

Practical sessions integrated with theory courses

VIGNAN'S FOUNDATION FOR SCIENCE, TECHNOLOGY AND RESEARCH

Department of Electrical and Electronics Engineering

B.Tech. R16 Course Structure

II Year - I Semester (R-16)

Sl. No.	Sub. Code	Subjects	Short		Credits
1	16EE201	Linear Systems and Signal Analysis	LSSA	T	4
2	16MS201	Management Science	MS	T	3
3	16EE203	Electrical Circuit Analysis	ECA	T+L+MP	4
4	16EE205	Electromagnetic Fields and Transmission Lines	EMFTL	T	4
5	16EC205	Digital Electronics	DE	T+L+MP	4
6	16EE207	Electronic Devices and Circuit Theory	EDCT	T+L+MP	4
7	16EE203A	Electrical Circuit Analysis Lab	ECA-L		
8	16EC205A	Digital Electronics Lab	DE-L		
9	16EE207A	Electronic Devices and Circuit Theory Lab	EDCT-L		

II Year - II Semester (R-16)

Sl.	Sub. Code	Subjects	Short		Credits
1	16EE202	DC Machines	DCM	T+L+MP	4
2	16EE204	Power Generation Systems	PGS	T+MP	4
3	16EE206	Power Electronic Devices and Circuits	PEDC	T+L+MP	4
4	16EE208	Analog Electronics	AE	T+L+MP	4
5	16EE252	02. Dept. Elective (Power Electronics) --- (E) Alternate Energy Resources	AER	T	4
	16EE251	03. Dept. Elective (Automation & Energy Systems) (E) Renewable Energy Technologies	RET	T	4
6	16CE281	Open Elective: (1) Civil - Renewable Energy Resources	RER	T	
	16CS246	(2) IT - Linux/Unix and Shell Programming	LUSP	T	
	16CS247	(3) CSE - Fundamentals of Data Base Systems	FDBS	T	
	16HS219	(4) Training - Indian History and Culture	IHC	T	
	16ME255	(5) Mech - 3D Printing Technology	3DPT	T	
	16ME256	(6) Mech - Basics in Robotics	BR	T	
7	16EE202A	DC Machines Lab Component	DCM-L		
8	16EE206A	Power Electronic Devices and Circuits Lab Component	PEDC-L		
9	16EE208A	Analog Electronics Lab Component	AE-L		
10	16EL102	Soft Skills Laboratory	SS-L	L	1
		OPEN ELECTIVES			
11	16EE253	II - II : Solar PV Technologies-I	SPVT-I		

III Year-I Semester (R-16)

Sl. No.	Sub. Code	Subjects	Short		Credits
1	16EE301	Control Systems	CS	T+L+MP	4
2	16EE303	Electrical Power Transmission & Distribution	EPTD	T+MP	4
3	16EE305	Electrical Measurements & Instrumentation	EM&I	T+L	3
4	16EE307	Transformers and Induction Motors	T&IM	T+L+MP	4
5	16EE354	Dept. Elective Stream - 2 (Power Electronics) Analysis of Inverters	AI	T + L	4
	16EE355	Dept. Elective Stream-3 (Automation & Energy Systems) Utilization of Electrical Energy	UEE	T	4
6	16CE385	Open Elective: (1) Civil - Environmental Pollution and Control	EPC	T	4
	16CS448	(2) IT - Python Programming	PP	T	
	16CS352	(3) CSE - JAVA Programming	JP	T	
	16HS224	(4) Training - Polity and Governance of India	PGI	T	
	16ME367	(5) Mech - Reverse Engineering	RE	T	
	16ME369	(6) Mech - Advanced in Robotics	AR	T	
7	16EE301A	Control Systems Lab Component	CS-L	L	
8	16EE305A	EM&I Lab Component (Batches-1-20 & 21-Last)	EM&I-L	L	
9	16EE307A	T&IM Lab Component	TIM-L	L	
10	16EE354A	Analysis of Inverters Lab Component	AI-L	L	
11	16EL103	Professional Communication Lab	PC-L	L	
		OPEN ELECTIVES			
12	16EE357	III - I : Solar PV Technologies-II	SPVT-II		

III Year - II Semester (R-16)

Sl.	Sub. Code	Subjects	Short		Credits
1	16HS301	Professional Ethics	PE	T	2
2	16EE302	Power System Analysis	PSA	T	4
3	16EE304	Microprocessors Architectures and Control	MPAC	T+L+MP	4
4	16EE306	Switch Gear and Protection	SGP	T+MP	3
5	16EE308	Synchronous and Special Machines	SSM	T+L+MP	4
6	16EE353	02. Dept. Elective (Power Electronics) (E) Power Semiconductor Devices and Passive Components	PSDPC	T	4
	16EE456	03. Dept. Elective (Automation&Energy Systems)(ME) Advanced Control Systems	ACS	T+L	4
	16CE391	Open Elective:(1)Civil-Principles of Industrial Waste Treatment	PIWT	T	
	16CS353	(2) IT - Statistics Using Python	SUP	T	

7	16CS355	(3) CSE - Internet Technologies	IT	T	4
	16HS307	(4) Training - Economic and Social Development of India	ESDI	T	
	16ME368	(5) Mech - Safety Engineering	SF	T	
	16ME370	(6) Mech - Fiels and Service Robot	FSR	T	
	16MS302	(7) MBA - Finance for Engineering	FE	T	
8	16EE304A	Microprocessors Architectures and Control Lab Comp	MPAC-L	L	
9	16EE308A	Synchronous and Special Machines Lab Component	SSM-L	L	
10	16EE456A	Advanced Control Systems Lab Component	ACS-L	L	
		OPEN ELECTIVES			
11	16EE358	III - II : Design & Economics of PV Systems	DEPVS		

IV Year - I Semester (R-16)

Sl. No.	Sub. Code	Subjects	Short		Credits
1	16EE401	Electric Drives	ED	T+L+MP	4
2	16EE403	Power System Operation and Control	PSOC	T+L+MP	4
3	16EE405	Principles of Digital Signal Processing	PDSP	T	4
4	16EE407	AI Techniques in Electrical Engineering	AITEE	T	4
5	16EE455	Dept. Elective Stream - 2 (Power Electronics) SMPS based Converters	SMPSC	T+MP	4
	16EE356	Dept. Elective Stream-3 (Automation & Energy Systems) Energy Audit, Conservation and Management	EACM	T	4
6	16CE482	Open Elective: (1) Civil - Environmental Impact Assessment	EIA	T	4
	16CS446	(2) IT - Data Science Using Python	DSUP	T	
	16CS448	(3) CSE - Python Programming	PP	T	
	16HS308	(4) Training - Geography and Environmental Concerns of India	GECI	T	
	16ME457	(5) Mech - Product Life Cycle Management	PLCM	T	
	16ME458	(6) Mech - Artificial Intelligence for Robotics	AIROBO	T	
	16MS401	(7) MBA - Engineering Entrepreneurship	EE	T	
7	16EE401A	Electric Drives Lab	ED-L	L	2
8	16EE403A	Power System Operation and Control Lab	PSOC-L	L	2
		OPEN ELECTIVES			
9	16EE459	IV - I : Solar Thermal Conversion Systems	STCS		

IV Year - II Semester (R-16)

Sl.	Sub. Code	Subjects	Short		Credits
1	16EE411	Project			15
2	16EE412	Internship			15

Skill Development Labs



Sushikshanath Sarvavidyalaya



Andhra Pradesh State Skill Development Corporation

TECHNICAL SKILL DEVELOPMENT INSTITUTE



VIGNAN'S

Foundation for Science, Technology & Research

(Deemed to be UNIVERSITY)

-Est'd. u/s 3 of UGC Act 1956



The Govt. of AP has formed 7 different 'Missions' to achieve double digit growth for the state and to make AP among the most developed state in the country. Among these, the 'Knowledge and Skills Mission' has been formed to provide trained and skilled manpower to all other Missions.

Aim

Andhra Pradesh State Skill Development Corporation aim is to train the students from different engineering streams to improve their skills and make them industry ready.

Context

To target 20 million people in AP in next 15 years towards skilling and entrepreneurship to meet skilled human power demands of all Missions and shape AP as the skilled-workforce and knowledge hub for the world



Vision

The Government of Andhra Pradesh has the vision (Swarna Andhra Vision 2029) to make Andhra Pradesh among the three best states in India by 2022 when India celebrates its 75th year of independence and to achieve the status of a developed state by 2029.

Mission

Andhra Pradesh itself will have a requirement of approximately 10 million Skilled workers between 2012 till 2022, across the high-priority and emerging sectors.



Vignan's Foundation for Science, Technology and Research is among the select few identified by APSSDC in this region to impart training to the youth in 7 different technical areas. The training will be provided by M/S Siemens Corporation for 2 years and subsequently will hand over the responsibilities to the university after 6 month training by VFSTR University staff under their supervision.

Prof. Ghanta.Subba Rao, Special Secretary to A.P Government, Skill Development, Entrepreneurship and innovation Department; Ex.Officio Secretary to the Hon'ble Chief Minister of Andhra Pradesh; Director, Andhra Pradesh State Skill Development Corporation (APSSDC) has been inaugurated the APSSDC-tSDI labs and the soft launch has been done at VFSTR on 2nd February, 2017.

Areas of

Training & Laboratories

Design / Computer Based Tutorials Laboratory

Description

Design/CBT lab is designed to teach the theory and tools of Computer Aided Design (CAD) and Computer Aided Manufacturing (CAM) with an emphasis on the central role of the geometric model in their seamless integration and a focus on the integration of these tools and the automation of the product development cycle.

Objectives

The main objective of this lab is to teach students with the basic and advanced commands and tools necessary for professional 3D part design, assembly and drafting using Siemens Solid Edge and Manufacturing NX software. After completing this course, a student will be able to:

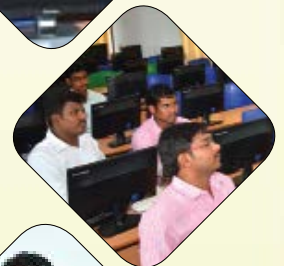
- ✓ Present an overview of CAD and describe its applications in different fields
- ✓ Describe common terms associated with CAD hardware and software.
- ✓ Outline the basic principles associated with CAD and demonstrate common drafting techniques and shortcuts
- ✓ Introduce the advanced capabilities of CAD to increase productivity
- ✓ Provide information about the CAD industry resources
- ✓ Use effectively CAD / CAM systems in order to produce the final NC code for the manufacturing of various mechanical parts and carry out exchange of data between CAD and CAM systems.

Key areas covered

- ✓ Computer-aided design (CAD) (Design)
- ✓ Siemens PLM Software
- ✓ Computer-aided engineering (CAE) (Simulation)
- ✓ Computer-aided manufacturing (CAM) (Manufacturing)
- ✓ POD software for online demonstration of various labs through tutorials

Softwares used

Solid edge, NX CAM, Siemens PLM Software, POD Software
Design/CBT lab syllabus includes 14 modules, which covers Design, CAE and CAM exercises





CNC Machines Laboratory

(Vertical Milling m/c & Lathe)

Description

The Computer Numerical Control (CNC) Laboratory consists of LMW VJ 55 Vertical Machining Centre (VMC), SMARTURN and Siemens Simulation controllers for programming. The CNC laboratory aims to enhance the student's knowledge in development of practical knowledge on CNC machines and the lab caters the skills necessary for the development of a mechanical engineer pursuing further studies and a career in manufacturing area.

Objectives

The main objective of Manufacturing CNC lab is to teach students to understand the basic concepts of computer numerical control (CNC) machine tool, machining methods and CNC programming. The Lab has Production model Smart turn CNC lathe and JV55 vertical machining center CNC milling machines with CAM simulation software's like, SINUTRAIN with Siemens controllers (828D, 802D) for programming simulation, Unigraphics NX10 (CAM). After completing this course, a student will be able to:

- ✓ Present an overview of CNC and describe its applications in different fields
- ✓ Outline the basic principles associated with CNC and demonstrate common Machining techniques.
- ✓ Introduce the advanced capabilities of CNC to increase productivity.
- ✓ Use effectively CAD/CAM systems in order to produce the final NC code for the manufacturing of various mechanical parts and carry out exchange of data between CAD and CAM systems.

Key areas covered

- ✓ 1. Computer-aided manufacturing (CAM) (Manufacturing)
- ✓ 2. POD software for online demonstration of CNC lab through tutorials

Software is used

SINU TRAIN for Sinumeric operate, NX CAM, POD Software, SINUMERIC 8400SL, SINUMERIC 828D/828D Basic training simulation modules.

List of Machinery Available

- ✓ 1. Model Smart turn CNC lathe
- ✓ 2. JV55 vertical machining center
- ✓ 3. Siemens simulation controllers

SKILLS

- ✓ Turning operations on machine elements like keys, M-codes, G-codes etc.
- ✓ Milling operations on machine elements like Face milling, tapping and taper turning.
- ✓ Machine programming for performing various operations.

OUTCOMES Able to,

- ✓ Self programming for machine elements.
- ✓ Perform milling and turning operations of various jobs.





Welding Laboratory

Description

The Welding course of study provides students with an opportunity to learn about the Industry as it relates to welding. Students will master a variety of welding competencies. Program standards are aligned to the requirements of the American Welding Society (AWS) for a Level I entry-level welder. The Welding Laboratory provides students with an environment where they are able to develop beneficial skills and knowledge in advanced welding techniques and methods. The lab is equipped for most common welding and cutting processes including oxy-fuel welding, shielded metal arc welding, gas tungsten arc welding, gas metal arc welding, resistance spot welding, and oxygen cutting.

Objectives

The main objective of this lab is to teach students with the basic and advanced welding techniques and methods including safety precautions necessary while welding. The course is taught in line with the industrial needs. After completing this course, a student will be able to:

- ✓ Describe and demonstrate proper welding shop safety.
- ✓ Read and interpret symbols and plans utilized in the Welding industry.
- ✓ Demonstrate competency in shielded metal arc welding.
- ✓ Demonstrate competency in metal inert gas welding
- ✓ Demonstrate competency in flux cored arc welding
- ✓ Describe how the effects of heat, metal thickness and metal length influence welding/cutting techniques.
- ✓ Describe how the effects of heat, metal thickness and metal length influence cutting techniques.

Key areas covered

- ✓ Welding safety and precautions
- ✓ Introduction to welding tools and equipment
- ✓ ARC Welding-AC
- ✓ ARC Welding-DC
- ✓ TIG Welding
- ✓ MIG Welding
- ✓ Oxy Acetylene Gas Welding
- ✓ Oxy Acetylene Gas Cutting

List of equipment available

Auto K-400, Easyweld 400-T, RS 400, Migmatic 250, Transweld, Gas welding, Gas Cutting equipment, safety equipment and tools.

SKILLS

- ✓ Learning of basic welding mechanism.
- ✓ Gas cutting of work pieces.
- ✓ Finishing and Grinding of work pieces.
- ✓ Learning of TIG welding method.
- ✓ Learning of MIG welding method.
- ✓ Learning of ARC welding method.
- ✓ Learning of GAS welding method.

OUTCOMES Able to,

- ✓ Perform different welding operation like flat, horizontal, vertical and overhead.
- ✓ Perform gas cutting operation.
- ✓ Refrigeration & Air conditioning lab





Refrigeration & Air Conditioning Laboratory

Description

Refrigeration Technicians, commonly known as Refrigeration Mechanics, repair, install and troubleshoot refrigerating systems. They can work on industrial or residential climate-control systems, such as HVAC units, ice machines, beverage equipment and refrigerated storage units.

Objectives

On completion of This course, the students are expected to gain knowledge about refrigeration and air conditioning system, analysis and design calculations.

The objectives of the course are to enable the student

- ✓ Familiarize the components of refrigeration systems.
- ✓ Understand the principles of refrigeration and air conditioning.
- ✓ To understand vapour compression and vapour absorption system operation.
- ✓ Analyze the refrigeration cycles & methods for improving performance.
- ✓ Design refrigeration & air conditioning systems using cooling load Calculations.
- ✓ Know the application of refrigeration and air conditioning.
- ✓ Energy Conservation and Management.

Key areas covered

- ✓ Various refrigeration cycles and its applications.
- ✓ Applications of various refrigeration and air conditioning machines

List of Equipment's Available

Scroll Chiller (Air-cooled) 10 TR, VRF IV Plus system 8 HP, Ducted split unit 5.5 TR - Indoor, Outdoor, Cassette unit 1.5 TR – (Indoor, Outdoor), High wall split (2 star) 1 tr – (Indoor, outdoor), Window unit (2 star) 1 tr – (Indoor, outdoor), Deep Freezer Hard Top 100 Litres, Bottle Cooler Hard Top 300 Litres, Water cooler 20/20 Litres, Bottle Water Dispenser, Cold room 6000 BTU/ Hr - Assembled Unit.

SKILLS

- ✓ Vacuumization of Air-condition system.
- ✓ Refrigerant recharge operation.
- ✓ Brazing operation.
- ✓ Air filter cleaning and replacement.
- ✓ Repair of Compressor and Condenser.

OUTCOMES Able to,

- ✓ Install and maintenance of various A/C Systems.
- ✓ Install and maintenance of various Refrigeration Systems.





Home Electrical Laboratory

Description

Electrical- Home lab is designed to teach the theory, tools of electrical house wiring, estimating and installing of electrical wiring in a safe manner as per the Indian electricity rules.

Objectives

The main objective of this lab is to teach students with the basic and advanced controlling devices, protective devices and tools necessary for wiring in respective of different applications. After completing this course, a student will be able to:

- ✓ Read blueprints or technical diagrams of electrical wiring.
- ✓ Select right and suitable components, devices for controlling and protecting the electrical items and peripherals
- ✓ Install and maintain electrical wiring circuits in a safe manner
- ✓ Inspect and make clearance for giving main supply by avoiding loose contacts in controllers, fuse and circuit breakers.
- ✓ Replace wiring, equipment and protective devices using hand tools and power tools.
- ✓ Learn and follow the Indian Electricity Rules during providing connection and in installation.

Key areas covered

- ✓ Read blueprints, designing basic and completed circuits.
- ✓ Selection and Installation procedures of wiring as per the drawing
- ✓ Study and application of suitable protective devices for circuit protection
- ✓ Safety precautions for avoiding accidents
- ✓ POD software for online demonstration of electrical application through tutorials

Tools used

- ✓ Electrical Workbenches
- ✓ Panel Boards
- ✓ Distribution board
- ✓ Energy meter
- ✓ Modular circuit breakers (MCB)
- ✓ Switches
- ✓ Cutting pliers
- ✓ Stripping pliers
- ✓ Crimping pliers
- ✓ Tester
- ✓ Screwdriver
- ✓ Power drilling machine
- ✓ Hammer
- ✓ Wire strippers
- ✓ Screw guns
- ✓ Multi meter and
- ✓ Lug crimper.

OUTCOMES Able to,

- ✓ Complete Electrical wiring of 1 BHK and 2BHK flats.
- ✓ Electrical wiring of warehouse.
- ✓ Electrical wiring of Auditoriums.
- ✓ Repair and re-wiring of motors in domestic appliances.
- ✓ Repair and re-wiring of motors in Agriculture.





Home Electronics Laboratory

Description

Electrics- Home lab is designed to teach the theory and rewinding of electronic appliances using in house like mixer, washing machine etc.

Objectives

The main objective of this lab is to gain knowledge about trouble shooting of devices, protective devices and tools necessary for wiring in respective of different applications.

After completing this course, a student will be able to:

- ✓ Rewinding of motors in home appliances like mixer, washing machine etc.
- ✓ Circuit trace out, pin Check and IC replacement in LED TVs.
- ✓ Signal checking and alignment of Dish Antenna in DTH.

Key areas covered

- ✓ Read blueprints, designing basic and completed circuits.
- ✓ Selection and Installation procedures of wiring as per the motor
- ✓ Study and application of suitable protective devices for circuit protection
- ✓ Safety precautions for avoiding accidents
- ✓ POD software for online demonstration of electronic application through tutorials

List of Equipment's Available

- ✓ LED TV and trainer kit
- ✓ Mixer and trainer kit of motor
- ✓ DTH and trainer kit of DTH
- ✓ OVEN and trainer kit of PCB.

SKILLS

- ✓ Rewinding of motors in home appliances like mixer, washing machine etc.
- ✓ Circuit trace out, pin Check and IC replacement in LED TVs.
- ✓ Signal checking and alignment of Dish Antenna in DTH.

OUTCOMES

 Able to,

- ✓ Repair and maintenance of LED TVs.
- ✓ Repair and maintenance of Mixer.
- ✓ Repair and maintenance of DTH.
- ✓ Repair and maintenance of OVEN.
- ✓ Repair and re-wiring of motors in domestic appliances.



Areas of

Training & Laboratories



Office & ICT Electronics Laboratory

Description

Office and ICT Electronics Lab is designed to teach the theory and trouble shooting of office equipment like Printer, Scanner, CPU, UPS etc.

Objectives

The main objective of this lab is to gain knowledge about trouble shooting of office equipment, protective devices and tools necessary for wiring in respective of different applications.

After completing this course, a student will be able to:

- ✓ Study and operation of CC cameras.
- ✓ Study and operation of Components in CPU and Laptop.
- ✓ Study and operation of Components in Printer.
- ✓ Study and operation of Components in Scanner.

Key areas covered

- ✓ Read blueprints, designing basic and completed circuits.
- ✓ Selection and Installation procedures of equipment per the application
- ✓ Study and application of suitable protective devices for circuit protection
- ✓ Safety precautions for avoiding accidents
- ✓ POD software for online demonstration of electronic application through tutorials

List of Equipment's Available

CC Cameras and trainer kit, CPU and trainer kit, Printer and trainer kit of motherboard, Scanner and trainer kit of motherboard.

SKILLS

- ✓ Study and operation of CC cameras.
- ✓ Study and operation of Components in CPU and Laptop.
- ✓ Study and operation of Components in Printer.
- ✓ Study and operation of Components in Scanner.

OUTCOMES Able to,

- ✓ Install and repair of CC cameras.
- ✓ Install and repair of CPU and Laptop.
- ✓ Install and repair of Printer.
- ✓ Install and repair of Scanner.



CM's Skill Excellence Center

Stakeholders & Benefits

- ✓ AP state government +VFSTRU+SIEMENS
- ✓ Rural youth training+ Training in employment oriented program
- ✓ Vignan's management's initiative in supporting this initiative by providing spacious and well furnished infrastructure

Training Programmes



(a) Training in APSSDC-tSDI Labs

1. Students Trained at APSSDC Siemens Center (In-house)

S.No	Name of the Laboratory	No. of Students Trained		
		Apr 2017 - Mar 2018	Apr 2018 - Mar 2019	Apr 2019 - Till data
1	Design CBT	30	-	32
2	Electrical Home	216	864	613
3	Electronics Office	113	-	611
4	Electronics Home	120	1004	516
5	Refrigeration & Air Conditioning	-	291	517
6	Welding	27	111	73
7	CNC	25	82	158
TOTAL		531	2352	2520

2. Students Trained at APSSDC Siemens Center (Outside)

S.No	Name of the Laboratory	No. of Students Trained		
		Apr 2017 - Mar 2018	Apr 2018 - Mar 2019	Apr 2019 - Till data
1	Design CBT	16	252	123
2	Electrical Home	58	123	288
3	Electronics Office	62	69	130
4	Electronics Home	63	96	56
5	Refrigeration & Air Conditioning	0	35	155
6	Welding	0	108	55
7	CNC	0	96	162
TOTAL		199	779	969

(b) Other Skill Development Programs

1. Students Participated in APSSDC Certification Programmes Summer-2017

S.No.	Program	Registered
1	Algorithm Design Techniques	503
2	Android Developer Fundamentals	8
3	UI Development	36
4	Web Application Development using Python	36
5	5 Numerical computation with SCiLab	12
6	SCiLab using Linux	01
7	Advanced Auto CAD	01
8	Catia V5 Mechanical Designer	09
9	Catia V5 Mechanical Expert	18
10	Robot Structural Analysis	37
11	Mobile App Development Program	126
12	International Institute of Entrepreneurship Development	02
TOTAL		789

Training Programmes



2. Certification Programmes in CM's Skill Excellence Center: (Summer-2018)

S. No	Program	Duration	Department	No. Students	Certification
1	Certification program on Python for Everybody	1st - 14th June, 2018 (14 days)	CSE & IT (III year)	476	Coursera
2	Certification program on Internet of Things (IOT)	1st - 14th June, 2018 (14 days)	ECE, EEE & BME (III year)	203	Coursera
3	Certification program on Internet of Things (IOT)	11th - 24th June, 2018 (14 days)	Mech (II year)	18	Autodesk
4	C Programming	14th - 20th, May, 2018 (6 days)	ECE, CSE, IT (II year)	175	APSSDC
5	Data Structures & Algorithms	14th - 20th, May, 2018 (6 days)	ECE (II year)	25	APSSDC
6	PLC Fundamentals	15th - 17th March, 2018 (3 days)	EEE (II & III year)	90	APSSDC
Total				987	

3. Certification Programmes in CM's Skill Excellence Center: (Summer-2019)

S. No	Program	Duration	Department	No. Students	Certification
	Problem Solving skills through programming in C	18-25, May 2019 (08 days)	ECE, EEE (II year)	40	APSSDC
	PLC Programming	19-26, May 2019 (08 days)	EEE (III Year)	35	APSSDC
	Problem Solving skills through programming in C	20-26, May 2019 (07 days)	CSE (II year)	50	APSSDC
	Google Android Developer Fundamentals-	20 May 1st JUNE, 2019 (12 days)	CSE, ECE, IT (III Year)	265	APSSDC
	Programming contest & Challenges	20-30, May 2019 (10days)	IT (II year)	50	APSSDC
	Fusion 360	20-22, June, 2019 (03 days)	Mech (II Year)	50	APSSDC
	Solid Edge	24-29, June, 2019 (06days)	Mech (III Year)	30	APSSDC
	CNC Training	27 May-1st June, 2019 (06days)	Mech (III Year)	30	APSSDC



(b) Other Skill Development Programs

4. Faculty Workshops

S.No	Name of the Workshop	Resource Persons	Dates & Duration	No. of Participants
1	Manufacturing (CNC) - Foundation	Siemens Corp	17-22, June 2019	8
2	Manufacturing (Welding) - Foundation	Siemens Corp	17-22, June 2019	9
3	Manufacturing (Welding) - Expert	Siemens Corp	22-06, July 2019	10
4	Electronics (Home) - Foundation	Siemens Corp	17-22, June 2019	3
5	Electronics (Office) - Foundation	Siemens Corp	17-22, June 2019	13
6	Electronics (Office) - Expert	Siemens Corp	24-30, June 2019	13
7	Manufacturing (CNC) - Expert	Siemens Corp	24-30, June 2019	8
8	Amazon Web Services (AWS)	AWS,Bangalore	18-19, June 2018	61
9	Training of Trainers (Electrical Home Expert Level)	Siemens Corp	5-9, March, 2018 (5 Days)	20
10	Training of Trainers (Welding Expert Level)	Siemens Corp	5-9, March, 2018 (5Days)	20
11	Training of Trainers (CNC Expert Level)	Siemens Corp	5-9, March, 2018 (5Days)	20
12	Training of Trainers (Electrical Home Foundation Level)	Siemens Corp	11-16, Sept, 2017 (6 Days)	20
13	Training of Trainers (Welding Foundation Level)	Siemens Corp	11-16, Sept, 2017 (6 Days)	20
14	Training of Trainers (CNC Foundation Level)	Siemens Corp	11-16, Sept, 2017 (6 Days)	20

(c) Unemployed Youth Training Programmes

S.No	Name of the Workshop	Resource Persons	Dates & Duration	No. of Participants
1	Electronics-Home-Foundation	Siemens Corp	6-31, May 2019	21
2	Manufacturing-Welding- Foundation	Siemens Corp	6-31, May 2019	12
3	Electronics-Office-Foundation	Siemens Corp	6-20, May 2019	25
4	Electronics-Office-Expert	Siemens Corp	20-25, May 2019	17
5	Electronics-Office-Master	Siemens Corp	27 May-6 June 2019	17
6	Electronics-Home-Expert	Siemens Corp	1-8, June 2019	19
7	Manufacturing-Welding-Expert	Siemens Corp	17-29, June 2019	6
8	Electronics-Home-Master	Siemens Corp	17-29, June 2019	16

Special Programmes

Stanford University Innovation Fellowship program is another initiative for which 4 students have been selected along with one faculty in year 2017-18.



VIGNAN'S

Foundation for Science, Technology & Research

(Deemed to be UNIVERSITY)

-Estd u/s 3 of UGC Act 1956

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www.vignan.ac.in

Project Expos

SRUJANANKURA – 2020

Srujanankura 2020 is a three-day national level Tech Extravaganza event was organized by VFSTR, that was held on the 12th ~14th March 2020 at Open-air playground and U-block of VFSTR (Deemed to be University), Vadlamudi, Guntur. It provides a platform for the students to showcase their technical powers in various disciplines. This event consists of several activities like Project Expo, Paper & Poster Presentation, Technical Quiz, Business Plan, and Video Ad Making. The main focus of Srujanankura 2020 is Project Expo that bringing together innovative ideas from students in the form of projects and benefits the scientific student community who are eager to change the world through their technical skills. Students showcased static and working models that can be used to learn various scientific concepts.

The objective was not only to inculcate a scientific attitude and research-mindedness but also to create teaching aids. It involves students participating in activities to understand the cognitive, affective, and psychomotor aspects of the task. Students had made still models, working models, and posters to present their topics. More than twenty Universities or Engineering colleges from various parts of India participated in this event, where a mixture of students from different streams exhibited their creative skills in the form of a working model or prototype and posters. Dr. M.S.S. Rukmini and Dr. G. Sitaramanjaneya Reddy was convener and co-convener, respectively, and Mr. B. Sunil Tej was a Project Expo coordinator of the event. The whole event was organized by 150 student coordinators and 70 faculty coordinators. Around 3200 students participated in various events and won the worth of above 8 lakh cash prizes.

The competition provided a widespread option in choosing the stream and track of interest for students, thereby enabling versatility of choice. Students who have chosen the prototype track can also further choose from one of the streams namely – Automation, Infra Engineering, Chemical Technology, Computer Applications, Pharma and Life sciences, Electronics, Managements studies, Multidisciplinary and Socially Relevant. Similar streamwise categorization was present for the students who participated in the poster track, thereby no boundary was drawn to the student's creativity. In addition to the prototype and poster tracks, there was a quiz track

was present, where two rounds – prelims and finals were held and student`s knowledge of real-time applications, novels, and famous places were tested.



Exhibit your Talent in..

Cash Prize More than **Rs. 8 lakhs**

Invited Categories

- ★ **Automation**
Mechanical | Automobile
Electronics | Applied | Agriculture
- ★ **Infra Engineering**
Civil | Architecture
- ★ **Chemical Technology**
Chemical Engineering
Textile Technology
Petroleum Engineering
Food Technology
- ★ **Computer Applications**
Computer Science Engg
Information Technology | BCA | MCA
- ★ **Pharma and Life Sciences**
Biotechnology | Biotechnology | Chemistry
Pharmacy | Life Sciences | Physics
- ★ **Electronics**
Electronics & Communication Engg
Biomedical Engg. | Electrical & Electronics Engg.
- ★ **Management Studies**
BBA, MBA

National Level Tech Extravaganza
Srujanankura
12 - 14 March 2020

Cultural Night, Fun Events, Food Courts and many more...

General Guidelines :
Registration fee for each participant is Rs. 2000/-
Students of B.Tech, B.Pharmacy, BBA, BCA, BSc, MCA, MBA, M.Tech are eligible to participate
Register online at www.vignan.ac.in/srujanankura2020
Send abstracts to convenor_srujanankura2020@vignan.ac.in

Chief Convenor: Dr. M.S.S. Rukmini, Dean Student Affairs | **Convenor:** Dr. Sitaramanjaneya Reddy, Professor
Student Coordinators: V.N. Prathendra - 6305326816 | K. Divya Sree - 6303746377

VIGNAN'S
Foundation for Science, Technology & Research
(Deemed to be UNIVERSITY)
-Estd. u/s 3 of UGC Act 1956
Vadlamudi, Buntar District - 522 213, Andhra Pradesh. | Tel: 0863 2344708

A brief about the moments of the competition

Srujanakura 2020 was inaugurated on 12th March 2020. Dr. M.S.S. Rukmini, Dean Students Affairs, VFSTR welcomed the gathering and briefed about the objectives and mission of the Srujanakura 2020. Dr. M.Y.S. Prasad, Vice-Chancellor, VFSTR address the importance of Srujanakura technical event and student activities in VFSTR. The inaugural address was delivered by Dr. Lavu Rathaiah, Chairman, Vignan`s Group of institutes. The Chief Guest – Sri E.S. Chakravarthy, Global Head Resource Management Group, briefed on the advancements in the field of science, benefits of attending a science fair, and the importance of engineers in day to day life. Dr. Srinivasa Rao, Dean R&D, VFSTR briefed the audience about the competition. The inaugural address was accompanied by felicitation to the chief guests and presentation of mementos by internal dignitaries. The end of the inaugural ceremony marked the beginning of the competition.

- The competition came to an end on its third day, followed by a valedictory function. Chief Guest Sri Jagarlamudi Durga Prasad, CEO, Grama Bazaar and Guest of Honor Mr. P. Vinod Kumar, CEO & Director, Rover InfoTech Pvt. Ltd, Singapore, addressed the gathering in the valedictory function of the competition and awarded prizes to the students of the winning team. The total worth of 8 lakhs cash prizes and medals were awarded to the students of winning team and runner-up in each stream of prototype track and also winning team and runner-up of poster and

quiz tracks. In addition, the winning team and the runner-up were awarded a certificate of excellence. Certificates participation have been awarded to all the participating teams and certificate of appreciation has been awarded to all the faculty and student coordinators, volunteers. The valedictory function was marked with its end by a national anthem.

Highlights of Srujanakura 2020

- A total of 3,304 students from 19 Universities/ Engineering colleges have participated in the event.
- 395 Prototypes out of 572 from VFSTR University have been demonstrated to be real-life applications, and 27 posters discussing everyday issues were presented by the students and 46 teams have participated in quiz competitions.
- 20 Judges, whose areas of expertise – Automation, Infra Engineering, Food Processing, Chemicals and textile, Computer Applications, Pharma and life sciences, Electronics, Managements studies, Multidisciplinary, and Socially Relevant were invited.
- Certain prototypes presented by the students were equal to those made at the engineering level. Out of this, VFSTR(Deemed to be University) won a number of awards and prizes and noticeably 2 two colleges named Vignan's LARA Institute of Technology and Science, Vadlamudi, Guntur and Vignan's Pharmacy College, Vadlamudi, Guntur students also won the consolation prizes.
- Cash prizes, medals, and certificates excellence for students from the top three winning teams have been presented by the Chief Guests during the valedictory function.
- Participation certificates have been awarded to all the participating teams and appreciation certificates were awarded to all the student coordinators and volunteers.

Judges from various fields of expertise have been invited from different universities and colleges to evaluate the live working models of the students. Selective Judges were chosen to evaluate the posters based on the student's work and their presentation. The projects were from different domains such as Core branch, Multidisciplinary, Social relevant, and management studies. Students had prepared models like Solar Power Chaff Cutter, Home Automation Using Google Assistant, Smart Water Governing System using IOT, Equipment Design of drum dryer Diabetic Retinopathy Identification and IoT Based Floor Cleaning Robo. Posters based on the evolution of humans and biodiversity have been well presented. The IoT Based Floor Cleaning Robo,

Coconut Harvesting Robo and Multipurpose Robo using AI were very unique. Students were motivated to develop a scientific fervor and research mindedness attitude in order to develop the qualities of analytical and critical thinking, where all the students of VFSTR had exhibited 395 projects at the Expo and explain about their project that they had done. Any project that relates to any topic of the specified streams was allowed in this project expo. The judges appreciated the students. They asked students about the scientific concepts forming the foundation of the models. The organization of the competition and the efficiency of the volunteers can be proved to be outstanding as various tracks – prototype, poster, and quiz have proceeded in parallel. Refreshments and a grand buffet lunch were served on both the days of the competition. Volunteers also ensured that students from far away distances were escorted to the competition venue and provided with good hospitality by arranging proper transport facilities and staying at the hostel of the institute's. Details of student participation in the events such as Project Expo winners and the participant's list is given below.

PHOTO GALLERY
Srujanankura - 2020





Winners of the Project Expo

Srujanankura - 2020 Project Expo Winners & Runners List					
S.NO	Cluster	Title	University/ College	Position	Name of the Students
1	Pharma & Life Sciences	Waste to Wealth	VFSTR-BT	1 st	P. Satya Sai Swaroopa
					Jansi Lakshmi
					S Lakshmi Anusha
		Awareness on Corona Virus	Vignan Pharmacy College	2 nd	M Lakshmi Sushmitha
					N Sindhura
					V Prudhvi Sai
		Poly HerbanLozengis	Vignan Pharmacy College	3 rd	K sri Lakshmi
					K Malleshwari
					M Naveena
		Preparation of Bio-Plastics	VFSTR-BT	Consolation	S. Gayathri
Janaki Ram					
2	Automation	Solar Power Chaff Cutter	VFSTR-Agriculture	1 st	G V Rao
					M N Manikanta
					A Ganesh
		SI Engine with zero % noks& Carbon	KKR College of Engineering	2 nd	Satyanarayana Reddy
					Manikanta
		Farma friendly robotic sprayer	VFSTR-Agriculture	3 rd	P Durga Prasad
					GSSR Krishna
		Coconut Harvesting Robo	VFSTR-Mechanical	Consolation	Jahnvi
K Surya					
P Swaroop					
3	Inter Disciplinary	Home Automation Using Google Assitant	VFSTR-ECE	1 st	Nara Hari
					N Bhargava Teja
					A Siva prasad
		3 D Printer ProtoType	VFSTR-Mech	2 nd	J V Praneeth
					M Adill



					M Y N V S S Gupta
		Automatic Road Quality Detection System	VFSTR- ECE	3 rd	Naga Vinod Rakesh Kumar Siva Venkata Sruthi
		Gesture Controlled Robotic Arm for Surgery	VFSTR- BME	Consolation	K AnadaVarsha Y Naveen Reddy J Ram Varun
		Survilience Robot	VFSTR- ECE	Consolation	Yaswanth P Sohith K Kavya
4	Socio- Centric	Smart Water Governing System using IOT	VFSTR- ECE	1 st	MdKhasim G Pavan Ramesh A Naveen
		Vibrating Glove pain Releif for IT Professors	VFSTR- BME	2 nd	J Swetha K Charishma G Gayathri
		Agriculture Drone	VFSTR- ECE	3 rd	K venkata Satya M Venkata Ramana N PavanAravind
		Lumbar Pain Reliever	VFSTR- BME	Consolation	S Kiran Dhana Lakshmi Roopa Jones
		Floor Cleaning Robot	VFSTR- ECE	Consolation	G YaminiSupraja Madhumitha Pavan Shree
5	Infra	Self Cleaning Sheet	VFSTR	1 st	G Sirisha Khyathi Divya
		Plastic Pavement Block	VFSTR	2 nd	I Nagesh P Mani Kanta Prakash
		Zero Energy Pump	VFSTR	3 rd	Y Devesh S Roshan S Shameera
6	Chemical	Equipment Design of drum	VFSTR-FT	1 st	Rajkumar



		dryer			G. Nikitha Sai
					Mahitha T
		Ko Kum Fruit Wine	VFSTR-FT		Harish Chowdary
					Sarvesh
					Indira
		Development of phase change material assisted solar drier	VFSTR-FT	2 nd	Praveen
					Sasrutha
					Poojitha
		Electricity Conductive Printed Circuis on Textiles	VFSTR-TT	Consolation	O.Giresh Kumar
					D. Dharmendar Reddy
			B. Venkatesh		
Detection of Leakage	VFSTR-PE	3 rd	T. Adarsh		
			K.L. Narayana		
			N. Karthik		
Biofilters for Treatment of volatile Organic compounds in industrial Effluents	VFSTR-CHEM	Consolation	M. Vaasanthi		
			K. Bhuvanewari		
			C. Prem		
7	Computer Applications	Diabetic Retinopathy Identification	VFSTR-CSE	1 st	Sk. NagurShareef
		Inteligent Eye	VFSTR-CSE	2 nd	K Jahnavi
		Result AAT Visum System	LARA-CSE	3 rd	A Naveen
					Manikanta
					Phanindra
		Vignan's Chat Bot	VFSTR-IT	Consolation	P. L.S Meghana
					S Bhanu
		Medicine Reminder Kit	VFSTR-IT	Consolation	Y Pranay
		Marking attendance face Recognition System	VFSTR-CSE	Consolation	A Harika
					Shyamala
G Kethan					
Bluetooth Car by application of Arduino	VFSTR-CSE	Consolation	Sk. Shafiulla		
			Hukum Deval		
Banking System using C	VFSTR-CSE	Consolation	V Govardan		
			Praveen		
			Nithin		
8	Electronics	IoT Based Floor Cleaning	VFSTR-	1 st	Koushik Sai



	Robo	ECE		Harsha Vardhan
				Vamsi
	Multi purposeRobo using AI	VFSTR- EEE	2 nd	Bhagya Raj
				Sai Baba
				Kalyan
	Operation of Magnetic Levetation	LARA- EEE	3 rd	SkReshma
				Gopal
				T Vineeth
	Gesture Controlled Nursing Robo	VFSTR- BME	Consolation	SkShavez
				Zameer
				Sharuna
	Obstacle Avoiding Rover	SMRC Hyd	Consolation	Prashanth Reddy
				M Sri Manasa
	Prostatic Hand Movements	VIIT,Vizag	Consolation	Meenakshi
				Jihitha
	RF Control War Field Spying Robo with Night Vision Glass	VFSTR- EEE	Consolation	Shashank

DEPARTMENT WISE SRUJANANKURA PROJECT EXPO 2020

S.No	DEPARTMENT	No.of Projects
1	Applied Engineering	26
2	Biotechnology	36
3	Chemical Engineering	37
4	Civil Engineering	18
5	Computer Science and Engineering	75
6	Electrical and Electronics Engineering	13
7	Electronics and Communication Engineering	134
8	Information Technology	35
9	Mechanical Engineering	11
10	Bachelor of Pharmacy	10
Grand Total		395

SRUJANANKURA – 2019

Srujanankura 2019 is a three-day national level Tech Extravaganza event organized by the VFSTR, that took place on the 21st ~23rd February 2019 at Open air playground and U-block of VFSTR (Deemed to be University), Vadlamudi, Guntur. It provides a platform for students to showcase their technical power in various disciplines. This event consists of a variety of events, such as Project Expo, Paper & Poster Presentation, Technical Quiz, Business Plan and Video Ad Making. The main focus of Srujanankura 2019 is Project Expo that brings together innovative ideas from students in the form of projects and benefits the scientific student community willing to change the world with their technical skills. Students showcased static and working models that can be used to learn various scientific concepts.

The objective was not only to inculcate a scientific attitude and research-mindedness but also to establish teaching aids. It involves students to participate in activities so as to understand the cognitive, affective and psychomotor aspects of the task. Students had made still models, working models, and posters to present their topics. More than 30 Universities or Engineering colleges from various parts of India participated in this event, where a mixture of students from different streams exhibited their creative skill in the form of a working model or prototype and posters. Dr. M.S.S. Rukmini, Dean Students affairs and Dr. Srinivasa Rao, Dean R&D was convener and co-convener, respectively and Dr. G. Sitaramanjaneya Reddy was a Project Expo coordinator of the event. The whole event was coordinated by 170 student coordinators and 80 faculty coordinators. Approximately, 3,300 students participated in different events and won the worth of above 5 lakh cash prizes.

The competition provided a widespread option of stream and track of interest for the students, thereby allowing versatility of choice. Students who have chosen the prototype track can also choose further from one of the streams namely – Automation, Infra Engineering, Food processing, Chemicals and textile, Computer Applications, Pharma and life sciences, Electronics, Managements studies, Multidisciplinary and Socially Relevant. Similar stream wise categorization was present for the students who participated in the poster track, thereby no limit was drawn to the student`s creativity. In addition to the prototype and poster tracks, there was a

quiz track, where two rounds – prelims and finals were held and student`s knowledge of real-time applications, novels, and famous places were tested.



Exhibit your Talent in..

Cash Prize More than **Rs. 5 lakhs**

Invited Categories

- Automation
- Mechanical | Automobile
- Infrastructure | Robotics
- Infra Engineering
- Civil | Architecture
- Food Processing
- Agriculture | Food Technology
- Chemicals and Textile
- Chemical Engineering
- Textile Technology
- Polymers | Engineering
- Computer Applications
- Computer Science Engg
- Information Technology
- Pharma and Life Sciences
- Bio-Technology | Biotechnology
- Pharmacy | Life Sciences
- Electronics
- Electronics & Communication Engg
- Biomedical Engg | IIT
- Management Studies
- MSB-MBA
- Basic Sciences
- Mathematics | Physics | Chemistry
- Multi-Disciplinary
- Socially Relevant

National Level Tech Extravaganza
Srujanankura
21 - 23 February 2019

General Guidelines:
Registration Fee for each participant is Rs. 200/-
Students of B.Tech, B.Pharm, BBA, BCA, BBA, BBA, MCA, MBA, M.Tech are eligible to participate.
Register online at
www.vignan.ac.in/srujanankura2019

Cultural Night, Fun Events, Food Courts and many more...

Student Coordinators : Mr. M. Suraj 8143145263 Mr. Md. Arshad Ali 9493925329 Mr. G. Saiya Sai 9676912722

Co-organisers:
VIGNAN'S LARA INSTITUTE OF TECHNOLOGY & SCIENCE AND VIGNAN PHARMACY COLLEGE

Vignans, Guntur District - 522 213, Andhra Pradesh, India | Tel: 0863 2344700
www.vignan.ac.in/srujanankura2019

A brief about the moments of the competition

Srujanakura 2019 was inaugurated on 21st February 2019. Dr. M.S.S. Rukmini, Dean Students Affairs, VFSTR welcomed the gathering and briefed about the objectives and mission of the Srujanakura 2019. Dr. M.Y.S. Prasad, Vice Chancellor, VFSTR addressed about the importance of Srujanakura technical event and student activities in VFSTR. The inaugural address was delivered by Dr. Lavu Rathaiah, Chairman, Vignan's Group of institutes. Chief Guest Sri Guntur Nageswara Rao briefed on the advances in the field of science, technology, and benefits of attending a science fair and the importance of engineers in day to day life. Dr. Srinivasa Rao, Dean R&D, VFSTR briefed about the competition to the audience. The inaugural address was accompanied by the felicitation to the chief guests and presentation of mementos by internal dignitaries. The conclusion of the inaugural ceremony marked the beginning of the competition.

- The competition came to an end on its third day, followed by a valedictory function. The Chief guest – Sri BHVS Narayana Murthy, Director, Research Centre Imarat (RCI), Defence Research and Development Organization, addressed in the valedictory function of the competition and awarded prizes to the students of the winning team. Total worth of 5 lakhs cash prizes and medals were awarded to the students of winning team and runner-up in each stream of prototype track and also winning team and runner-up of poster and quiz tracks. In addition, the winning team and the runner-up were awarded a certificate of excellence. Certificates of participation have been

awarded to all the participating teams and a certificate appreciation has been awarded to all the faculty and student coordinators, volunteers. The valedictory function was marked with its end by a national anthem.

Highlights of Srujanakura 2019

- A total of 3,550 students from 19 Universities/ Engineering colleges participated in the event.
- 282 Prototypes of out of 860 from VFSTR University have displayed real-life applications, and 35 posters discussing everyday issues were presented by the students and 42 teams participated in quiz competitions.
- 25 Judges, whose area of expertise – Automation, Infra Engineering, Food processing, Chemicals and textile, Computer Applications, Pharma and life sciences, Electronics, Managements studies, Multidisciplinary and Socially Relevant were invited.
- Certain prototypes presented by the students were equal to those made at engineering level. Out of this, VFSTR(Deemed to be University) won a total of several awards and noticeably 2 two colleges named Vignan's LARA Institute of Technology and Science, Vadlamudi, Guntur and Prathyusha engineering college, Tamilnadu students also won the consolation prizes.
- Cash prizes, medals and certificates of excellence for students from the top three winning teams have been presented by the chief guests during the valedictory function.
- Participation certificates have been awarded to all the participating teams and appreciation certificates were awarded to all the student coordinators and volunteers.

Judges from various fields of expertise have been invited from different universities and colleges to evaluate the students live working models. Selective Judges were chosen to evaluate the posters based on the student's work and presentation. The projects came from a number of disciplines such as Core branch, Multidisciplinary, Social relevant and management studies. Students prepared models such as novel mechanism of tree climbing robot, Poly house farming using IOT, Hackerstack, 3D Printed Muscle Sensored Prosthetic Arm, Smart city, Dam Engineering- Polavaram Dam and UAV Drown for agriculture applications was showcased. Posters based on evolution of humans and biodiversity were presented well. The tree climbing robot and multipurpose mobile robot was a very unique. Students were motivated to develop a



scientific fervor and research mindedness attitude in order to develop the qualities of analytical and critical thinking. where all the students of VFSTR had exhibited 282 projects at the Expo and explained about their project that they have done. Any project that relates to any topic of the specified streams was allowed in this project expo. The judges appreciated the students. They asked students about the scientific concepts forming the foundation of the models. The organization of the competition and the efficiency of the volunteers can be proved to be outstanding as various tracks – prototype, poster, and quiz have proceeded in parallel. Refreshments and a grand buffet lunch were served on both the days of the competition. Volunteers also ensured that students from far away distances were escorted to the competition venue and provided with good hospitality by arranging proper transport facilities and staying at the hostel of the institute`s.Details of student participation in the events such as Project Expo winners and the participant's list is given below.

PHOTO GALLERY

Srujanankura - 2019





Winners of the Project Expo

Srujanankura - 2019 Project Expo Winners & Runners List

S.No	Cluster Name	Position	Title	University/Coll ege	Name of the Students
1	Life Science	1 st	Fish waste Management	VFSTR	Karri Hasita
					KanubuddiEswari Reddy
					Uma DeepicaNinavarapu
		2 nd	Fabrication of effervescent antacid tablets using Calcium Carbonate extracted from natural shell sources	Vignan's Pharmacy college	P.Bhargavi
					P.Daniella Silvia
					Sk.Hafsekousar
3 rd	Marine based biocacialisachetes	Bapatla College of Pharmacy	shaikkhalida		
			pochanasushmaraghavi		
2	Mech	1 st	Novel Mechanism of tree climbing robot	VFSTR	D.ChenchulaKrishnaiah
					SadineniPavan Kumar
					T.Manoj Venkata Leela Sai
		2 nd	Design and Fabrication of semi-automatic Solar pesticide sprayer	Vignan's LARA Institute of Technology and Science	AmmireddyTilak Kumar
					G V S Naga Sai Manideep
					ChimakurthiPrem Kumar
					Dunna Jaya Chandra
		3 rd	Design and Fabrication of Power generation by Railway track	Vignan's LARA Institute of Technology and Science	AnnavarapuVamsi Krishna
					AlavalaDinakar
					Gattu Gopala Sri Dhanush
3	Civil	1 st	Dam Engineering- Polavaram Dam a) 3-D Aerial view of Polavaram dam b) Prototype of Dam	VFSTR	Mane Sravan Kumar
					Muhammed B WasimAkram
					Munaganti K Venkata Sai Shruthi
					Tommandru Lakshmi Rshivardhan



		2 nd	Working model of Hydraulic Lift	VFSTR	Vajhala Raja Sekhar
					Shaik Haneef
					T.Deva Sai Roshan Kumar
		3 rd	Working model of sewage treatment plant	VFSTR	Sole AvinashBabu
					BandlamudiBhaswanth
					Pallapothu Venkatesh KomatineniRamanjane yulu
4	Applied Engineering/Food processing	1 st	Low cost numeric pigeon planter	VFSTR	D.Anusha
					CH.Meghana
		2 nd	Development of refractance window(RW) dryer and its effects on quality of guava lather	VFSTR	K. Brahmini
					T. Sai Sneha
					R. Baby Priya
		3 rd	Recycling aquaculture water	VFSTR	CH. Pratap Reddy
					P. Teja Srinivas
					E.Dedeepya
		5	ECE/EEE	1 st	Poly house farming using IOT
Kowsikesh. K					
Sowjanya.P					
2 nd	Multipurpose Mobile Robot			VFSTR	P.Harshita
					K. Anooja
					sai chowdary
					K. Vishnu Priya
3 rd	UAV Drown for agriculture applications			VFSTR	MuthineniBhavya
					NeelapuPavan Sai Kalyan
Consolation	Design and implementation of Electronic Authenticable verifiable voting machine			Vignans LARA Institute of Technology and Science	K Sudheer Chowdary
					Sk Hassan Ahmed
					V Sai Pavan Kumar
		SkMastan Vali			
3 rd	Implementation of Smart Crop Protection System	VignansNirula Institute of Technology and Science for	Syed Najima		
			RatnalaManasa		
			Syed Najima		



				Women	RatnalaManasa
		Consolation	Wheel chair with health monitoring system	Prathyusha engineering college	U.Shalini
					G.Ganesh Reddy
					A.Santhish Kumar
					B.Anudeep
6	CSE/IT	Consolation	Hackerstack	VFSTR	IsireddyPrasanna Reddy
				VFSTR	Harsh Gautam
		1 st	Object detection using deep learning	Vignans LARA Institute of Technology and Science	GajavalliPavani
					Alaparathi Vijaya Lakshmi Sai
					Naga Sukanya Kapa
		2 nd	Feature extraction and classification of fundus images for detection of microaneurysms	Vignans LARA Institute of Technology and Science	V Chaitanya Kumar Reddy
					DandiboinaMounnika,
3 rd	Driver drowsiness detection	VFSTR	VummaneniRamya,		
			Kodavati Sindhu,		
7	Management	1 st	Remodeling Banners and Bottles	VFSTR	DandiboinaMounnika,
					A.Hanisha
		2 nd	Stream Bikes	VFSTR	D.Nanda Gopal
					G.Karthik
					M.NagaKiarnTeja
		3 rd	Bonveyage	VFSTR	B.Koushik
					Ch.Manikanta
					M.Tharangini
					N.Saranya
8	CHEM/TT /PE	1 st	Fabricating unit of Laboratory model of banana fiber extratct	VFSTR	B.Chaitanya
					Shaik Aadil Miya
					Ch.Sankar Raju
		2 nd	Determination of bore hole	VFSTR	G.Tharun Kumar
					Aswin K Pradeep



			conditions		InzamamUlHaque
					Jerin Benny
		3 rd	Fabricating unit of Laboratory model of air laid non woven web form	VFSTR	J.RaviTeja
					K.Jyotsna
					K.Teja
9	Multidisciplinary	3 rd	Arduino Based Dialyzer reprocessing System	VFSTR	V. Chandrani
					U. Lakshmi Priyanka
					Radha
		1 st	3D Printed Muscle Sensored Prosthetic Arm	VFSTR	C.Nagarjuna Reddy
					VadapalliJagadeeshBabu
		2 nd	Fabrication of Ceramic 3D Printing Machine	VFSTR	JettiVamseePraneeth
					Lanka Jaya Surya
					Mekala Sai Sasivanth
		3 rd	Smart city	VFSTR	Subrahmanyam.V
					Manoj.G
					Love Reddy.I
		10	Social Relevant	1 st	Controlling home applications using google assistance
P.G.LakshmiMahathi					
GadeKavya Sri					
2 nd	Soldier tracking and health monitoring system using gps and gsm modules			VFSTR	K.SaiTarun
					L.Sai Krishna Reddy
					Rizwana. Syed
3 rd	Remote Sensing Circuit			VFSTR	P.Sharath Chandra
					Sk.Suleman
					I.Alekya

DEPARTMENT WISE SRUJANANKURA PROJECTS EXPO 2019

S.No	DEPARTMENT	No.of Projects
1	Applied Engineering	10
2	Biotechnology	19
3	Chemical Engineering	19
4	Civil Engineering	10
5	Computer Science and Engineering	71
6	Electrical and Electronics Engineering	15
7	Electronics and Communication Engineering	66
8	Information Technology	20
9	Mechanical Engineering	12
10	Interdisciplinary and Socialrelavent	17
11	Bachelor of Pharmacy	11
12	Management studies	12
Grand Total		282

Computer simulations for advanced subjects

Computer Simulations Adopted for Advanced Subjects

S.No	Courses	Simulation Tools/ packages used
Computer Science and Engineering (CSE)		
1	VLSI	CADENCE (Virtuoso)
2	Digital Electronics	VHDL (Xilinx) / FPGA Boards (Z Board)
3	Digital Design Through Verilog	
4	Digital Communications	Vector signal generator & Vector signal Analyzer
5	Antennas	HFSS/ Fabrication
6	Electronic Circuit Analysis	PCB
7	Signals & Systems	MATLAB
8	Digital Signal Processing	
9	Digital Image Processing	
10	Microprocessors & Micro Controllers	TASM , H/W Boards
Electronics and Communication Engineering (ECE)		
1	Wireless Computer Networks	NS2
2	Computer Networks	NS2/Ethreal/wireshark/NMAP
3	Data Science using Python	Jupyter/Pandas
4	Software Engineering	Argo UML
5	Data Mining Techniques	WEKA/ Jupyter /Pandas
6	Mobile communication	NS2
7	Cloud Computing	AWS services
8	Pattern Recognition	Jupyter/Pandas/ Numpy
9	Fundamentals of Image Processing	MATLAB
10	Information Security	ZenMap / Wireshark
11	Big Data Analytics	Apache Hadoop / Hive / Spark
Electrical and Electronics Engineering (EEE)		
1	Control Systems	MATLAB
2	Power Systems	
3	Analysis of Inverters	
Mechanical Engineering (MECH)		
1	Machine Drawing	Auto CAD
2	CAD/ CAM	Crew
3	3D Printing	3 D Printing software
4	Computer Aided Simulation	ANSYS