VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

TECHINNOVATION

NEWS LETTER

OCT - DEC, 2020 | DEPT. OF ECE | VOLUME NO.: 18

ECE Department

Department of Electronics and Communication Engineering was started since the inception of Vignan's Institute of Management and Technology for Women during 2008 with an initial intake of 90. The strength was enhanced to 120 during 2010. The Department had added Post graduate programme in VLSI during the year 2011 and Embedded Systems during 2014 with an intake of 18 each.

The Department has state-of-art laboratories equipped with advanced and well maintained equipment, continuously updated application software packages, more than adequate computing systems with 24x7, 30 MBPS internet facility.

Department Vision

To transform the students into technologically competent professionals, with abilities to address the societal challenges of the time through innovative technical practices in electronics & communication engineering.

Department Mission

M1: To foster inquisitive-driven advanced knowledge building among students for reinforcing the domain knowledge, develop capabilities, skills and solve complex engineering problems.

M2: To prepare industry-ready graduates for global Electronics as well as communication-based engineering companies by conducting training programs, workshops and industry visits.

M3: To build entrepreneurship and leadership qualities, research aptitude among students for the contribution of economic and technological development in cutting edge technologies in the national and as well as in the global arena.

Program Educational Objectives

PEO1: To develop the student's ability on technical concepts to design, simulate, and synthesize various electronic and communication circuits & systems for their research advancements.

PEO2: To impart analytical skills and to prepare the students to excel in applying state-of-the-art hardware and software tools to solve complex engineering problems for R&D, Industry, and societal requirements.

PEO3: To prepare the students to work in teams, take independent decisions, and integrate engineering issues for a successful career in a multi-disciplinary environment.

PEO4: To promote entrepreneurship among the students to become successful entrepreneurs with professional ethics.

Program Educational Objectives

A graduate of the Electronics and Communication Engineering Program will be able to

Professional Skills Ability: Identify, design electronics & communication circuits and conduct experiments with electronics & communication systems, analyze and interpret data, formulate and solve electronics & communication engineering problems.

Industrial Skills Ability: Design digital and analog systems, algorithms, fire ware, modern engineering tools, software, etc. as per needs and specifications and work in laboratory and multidisciplinary tasks.

Ethical and Social Responsibility: Communicate effectively in both verbal and written form, will have knowledge of professional and ethical responsibilities and will show an understanding of the impact of engineering solutions on the society, and also will be aware of contemporary issues.

Program Outcomes (Adapted from NBA)

Engineering Graduates will be able to:

Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

Problem Analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

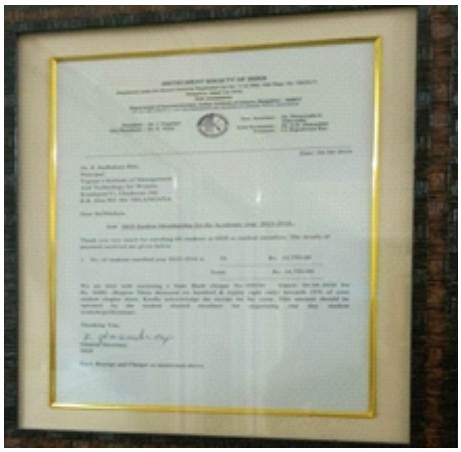
Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

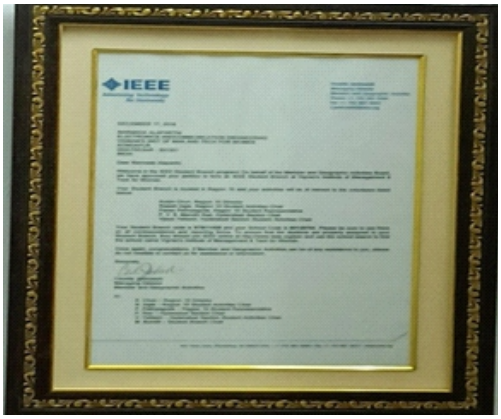
Life-long Learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

AYUDHA POOJA

The ayudha pooja is scheduled to take place at the Vignan Institute of Management and Technology for Women on October 3, 2020. Ayudha Puja is done on Navami Tithi during Navratri festival. Many times Ayudha Puja shows up on Maha Navami during Navratri. Ayudha Pooja is another name for Shastra Puja, while Astra Puja is another name for it.

DEPARTMENT PROFESSIONAL SOCIETIES





COVID TIME INSTRUCTIONS TO STUDENTS

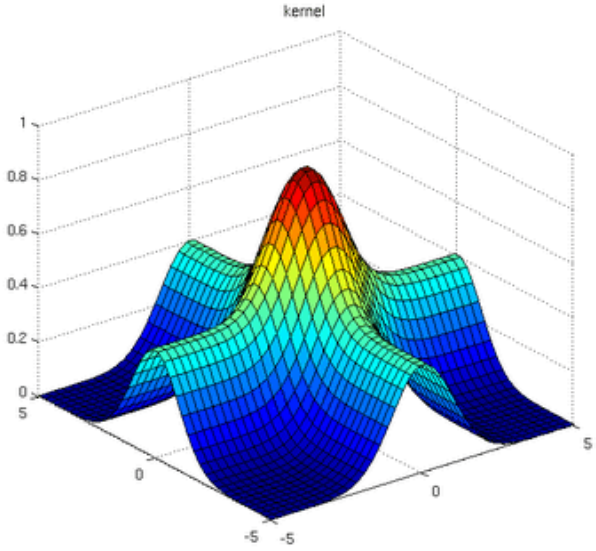
FACULTY ACHIEVEMENTS

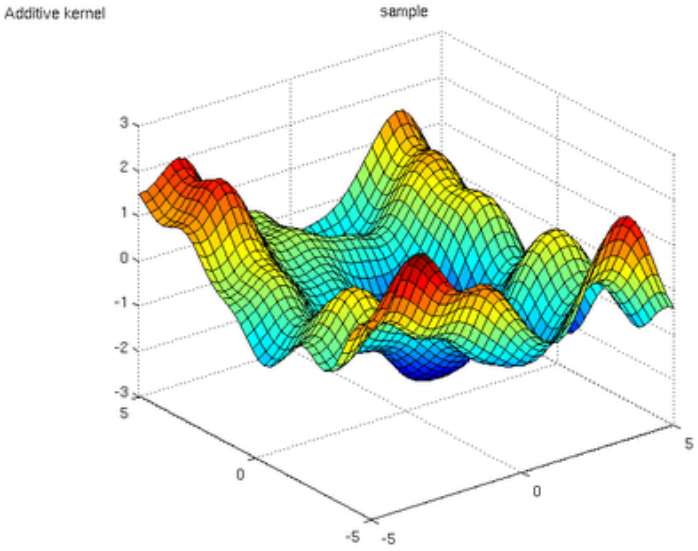
FACULTY ARTICLE

The article **"CAUTIOUS MODEL PREDICTIVE CONTROL USING GAUSSIAN PROCESS REGRESSION"** is written by Mrs. K. MAMATHA, as a Assistant Professor.

ABSTRACT: Gaussian Process (GP) Regression Has Been Widely Used In Supervised Machine Learning Due To Its Flexibility And Inherent Ability To Describe Uncertainty In Function Estimation. In The Context Of Control, It Is Seeing Increasing Use For Modeling Of Nonlinear Dynamical Systems From Data, As It Allows The Direct Assessment Of Residual Model Uncertainty. We Present A Model Predictive Control (MPC) Approach That Integrates A Nominal System With An Additive Nonlinear Part Of The Dynamics Modeled As A GP.

CONCLUSION: The GP Model To Enable Cautious Control. Using Additional Approximations For Efficient Computation, We Finally Demonstrate The Approach In A Simulation Example, As Well As In A Hardware Implementation For Autonomous Racing Of Remote-Controlled Race Cars With Fast Sampling Times Of 20 Ms, Highlighting Improvements With Regard To Both Performance And Safety Over A Nominal Controller.





PH.D JOINING FACULTY

S.NO.	NAME OF THE FACULTY	DESIGNATION	NAME OF THE INSTITUTE	STATUS
1.	MR. P. HARIRISHNA	ASSISTANT PROFESSOR	VIGNAN FOUNDATION FOR TECHNOLOGY AND SCIENCE	PURSING
2.	MR. T. PULLAIAH	ASSOCIATE PROFESSOR	JNTUH	COMPLETED
3.	MR. VIJAY KUMAR R URKUDE	ASSOCIATE PROFESSOR	JNTUH	PURSING

STUDENT ARTICLE

The Article **"WSN BASED INTELLIGENT CONTROL SYSTEM FOR SERICULTURE"** is Written By G.KRISHNAVENI, Roll Num: 16UP1A0465

ABSTRACT: Sericulture, or silk farming, is the cultivation of silkworms to produce silk. Temperature, Humidity and Light intensity are very important parameters in the progression of silkworms, suitable encouraging must be done according to requisites in every stage. Environmental variations assume as an important part in the growth and development of silkworm. IoT is recent paradigm that has a variety of each and every object to sense and communicate through the internet by wireless smart mobile with each other. The auto controlled actuators like exhaust fan, heater and sprinkler maintain the temperature and humidity of the system within the threshold levels.

CONCLUSION: The "WSN Based Intelligent Control System For Sericulture" Gives Automation And Guided Environment In Sericulture Advances, This Venture Gives Mechanization And Supervisory Control In Sericulture Cultivates By Employing Nodemcu And Iot Technology Based Invention. This Model Facilities And Controls The Natural Variables Like Temperature, Intensity And Light Power Along With The Food Feeder And Solution Sprays. Required Edge Values For Parameters Like Temperature, Relative Humidity And Light Intensity Can Be Stable Based On The Environmental Circumstances.

STUDENT ACTIVITIES & ACHIEVEMENTS

PAPER PRESENTATION

S.NO.	NAME OF THE STUDENT	ROLL NUMBER	BRANCH	ACADEMIC YEAR	EVENT	HOST
1.	SANKURI SRAVANI	20UP5A0414	ECE	2020-21	TECHNICAL	BIET
2.	VADLA SHIVANI	20UP5A0417	ECE	2020-21	TECHNICAL	BIET
3.	NAREDDY PAVANI	20UP1A0430	ECE	2020-21	TECHNICAL	BIET
4.	SIVVA AKSHAYA	19UP1A0433	ECE	2020-21	CULTURAL	VFSTR
5.	SUGGUNA LIKHITA	19UP1A0435	ECE	2020-21	CULTURAL	VFSTR
6.	TANKALA HARIKA	19UP1A0436	ECE	2020-21	CULTURAL	VFSTR

STUDENT WORKSHOPS ORGANIZED IN VMTW

S.NO.	DATE	NAME OF THE EVENT	RESOURCE PERSON(S)
1.	14-09-20 TO 15-09-20	A WORKSHOP ON "THE INTEGRATED CIRCUIT DESIGN - HOW DO INTEGRATED CIRCUIT WORKS AND HOW IT IS MADE"	MR. P. HARI PRASAD, DEEKSHA TECHNOLOGIES, HYDERABAD.
2.	05-10-20 TO 06-10-20	A WORKSHOP ON "WORKSHOP ON CONTROL SYSTEMS ENGINEERING USING MATLAB"	MR. K. JAGDESWAR REDDY ELEGANT EMBEDDED SYSTEMS PVT LTD, HYDERABAD.
3.	09-10-20 TO 10-10-20	A WORKSHOP ON "A WORK SHOP ON BASICS OF INFORMATION THEORY "	DR. SALADI SARITHA, ASSOCIATE PROFESSOR , GEETHANJALI COLLEGE OF ENGINEERING AND TECHNOLOGY, HYDERABAD

CAMPUS RECRUITMENT

S.NO.	COMPANY'S NAME	ON/OFF CAMPUS	BRANCH	OFFERS	PACKAGE	ROLE
1.	TCS - CODEVITA	NATIONAL HIRING	ALL	1	7.0 LPA	SOFTWARE PROGRAMER
2.	DXC TECHNOLOGY	ON	ALL	18	3.6 LPA	ASSSOCIATE PROFESSIONAL
3.	COGNIZANT	ON	ALL	6	4 & 6 LPA	SOFTWARE ENGINEER
4.	TCS- NQT	NATIONAL HIRING	ALL	11	3.6 LPA	SOFTWARE ENGINEER
5.	TECHMAHINDRA	NATIONAL HIRING	ALL	1	3.5 LPA	SOFTWARE ENGINEER
6.	HEXAWARE	NATIONAL HIRING	ALL	1	3.6 LPA	SOFTWARE ENGINEER
7.	VEON	ON	ECE	1	2.5 LPA	SOFTWARE DEVELOPER

Editorial: **Dr. G. Apparao Naidu,** Principal, **Mr. Vijay Kumar R. Urkude,** HOD, ECE., **Mrs. V. Suzan Shalini,** Asst. Professor, BS&H, **Ms. M. Hemalatha,** Asst. Professor, ECE.

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