FACULTY OF ENGINEERING

Scheme of Instruction & Examination

For
Four Year Degree Programme of

Bachelor of Engineering (B.E)

in

Computer Engineering
(With effect from the academic year 2021–22)

Estd. 2008

STANLEY COLLEGE OF ENGINEERING AND TECHNOLOGY FOR WOMEN (AUTONOMOUS)
(Affiliated to Osmania University)
(Accredited by NAAC with "A" Grade)
ABIDS, HYDERABAD-500001,Telangana.

Abbreviation	Meaning
HS	Humanities, Social Sciences and Management
BS	Basic Sciences including Mathematics, Physics and Chemistry
ES	Engineering Sciences including Workshop, Drawing, Basic Electrical / Electronics
PC	Professional Core Subjects
PE	Professional Elective Subjects
OE	Open Elective Subjects
PW	Project Work, Seminars, Internship
MC	Mandatory Courses
PY	Philosophy
EC	Electronics and Communication Engineering.
CE	Civil Engineering,
MP	Mechanical / Production Engineering
IT	Information Technology
CS	Computer Science Engineering
EE	Electrical and Electronics Engineering
CM	Computer Engineering
AD	Artificial Intelligence and Data Science
L	Lecture
T	Tutorial
P	Practical
G	Grade
D	Drawing
CIE	Continuous Internal Evaluation
SEE	Semester End Evaluation
	Each contact hour is a clock hour
	The duration of the Practical class is two hours; however, it can be extended wherever necessary, to enable the student to complete the experiment.

Stanley College of Engineering and Technology for Women (Autonomous)

Induction Program

SMC901CM Induction Program (Mandatory)	3 weeks' duration
Induction program for students to be offered right at the start of the first year	• Physical Activity • Creative Arts • Universal Human Values • Literary • Proficiency Modules • Lectures by Eminent People • Visits to local Areas • Familiarization to Dept./Branch & Innovations

CME: SEMESTER – I

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hours/ Week	CIE	SEE	SEE Duration in Hours	
						Theory Courses				
1	SHS901EG	English	2	-	-	2	40	60	3	2
2	SBS101MT	Mathematics-I	3	1	-	4	40	60	3	4
3	SBS902PH	Physics	3	-	-	3	40	60	3	3
4	SES101CS	Programming for Problem Solving	3	-	-	3	40	60	3	3
5	SMC903PO	Mandatory Course	2	-	-	2	40	60	3	-
6	SMC904PY	Mandatory Course	2	-	-	2	40	60	3	-
		Practical/ Laboratory Courses								
7	SHS911EG	English Lab	-	-	2	2	40	60	3	1
8	SBS912PY	Physics Lab	-	-	4	4	40	60	3	2
9	SES111CS	Programming for Problem Solving Lab	-	-	4	4	40	60	3	2
10	SES914ME	Workshop	-	-	6	6	40	60	3	3
	Total		15	1	16	32	400	600		20

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CME: SEMESTER – II

S. No	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P	Contact Hrs/Wk	CIE	SEE	SEE Duration in Hours	
Theory Courses										
1	SBS201MT	Mathematics-II	3	1	-	4	40	60	3	4
2	SBS903CH	Chemistry	3		-	3	40	60	3	3
3	SES901EC	Basic Electrical & Electronics Circuits	3	-	-	3	40	60	3	3
4	SES202CS	Data Structures using C	3	-	-	3	40	60	3	3
5	SMC902CE	Mandatory Course	2	-	-	2	40	60	3	-
6	SAC901CM	Audit Course	2	-	-	2	-	-	-	-
Practical/ Laboratory Courses										
7	SBS913CH	Chemistry Lab	-	-	4	4	40	60	3	2
8	SES915ME	Engineering Graphics & Design	1	-	4	5	40	60	3	3
9	SES212CS	Data Structures using C Lab	-	-	2	2	40	60	3	1
10	SES911EC	Basic Electrical & Electronics Circuits Lab	-	-	4	4	40	60	3	2
11	SPW211CM	Field Work	The students have to undergo a Field work of 2-week duration after II-Semester SEE				50	-	-	1
Total			17	01	14	32	410	540		22

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CME: SEMESTER – III

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/	CIE	SEE	SEE Duration in	Credits
Theory Courses										
1	SBS301MT	Mathematics -III (Probability and Statistics)	3	-	-	3	40	60	3	3
2	SES301CM	Discrete Mathematics	3	-	-	3	40	60	3	3
3	SES302CM	Digital Electronics	3	-	-	3	40	60	3	3
4	SPC301CM	Database Management Systems	3	-	-	3	40	60	3	3
5	SPC302CM	Concepts in Computer Organization & Microprocessor	3	-	-	3	40	60	3	3
6	SAC902EE	Electrical Technology	2	-	-	2	-	-	-	-
Practical/ Laboratory Courses										
7	SES311CM	Python programming Lab	-	-	4	4	40	60	3	2
8	SPC311CM	Database Management Systems Lab	-	-	4	4	40	60	3	2
9	SPC312CM	Concepts in Computer Organization & Microprocessor Lab	-	-	4	4	40	60	3	2
		Total	**17**	**-**	**12**	**29**	**320**	**480**		**21**

Stanley College of Engineering and Technology for Women (Autonomous)

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	SEE Duration in	
Theory Courses										
1	SHS401EG	Effective Technical Communication	2	-	-	2	40	60	3	2
2	SPC401CM	Automata Theory Languages and Computation	3	-	-	3	40	60	3	3
3	SPC402CM	Operating Systems	3	-	-	3	40	60	3	3
4	SPC403CM	OOPs using JAVA	3	-	-	3	40	60	3	3
5	SPC404CM	Design and Analysis of Algorithms	3	1	-	4	40	60	3	4
Practical/ Laboratory Courses										
6	SPC412CM	Operating Systems Lab	-	-	4	4	40	60	3	2
7	SPC413CM	OOPs using JAVA Lab	-	-	4	4	40	60	3	2
8	SPC414CM	Design and Analysis of Algorithms Lab	-	-	2	2	40	60	3	1
9	SPW941CM	Internship-1	The students have to undergo an Internship of 4 week duration after IV-Semester SEE				50	-	-	1
Total			14	1	10	25	370	480		21

CME: SEMESTER – V

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	D/P	Contact Hrs/W	CIE	SEE	SEE Duration in Hrs	
Theory Courses										
1	SPC501CM	Artificial Intelligence & Robotics	3	-	-	3	40	60	3	3
2	SPC502CM	Data Communication & Computer Networks	3	-	-	3	40	60	3	3
3	SPC503CM	Compiler Design	3	-	-	3	40	60	3	3
4	PE-I	Professional Elective – I	3	1	-	4	40	60	3	4
5	OE-I	Open Elective – I	3	-	-	3	40	60	3	3
Practical/Laboratory Courses										
6	SPC511CM	Artificial Intelligence & Robotics Lab	-	-	4	4	40	60	3	2
7	SPC512CM	Data Communication & Computer Networks Lab	-	-	4	4	40	60	3	2
8	SPC513CM	Compiler Design Lab	-	-	2	2	40	60	3	1
Total			**15**	**1**	**10**	**26**	**320**	**480**		**21**

Stanley College of Engineering and Technology for Women (Autonomous)

S. No	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	D/P	Contact Hrs/Wk	CIE	SEE	SEE Duration in Hrs	
Theory Courses										
1	SHS904BM	Managerial Economics & Financial Accounting	3	-	-	3	40	60	3	3
2	SPC601CM	Data Science	3	-	-	3	40	60	3	3
3	SPC602CM	Software Engineering	3	-	-	3	40	60	3	3
4	SPC603CM	Internet of Things	3	-	-	3	40	60	3	3
5	PE-II	Professional Elective – II	3	-	-	3	40	60	3	3
Practical/Laboratory Courses										
6	SPC611CM	Data Science Lab	-	-	4	4	40	60	3	2
7	SPC612CM	Software Engineering Lab + Mini Project	-	-	4	4	40	60	3	2
8	SPC613CM	Web Technology & Applications Lab	-	1	2	3	40	60	3	2
9	SPW961CM	Technical Seminar -1	-	-	2	2	50	-	3	1
10	SPW962CM	Internship -2	The students have to undergo an Internship of 4 week duration after VI- Semester SEE				50	-	-	1
Total			15	1	12	28	420	480		23

CME: SEMESTER – VII

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	SEE Duration in Hrs	
Theory Courses										
1	SPC701CM	Machine Learning Techniques	3	-	-	3	40	60	3	3
2	PE-III	Professional Elective – III	3	-	-	3	40	60	3	3
3	PE-IV	Professional Elective – IV	3	-	-	3	40	60	3	3
4	PE-V	Professional Elective – V	3	-	-	3	40	60	3	3
5	OE-II	Open Elective – II	3	-	-	3	40	60	3	3
Practical/ Laboratory Courses										
6	SPC711CM	Machine Learning Techniques Lab	-	-	2	2	40	60	3	1
7	SPE71XCM	Professional Elective – IV			2	2	40	60	3	1
8	SPW711CM	Project Work – I	-	-	6	6	40	60	3	3
9	SPW971CM	Technical Seminar -2	-	-	2	2	50	-	-	1
Total			15	-	12	27	370	480		21

CME: SEMESTER – VIII

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	SEE Duration in Hrs	
Theory Courses										
1	OE-III	Open Elective – III	3	-	-	3	40	60	3	3
Practical/ Laboratory Courses										
2	SPW821CM	Project Work – II	-	-	16	16	40	60	3	8
Total			03	-	16	19	80	120		11

PROFESSIONAL ELECTIVES

Stream	Professional Elective – I	Professional Elective – II	Professional Elective – III	Professional Elective – IV	Professional Elective – V
AI & its Applications	PE501CM Computer Graphics	PE601CM Computer Vision	PE701CM Natural Language Processing & Speech Processing	PE702CM Cognitive Science and Analytics	PE703CM Neural Networks & Deep Learning
Data Science	PE501CM Data Warehousing & Data Mining	PE601CM Mathematical Modeling for Data Science	PE701CM Data Visualization	PE702CM NO SQL Databases	PE703CM Data Analytics
Cloud Computing	PE501CM Advanced Databases	PE601CM Distributed Systems	PE701CM Cloud Computing	PE702CM Scalable Architecture for Large Applications	PE703CM Architecting Applications for Cloud
IOT	PE 501CM Signals & Systems	PE601CM Embedded Systems	PE701CM Advance Internet of Things (IOT)	PE702CM Wireless Sensor Network	PE703CM Block Chain Technology
Cyber Security	PE 501CM Cryptography & Network Security	PE601CM Cyber Security	PE701CM Digital Forensics	PE702CM Database Security & Administration	PE703CM Malware Analysis

Professional Elective -I

S.No.	Course Code	Subject
1	SPE501CM	Computer Graphics
2	SPE501CM	Data Warehousing & Data Mining
3	SPE501CM	Advanced Databases
4	SPE501CM	Signals & Systems
5	SPE501CM	Cryptography & Network Security

Professional Elective –II

S.No.	Course Code	Subject
1	SPE601CM	Computer Vision
2	SPE601CM	Mathematical Modeling for Data Science
3	SPE601CM	Distributed Systems
4	SPE601CM	Embedded Systems
5	SPE601CM	Cyber Security

Professional Elective –III

S.No.	Course Code	Subject
1	SPE701CM	Natural Language Processing & Speech Processing
2	SPE701CM	Data Visualization
3	SPE701CM	Cloud Computing
4	SPE701CM	Internet of Things
5	SPE701CM	Digital Forensics

Professional Elective –IV

S.No.	Course Code	Subject
1	SPE702CM	Cognitive Science and Analytics
2	SPE702CM	No SQL Databases
3	SPE702CM	Scalable Architecture for Large Applications
4	SPE702CM	Wireless Sensor Network
5	SPE702CM	Database Security & Administration

Professional Elective –V

S.No.	Course Code	Subject
1	SPE703CM	Neural Networks & Deep Learning
2	SPE703CM	Data Analytics
3	SPE703CM	Architecting Applications for Cloud
4	SPE703CM	Block Chain Technology
5	SPE703CM	Malware Analysis

LIST OF OPEN ELECTIVES

Open Elective – I

Sl. No.	Course Code	Course Title	Course Offered by the Department
1.	SOE501MB	Entrepreneurship	(MBA)
2.	SOE501EG	Soft Skills and Interpersonal Skills	(H&S)
3.	SOE501MT	Operations Research	(Mathematics)
4.	SOE501CE	Road Safety Engineering	(CE)
5.	SOE501EC	Signal Analysis and Transform Techniques	(ECE)

Open Elective – II

Course Code	Course Title	Course Offered by the Department
SOE701EG	Technical Writing for Research	(H&S)
SOE701MB	Human Resource Management	(MBA)
SOE701CE	Disaster Mitigation	(CE)
SOE701EE	Renewable Energy Sources	(EEE)
SOE701EC	Digital Signal Processing	(ECE)
SOE701CE	Industry Safety	(Mechanical)

Open Elective - III

Course Code	Course Title	Course Offered by the Department
SOE801ME	Industrial Robotics	(Mechanical)
SOE801MB	Management Information System	(MBA)
SOE801EC	Power Management for IOT Devices	(ECE)
SOE801EE	Industrial Instrumentation	(EEE)

Mandatory Courses	
SMC901CM	Induction Program
SM902CE	Environmental Science
SMC903PO	Indian Constitution
SM904PY	Essence of Indian Traditional Knowledge

Audit Courses	
SAC901CM	Design Thinking
SAC902EE	Electrical Technology

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