

**Agenda for 11<sup>th</sup> Meeting of Board of Studies for B. Tech.**  
**(Civil Engineering) on 15.07.2020 at 10:00 AM**

1. Action Taken Report on Minutes/ Resolutions of 10<sup>th</sup> BOS Meeting
2. Report on Implementation of Autonomy with Respect to Syllabi & Academic Regulations for IV B.Tech. (under SVEC16) and I B.Tech under SVEC-19 regulations.
3. Academic Calendar for I, II, III and IV Year B.Tech. for 2020-21
4. Administrative setup for B.Tech. Program
5. Syllabi with Course Objectives & Course Outcomes, Lesson Plans and Model Question Papers for Courses of **II B.Tech.** (Under SVEC19)
6. Panel of Examiners for Question Paper Setting for II B.Tech. Courses (Under SVEC19)
7. Amendments to SVEC19 B.Tech. Academic Regulations
8. Implementation of Teaching, Learning and Evaluation Process
9. Substitute Courses
10. Research and Consultancy
11. Faculty Development Activities
12. Staff Development Activities
13. Student Development Activities
14. Student Support Systems
15. Extension Activities
16. Any other Item



**Dr. O. ESWARA REDDY**  
Chairman  
BOS in Civil Engineering

**11<sup>th</sup> Meeting of Board of Studies**  
**for B.Tech. in Civil Engineering on 15.07.2020 @ 10:00 AM**

**MINUTES**

**Members Present:**

S. No.	Name	Designation	Signature
1.	<b>Dr. O. Eswara Reddy</b> Professor and HoD, Dept. of Civil Engineering, Sree Vidyanikethan Engineering College (Autonomous), Tirupati - 517 102.	Chairman	
2.	<b>Dr. T. D. Gunneswara Rao</b> Professor, Department of Civil Engg., National Institute of Technology, Warangal - 506004.	External Member (Academics)	
3.	<b>Dr. P. Mallikarjuna</b> Professor, Dept. of Civil Engineering, S. V. U. College of Engineering, S. V. University, Tirupati-517502	External Member (Academics)	
4.	<b>Dr. P. R. Bhanu Murthy</b> Professor & BOS Chairman (PG), Department of Civil Engineering, JNTUA University Anantapur, Ananthapuramu-515 002.	External Member (Academics)	
5.	<b>Mr. A. T. Samuel</b> Director STUP Consultants Pvt. Ltd., A1 - Tower, 5th & 6th Floors, Golden Enclave, HAL Airport Road, Bengaluru-560 017.	External Member (Industry)	
6.	<b>Mr. P. S. Harshit</b> Senior Engineer (Technical) Reinforced Soil Wall Unit, Maccaferri Environmental Solutions Pvt. Ltd, Golf Course Extension Road , Sector - 66, Gurgaon, Haryana - 122001.	External Member (Alumni)	
7.	<b>Dr. P. Ramesh</b> Associate Professor, Dept. of Civil Engineering, SVEC, Tirupati.	Internal Member (Academics)	
8.	<b>Dr. D. Sreenivasulu</b> Associate Professor, Dept. of Civil Engineering, SVEC, Tirupati.	Internal Member (Academics)	
9.	<b>Dr. Hemadri Prasad Raju</b> Associate Professor, Dept. of Civil Engineering, SVEC, Tirupati.	Internal Member (Academics)	
10.	<b>Mr. D. Srinivasa Murthy</b> Assistant Professor, Dept. of Civil Engineering, SVEC, Tirupati.	Internal Member (Academics)	
11.	<b>Mrs. G. Gnana Prasanna</b> Assistant Professor, Dept. of Civil Engineering, SVEC, Tirupati.	Internal Member (Academics)	
12.	<b>Mr. V. Prem Kumar,</b> Assistant Professor, Dept. of Civil Engineering, SVEC, Tirupati.	Internal Member (Academics)	
13.	<b>Mr. M. Gokulnath</b> Assistant Professor, Dept. of Civil Engineering, SVEC, Tirupati.	Internal Member (Academics)	
14.	<b>Mr. D. V. Purushotham</b> Assistant Professor, Dept. of Civil Engineering, SVEC, Tirupati.	Internal Member (Academics)	
15.	<b>Mr. M. P. Charan Sai</b> Assistant Professor, Dept. of Civil Engineering, SVEC, Tirupati.	Internal Member (Academics)	
16.	<b>Mr. Manish Dutta</b> Assistant Professor, Dept. of Civil Engineering, SVEC, Tirupati.	Internal Member (Academics)	

**1. Action Taken Report on "Minutes of BOS Meeting held on 10-06-2019":**

Chairman Dr. O. Eswara Reddy apprised the members the Minutes/Resolutions of BOS Meeting held on 10-06-2019.

<b>Minutes of BOS Meeting held on 10-06-2019</b>	<b>Action Taken</b>
Syllabi of II, III & IV B.Tech. Civil Engineering of SVEC16 Regulations were approved in the Board of Studies in Civil Engineering Meeting held on 25-03-2017.	Implemented for IV B.Tech. Civil Engineering I & II Semesters from the academic year 2019-2020.
Vision and Mission of the Department, PEOs, POs & PSOs and Course Structure (All 4 years) of B. Tech. Program in Civil Engineering under SVEC-19 Curriculum.	Implemented from the academic year 2019-20.
Syllabi of I B.Tech. Civil Engineering of SVEC-19 Regulations.	Implemented for I B.Tech. Civil Engineering I & II Semesters from the academic year 2019-2020.
Panels of Question Paper Setters and Model Question Papers for IV B.Tech. Civil Engineering (SVEC16 Regulations) and I B.Tech. Civil Engineering (SVEC19 Regulations).	Panels and Model Question Papers were submitted to the Principal.
B.Tech. Academic Calendar for 2019-20	Implemented for I, II, III and IV B.Tech. for the academic year 2019-2020.
Administrative Setup of Curriculum Development for B.Tech. in Civil Engineering	Implemented from the academic year 2014-2015.

The above Action Taken Report is noted for record.

**2. Report on Implementation of Autonomy with respect to Syllabi and Regulations (SVEC16 Regulations: IV B.Tech. CE I & II Semesters & SVEC19 Regulations: I B.Tech. CE I & II Semesters):**

Chairman-BOS presented a report on implementation of autonomy to the members. The board has congratulated the college authorities for successful implementation of SVEC16 regulations and syllabi for III B.Tech. CE I & II semesters and SVEC19 regulations and syllabi for I B.Tech. CE I & II semesters (**ANNEXURE-I**).

**3. Academic Calendar for the Year 2020-21:**

Members of B.O.S have been apprised that the Chairman, Academic Council is empowered to prepare the Academic calendar pertaining to I, II, III and IV B.Tech program for the academic year 2020-21, in accordance with the A. P. State Government/APSICHE/JNTUA, Ananthapuramu directives.

**4. Administrative Setup for B.Tech. Program in Civil Engineering:**

The BOS members were apprised the administrative set-up followed in curriculum development for B.Tech. Civil Engineering program since the academic year 2014-2015. Members appreciated the process.

**5. Syllabi with Course Objectives & Course Outcomes, Lesson Plans and Model Question Papers for Courses of II B.Tech. Civil Engineering (Under SVEC-19):**

BOS Members approved the proposed Syllabi with Course Objectives & Outcomes, Lesson Plans and Question Papers of civil engineering core courses of II B. Tech. Civil Engineering of SVEC19 Regulations (**ANNEXURE-II**). Members have

appreciated the efforts of Chairman and Internal Members of BOS and the Department in framing syllabi in a best possible way. Members were apprised of the Syllabi of other courses of II B.Tech. Civil Engineering. In addition, the following suggestions are made for further improvement.

1. Suggested to maintain the lab course evaluation marks distribution similar to that of theory courses i.e., 40 Marks (Internal) and 60 Marks (External) instead of 50 Marks (Internal) and 50 Marks (External).
2. The title of the course "Mechanics of Solids" may be changed to "Strength of Materials".
3. Course codes may be redesigned incorporating the concerned branch i.e., CE, course type i.e., PC/PE/EC/HS/BS along with the semester instead of 19BT30101.
4. Theory and lab should be offered as a single course as per AICTE Model Curriculum.
5. Theory and lab titles should go in tandem
6. Course content of Fluid Mechanics course should be rearranged as suggested below.
  - a) UNIT-I: Topics on "Hydrostatic forces on curved surfaces, Stability of floating bodies" should be added at the end.
  - b) UNIT-II:
    - Topic on "vortex flows" after Bernoulli's equation and application.
    - Suggested to remove topics on "Venturimeter, Orificemeter and Pitot tube" and the same may be included in UNIT –III.
    - Topics on "Moment of momentum equation and its application, Torque on Sprinklers" should be added at the end of the unit.
  - c) UNIT-III:
    - Suggested to add topics on "Venturimeter, Orificemeter and Pitot tube" before Orifices and mouthpieces.
    - Topic on "Moody's chart" should be moved to Unit-IV.
    - Topic on "Latest velocity measuring devices" can be replaced with "Latest flow measuring devices".
  - d) UNIT-IV:
    - Move the topic on "Hagen Poiseuille equation" from the present position to the position immediately after laminar flow through circular pipes.
    - Topic on "Moody's chart" should be added at the end of the unit.
  - e) UNIT-V:
    - Suggested to replace the topic on "Forces on submerged bodies" with "Resistance on floating and submerged bodies"
    - Suggested to remove the topic on "Drag and lift".
  - f) ADDITIONAL LEARNING RESOURCES:
    - Suggested to add the following textbook as additional reference:  
 Streeter, V. L., Wylie, E. B. and Bedford, K. W., *Fluid Mechanics*, McGraw Hill Book Company, New York, 9<sup>th</sup> Edition, Indian Edition, 2017.
7. Reorganize the units in the course on "Mechanics of Solids". Unit-I: Principal Stresses and Strains and Theories of Failure should be offered as Unit-IV after the next first three units. The following text book may be added in additional learning resources.  
 T. D. Gunneswara Rao and Mudimby Andal, "Strength of Materials: Fundamentals and Applications, Cambridge University Press, 1<sup>st</sup> Edition, 2018.
8. Relevant IS Codes should be added for reference at the end in syllabus of the lab course on "Civil Engineering Materials and Construction Technology Workshop"
9. Suggested to discuss the effects of Poisson's ratio and modulus of elasticity on strength of materials during the delivery of the course on "Strength of Materials Lab"

10. Suggested to discuss the effects of pH value of sewage, alkalinity, water quality should be explained during the delivery of the course on "Environmental Engineering Lab"
11. Suggested to replace the topic on "Drinking water standards" with "Drinking water quality analysis and standards" in Unit-I of the theory course on "Environmental Engineering".
12. Suggested to discuss the topic on "Water Balance Cycle" during the delivery of the course on "Environmental Engineering"
13. Suggested to develop a Theme Park on "Sustainability and Water Balance Cycle" in an area of 1 to 2 acres.
14. Suggested to add the topics on "Flow around submerged bodies, Drag and lift" at the end of Unit-I, "Surges" at the end of Unit-II of the theory course on "Hydraulic Engineering"
15. Suggested to add the topic on "Moving loads" at the start of Unit-V and its title of the theory course on "Structural Analysis".
16. Suggested to remove the pre-requisite for the mandatory theory course on "Environmental Science".

**6. Panel of Examiners for Question Paper Setting for II B.Tech. Civil Engineering Courses (Under SVEC-19):**

Members were apprised of the Panel of Examiners for Question Paper Setting for core courses of II B.Tech. in Civil Engineering (SVEC19) (**ANNEXURE-III**). Resolved to authorize the Chairman, BOS in Civil Engineering to make changes if necessary in Panel of Examiners for Question Paper Setting for each core theory courses of II B.Tech. and furnish to the Chairman, Academic Council for further action within fifteen days after the commencement of the semester.

**7. Amendments to SVEC19 B.Tech. Academic Regulations:**

Members were apprised of the proposed amendments to SVEC19 B.Tech. Academic Regulations (**ANNEXURE-IV**). Members appreciated and approved the amendments for implementation with effect from the academic year 2020-21. In addition, the following suggestions are made for further improvement.

- Clause 23. Re-Registration for Improvement of Internal Marks:  
A limit on the maximum number of courses permitted for reregistration of failed courses after 4 years may be included.

**8. Implementation of Teaching, Learning and Evaluation Process:**

Members were apprised of the workload distribution, time tables, teaching plan and schedules. The members have appreciated the good practices followed by the department in conducting diagnostic test, formative tests, remedial and reinforcement classes as well as offering of the necessary add-on courses (**ANNEXURE-V**).

For further improvement of student curriculum, it is suggested to concentrate more on reinforcement classes, student seminars, workshops, symposia and technical paper presentations.

**9. Substitute Subjects:**

Resolved to authorize the Chairman, BOS in Civil Engineering to finalize the substitute subjects as and when required and forward the same to the Chairman, Academic Council for further action.

**10. Research and Consultancy:**

Members were apprised of the Research Initiatives at the Departmental level. They suggested certain thrust areas in which research proposals may be sent to the funding agencies. (**ANNEXURE-VI**).

**11. Faculty Development Activities:**

Members noted the list of publications and paper presentations by the members of the faculty. Also they were informed of the incentives given by the Management for their academic achievements (**ANNEXURE-VII**).

The faculty members are advised to publish only in reputed refereed journals having good impact factor.

Members were apprised of the faculty who had attended and organized the Faculty Development Programmes. Members suggested the thrust areas in which faculty are to be trained. Further, the Members taken note of Training Need Analysis for the academic year 2020-21. Resolved to authorize the Chairman, BOS in Civil Engineering to approve the TNA after updation by the head of the department as and when required.

Members noted the feedback mechanism followed by the Department for monitoring and improvement in teaching.

**12. Staff Development Activities:**

Members were apprised the staff development programmes attended by the non-teaching personnel to improve their productive outcome for the benefit of self and department. Further, they took note of the staff development programmes organized by the department and TNA for the academic year 2020-21 (**ANNEXURE-VIII**).

**13. Student Development Activities:**

Members were informed about equity action plan & remediation, guest/expert lectures, industrial/site visits organized by the Department for the benefit of students. (**ANNEXURE-IX**).

Members took note of the paper presentations by the students at National level Seminar/Symposia/Conferences etc. and in Mohana Mantra, a Student National Level Techno Cultural Fest Symposium conducted every year in the College.

Members were apprised the prizes, awards and recognitions achieved by the students both in co-curricular and extra-curricular activities. Members have expressed their satisfaction regarding the student development activities.

**14. Student Support Systems:**

Members took note of the counseling mechanisms followed for overall improvement of the students and also the Campus Placement Related Skills (CPRS) programme conducted for better performance in placement related activities. They were apprised of the details of placement, QEEE training and training on Entrepreneurship during the last one year (**ANNEXURE-X**).

**15. Extension Activities:**

Members were informed about the students' active participation in various extension activities like NSS, blood donation camps, outreach activities, American Society of Civil Engineers Sree Vidyanikethan Engineering College (ASCE SVEC) Student Chapter activities, Indian Geotechnical Society Sree Vidyanikethan Engineering College (IGS SVEC) Student Chapter activities and Intellectual Association of Civil Engineers (IACE) activities setc. (**ANNEXURE-XI**).

Meeting concluded with thanks to the Members.



**Dr. O. Eswara Reddy**  
Chairman  
Board of Studies in Civil Engineering



# SREE VIDYANIKETHAN ENGINEERING COLLEGE (AUTONOMOUS)

Sree Sainath Nagar, Tirupati

## Department of Civil Engineering

### Approved Course Structure

**Program: B.Tech.- Civil Engineering**

**Regulations: SVEC-19**

Mandatory Induction Program	03 Weeks Duration
Induction program offered before commencement of the I-Semester course work	Physical Activity
	Creative Arts
	Universal Human Values
	Literary
	Proficiency Modules
	Lectures by Eminent People
	Visits to Local Areas
	Familiarization to Department/Branch and Innovations

#### I B.Tech I-Semester

S. No.	Course Code	Course Title	Contact Periods per Week				Credits (C)	Scheme of Examination Max. Marks		
			L	T	P	Total		Int. Marks	Ext. Marks	Total Marks
1.	19BT1BS01	Differential Equations and Multivariable Calculus	3	1	-	4	4	40	60	100
2.	19BT1BS04	Engineering Chemistry	3	-	-	3	3	40	60	100
3.	19BT1HS01	Communicative English	3	-	-	3	3	40	60	100
4.	19BT10501	Programming for Problem Solving	3	1	-	4	4	40	60	100
5.	19BT1BS32	Engineering Chemistry Lab	-	-	2	2	1	50	50	100
6.	19BT1HS31	Communicative English Lab	-	-	2	2	1	50	50	100
7.	19BT10331	Computer Aided Engineering Drawing	-	1	2	3	2	50	50	100
8.	19BT10531	Programming for Problem Solving Lab	-	-	2	2	1	50	50	100
<b>Total</b>			<b>12</b>	<b>3</b>	<b>8</b>	<b>23</b>	<b>19</b>	<b>360</b>	<b>440</b>	<b>800</b>

### I B.Tech II–Semester

S. No.	Course Code	Course Title	Contact Periods per Week				Credits (C)	Scheme of Examination Max. Marks		
			L	T	P	Total		Int. Marks	Ext. Marks	Total Marks
1.	19BT2BS01	Transformation Techniques and Linear Algebra	3	1	-	4	4	40	60	100
2.	19BT1BS02	Biology for Engineers	2	-	-	2	2	40	60	100
3.	19BT2BS02	Applied Physics	3	-	-	3	3	40	60	100
4.	19BT10201	Basic Electrical and Electronics Engineering	3	-	-	3	3	40	60	100
5.	19BT20101	Civil Engineering Materials and Concrete Technology	3	-	-	3	3	40	60	100
6.	19BT20102	Engineering Mechanics	3	1	-	4	4	40	60	100
7.	19BT2BS31	Applied Physics Lab	-	-	2	2	1	50	50	100
8.	19BT10231	Basic Electrical and Electronics Engineering Lab	-	-	2	2	1	50	50	100
9.	19BT20331	Engineering Workshop	-	-	2	2	1	50	50	100
10.	19BT20131	Engineering Geology Lab	-	-	2	2	1	50	50	100
<b>Total</b>			<b>17</b>	<b>2</b>	<b>8</b>	<b>27</b>	<b>23</b>	<b>440</b>	<b>560</b>	<b>1000</b>
<b>11</b>	19BT1AC01	Spoken English	2	-	-	2	-	-	-	-

### II B.Tech I–Semester

S. No.	Course Code	Course Title	Contact Periods per Week				Credits (c)	Scheme of Examination Max. Marks		
			L	T	P	Total		Int. Marks	Ext. Marks	Total Marks
1.	19BT3BS01	Numerical Methods, Probability and Statistics	3	1	-	4	4	40	60	100
2.	19BT30101	Construction, Planning and Project Management	3	-	-	3	3	40	60	100
3.	19BT30102	Fluid Mechanics	3	-	-	3	3	40	60	100
4.	19BT30103	Mechanics of Solids	3	1	-	4	4	40	60	100
5.	19BT30104	Surveying	3	-	-	3	3	40	60	100
6.	19BT3HS31	Soft Skills Lab	-	-	2	2	1	50	50	100
7.	19BT30131	Civil Engineering Materials and Construction Technology Workshop	-	-	2	2	1	50	50	100
8.	19BT30132	Strength of Materials Lab	-	-	2	2	1	50	50	100
9.	19BT30133	Surveying Lab	-	-	2	2	1	50	50	100
<b>Total</b>			<b>15</b>	<b>2</b>	<b>8</b>	<b>25</b>	<b>21</b>	<b>400</b>	<b>500</b>	<b>900</b>
10.	19BT315AC	Design Thinking	2	-	-	2	-	-	-	-



### II B.Tech II–Semester

S. No.	Course Code	Course Title	Contact Periods per Week				Credits (C)	Scheme of Examination Max. Marks		
			L	T	P	Total		Int. Marks	Ext. Marks	Total Marks
1.	19BT40101	Engineering Hydrology	3	-	-	3	3	40	60	100
2.	19BT40102	Environmental Engineering	3	-	-	3	3	40	60	100
3.	19BT40103	Hydraulic Engineering	3	-	-	3	3	40	60	100
4.	19BT40104	Soil Mechanics	3	-	-	3	3	40	60	100
5.	19BT40105	Structural Analysis	3	1	-	4	4	40	60	100
6.	<b>Open Elective-2</b>		3	-	-	3	3	40	60	100
7.	19BT40131	Environmental Engineering Lab	-	-	2	2	1	50	50	100
8.	19BT40132	Fluid Mechanics and Hydraulic Machinery Lab	-	-	2	2	1	50	50	100
9.	19BT40133	Geotechnical Engineering Lab	-	-	2	2	1	50	50	100
<b>Total</b>			<b>18</b>	<b>1</b>	<b>6</b>	<b>25</b>	<b>22</b>	<b>390</b>	<b>510</b>	<b>900</b>
10.	19BT3MC01	Environmental Science	2	-	-	2	-	40	-	40

### III B.Tech I–Semester

S. No.	Course Code	Course Title	Contact Periods per Week				Credits (C)	Scheme of Examination Max. Marks		
			L	T	P	Total		Int. Marks	Ext. Marks	Total Marks
1.	19BT50101	Irrigation Engineering and Hydraulic Structures	3	-	-	3	3	40	60	100
2.	19BT50102	Foundation Engineering	3	-	-	3	3	40	60	100
3.	19BT50103	Reinforced Cement Concrete Structures	3	-	-	3	3	40	60	100
4.	19BT50104	Transportation Engineering	3	-	-	3	3	40	60	100
5.	<b>Open Elective-1</b>		3	-	-	3	3	40	60	100
6.	<b>Interdisciplinary Elective- 1</b>		3	-	-	3	3	40	60	100
	19BT50443	Principles of Image Processing								
	19BT60205	Energy Audit, Conservation and Management								
	19BT70303	Computational Fluid Dynamics								
	19BT50105	Construction Equipment and Automation								
	19BT50106	Pipeline Engineering								
7.	19BT50131	Computer Aided Building Planning and Drawing	-	-	2	2	1	50	50	100
8.	19BT50132	Transportation Engineering Lab	-	-	2	2	1	50	50	100
9.	19BT50133	Socially Relevant Project-1	-	-	-	-	1	50	50	100
<b>Total</b>			<b>18</b>	<b>-</b>	<b>4</b>	<b>22</b>	<b>21</b>	<b>390</b>	<b>510</b>	<b>900</b>
10.	19BT503AC	Foundations of-Entrepreneurship	2	-	-	2	-	-	-	-

### III B.Tech II–Semester

S. No.	Course Code	Course Title	Contact Periods per Week				Credits (C)	Scheme of Examination Max. Marks		
			L	T	P	Total		Int. Marks	Ext. Marks	Total Marks
1.	19BT6HS02	Organizational Behavior	3	-	-	3	3	40	60	100
2.	19BT60101	Steel Structures	3	-	-	3	3	40	60	100
3.	<b>Professional Elective-1</b>									
	19BT60102	Advanced Structural Analysis								
	19BT60103	Advanced Surveying								
	19BT60104	Air and Noise Pollution and Control	3	-	-	3	3	40	60	100
	19BT60105	Architecture and Town Planning								
	19BT60106	Ground Improvement Techniques								
	19BT60107	Urban Stormwater Management								
	19BT60108	Railway Engineering								
4.	<b>Professional Elective-2</b>									
	19BT60109	Advanced Reinforced Cement Concrete Structures								
	19BT60110	Geoenvironmental Engineering								
	19BT60111	Global Positioning System (GPS)								
	19BT60112	Groundwater Development and Management	3	-	-	3	3	40	60	100
	19BT60113	Rehabilitation and Retrofitting of Structures								
	19BT60114	Solid and Hazardous Waste Management								
	19BT60115	Transportation Planning and Management								
5.	<b>Professional Elective-3</b>									
	19BT60116	Earthquake Resistant Design of Structures								
	19BT60117	Highway Construction and Maintenance								
	19BT60118	Industrial Wastewater Treatment								
	19BT60119	Infrastructure Development and Management	3	-	-	3	3	40	60	100
	19BT60120	Land Survey and Real Estate Development								
	19BT60121	Soil Dynamics and Machine Foundations								
	19BT60122	Sustainable Water Resources Development								
	<b>Interdisciplinary Elective-2</b>									
	19BT60313	Optimization Techniques								
	19BT60343	Thermodynamics and Heat Transfer								
6.	19BT60123	Fire Engineering	3	-	-	3	3	40	60	100
	19BT60124	Intelligent Transportation Systems								
	19BT60125	Smart Materials and Structures								
7.	19BT61531	Internet of Things (IoT) Lab	-	1	2	3	2	50	50	100
8.	19BT60131	Civil Engineering Software Lab	-	-	2	2	1	50	50	100
9.	19BT60132	Socially Relevant Project-2	-	-	-	-	1	50	50	100
<b>Total</b>			<b>18</b>	<b>1</b>	<b>4</b>	<b>23</b>	<b>22</b>	<b>390</b>	<b>510</b>	<b>900</b>
10.	19BT5MC01	Universal Human Values	2	-	-	2	-	40	-	40

### IV B.Tech I–Semester

S. No.	Course Code	Course Title	Contact Periods per Week				Credits (C)	Scheme of Examination Max. Marks		
			L	T	P	Total		Int. Marks	Ext. Marks	Total Marks
1.	19BT6HS01	Principles of Business Economics and Accountancy	3	-	-	3	3	40	60	100
2.	19BT70101	Estimation and Quantity Surveying	3	-	-	3	3	40	60	100
3.	19BT70102	Geospatial Technologies	3	-	-	3	3	40	60	100
4.	<b>Professional Elective-4</b>									
	19BT70103	Advanced Foundation Engineering	3	-	-	3	3	40	60	100
	19BT70104	Advanced Steel Structures								
	19BT70105	Environmental Hydraulics								
	19BT70106	Pavement Analysis and Design								
	19BT70107	Prestressed Concrete								
	19BT70108	River Engineering and River Basin Management								
	19BT70109	Structural Health Monitoring								
5.	<b>Professional Elective-5</b>									
	19BT70110	Analysis and Design of Composite Structures	3	-	-	3	3	40	60	100
	19BT70111	Bridge Engineering								
	19BT70112	Civil Infrastructure for Smart City Development								
	19BT70113	Environmental Impact Assessment and Management								
	19BT70114	Geotechnics for Underground Structures								
	19BT70115	Traffic Engineering and Management								
	19BT70116	Water Resources Systems Planning and Management								
6.	19BT7MOOC	MOOC	-	-	-	-	3	-	100	100
7.	19BT70131	Remote Sensing and Geographical Information Systems Lab	-	-	2	2	1	50	50	100
8.	19BT70132	Computer Aided Design and Detailing Lab	-	-	2	2	1	50	50	100
9.	19BT70133	Internship	-	-	-	-	2	--	100	100
<b>Total</b>			<b>15</b>	<b>-</b>	<b>4</b>	<b>19</b>	<b>22</b>	<b>300</b>	<b>600</b>	<b>900</b>
	19BT701A C	Spread Sheet Applications in Civil Engineering	-	-	2	2	-	-	-	-

\* Student shall undertake the Internship in Industry/National Laboratories/Academic Institutions for a minimum period of 4 weeks.

### IV B.Tech II–Semester

S. No.	Course Code	Course Title	Contact Periods per Week				Credits (C)	Scheme of Examination Max. Marks		
			L	T	P	Total		Int. Marks	Ext. Marks	Total Marks
1.	19BT80131	Project Work	-	-	-	-	10	100	100	200
<b>Total</b>			<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>10</b>	<b>100</b>	<b>100</b>	<b>200</b>

**LIST OF COURSES FOR**

**OPEN ELECTIVE-1 and OPEN ELECTIVE-2**

Course Code	Open Elective -1	Course Code	Open Elective -2
19BT4BS01	Material Science	19BT4HS01	Banking and Insurance
19BT4HS02	Business Communication and Career Skills	19BT4HS03	Cost Accounting and Financial Management
19BT4HS04	Entrepreneurship for Micro, Small and Medium Enterprises	19BT4HS05	Gender and Environment
19BT4HS06	German Language	19BT4HS07	Indian Economy
19BT4HS08	Indian History	19BT4HS09	Life Skills
19BT4HS10	Personality Development	19BT4HS11	Professional Ethics
19BT4HS12	Women Empowerment	19BT4HS13	Indian Tradition and Culture
19BT4HS14	Constitution of India	19BT40106	Disaster Mitigation and Management
19BT40205	Reliability and Safety Engineering	19BT40107	Sustainable Engineering
19BT50107	Environmental Pollution and Control	19BT40108	Contract Laws and Regulations
19BT50108	Planning for Sustainable Development	19BT40306	Global Strategy and Technology
19BT50109	Rural Technology	19BT40307	Management Science
19BT50505	Ethical Hacking	19BT40504	Cyber Laws and Security
19BT51207	AI in Healthcare	19BT50208	Intellectual Property Rights
19BT51506	Bioinformatics	19BT50409	Green Technologies

**MINOR/HONORS DEGREE**

**IN GREEN TECHNOLOGY AND SUSTAINABLE ENGINEERING**

Semester	COURSE CODE	Course Title	Contact Periods per week				C
			L	T	P	Total	
III B.Tech. I-Sem	19BT40107	Sustainable Engineering	3	-	-	3	3
	19BT50409	Green Technologies	3	-	-	3	3
III B.Tech. II-Sem	19BT60126	Environmental Sustainability	3	-	-	3	3
	19BT60127	Sustainable Energy Systems	3	-	-	3	3
	19BT60128	Sustainability in The Built Environment	3	-	-	3	3
IV B.Tech. I-Sem	19BT70117	Environmental Economics	3	-	-	3	3
	19BT70118	Sustainable Cities	3	-	-	3	3
	19BT70119	Sustainable Design of Technology Systems	3	-	-	3	3

**Note:** Students opting for the above Minor/Honors Degree shall not register for the courses "Green Technologies" and "Sustainable Engineering" offered under open electives.

*O. P. ...*

**BOS, Chairman**



**SREE VIDYANIKETHAN ENGINEERING COLLEGE**  
(AUTONOMOUS)

Sree Sainath Nagar, Tirupati

**Department of Civil Engineering**

**LIST OF NEW COURSES INTRODUCED**

**Program: B.Tech.- Civil Engineering**

**Regulations: SVEC-19**

Department	Course Code	Name of the course
CE	19BT1AC01	Spoken English
CE	19BT1BS02	Biology for Engineers
CE	19BT10201	Basic Electrical and Electronics Engineering
CE	19BT10231	Basic Electrical and Electronics Engineering Lab
CE	19BT10501	Programming for Problem Solving
CE	19BT10531	Programming for Problem Solving Lab
CE	19BT2BS02	Applied Physics
CE	19BT2BS31	Applied Physics lab
CE	19BT315AC	Design Thinking
CE	19BT40107	Sustainable Engineering
CE	19BT4BS01	Material Science
CE	19BT4HS05	Gender & Environment
CE	19BT4HS09	Life Skills
CE	19BT4HS11	Professional Ethics
CE	19BT4HS12	Women Empowerment

BOS, Chairman