SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING

(An Autonomous Institution)
Kalavakkam – 603 110

SELF STUDY REPORT

ADDITIONAL INFORMATION

1.1.2 The programmes offered by the institution focus on **employability/ entrepreneurship/ skill development** and their course syllabi are adequately revised to incorporate contemporary requirements

Submitted to

The National Assessment and Accreditation Council

February 2024

Declaration

All links/Pictures/Documents/ others are verified and authenticated.

V E ANNAMALAI

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Sri Sivasubramaniya Nadar College of Engineering (SSNCE) is an affiliated institution under Anna University, Chennai. It was granted Autonomous status from the academic year 2018-2019.

The curriculum for all the UG and PG programmes have been meticulously designed to be innovative and conforming to current needs and implemented successfully. SSNCE follows a systematic process that includes high level of discussion, planning and critical investigation involving stakeholders, Industry Advisory Committee (IAC), eminent persons from academia for introducing/ revising/ updating the program curriculum. The curricula and syllabi are revised periodically for both the undergraduate and postgraduate programmes to accommodate the state-of-art technologies and strengthen the learning outcomes by conducting academic body meetings, namely the Syllabus sub-committee, Board of Studies, and Academic Council meeting with representatives from academia, industry, alumni, and students in accordance with Outcome Based Education (OBE), that encompasses institutional goals, employability enhancement, entrepreneurship, skill and knowledge development.

Curricular Components

The curriculum is designed to inculcate a strong academic foundation along with research inquisitiveness in the graduates. The courses are grouped under various categories to ensure holistic and well-rounded curriculum.

- **Basic Science (BS):** Courses delivering fundamentals of science for further engineering knowledge applications like Mathematics, Physics, etc.
- **Engineering Science (ES):** Foundation Courses like Engineering Graphics, Engineering Geology, etc. are grouped under this category.
- **Humanities and Social Science Courses (HS):** Courses aimed to improve the social skills, professional communication and interpersonal skills of the graduates, like Communicative English, Psychology for Everyday Life, etc. are grouped under this category.
- **Foundation Course (FC):** Foundation Courses for Post Graduate programmes that are a prerequisite for advanced courses in the programme are grouped under this category.
- **Professional Core (PC):** Courses designed to provide in-depth domain knowledge in the respective programmes are categorized under Professional Core courses. It is ensured that the courses cover a variety of sub-domains judiciously depending on industry needs and standards.

- **Professional Elective (PE):** Pre-defined groups of courses specific to distinct domains/ streams are offered under the Choice Based Credit System (CBCS) so as to enable students to choose a course of choice to deepen their knowledge in a specific domain.
- **Open Electives (OE):** Students can enrol in cross-disciplinary courses offered by different departments. This helps them broaden their knowledge horizon and offers scope for inter-disciplinary knowledge gain.
- **Employability Enhancement Courses (EEC):** Courses like Project Work, Internships, specifically designed for the skill development of students are included in the curriculum.
- **Other Courses:** These include mandatory courses (MC) and non-credit courses like Indian Constitution.

The evolution of the components of the curriculum of the B.E. Civil Engineering programme is shown in Figure 1.1.2 for illustrative purpose.

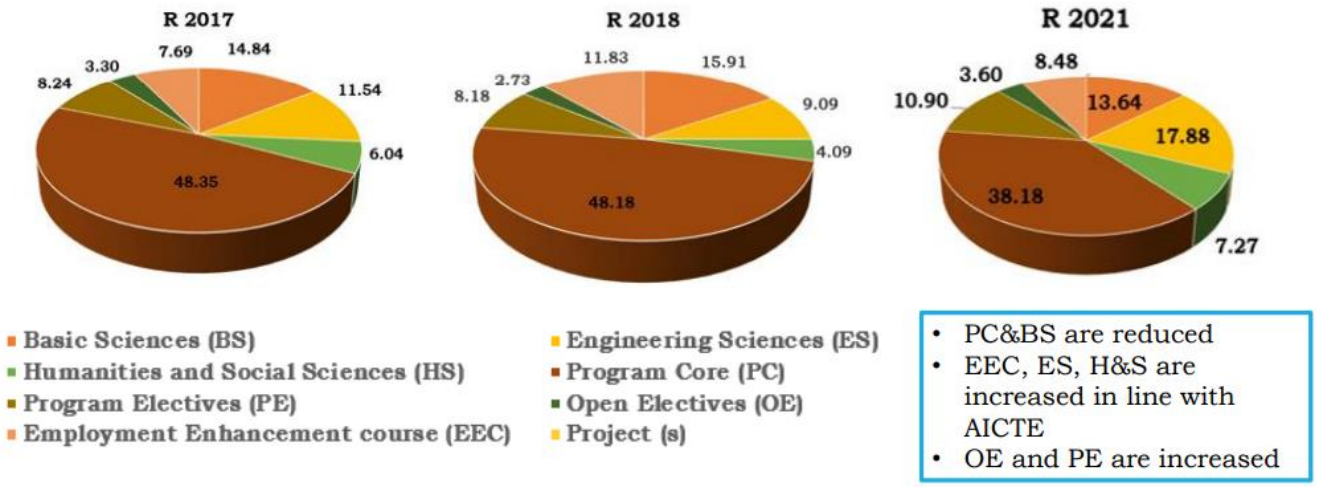

Fig. 1.1.2 Components of the B.E. Civil Engineering Programme Curriculum

All courses mapping to the Programme Specific Outcomes which focus on graduate knowledge and employability outcomes focus on employability, entrepreneurship and skill development.

Table 1.1.2.a presents the category wise breakup of the curriculum credits of all programmes in accordance to their latest revision.

Table 1.1.2.a Breakup of Curricular Components

Programme	% Credits under each category									% Course Credits for Skill Development/ Employability/ Entrepreneurship
	HS	BS	ES	PC	PE	OE	EEC	MC	FC	
B.E. Electrical and Electronics Engineering (EEE)	8	13	15	41	11	4	8	0	0	**78**
B.E. Electronics and Communication Engineering (ECE)	9	12	18	39	11	4	8	0	0	**80**
B.E. Computer Science and Engineering (CSE)	8	14	15	40	11	4	8	0	0	**77**
B.Tech. Information Technology (IT)	9	16	15	38	11	4	8	0	0	**75**
B.Tech. Chemical Engineering	8	14	16	39	11	4	8	0	0	**77**
B.E. Biomedical Engineering (BME)	7	14	15	39	11	4	9	0	0	**78**
B.E. Mechanical Engineering	8	16	12	40	11	4	10	0	0	**76**
B.E. Civil Engineering	8	13	18	38	11	4	8	0	0	**78**
M.Tech. Computer Science and Engineering (5 Year Integrated)	5	11	10	41	11	4	16	1	0	**83**
M.E. Communication Systems	0	0	0	43	21	4	29	3	0	**97**
M.E. Computer Science and Engineering	0	0	0	38	21	4	28	3	6	**92**
M.E. Power Electronics and Drives	0	0	0	37	21	4	29	3	6	**91**
M.E. Applied Electronics	0	0	0	43	21	4	29	3	0	**97**
M.E. VLSI Design	0	0	0	43	21	4	29	3	0	**97**
M.Tech. Information Technology	0	0	0	43	21	4	29	3	0	**97**
M.E. Manufacturing Engineering	0	0	0	43	21	4	29	3	0	**97**
M.E. Energy Engineering	0	0	0	43	21	4	29	3	0	**97**
M.Tech. Environmental Science and Technology	0	0	0	33	21	4	29	3	10	**87**
M.E. Medical Electronics	0	0	0	27	29	0	20	0	24	**76**
Master of Business Administration (MBA)	0	0	0	27	29	0	20	0	24	**76**

Courses that focus exclusively on employability enhancement of graduates are listed below in Table 1.1.2.b.

Table 1.1.2.b Employability Enhancement Courses

S. No.	Programme Code	Programme Name	Course Code	Course Title	Course Category
1	1001	B.E. Civil Engineering	UCE2513	Surveying Practice	EEC
2	1001	B.E. Civil Engineering	UCE2718	Project Phase I	EEC
3	1001	B.E. Civil Engineering	UCE2716	Industrial Training	EEC
4	1001	B.E. Civil Engineering	UCE2818	Project Phase II	EEC
5	1002	B.E. Mechanical Engineering	UME2617	Design and Fabrication Project	EEC
6	1002	B.E. Mechanical Engineering	UME2701	Industrial Practices	EEC
7	1002	B.E. Mechanical Engineering	UME2718	Project Work – Phase I	EEC
8	1002	B.E. Mechanical Engineering	UME2716	Industrial Training /Internship	EEC
9	1002	B.E. Mechanical Engineering	UME2818	Project Work – Phase II	EEC
10	1003	B.Tech. Chemical Engineering	UCH2718	Project Phase I	EEC
11	1003	B.Tech. Chemical Engineering	UCH2716	Industrial Training /Internship	EEC
12	1003	B.Tech. Chemical Engineering	UCH2818	Project Phase II	EEC
13	3001	B.E. Electrical and Electronics Engineering	UEE2716	Industrial Training /Internship	EEC
14	3001	B.E. Electrical and Electronics Engineering	UEE2718	Project Phase I	EEC
15	3001	B.E. Electrical and Electronics Engineering	UEE2818	Project Phase II	EEC
16	3002	B.E. Electronics and Communication Engg.	UEC2718	Project Work Phase I	EEC
17	3002	B.E. Electronics and Communication Engg.	UEC2716	Industrial Training /Internship	EEC
18	3002	B.E. Electronics and Communication Engg.	UEC2818	Project Work Phase II	EEC
19	3003	B.E. Biomedical Engineering	UBM2517	Mini project	EEC
20	3003	B.E. Biomedical Engineering	UBM2616	Hospital Training	EEC
21	3003	B.E. Biomedical Engineering	UBM2716	Industrial Training /Internship	EEC
22	3003	B.E. Biomedical Engineering	UBM2718	Project Phase I	EEC
23	3003	B.E. Biomedical Engineering	UBM2818	Project Phase II	EEC

24	5001	B.E. Computer Science and Engineering	UCS2717	Project Work Phase I	EEC
25	5001	B.E. Computer Science and Engineering	UCS2716	Industrial Training / Internship	EEC
26	5001	B.E. Computer Science and Engineering	UCS2818	Project Work Phase II	EEC
27	5002	B.Tech. Information Technology	UIT2718	Project Work – Phase 1	EEC
28	5002	B.Tech. Information Technology	UIT2716	Industrial Training /Internship	EEC
29	5002	B.Tech. Information Technology	UIT2818	Project Work – Phase 2	EEC
30	2001	M.E. Energy Engineering	PEY2316	Internship with Seminar	EEC
31	2001	M.E. Energy Engineering	PEY2318	Project Phase I	EEC
32	2001	M.E. Energy Engineering	PEY2418	Project Phase II	EEC
33	2002	M.E. Manufacturing Engineering	PMF2316	Internship with Seminar	EEC
34	2002	M.E. Manufacturing Engineering	PMF2318	Project Phase I	EEC
35	2002	M.E. Manufacturing Engineering	PMF2418	Project Phase II	EEC
36	2003	M.Tech. Environmental Science and Tech.	PES2216	Internship with Seminar	EEC
37	2003	M.Tech. Environmental Science and Tech.	PES2318	Project Phase I	EEC
38	2003	M.Tech. Environmental Science and Tech.	PES2418	Project Phase II	EEC
39	4001	M.E. Power Electronics and Drives	PPE2216	Internship with Seminar	EEC
40	4001	M.E. Power Electronics and Drives	PPE2318	Project Phase I	EEC
41	4001	M.E. Power Electronics and Drives	PPE2418	Project Phase II	EEC
42	4002	M.E. Applied Electronics	PAE2316	Internship with Seminar	EEC
43	4002	M.E. Applied Electronics	PAE2318	Project Phase I	EEC
44	4002	M.E. Applied Electronics	PAE2418	Project Phase II	EEC
45	4003	M.E. Communication Systems	PCN2316	Internship with Seminar	EEC
46	4003	M.E. Communication Systems	PCN2318	Project Phase I	EEC
47	4003	M.E. Communication Systems	PCN2418	Project Phase II	EEC
48	4005	M.E. Medical Electronics	PMD2216	Clinical Immersion (Internship) and Technical Presentation	EEC
49	4005	M.E. Medical Electronics	PMD2318	Project Phase I	EEC
50	4005	M.E. Medical Electronics	PMD2418	Project Phase II	EEC
51	6001	M.E. Computer Science and Engineering	PCP2216	Internship with Seminar	EEC

52	6001	M.E. Computer Science and Engineering	PCP2318	Project Work Phase I	EEC
53	6001	M.E. Computer Science and Engineering	PCP2418	Project Work Phase II	EEC
54	6002	M.Tech. Information Technology	PIF2216	Internship with Seminar	EEC
55	6002	M.Tech. Information Technology	PIF2318	Project –Phase I	EEC
56	6002	M.Tech. Information Technology	PIF2418	Project –Phase II	EEC
57	8001	Master of Business Administration	PBA2119	Business Communication	EEC
58	8001	Master of Business Administration	PBA2115	Seminar I	EEC
59	8001	Master of Business Administration	PBA2215	Seminar II	EEC
60	8001	Master of Business Administration	PBA2316	Summer Internship	EEC
61	8001	Master of Business Administration	PBA2418	Final Semester Project	EEC
62	4004	M.E. VLSI Design	PVL2316	Internship with Seminar	EEC
63	4004	M.E. VLSI Design	PVL2318	Project Phase I	EEC
64	4004	M.E. VLSI Design	PVL2418	Project Phase II	EEC

The latest curriculum of all Programmes are linked as additional information in section 1.1.2 “Link for Additional Information”.

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