Student Improvement Program (SIP)

The objective of the practice

The objective of the Student Improvement Program (SIP) is to make the students complete their Program without any back papers and to improve the overall quality of teaching and learning activities.

This practice further aims at enhancing overall performance of all the students

This program also aims at enhancing performance of students in the university examinations.

SIP aims to improve the employability index of students by systematically achieving zero supply status (ZSS).

The Context

SNGCE is affliated to Kerala technological University (KTU). KTU has made it mandatory to organize tutorial sessions as a part of the regular time table. This is with the objective of ensuring proper learning by the week students. The tutorial classes are beingorganized as per the direction of the university and are scheduled in the time table of all the engineering departments and MCA and MBAdepartments also. The practice of conducting tutorials is an integral component of the regular classes specifically targeted in the improvement of week students. However theSIP activities are different from the tutorial sessions. SIP is targeted to all students catering to below average, average and above average learners. This is to enhance the quality of learning of all the students.

SIP activities are intended to transform the students into autonomous learners and to inculcate the spirit of lifelong learning. SIP promotes self- learning. Under SIP every student is motivated to learn for self development. SIP is based on the principles of Outcome Based Education (OBE). The objective of SIP as stated above is holistic and integrated development of the learner and to engage the learners in skill oriented, job – oriented programs beyond the syllabus activities. It isan attempt to provide the latest knowledge and skills to the students which are not envisaged in the curriculum provided by the university. We all know that the concepts

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and activities planned in the university curriculum are not in tune with the requirements of the industry.

The practice

Each class/ batch is divided into different groups according to the strength in each class. Further each group will be under ateacher who will be responsible for the academic and nonacademic activities of each student in the group. In fact the teacher in charge of the group is responsible for mentoring each student in the group. This process continues for the entire semester. The mentees regularly contact the teacher mentorand clarifies his /her doubts. The mentee is continuouslymonitored and motivated by the teacher. This arrangement is in addition to the group tutor scheme already in place. The teacher in charge of each group ensures that all the students in her/ his group develops a learning style which is largely project oriented and problem solving approach. The teacher motivates the learners in the group to develop a habit of learning in advance (prior learning). Before going to the classes, under the guidance of thefaculty, the students learn in advance by referring library books and digital resources and also prepare note for each topic. The learners come to the classes after prior learning .This practice empowers the learners to conduct proper discussion in the classes and learning becomes complete. It is also pertinent to mention that students are motivated to form Student Quality Groups (SQG). SQG is a unique and powerful scheme where in students form informal groups to practice peer learning throughfocuseddiscussions among the SQG members and learn prior to the classes. This practice generatesa very positive and collaborative learning ambience in the classes .This practice under SIP has contributed to major advantage for the students in the university examinations.

SIPalso ensures that the students learn and acquire skills for their life not for writing the university examination alone. This particular learning style enables each student to become lifelong learners and also autonomous learners. The practice of wrote learning at the time of examination is totally done away by the practice of SIP

Evidence of success

The SIPhas contributed to large scale reduction in back papers leading to Zero Supply Status (ZSS) and also to enhance the performance of all the students in the University examinations. SIPalso helped the students to get placement by the time they are in the final semester, basically

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due to the fact that under the guidance of the teacher they have acquired industry ready, future ready skills along with their academic program. The add-on industry certified skills the students acquired both on line and off line empowers them to be job ready. Thus SIP has helped the students to perform better in university examinations and also they could get placement in leading multi –national companies.

Problems encountered and resources required.

The SIP has been of great use to the students. However, the work load of individual teachers has increased tremendously. Teacher have to spent a lot of time with each student to mentor him/her and ensure change in learning style and also help them in acquiring latest industry ready skills. Some of the students found it difficult to meet the expenses towards add-on courses. Teachers have to talk to the parents and convince the about the significance and advantage ode doing add on skill development course.

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SNGCE/ME/CNF/SIP REGISTER/B.Tech/Odd & Even Sem

ODD SEMESTER

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DEPARTMENT OF MECHANICAL ENGINEERING

LIST OF STUDENTS FOR SIP ON 26/11/2022

SUBJECT	DATE & TIME SLOT	SL.NO	NAME OF STUDENT	SEMESTER	ATTENDANCE 24/11	10/12			
ENGINEERING GRAPHICS	26/11/2022 10 PM TO 12 PM	1	Indrajith N A	M3	x	a			
		2	Sidharth P Sudheesh	M3	a	a			
		3	Sagar Shobhy	M3	a	a			

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SL.NO	DATE	TOPICS COVERED	FACULTY NAME & SIGN	REMARKS
1	26.11.22			
1.	26/11/22	Proj of lines - 2 problems, Proj Solids - 1 problem.	PPBijm	
2	10/12/22	Proj of Solids - 2 problems Perspective Proj - 1 Problem Development - 1 problem		

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DEPARTMENT OF MECHANICAL ENGINEERING

LIST OF STUDENTS FOR SIP ON 26/11/2022

SUBJECT	DATE & TIME SLOT	SL.NO	NAME OF STUDENT	SEMESTER	ATTENDANCE 26/11	ATTENDANCE 3/12
MECHANICS OF SOLIDS 2nd on pg.12	26/11/2022 10 AM TO 12 PM	1	Pruthviraj V S	M5	X	X
		2	Vivek k s	M5	X	X
		3	M Mukesh Pandian	M5	X	X
		4	Sreehari V M	M5	X	X
		5	Dheeraj L	M5	X	X
		6	Allen paul	M5	X	a
		7	Nelbin Thomas	M5	X	a
		8	Thanooja M	M7	X	a
		9	Abin Ouseph	M7	X	a
		10	PRINCE RAJU	M7	X	a
		11	Antony Michael MM	M7	X	X
		12	Cristy Robin	M7	a	a
		13	Pranav J	M7	X	a
		14	Athul S Komath	M7	X	X
		15	Abhishek Babu	M7	a	a
		16	Girisanker B	M7	X	a
		17	Amal Sajeed	M7	X	X
		18	Harichandran p r	M7	a	X
		19	Ajay Rajendran	M7	X	a
		20	Harikrishnan p r	M7	a	X
		21	Deekshith Deva K S	M7	a	a
		22	Chandu Prasad	M7	X	X
		23	Sreehari S	M7	a	a
		24	ARJUN V P	M7	X	a
		25	AAKASH WILSON	M5	a	X

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S.NO	DATE	TOPICS COVERED	FACULTY NAME & SIGN	REMARKS
1.	26/11/22	plane stress problem mohr's circle stress tensor (2D).	ABHILASH.P.S.	
2	3/12/22	Beams. Different cases theory & problems.	ABHILASH.P.S	

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LIST OF STUDENTS FOR SIP ON 26/11/2022

SUBJECT	DATE & TIME SLOT	SL.NO	NAME OF STUDENT	SEMESTER	ATTENDANCE 26/11	10/12	17/12
MECHANICS OF FLUIDS	26/11/2022 1 PM TO 3 PM	1	Pruthviraj V S	M5	X	a	X
		2	Ashil K Ajay Kumar	M5	a	X	X
		3	Vivek k s	M5	X	a	a
		4	M Mukesh Pandian	M5	X	a	a
		5	Haridev Sudhi	M5	X	a	X
		6	Dheeraj L	M5	X	a	a
		7	Manas Jo Puthussery	M5	a	a	a
		8	Vishnu Nandakumar	M5	a	a	a
		9	Blegin Baby	M5	X	a	X
		10	Nelbin Thomas	M5	X	X	X
		11	Abhiram N Sabu	M7	X	a	X
		12	Thanooja M	M7	X	a	a
		13	Sabari Nath S B	M7	a	a	a
		14	PRINCE RAJU	M7	X	a	a
		15	Antony Michael MM	M7	X	a	X
		16	Cristy Robin	M7	a	a	a
		17	Pranav J	M7	X	a	a
		18	Athul S Komath	M7	X	a	a
		19	Abhishek Babu	M7	a	a	a
		20	Girisanker B	M7	X	a	a
		21	Amal Sajeed	M7	X	a	a
		22	Harichandran p r	M7	a	X	a
		23	Ajay Rajendran	M7	X	a	a
		24	Harikrishnan p r	M7	a	a	a
			Chandu Prasad	M7	X	a	a
			Sreehari S	M7	a	a	a

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SL.NO.	DATE	TOPICS COVERED	FACULTY NAME & SIGN	REMARKS
1.	26/11/22	Physical Properties of fluids * Viscosity * Vapour Pressure •) Cavitation •) Continuum *Problems using hydrostatic law •)Manometer problems Determining hydrostatic forces, h & h* of submerged profiles	Salman shah	
2	10/12/22	* Growth of Boundary Layer over a flat plate, Terminologies * Boundary Layer thickness * Momentum thickness, Displacement thickness, energy thickness * Conditions for BL separation * Problems to find δ*, θ, δ**	Salman shah	
3	17/12/22	* Fundamentals of fluid kinetics, * Terminologies & classifications * Lagrangian / Eulerian approach, Steady / unsteady flow, Uniform / non uniform flow Rotational / Irrotational flow, Laminar / Turbulent flow. Reynolds number, Streamline, Streakline, Velocity potential function & stream functions. Problems: ψ & ϕ determination, Determining acceleration field. Flow net - Theory.	Salman shah	

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LIST OF STUDENTS FOR SIP ON 03/12/2022

SUBJECT	DATE & TIME SLOT	SL.NO	NAME OF STUDENT	SEMESTER	ATTENDANCE 3/12
ENGINEERING CHEMISTRY	12 03/1/2022 10 PM TO 12 PM	1	Jayaramakrishnan T	M3	X
		2.	Indrajith NA	M3	X
		3	Abhijith Ajayan	M3	X
		4	Muhammed Insaf V M	M3	X
		5	Muhammed Ameen	M3	a
		6	Sreehari KS	M3	X
		7	Indrajith S	M3	X
		8	Jaisil lal	M3	X
		9	Adithyan Biju	M3	a
		10	SREERAJ P	M3	a
		11	Alen Baby	M3	a
		12	ASHIK MANOJ	M3	a
		13	SIDHARTH P SUDHEESH	M3	a
		14	YADHUKRISHNA	M3	X
		15	Sreejith MV	M7	a
		16	Abhiram N Sabu	M7	X
		17	Harikrishnan A R	M7	X
		18	CHANDU PRASAD	M7	X
		19	SREEHARI	M7	a
LINEAR ALGEBRA & CALCULUS	03/12/2022 1 PM TO 3 PM	1	SIDHARTH P SUDHEESH	M3	a 17/12 X
		2	Nelbin Thomas	M5	X -
		3	Pranav J	M7	X -
		4	SREEHARI	M7	a -
		5.	ABHISHEK	M3	a X

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SL.NO.	DATE	TOPICS COVERED	FACULTY NAME & SIGN	REMARKS
	CHM			
1	03/12/2022	Isomerism, classification, Conformational analysis, R & S, E & Z notations, Polymer Chemistry, Copolymers ABS, Kevlar, PANI, PPy, Conducting Polymers, OLED.	Dr. Divya Nair	
2.	17/12/2022	Instrumental methods of analysis, TGA, DTA, Column chromatography, TLC, GC, HPLC, Nanomaterials - classification, Synthesis & SEM	Dr. Divya Nair for	
	LACA			
1	3/12/2022	Gauss elimination method Rank, Eigen values Eigen vector, diagonalisation	BEENA.T.BALAN	

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STUDENTS FOR THERMAL ENGINEERING SIP

SUBJECT	TIME SLOT	SL.NO	NAME OF STUDENT	19/9	21/9	26/9	28/9	10/10	12/10	19/10	26/10	27/10	2/11	3/11	16/11	17/11	23/11	24/11	7/12	8/12	14/12	21/12	22/12
THERMAL ENGINEERING		1	Abhiram N Sabu	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		2	PRINCE RAJU	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		3	Harikrishnan A R	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		4	Antony Michael MM	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
		5	Pranav J	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
		6	ATHUL S KOMATH	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
		7	Abhishek Babu	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
		8	Girisanker B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
		9	Amal Sajeed	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
		10	Harichandran P R	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		11	Ajay Rajendran	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		12	Harikrishnan p r	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		13	DEEKSHITHDEVA KS	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
		14	CHANDU PRASAD	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
		15	SREEHARI	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

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SL.NO.	DATE	TOPICS COVERED	FACULTY NAME & SIGN	REMARKS
1.	19/9	RANKINE CYCLE	Ryshak	THEORY
2.	21/9	NUMERICALS ON RANKINE CYCLE	Ryshak	2 NOS
3.	26/9	REHEAT CYCLE	Ryshak	THEORY
4.	28/9	NUMERICALS ON REHEAT CYCLE	Ryshak	2NOS
5.	10/10	REGENERATIVE CYCLE	Ryshak	THEORY
6.	12/10	NUMERICALS ON REGENERATIVE CYCLE	Ryshak	2NOS
7.	19/10	BINARY VAPOUR CYCLE	Ryshak	THEORY
8.	26/10	STEAM NOZZLES	Ryshak	THEORY
9.	27/10	NUMERICALS ON STEAM NOZZLE	Ryshak	2NOS
10.	2/11	STEAM TURBINE	Ryshak	THEORY
11.	3/11 16/11 17/11	NUMERICALS ON STEAM TURBINE	Ryshak	6NOS
12.	23/11	IC ENGINE	Ryshak	3NOS

16. CRISTY ROBIN
17. ARJUN VP

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