

Sri Indu College of Engineering & Technology [AUTONOMOUS INSTITUTION]

Approved by AICTE, New Delhi, NBA Accredited & Permanently Affiliated to JNTU, Hyderabad Sheriguda (Village), Ibrahimpatnam(M), Ranga Reddy District – 501 510 Phone : 08414-224166 / 77, Cell : 9347363999 / 9347054999, mail-id : induprincipal@gmail.com

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An effective implementation of this Outcomes Based Education (OBE) ensures that our graduating engineers have all the 12 POs defined by NBA, and hence can compete on a global platform, and have expected global attributes. Specific to every program, we have 3-5 Program Educational Objectives (PEOs) that are measured through the performance of the alumni. The PEOs, PSOs and POs of each department is also displayed in website. https://sriindu.ac.in/wpcontent/uploads/2021/01/POs-PSOs-COs-ALL-UG-PG-PROGRAMS.pdf

The Autonomy of the institute also provides the academic flexibility for introducing the new Courses like Data Science, Artificial Intellengence, Machine Learning, internet of Things are included for graduate courses of Computer Science and Information Technology. Intra disciplinary courses and advanced subjects like Mechatronics and Additive Manufacturing have been introduced to students of Mechanical Engineering. Advanced courses like Green Buildings and Repair & Rehabilitation of Structures are introduced for Civil Engineering students.

To enhance the practical knowledge of the students, SAP Lab, Research Centre, E-Yantra, 3D Printing, Calibration lab, Civil Computer Aided Design lab .. etc are established. These centres empower students and faculty to develop skills necessary for more advanced study or research. Such practical exposure in line with the current needs of the society is provided to the students by incorporating such new lab courses into the curriculum.

The UG and PG courses have been developed to provide required inputs to aspiring entrepreneurs and provide extra support. The Entrepreneurship Development Cell (EDC) extends the need based programs by organizing workshops / seminars in association with MSME India.

Apart from the basic courses Guest Lectures and Workshops are also conducted for the improvement of knowledge and skill expertise. Apart from the technical courses related to each of the specific programme, few courses having social relevance satisfying the local needs and also some courses are also framed to integrate the national movements like Haritha Haram, Swatch Bharat, START UP INDIA, UJWAL BHARAT, ... etc and the details of courses are given below.



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Courses in Curriculum		Linkages with Societal
		Needs / Government of
		India initiatives
R20HAS1102	Environmental Science	National River
		Conservation Plan
		Environmental
		Sustainability
R20CIV3271	Disaster Management &	National Disaster
	Mitigation	Management system
R20CIV3201	Hydrology &Water	National Afforestation
	Resources Engineering	Programme
	Human Values &	National Anti-Corruption
R20HMS4297	Professional Ethics for	Strategy / VIGIL
	Engineers	
R20EEE4294	Non Conventional Energy	Ujwal Bharat
	Resources (Renewable	
	Energy Resources)	
R18CSE4152	Internet of Things	Smart India, Smart Cities
R18CSE4163	Big data Analytics	Digital India
R18CSE4143	Data Analytics	Digital India, National
R20CSE3124	Cyber Security	cyber security policy
R18CSE4101	Cryptography and Network	
	Security	
R18MED4101	Refrigeration and Air	Local Needs (COLD
	Conditioning	STORAGES) Agricultural
		Mechanization ; KISAN
		VIKAS
R18EEE2205	Basics of Electrical &	Make in India
	Electronics Engineering	
R18CSE2101	Data Structures through C++	Skill India
R16ECE1206	HDL Programing	Digital India
	TIDE TOSTAINING	Digital Illula
R18INF3103	Data Communications and	Smart Cities Mission
R18INF3103	Data Communications and Networks	Smart Cities Mission Programme
R18INF3103 R18ECE4261	Data Communications and Networks Wireless Communication &	Smart Cities Mission Programme National Council for
R18INF3103 R18ECE4261	Data Communications and Networks Wireless Communication & Networks	Smart Cities Mission Programme National Council for Science & Technology
R18INF3103 R18ECE4261	Data Communications and Networks Wireless Communication & Networks	Smart Cities Mission Programme National Council for Science & Technology Communication
R18INF3103 R18ECE4261 R20CSE2104	Data Communications and Networks Wireless Communication & Networks Python Programming	Smart Cities Mission Programme National Council for Science & Technology Communication Skill India
R18INF3103 R18ECE4261 R20CSE2104 R20ECE2102	Data Communications and Networks Wireless Communication & Networks Python Programming Digital Logic Design	Digital IndiaSmart Cities MissionProgrammeNational Council forScience & TechnologyCommunicationSkill IndiaDigital India



PRINCIPAL

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Process used to identify extent of compliance of the curriculum for attaining the Program Outcomes and Program Specific Outcomes

Program curriculum and syllabus is approved by Board of Studies and the assessment of the curriculum and syllabus is done by internal and external members. Feedback from Students, Parents, Recruiters, Industry, and Alumni are taken for indirect assessment. Mapping is performed for each assessment with POs and PSOs. From the direct and indirect assessment POs and PSOs are calculated.



The process of identifying extent of compliance of the curriculum



Process to ensure the compliance and attainment of POs & PSOs

The process to identify extent of compliance of the Curriculum for attaining the Program Outcomes & Program Specific Outcomes (PSOs) were measured through gaps identified based on the attainment of POs & PSOs and its contributions towards imparting skill requirements. Further, based on the various assessment committees recommendations the identified gaps were bridged as 'Content Beyond Syllabus' approved by Program Assessment Committee (PAC) and Department Advisory Committee (DAC). Furthermore, stakeholders feedback were considered for curriculum enrichment and the periodical stable review systems were also contributed to strengthen the teaching-learning process for the continuous improvements in attaining COs, POs & PSOs.

The subject handlers identify the curriculum gaps in the syllabus with the consideration of Previous Batch attainment, stakeholders' feedback on subject. The faculties will help the students to enrich their knowledge by learning the advanced concepts in the course which were not covered in the syllabus of each theory and practical courses for improving the attainment as well as for making students industry readiness.

The proper identification of gap in the program is assessed by reviewing and analyzing the attained POs & PSOs during course of study in frequent intervals for batch wise. The necessary actions were taken for the identified parameters and on the needy basis by the content beyond, value added courses, bridge courses, Refresher, skill development courses with various modes.

The following procedure is adapted to identify the curriculum gap and after getting the PO & PSO attainments the least contributing and uncovered key components are identified and those grey areas are addressed as a program gaps. Then top down process is initiated to identify the narrow downed, more specific topics and COs were recommended to bridge the gaps by PAC & DAC during brainstorming sessions.



Flow Chart for Gap Analysis

Gap Analysis

The following committee involved in strengthening the gap identification and analysis:

- BOS (Board of Studies)
- ➢ Faculty
- PAC (Program Assessment Committee)
- Academic council
- Department Committee
- DAC (Department Advisory Committee)

The institution program assessment committee collects the information from BOS Committee members and faculty members of respective departments. Then PAC communicates it with the department committee. The department committee interacts with Academic council and department Advisory Committee and finalize the gap analysis based on their suggestions.

The details of delivery of the content beyond the syllabus for the attainment of POs and PSOs

- Library / internet assignments on contemporary issues
- Additional laboratory experiments
- Pre-placement Training
- Training on Soft skills and value add programs
- Creative /Projects
- Guest lectures
- Workshops/conference
- Industrial Visits and internships
- Feedback from students, parents, Industry, Alumni, Recruiters/Employer.

Gaps identified in the course subjects for not attained POs, PSOs and the action taken in the assessment year by providing skill development courses, value added courses, induction programs, bridge courses, Guest lecture, Workshops, Hands on Training and Webinar/Seminar.

POs & PSOs Attainment Summary Table of Three Consecutive Batches (2015-19, 2016-20, 2017-21)

A.Y	РО	P01	PO2	PO3	P04	PO5	PO6	PO7	PO8	PO9	PO10	P011	P012	PSO1	PSO2	PSO3
	Target	1.12	1	1.12	1	1.5	0.75	0.55	0.65	0.75	0.75	0.75	0.75	0.75	0.9	0.75
2018-19	Attained	1.27	1.14	1.14	1.06	1.19	0.73	0.60	0.63	0.86	0.73	0.76	0.79	0.88	0.93	0.77
	Target	2.12	2.00	1.95	1.75	2.00	1.00	1.15	1.50	1.50	1.00	1.00	1.10	1.25	1.35	1.00
2019-20	Attained	2.26	2.05	2.03	1.80	2.11	1.11	1.10	1.48	1.24	1.15	1.13	1.20	1.31	1.40	1.08
	Target	1.62	1.50	1.54	1.38	1.75	0.88	0.85	1.08	1.13	0.88	0.88	0.93	1.00	1.13	0.88
2020-21	Attained	2.15	2.01	1.97	1.76	2.02	1.02	1.14	1.50	1.45	1.03	1.03	1.12	1.26	1.36	1.02



Apart from the basic courses Guest Lectures and Workshops are also conducted for the improvement of knowledge and skill expertise.

LIST OF ACTIVITIES ORGANIZED (2021-22)

Event Name	Department	Event Date	
Smart India Hackathon'22	ECE	26.08.22	
Regional Meet'22 for IAs	IIC	12.08.2022	
FDP ON CYBER THREATS AND SECURITY	All Departments	25 th TO 29 th -	
MEASURES		JULY-2022	
NPTEL Local Chapter Awareness E-Workshop Resource	Library	30.06.2022	
Person Ms. Bharathi, NPTEL, Project Director, IIT,			
Madras			
Online Workshop on "Intellectual Property Rights (IPR)	CSE all Allied	28.06.2022	
& Patents and Design Filing Process	Branches		
"Awareness Talk on Indian Space Program" (A	CSE,DS,IoT,	08.06.2022	
STUDENT DEVELOPMENT PROGRAM)	AIML,CS, IT & CSIT		
ORGANISES A "Drone & RC Plane Design One Day	ECE	30.04.2022	
Work Shop" In Collaboration with TLC Group			
World Earth Day	Civil & Mechanical	22.04.2022	
Celebrating "AZADI KA AMRIT MAHOTSAV"	MSME	22.03.2022	
Publicity & Awareness Programme			

International Happiness Day	All Departments	20.03.2022
JURISPRUDENCE CONFERENCE	All Departments	15.03.2022
Women's Day Celebrations	All Departments	15.03.2022
NATIONAL SCIENCE DAY CELEBRATIONS	All Departments	28.02.22
Special Lecture on "Successful Journey of Indian Missile	Department of H&S	31.12.2021
Development" Sri. D. Praveen Kumar, Scientist 'E' in		
DRDO Laboratory named Research Centre, Imarat (RCI),		
Hyderabad		
Awareness Programme on IPR under NATIONAL	ECE	30.12.2021
INTELLECTUAL PROPERTY AWARENESS		
MISSION (NIPAM) Organized by Ministry of Commerce		
& Industry and Internal Trade Patent Office, Guindy,		
Chennai		
SEMINAR ON CAREER GUIDANCE, Dr. PANKAJ	Placement	29.12.2021
SHARMA		
Project Expo – 2021 "NAVA PRADYOGIKI	All Departments	20.12.2021 to
PRADARSHAN" Organized by S-Hub	1	26.12.2021
#Limitless with YOGA "AICTE FIT INDIA	All Departments	16.12.2021 to
PROGRAMME"	1	20.12.2021
Enriching Seminar on Opportunity in	CSE,DS,IoT,	16.12.2021
"DATA and ANALYTICS" Speaker "Mr. Rama Kumar,	AIML,CS, IT & CSIT	
Practice Director, Big Data		
National Constitution day of India (Poster Presentation,	ECE & CSE	26.11.2021
Quiz Contest)		
Anti-Violence Against Women's (Poster Presentation,	CSE	25.11.2021
Creative Chart Work)		
Machine Learning Approaches For Real Time Problems	IT,IOT and AI&ML	30.10.2021
Roadmap to Women's Empowerment through	IIC	19.10.2021
Entrepreneurship and Operations		
Importance of Patenting your Innovations &	IIC	19.10.2021
Transformation of Business operation		
Innovation for Startup and B-Plan	IIC	05.10.2021
Creative Ideation, Design Thinking and Prototyping for	IIC	05.10.2021
user centered Innovations		
How to Become an Good entrepreneur	EDC	24.08.2021
World Entrepreneurship day Celebration	IIC	21.08.2021 to
		24.08.2021
Orientation Session on Ideation and Entrepreneurship	IA-IIC	06.08.2021
Development		
Orientation Session on Design Thinking Skill for	IIC	14.07.2021
Innovation		
To create an awareness about Angel and VC funding	IPR Cell	05.07.2021
among students		
Building an Innovation/Product fit for Market	IPR Cell	30.06.2021
How to Plan for Start-up and Legal & Ethical Steps	IPR Cell	29.06.2021
Webinar on UX Design	EDC	22.06.2021
Wireless Power Transfer (WPT) technology is developing	EEE	23.06.2021
rapidly in Electrical Vehicle applications.		
Workshop on Drone Development	S-Hub	21.06.2021
International Yoga Day	NSS	21.06.2021



















































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