current topic	0-3-0	2	50			100	3
15UCVL802	Project Phase – II	0-0-8	10	50			100	3
	Elective-VI	4-0-0	4	50	100	3		
	Elective-VII	4-0-0	4	50	100	3		
	Elective-VIII	4-0-0	4	50	100	3		
Total		**14-3-8**	**26**	300	400		200	

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:53:34 +05'30'

HOD, Civil Engineering

18 Scheme

I semester B. E. (Common to all Branches)

Physics cycle

Course Code	Course Category#	Course Title	Teaching		Examination				
			L-T-P (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
					Max. Marks	*Max. Marks	Duration in Hrs.	Max. Marks	Duration In Hrs.
18UMAC100	BS	Engineering Mathematics-I	3 - 2 - 0	4	50	100	3	-	-
18UPHC100	BS	Engineering Physics	3 - 2 - 0	4	50	100	3	-	-
18UEEC100	ES	Basic Electrical Engineering	3 - 0 - 0	3	50	100	3	-	-
18UCVC100	ES	Engineering Mechanics	2 - 2 - 0	3	50	100	3	-	-
18UMEC100	ES	Elements of Mechanical Engineering	2 - 0 - 0	2	50	50	2	-	-
18UPHL100	BS	Engineering Physics Lab	0 - 0 - 2	1	50	--	--	50	3
18UESL100	ES	Basic Engineering Skills Lab	0 - 0 - 2	1	50	--	--	50	3
18UHUC100	HU	Kannada	2- 0 -0	1	50	50	2		
18UHUA100	HU	Constitution of India & Professional Ethics	2- 0 - 0	Audit	100	--	--	--	--
Total			**17 - 6 - 4**	**19**	**500**	**500**		**100**	

BS- Basic Science, ES- Engg. Science, HU-Humanities & Mandatory Learning courses

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:53:46 +05'30'

II Semester B.E. (Common to all Branches)
Physics cycle

Course Code	Course Category	Course Title	Teaching		Examination				
			L-T-P (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
					Max. Marks	*Max. Marks	Duration in Hrs.	Max. Marks	Duration In Hrs.
18UMAC200	BS	Engineering Mathematics-II	3 - 2 - 0	4	50	100	3	-	-
18UPHC200	BS	Engineering Physics	3 - 2 - 0	4	50	100	3	-	-
18UEEC200	ES	Basic Electrical Engineering	3 - 0 - 0	3	50	100	3	-	-
18UCVC200	ES	Engineering Mechanics	2 - 2 - 0	3	50	100	3	-	-
18UMEC200	ES	Elements of Mechanical Engineering	2 - 0 - 0	2	50	50	2	-	-
18UPHL200	BS	Engineering Physics Lab	0 - 0 - 2	1	50	--	--	50	3
18UESL200	ES	Basic Engineering Skills Lab	0 - 0 - 2	1	50	--	--	50	3
18UHUC200	HU	Kannada	2- 0 -0	1	50	50	2		
18UHUA200	HU	Constitution of India & Professional Ethics	2- 0 - 0	Audit	100	--	--	--	--
Total			**17 - 6 - 4**	**19**	**500**	**500**		**100**	

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:54:03 +05'30'

18 Scheme

III Semester

Course Code	Course Category	Course Title	Teaching		Examination				
			L-T-P (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
					Max. Marks	*Max. Marks	Duration in Hrs.	Max. Marks	Duration in Hrs.
18UMAC300	BS	Engg. Mathematics-III	3 - 0 - 0	3	50	100	3	-	-
18UCVC300	PC	Building Construction	4 - 0 - 0	4	50	100	3	-	-
18UCVC301	PC	Mechanics of Materials	4 - 0 - 0	4	50	100	3	-	-
18UCVC302	PC	Fluid Mechanics	3 - 0 - 0	3	50	100	3	-	-
18UCVC303	PC	Surveying	4 - 0 - 0	4	50	100	3	--	--
18UCVC304	PC	Concrete Technology	3 - 0 - 0	3	50	100	3	--	--
18UCVL305	PC	Basic Material Testing Laboratory	0 - 0 - 3	1.5	50	--	--	50	3
18UCVL306	PC	Surveying Practice Laboratory	0 -0 - 3	1.5	50	--	--	50	3
	Total		**21 – 0 – 6**	**24**	**400**	**600**		**100**	

BS- Basic Science, PC- Program Core

KURAKUNDI RAGHAVENDRARAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:57:43 +05'30'

18 Scheme

IV Semester

Course Code	Course Category	Course Title	Teaching		Examination				
			L-T-P (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
					Max. Marks	*Max. Marks	Duration in Hrs.	Max. Marks	Duration in Hrs.
18UMAC400	BS	Engg. Mathematics-IV	3 - 0 - 0	3	50	100	3	-	-
18UCVC400	PC	Structural Analysis – I	4 - 0 - 0	4	50	100	3	-	-
18UCVC401	PC	Highway Engineering	4 - 0 - 0	4	50	100	3	-	-
18UCVC402	PC	Water supply Engineering	4 - 0 - 0	4	50	100	3	-	-
18UCVC403	PC	Building Planning & Drawing	2 - 0 - 2	3	50	100	3	--	--
18UCVC404	PC	Hydraulics and Hydraulic Machines	3 - 0 - 0	3	50	100	3	--	--
18UCVL405	PC	Fluid Mechanics Laboratory	0 - 0 - 3	1.5	50	--	--	50	3
18UCVL406	PC	Applied Engineering Geology Laboratory	0 -1- 2	1.5	50	--	--	50	3
18UCVL407	PC	Introductory Project	0 -0- 2	1	50	--	--	--	--
	Total		**20 -1 - 9**	**25**	**450**	**600**		**100**	

BS- Basic Science, PC- Program Core

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:58:00 +05'30'

18 Scheme

V Semester

Course Code	Course Category	Course Title	Teaching		Examination				
			L-T-P (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
					Max. Marks	*Max. Marks	Duration in Hrs.	Max. Marks	Duration in Hrs.
18UHUC500	HU	Management, Entrepreneurship and IPR	4 - 0 - 0	4	50	100	3	-	-
18UCVC500	PC	Structural Analysis-II	4 - 0 - 0	4	50	100	3	-	-
18UCVC501	PC	Design of RC Structural Elements	4 - 0 - 0	4	50	100	3	-	-
18UCVC502	PC	Geotechnical Engineering – I	3 - 0 - 0	3	50	100	3	-	-
18UCVC503	PC	Hydrology	3 - 0 - 0	3	50	100	3	--	--
18UCVE5XX	PE	Program Elective-1	3 - 0 - 0	3	50	100	3	--	--
18UCVL504	PC	Computer Aided Design Laboratory	0 - 0 - 3	1.5	50	--	--	50	3
18UCVL505	PC	Concrete and highway Laboratory	0 - 0 -3	1.5	50	--	--	50	3
18UCVL506	PC	Minor Project-1	0 - 0 -2	1	50	--	--	--	--
18UHUL507	HU	Soft skills/Aptitude	0 - 0 -2	1	50	--	--	--	--
Total			**21- 0 -10**	**26**	**500**	**600**		**100**	

HU- Humanities, PE-Program Elective, PC- Program Core

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:58:11 +05'30'

List of Program Elective 1

Course Code	Course Title
18UCVE515	Design of Masonry Structures
18UCVE516	Harbour, Dock & Tunnel Engineering
18UCVE517	Railway and Airport Engineering
18UCVE518	Watershed Management
18UCVE519	Alternative Building Materials
18UCVE520	Advanced Concrete Technology
18UCVE521	Photogrammetry and Remote Sensing

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:58:22 +05'30'

18 Scheme

VI Semester

Course Code	Course Category	Course Title	Teaching		Examination				
			L-T-P (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
					Max. Marks	*Max. Marks	Duration in Hrs.	Max. Marks	Duration In Hrs.
18UCVC600	PC	Quantity Surveying and Estimation	4 - 0 - 0	4	50	100	3	-	-
18UCVC601	PC	Geotechnical Engineering - II	4 - 0 - 0	4	50	100	3	-	-
18UCVE6XX	PE	Program elective 1	3 - 0 - 0	3	50	100	3	-	-
18UCVE6XX	PE	Program elective 2	3 - 0 - 0	3	50	100	3	-	-
18UCVO6XX	OE	Open Elective 1	3 - 0 - 0	3	50	100	3	--	--
18UCVL602	PC	Geotechnical Engineering Laboratory	0 - 0 - 3	1.5	50	--	--	50	3
18UCVL603	PC	Software Laboratory	0 - 0 - 3	1.5	50	--	--	50	3
18UCVL604	PC	Minor Project 2 (Extensive Survey project)	0 - 0 - 4	2	50	--	--	50	3
18UHUL605	HU	Soft skills/Aptitude	0 - 0 -2	1	50	--	--	--	--
Total			**17 - 0 -12**	**23**	**450**	**500**		**150**	

PC- Program Core, PE-Program Elective, HU- Humanities

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:58:38 +05'30'

List of Program Electives

Course Code	Course Title
18UCVE615	Matrix Method of Structural Analysis
18UCVE616	Design of Special RC Structures
18UCVE617	Advanced Structural Analysis
18UCVE619	Open channel Hydraulics

List of Open Elective

Course Code	**Course Title**
18UCVO601	Traffic Engineering

*** Open elective for VI Semester**

18UMAO675 Applied Mathematics – All Engineering Branches

KURAKUNDI RAGHAVENDRARAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:58:51 +05'30'

18 Scheme

VII Semester B. E.

Course Code	Course Category	Course Title	Teaching		Examination				
			L-T-P (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
					Max. Marks	*Max. Marks	Duration in Hrs.	Max. Marks	Duration In Hrs.
18UCVC700	PC	Wastewater Engineering	4 - 0 - 0	4	50	100	3	-	-
18UCVC701	PC	Design of Steel Structures	4 - 0 - 0	4	50	100	3	-	-
18UCVE7XX	PE	Program Elective-4	3 - 0 - 0	3	50	100	3	-	-
18UCVO7XX	OE	Open Elective 2	3 - 0 - 0	3	50	100	3	--	--
18UCVL702	PC	Major Project Phase-1	0- 0 -4	2	50	--	--	50	3
18UCVL703	PC	Internship	4 w e e k s	2	50	--	--	50	3
18UCVL704	PC	Environmental Engineering Laboratory	0 - 0 - 2	1	50	--	--	50	3
		Total	**14 - 0 - 6**	**19**	**350**	**400**		**150**	

PC- Program Core, PE-Program Elective, OE- Open Elective and HU- Humanities,

KURAKUNDI RAGHAVENDRARAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:59:04 +05'30'

List of Elective Courses

Course Code	Course Title
18UCVE714	Advanced design of RC Structures
18UCVE715	Introduction to Bridge Engineering
18UCVE716	Structural Dynamics
18UCVE718	Advanced Foundation Design
18UCVE724	Construction Contract Management
18UCVE725	Earthquake resistant structures
18UCVE726	Construction Equipment and Management
18UCVE727	Design of Prestressed Concrete Structures
18UCVE728	Urban Transport Planning

List of Open Elective Course

Course Code	Course Title
18UCVO701	Introduction to law for Engineers

CIE: Continuous Internal Evaluation **Semester End Examination**: Semester End Examination
L: Lecture **T**: Tutorials **P**: Practical
*Semester End Examination for theory courses is conducted for 100 marks and reduced to 50 marks.

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:59:16 +05'30'

18 Scheme
VIII Semester B. E.

Course Code	Course Category	Course Title	Teaching		Examination				
					CIE	Theory (SEE)		Practical (SEE)	
			L-T-P (Hrs/Week)	Credits	Max. Marks	*Max. Marks	Duration in Hrs.	Max. Marks	Duration In Hrs.
18UCVC800	PC	Water resources Engineering	4 - 0 - 0	4	50	100	3	-	-
18UCVE8XX	PE	Program Elective-5	3 - 0 - 0	3	50	100	3	-	-
18UCVO8XX	OE	Open Elective 3	3 - 0 - 0	3	50	100	3	--	--
18UCVL801	PC	Technical Seminar	0 - 0 - 2	1	50	--	--	--	--
18UCVL802	PC	Major Project Phase-2	0 – 0 - 12	7	50	--	--	50	3
	Total		**10 – 0 – 14**	**18**	**250**	**300**	**--**	**50**	**--**

PC- Program Core, PE-Program Elective and OE- Open Elective

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:59:28 +05'30'

List of Elective Courses

Course Code	Course Title
18UCVE818	Principles and Practice of Construction Project Management
18UCVE819	Ground Improvement Techniques
18UCVE825	Design of Reinforced Concrete Bridges
18UCVE826	Solid Waste Management
18UCVE827	Air Pollution Control
18UCVE828	Advanced Design of Steel Structure

List of Open Elective Course

Course Code	Course Title
18UCVO801	Remote Sensing and GIS

CIE: Continuous Internal Evaluation **Semester End Examination**: Semester End Examination
L: Lecture **T**: Tutorials **P**: Practical
*Semester End Examination for theory courses is conducted for 100 marks and reduced to 50 marks.

*** Open Elective for VIII Semester**
18UPHE876 Nanotechnology – All Engineering Branches

KURAKUNDI RAGHAVENDRARAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:59:42 +05'30'

HOD, Civil Engineering

SDM COLLEGE OF ENGINEERING AND TECHNOLOGY, DHARWAD

DEPARTMENT OF CIVIL ENGINEERING

SCHEME FOR POSTGRADUATE

KURAKUNDI RAGHAVENDRARAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 08:59:55 +05'30'

18 Scheme of Teaching and Examination

I Semester M. Tech.

Course Code	Course Title	Teaching		Examination				
		L-T-P (Hours/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration in hours
18PCDSC101	Computational Structural Mechanics – Classical and FE Approach	4-0-0	4	50	100	3		
18PCDSC102	Continuum Mechanics – Classical and FE Approach	4-0-0	4	50	100	3		
18PCDSExxx	Elective-1	4-0-0	4	50	100	3		
18PCDSExxx	Elective-2	4-0-0	4	50	100	3		
18PCDSExxx	Elective-3	4-0-0	4	50	100	3		
18PCDSL104	Cad Lab –Structural Analysis	0-0-3	2	50	-	-	50	3
18PCDSL105	**Seminar	0-0-3	1	100	-	-	-	-
Total		**20-0-6**	**23**	**400**	**500**		**50**	

CIE: Continuous Internal Evaluation **SEE**: Semester End Examination

L: Lecture **T**: Tutorials **P**: Practical

***SEE** for theory courses is conducted for 100 marks and reduced to 50 marks.

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 09:00:13 +05'30'

Course Code	Elective Courses
18PCDSE125	Structural Dynamics -Theory & Computations
18PCDSE126	Structural Optimization - Theory & Computations
18PCDSE127	AI and Expert Systems in Structural Engineering
18PCDSE128	Action and Response of Structural Systems
18PCDSE129	Geotechnical Aspects of Foundations and Earth Retaining Structures
18PCDSE130	Numerical Methods and Programming
18PCDSE131	Composite and Smart Materials

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 09:00:29 +05'30'

18 Scheme II Semester M. Tech.

Course Code	Course Title	Teaching		Examination				
		L-T-P (Hours/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration in hours
18PCDSC201	Structural Stability Analysis - Classical and FE Approach	4-0-0	4	50	100	3		
18PCDSC202	Advanced Design of Reinforced Concrete Structural Elements	4-0-0	4	50	100	3		
18PCDSExxx	Elective-4	4-0-0	4	50	100	3		
18PCDSExxx	Elective-5	4-0-0	4	50	100	3		
18PCDSExxx	Elective-6	4-0-0	4	50	100	3		
18PCDSL204	Cad Lab - FE Analysis	0-0-3	2	50	-	-	50	3
18PCDSL205	**Seminar	0-0-3	1	100	-	-	-	-
Total		**20-0-6**	**23**	**400**	**500**		**50**	

CIE: Continuous Internal Evaluation **SEE**: Semester End Examination

L: Lecture **T**: Tutorials **P**: Practical

***SEE** for theory courses is conducted for 100 marks and reduced to 50 marks.

KURAKUNDI RAGHAVENDRARAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 09:01:52 +05'30'

Course Code	Elective Courses
18PCDSE225	Analysis of Plates - Classical and FE Approach
18PCDSE226	Reliability Analysis and Design of Structural Elements
18PCDSE227	Advanced Design of Steel Structures
18PCDSE228	Design of Stack Tower and Water Storage Structural Systems
18PCDSE229	Seismic Resistant Design of Structural Systems
18PCDSE230	Advanced Structural Dynamics
18PCDSE231	Design of Tall Structures

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 09:02:03 +05'30'

18 Scheme III Semester M. Tech.

Course Code	Course Title	Teaching		Examination				
		L-T-P (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration in hours
18PCDSC301	Analysis and Design of Shell Roof Structures – Classical and FE Approach	4-0-0	4	50	100	3		
18PCDSExxx	Elective-7	4-0-0	4	50	100	3		
18PCDSL302/ 18PCDSExxx	Internship in Industry/R&D organization/ Elective 8	** Min 4 weeks during vacation after 2nd sem / 3-0-0	3	50/50	100	3	50	3
18PCDSL303	*** Project phase 1	0-0-15	9	50		-	50	3
Total		**11-0-15**	**20**	**200**	**200/300**		**50**	

CIE: Continuous Internal Evaluation **SEE**: Semester End Examination

L: Lecture **T**: Tutorials **P**: Practical

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 09:02:17 +05'30'

Course Code	Elective Courses
18PCDSE325	Design of Precast & Composite Structures
18PCDSE326	Advanced Mechanics of Materials
18PCDSE327	Advanced Design of Pre-Stressed Concrete Structures
18PCDSE328	Design of Substructures
18PCDSE329	Design of Structural Systems in Bridges

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 09:02:41 +05'30'

18 Scheme IV Semester M. Tech.

Course Code	Course Title	Teaching		Examination				
		L-T-P (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration in hours
18PCDSL401	Project Phase II	0-0-24	22	100	-	-	100	3
	Total	0-0-24	**22**	**100**	**-**	**-**	**100**	**-**

CIE: Continuous Internal Evaluation **SEE**: Semester End Examination

L: Lecture **T**: Tutorials **P**: Practical

***** SEE for theory courses is conducted for 100 marks and reduced to 50 marks.

****** Project phase-II: The students are expected to work on a project for the full semester in an industry or an institution

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 09:02:56 +05'30'

HOD, Civil Engineering

20 Scheme of Teaching and Examination

I Semester M. Tech.

Course Code	Course Title	Teaching		Examination				
		L-T-P (Hrs./Wk.)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration in hours
20PRMIC100	Research Methodology and IPR	2-0-0	2	50	50	2		
20PCDSC101	Computational Structural Mechanics – Classical and FE Approach	4-0-0	4	50	100	3		
20PCDSC102	Continuum Mechanics – Classical and FE Approach	4-0-0	4	50	100	3		
20PCDSC103	Structural Dynamics -Theory & Computations	4-0-0	4	50	100	3		
20PCDSExxx	Elective-1	4-0-0	4	50	100	3		
20PCDSL104	Cad Lab –Structural Analysis	0-0-3	2	50	-	-	50	3
20PCDSL105	**Seminar	0-0-2	1	50	-	-	-	-
Total		**18-0-5**	**21**	**350**	**450**		**50**	

CIE: Continuous Internal Evaluation **SEE**: Semester End Examination

L: Lecture **T**: Tutorials **P**: Practical

***SEE** for theory courses is conducted for 100 marks and reduced to 50 marks.

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 09:03:16 +05'30'

List of Electives

Course Code	Elective Courses
20PCDSE125	Structural Optimization - Theory & Computations
20PCDSE126	AI and Expert Systems in Structural Engineering
20PCDSE127	Action and Response of Structural Systems
20PCDSE128	Geotechnical Aspects of Foundations and Earth Retaining Structures
20PCDSE129	Numerical Methods and Programming
20PCDSE130	Composite and Smart Materials

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 09:03:27 +05'30'

20 Scheme II Semester MTech.

Course Code	Course Title	Teaching		Examination				
		L-T-P (Hours/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration in hours
20PCDSC201	Structural Stability Analysis - Classical and FE Approach	4-0-0	4	50	100	3		
20PCDSC202	Advanced Design of Reinforced Concrete Structural Elements	4-0-0	4	50	100	3		
20PCDSExxx	Elective-2	4-0-0	4	50	100	3		
20PCDSExxx	Elective-3	4-0-0	4	50	100	3		
20PCDSExxx	Elective-4	4-0-0	4	50	100	3		
20PCDSL204	Cad Lab - FE Analysis	0-0-3	2	50	-	-	50	3
20PCDSL205	**Seminar	0-0-2	1	50	-	-	-	-
Total		**20-0-5**	**23**	**350**	**500**		**50**	

CIE: Continuous Internal Evaluation **SEE**: Semester End Examination

L: Lecture **T**: Tutorials **P**: Practical

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 09:03:40 +05'30'

List of Electives

Course Code	Elective Courses
20PCDSE225	Analysis of Plates - Classical and FE Approach
20PCDSE226	Reliability Analysis and Design of Structural Elements
20PCDSE227	Advanced Design of Steel Structures
20PCDSE228	Design of Stack Tower and Water Storage Structural Systems
20PCDSE229	Seismic Resistant Design of Structural Systems
20PCDSE230	Advanced Structural Dynamics
20PCDSE231	Design of Tall Structures

KURAKUNDI RAGHAVENDRAR AO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 09:03:51 +05'30'

20 Scheme III Semester M. Tech.

Course Code	Course Title	Teaching		Examination				
		L-T-P (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration in hours
20PCDSC301	Analysis and Design of Shell Roof Structures – Classical and FE Approach	4-0-0	4	50	100	3		
20PCDSExxx	Elective-7	3-0-0	3	50	100	3		
20PCDSExxx	Elective-8	3-0-0	3	50	100	3		
OR								
20PCDSL302	Internship in Industry/R&D organization	** Min 4 weeks During vacation after 2nd sem.	3	50	-	-	100	3
20PCDSL303	*** Project phase 1	0-0-15	8	50		-	50	3
Total		**10/7-0-15 (4 weeks)**	**18**	**200**	**200/300**		**100/50**	

CIE: Continuous Internal Evaluation **SEE**: Semester End Examination

L: Lecture **T**: Tutorials **P**: Practical

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 09:04:05 +05'30'

Course Code	Elective Courses
20PCDSE325	Design of Precast & Composite Structures
20PCDSE326	Advanced Mechanics of Materials
20PCDSE327	Advanced Design of Pre-Stressed Concrete Structures
20PCDSE328	Design of Substructures
20PCDSE329	Design of Structural Systems In Bridges

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 09:04:16 +05'30'

20 Scheme IV Semester M. Tech.

Course Code	Course Title	Teaching		Examination				
		L-T-P (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration in hours
20PCDSL401	Project Phase II	0-0-20	22	100	-	-	100	3
Total		0-0-20	**22**	**100**	**-**	**-**	**100**	**-**

CIE: Continuous Internal Evaluation **SEE**: Semester End Examination

L: Lecture **T**: Tutorials **P**: Practical

KURAKUNDI RAGHAVENDRA RAO GOPINATH

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023.02.04 09:04:30 +05'30'

HOD, Civil Engineering