About Andhra University

Andhra University, a premier institute of higher education in India was established in 1926. Located in,'the city of destiny' Visakhapatnam. The campus is with the natural beauty of greenery and hills. The 'bay of bengal' is on one side of the city and the other side it is occupied with beautiful green kailasagiri hill range. Andhra University College of engineering (autonomous) is one of the well organized campus colleges of the university with 15 departments. The vision of the university is to create New Frontiers of Knowledge in Quest for Development of a Humane and Just society. The mission is Leverage global knowledge networks to help India and International Community in developing human resources capable of leading creative developments by upholding intellectual traditions and human values.

About ECE dept

Department of Electronics and Communication Engineering is one of the leading departments situated in the Engineering College of Andhra University. The rapid development in Electronics and Communications initiated the inception of a separate Department of Electronics and Communication in 1983, after the trifurcation of the Department of Electrical Engineering. The department is actively engaged in the research areas like Radar, Signal Processing, Antennas, EMI/EMC, Mobile Communication, Under water communication and navigation, GPS and Bio-Medical Engineering.

Department has an excellent academic track record. All the students of this department are well placed both in India and abroad. For the past one decade there is 100% placement of the students who graduated from this department.

Department has successfully completed several consulting and research projects supported by DRDO, CSIR, UGC, AICTE and ISRO.

Courses Offered in ECE:

- B.E(4Year Program)
- B.E+M.E(5Year Integrated Dual Degree Program)
- M.E Electronic Instrumentation Engineering
- M.Tech Radar and Microwave Engineering
- M.Tech Bio-Medical Engineering
- Ph.D Programmes

Collaborative Programs with BIT, SWEDAN

- M.Tech/M.Sc Signal Processing Engineering
- M.Tech/M.Sc Telecom Engineering

Objective of the workshop

The Objective of the workshop is to train the Faculty, Research Scholars and PG Students of Engineering colleges to utilize the capability of MATLAB for their research work in the fields like Communications and Signal Processing.

The MATLAB and SIMULINK soft ware is a fundamental computational tool in various educational institutions around the world. MATLAB and SIMULINK provide a flexible environment that enables to accelerate the research, reduce analysis and development time, and deploy advanced applications. This rich set of proven tools for analyzing and visualizing systems and data enables you to experiment with new approaches and gain insight into the behavior of complex systems.

Communications System Toolbox provides algorithms and tools for the design, simulation, and analysis of communications systems. These capabilities are provided as MATLAB functions, MATLAB System objects, and SIMULINK blocks. The system toolbox includes algorithms for source coding, channel coding, interleaving, modulation, equalization, synchronization, and channel modeling.

Signal Processing Toolbox provides industry-standard algorithms for analog and Digital Signal Processing (DSP). You can use the toolbox to visualize signals in time and frequency domains, compute FFTs for spectral analysis, design FIR and IIR filters, and implement convolution, modulation, resampling, and other signal processing techniques. Algorithms in the toolbox can be used as a basis for developing custom algorithms for audio and speech processing, instrumentation, and baseband wireless communications. Statistical signal processing and data windowing functions. Power spectral density estimation algorithms, Digital FIR and IIR filter design, analysis, and implementation methods.

Analog filter design methods, Signal transforms, including Fast Fourier Transform (FFT), and Short-Time Fourier Transform (STFT). Linear prediction and parametric time-series modeling.

Course contents

- Basic MATLAB Concepts
  - Data Storage & Manipulation
  - MATLAB Operations
  - MATLAB Commands
  - Built in Functions & Constants
  - I/O File Operations
  - MATLAB Programming
  - MATLAB Functions
  - Control Flow statements
  - 2D & 3D Plot generation
  - Customizing & Manipulating Graphs
- Solving equations
  - Linear& Non Linear Equations
  - Differential Equations
  - Polynomial roots
- MATLAB applications
  - Communications
    - Signal generation
    - Modulation
    - Coding
    - BER analysis
- Signal Processing
  - Spectral Analysis
  - FFT, STFT, Wavelet, etc.'
  - ECG, EEG signal Processing
  - Least squares and Kalman Filtering
- Solution to a Non linear problem

A TWO DAY WORKSHOP ON MATLAB APPLICATIONS IN COMMUNICATIONS & SIGNAL PROCESSING

2nd & 3rd November, 2011

Registration Form

Name of the Participant:……

Name of the Organization:……

Address for communication:……

……

Phone:……

E-mail:……

Registration fees details

Amount . . . . . DD No: ……

Date……Name of the Bank ……..

DD should be drawn in favor of Convener, Workshop in MATLAB Applications for Communications & Signal Processing, Visakhapatnam.

Signature of the Applicant

Address for communication

Smt S.Santa Kumari,

Co-Convenor,

Department of Electronics and Communication Engineering,

College Of Engineering(A), Andhra University,

Visakhapatnam-530003

Mobile: +91 9290876448, **E-mail: santaksee-tala@yahoo.com**

Target audience:

The target audience for the workshop are Faculty from ECE, EEE, CSE, Research Scholars, PG & UG Engineering students.

Fees:

Faculty/ Research Scholars/PG students Rs.1000.00

UG students Rs. 600.00

As the seats are limited, participants are advised to register their seat in advance. Registration is based on first cum first served basis.

Chief Parton

Prof.G.S.N.Raju

Principal, AUCE (A)

Convenor

Prof.G.Sasi Bhushana Rao

H.O.D, Dept of E.C.E

Co-Convenor

Smt S.Santha Kumari

Organizing Committee

Prof K.Raja Rajeswari, Chairperson, BOS in ECE, AUCE (A)

Prof P.Mallikarjuna Rao

Prof Y.Gopala Rao

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Dr P.V.Sridevi, HOD, ECE Dept., AUCE for Women

Mrs.M.S.Anuradha

Mrs.S.Aruna

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

ANDHRA UNIVERSITY COLLEGE OF ENGINEERING (A)

VISAKHAPATNAM-530003

Organizing

A TWO DAY WORKSHOP ON MATLAB APPLICATION IN COMMUNICATIONS & SIGNAL PROCESSING

In Association With

Autodesk

Authorized Reseller for MATLAB, Hyderabad

On

2nd & 3rd November, 2011

Convenor

Prof.G.Sasi Bhushana Rao

H.O.D, Dept of E.C.E

Venue

Department of Electronics

&

Communication Engineering,

Andhra University College of Engineering (A)

Visakhapatnam-530003