



UGC Sponsored Two-week Online Refresher Course on
“Systems and Signal Processing”
(01-03-2021 to 16-03-2021)



Organized by
UGC – HUMAN RESOURCE DEVELOPMENT CENTRE
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
KUKATPALLY, HYDERABAD, T.S.

About UGC-HRDC, JNTUH:

The UGC-Human Resource Development Centre (formerly known as UGC-Academic Staff College), Jawaharlal Nehru Technological University Hyderabad, was established in the year 2000 and sponsored by University Grants Commission, New Delhi. The UGC-Human Resource Development Centre organizes Faculty Induction Programmes, Orientation Programmes, Refresher Courses, Short Term Courses and Workshops on thrust areas for in-service teachers and also for newly appointed teaching faculty on a regular basis, to update the knowledge and skills in their respective fields.

During the current academic year 2020-2021, a two-week Refresher Course on “Systems and Signal Processing” is proposed to be organized by UGC-HRDC, JNTUH during **01-03-2021 to 16-03-2021** through ONLINE.

Major Course Contents:

- Concepts of Signals and their analogy with Vectors
- System Classification and Analysis
- Introduction and properties of Fourier series
- Introduction and properties of Fourier transform, Laplace transform, ROC and waveform synthesis
- Practical aspects of Sampling and Matlab simulation
- Discrete Time Signals and Z-Transform and ROC
- Random Variable and operations on Random variables
- Random Processes – Spectral & Temporal Characteristics
- Analysis of System Response
- DTFT, DFT, FFT and properties
- IIR and FIR Filter Design
- Realization of structures

Eligibility:

- The faculty members from the department of E.C.E., and related disciplines, working in Universities and Colleges.
- The faculty members have to be sponsored by the concerned Principal of the College / Head of the Institution for considering the participation in the Programme.

Registration Fee Particulars:

- The Registration fee for the course is **Rs. 1000/- (Rupees One Thousand Only)** to be paid through online payment mode.
E-Certificate will be issued to the participants on successful completion of the course.



Dr. G.K. Viswanadh
Professor of Civil Engineering &
Director
UGC-HRDC, JNTUH, Hyderabad.

Course Coordinator:

Dr. K. Anitha Sheela
Professor & Head
Dept. of ECE, JNTUH CEH
Kukatpally, Hyderabad.



How to apply:

- The faculty members desirous to participate in the program are requested to register their details through online mode at <https://jntuhhrdc.in/delegate-registration> on or before 22nd February 2021.
For further queries, please mail us at: directorhrdcjntuh@jntuh.ac.in
- Filling the online registration form is mandatory.
- A filled-in form of application duly signed by the faculty member and forwarded by the Head of the Institution and sponsorship certificate from the Head of the Institution, should be uploaded in HRDC portal on or before the last date.

Resource Persons:

Resources persons are drawn from different Universities, Institutions, Industries and R&D establishments.

Selection Criteria:

Selection will be done based on *first-come-first-serve basis* to a maximum number of 40. The list of selected participants will be intimated through E-mail.

Important Dates:

Last date for the receipt of application through online	: 22 nd February 2021
Intimation of selection to the participants through e-mail	: 23 rd February 2021
Course duration	: 01 st to 16 th March 2021
Course Timings	: 10.00 AM to 1.15 PM & 2.00 PM to 5.15 PM

Instructions to the Participants for Online Course:

- (1) Filling the registration form is mandatory.
- (2) Attendance for all the sessions, Completion of activities, assignments and online tests given by the Resource Persons are mandatory.
- (3) All sessions will be conducted on WebEx.
- (4) Link will be provided a day in advance.
- (5) Limited seats are available on First-Come-First-Serve basis.

Address for all Correspondence:

Dr. G.K.Viswanadh

Professor of Civil Engineering &

Director, UGC-Human Resource Development Centre
Jawaharlal Nehru Technological University Hyderabad

Kukatpally, Hyderabad – 500 085, Telangana State

Please contact: 8008103814 (All working days from 10.30 am to 5.00 pm only)

or directorhrdcjntuh@jntuh.ac.in for more enquiries about the Refresher Course

Web: www.jntuhhrdc.in



Phone: 040-23151610
Fax: 040-23156795
Web : www.jntuhrdc.in
EMail:directorhrdcjntuh@jntuh.ac.in



UGC-HUMAN RESOURCE DEVELOPMENT CENTRE
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

(Establishment by Govt. Act No. 30 of 2008)

Kukatpally, Hyderabad – 500 085, Telangana State, India.

Dr. G.K. VISWANADH

B.E (Civil), M.E.(Hydraulics), Ph.D., F.I.E.
Professor of Civil Engineering &

DIRECTOR

Date: 23-02-2021

Dear Sir/Madam,

Thank you for your interest in participating in the Two-week Online Refresher Course on “**Systems and Signal Processing**” scheduled from 01-03-2021 to 16-03-2021, being organized by UGC-Human Resource Development Centre (HRDC), JNTUH, Hyderabad.

Your registration has been accepted. Attendance for all the sessions and completion of the activities, assignments and online tests given by the Resource Persons are mandatory to get the certificate, failing which certificate will not be issued.

A WhatsApp group will be created with the selected participants for further communication. The participants who have not entered their WhatsApp number while registration, are requested to send their WhatsApp number to the mail id directorhrdcjntuh@jntuh.ac.in before 5.00 pm on 23-02-2021.

Steps to be followed to join the course

Please join JNTUH HRDC STC from your computer, tablet or smart phone from the below link:

<https://jntuhrdc.webex.com/jntuhrdc/onstage/g.php?MTID=e82aaf26e4a6ea2f9d85b17b6b25dc297>

Date and time: Monday, 1st March -2021 @ 9:45 am

Meeting number: **184 900 3754**

Password: **SSP!@#45**

The link is Unique and don't share the link with anyone. If anyone attended the course with your link your registration will be cancelled.

Note: The Selection to the program is subject to the submission of the sponsorship letter from the head of the institution. If the institution is not able to provide the sponsorship letter due to the present prevailing situation, you may submit the same before the course completion to get the participation certificate.

Etiquette Guide or Ground Rules

Keep the following guidelines in mind to improve quality of the sessions.

- Do not enable **camera**
- Use a **headset with microphone** for optimal audio quality.
- **Mute the microphone** when not in use to avoid disturbance to others.
- If you have questions, **post on the chat window**
- If you definitely need to ask a question vocally, the organizer will unmute you.

Please join the course by 9.45 am on 1st March, 2021.

List of Participants:

S. No	Name of the Candidate	Designation	Department	College	Address	State
1	B.Bindu Bhavani	Assistant Professor	Electronics & Communications Engineering	Sphoorthy Engineering College	Sagar Road,Nadargul Village, Near Vanasthalipuram, Saroornagar Mandal, Hyderabad.	Telangana
2	Bidugu Eleena	Assistant Professor	Electronics & Communications Engineering	Bhoj Reddy Engineering College For Women	Bhoj Reddy Engineering College For Women,Vinaynagar,I S Sadan Crossroads, Saidabad.	Telangana
3	Chaitanya Duggineni	Professor	Electronics & Communications Engineering	GRIET, Bachupally	GRIET, Bachupally	Telangana
4	Hima Bindu Valiveti	Professor	Electronics & Communications Engineering	Gokaraju Rangaraju Institute of Engineering & Technology	Nizampet Road, Krishnaja Hills, Bachupally, Kukatpally, Hyderabad	Telangana
5	Dr. K.G.Padmasine	Assistant Professor	Electronics and instrumentation	Bharathiar University	Department of electronics and instrumentation Bharathiar University Coimbatore Tamil Nadu India	Tamil Nadu
6	Dr. J Venkateswara Rao	Professor	Electronics & Communications Engineering	Vignan Institute of Technology and Science	Near Ramoji film city, Deshmuki Village, Yadadri, Bhuvanagiri, Telangana	Telangana
7	N Bhanu Prakash	Assistant Professor	Electronics & Communications Engineering	Rishi MS inst. of Engg. And Tech. For women	Nizampet x- road,near JNTU Metro station, Kukatpally, Hyderabad	Telangana
8	Y.Roji	Assistant Professor	Electronics & Communication	VBIT	Aushapur,Ghatkesar	Telangana

			ns Engineering			
9	D Ramya	Assistant Professor	Electronics & Communications Engineering	Mallareddy Engineering College And Management Sciences	Kistapur Village,Medchal	Telangana
10	Keesara Vijaya Bharathi	Assistant Professor	Electronics & Communications Engineering	Malla Reddy Engineering College and Management Sciences, Kistapur, Medchal	Kistapur(V)	Telangana
11	Priya Darshini Kumari	Assistant Professor	Electrical & Electronics Engineering	Jayaprakash Narayan College Of Engineering	Dharmapur Mahabubnagar	Telangana
12	Ashish Kumar Jain	Assistant Professor	Electronics & Instrumentation Engineering	F.E.T., M.J.P. Rohilkhand University, Bareilly	Department of EI Engineering, F.E.T., M.J.P. Rohilkhand University, Bareilly	Uttar Pradesh
13	Dr. C. Padmaja	Assistant Professor	Electronics & Communications Engineering	GNITS	Shaikpet, Hyderabad	Telangana
14	Dr Sreeja Mole S S	Professor and HoD	Electronics & Communications Engineering	Christhu Jyothi Institute of Technology and Science	CJITS, Yeswanthapur Columbonagar Janagon	Telangana
15	Prof. Anitha Swamidas	Professor	Electronics & Communications Engineering	Guru Nanak Institutions Technical Campus, Ibrahimpatnam	Ibrahimpatnam Ranga Reddy District	Telangana
16	Dr. V.Srinivasa Rao	Associate Professor	Electronics & Communications Engineering	Anurag Engineering College	Ananthagiri(V&M), Kodad, Suryapet (Dt)	Telangana
17	Kannuru Srinadh	Assistant Professor	Electronics & Communications Engineering	Anurag Engineering College	Ananthagiri Village and Mandal	Telangana
18	Gaddam Srujan	Assistant Professor	Electronics & Communications Engineering	Sphoorthy Engineering College	Nadergul(v), Balapur(M), RR Dist	Telangana
19	Kovvuri Srinidhi Reddy	Assistant Professor	Electronics & Communications Engineering	Bhoj Reddy Engineering college for women	Vinay Nagar Colony , Santhosh Nagar	Telangana
20	Shaik Afroz Begum	Assistant Professor	Electronics & Communications Engineering	Vasavi College of Engineering	Ibrahimbagh, Hyderabad-500031	Telangana
21	Janak Kapoor	Assistant Professor	Electronics & Communications Engineering	FET MJP Rohilkhand University Bareilly	Dept of Electronics and Communication Engineering FET MJP Rohilkhand University Bareilly	Uttar Pradesh
22	Dr. Madhuri G R	Assistant Professor	Electronic Science	Kuvempu University	Jnanasahayadri Kuvempu University Shankaragatta 577451	Karnataka
23	Geeta Babusingh	Assistant Professor	Electronic Science	GDC (A), Kalaburagi	Sedam Road, Kalaburagi	Karnataka
24	Dr. Nagraj Kishanrao	Assistant Professor	Electronic Science	Government College(Autonomous), Kalaburagi.	Government College(Autonomous) Sedam Road Kalaburagi	Karnataka
25	Dr. Rekha Annigeri	Assistant	Electronic	Government	Department of Electronics	Karnataka

		Professor	Science	College(Autonomous) Kalaburagi	Government College(Autonomous) Sedam Road Kalaburagi	
26	Shaheen Fatima	Assistant Professor	Electronic Science	Government College(Autonomous) Kalaburagi	Department of Electronics Government College(Autonomous) Sedam Road Kalaburagi	Karnataka
27	Srinivas Ramacharya	Assistant Professor	Electronic Science	Government College(Autonomous) Kalaburagi	Government college(Autonomous) Sedam Road Kalaburadgi pin-585105	Karnataka
28	Dr Syeda Rafath Ara	Assistant Professor	Electronics & Communications Engineering	Govt.College (Autonomous), kalaburagi	Govt.College (Autonomous), Sedam Road, Kalaburagi	Karnataka



DIRECTOR

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1st Week Time Table

Date	10.00 to 11.30			11.45 to 1.15		2.00 to 3.30		3.45 to 5.15
01-03-2021 Monday	Inaugural Session	Introductory session - Relating Signals and Systems Probability theory and signal processing by Dr. K. Anitha Sheela Prof & Head of ECE, JNTUHCEH	TEA BREAK	Concepts of Signals, Systems and its classification Signal Analysis - Orthogonal functions, Fourier Series (FS), Properties and Problems by Dr.K. Anitha Sheela Prof & Head of ECE, JNTUHCEH	Lunch Break	Fourier Transform (FT), Properties - I by Sri M. L. Narasimham Assoc. Professor, Dept. of ECE, ACE Academy, Hyderabad 9291511985 narasimhamml@gmail.com	TEA BREAK	Example Problems on Fourier Transform by Sri M. L. Narasimham Assoc. Professor, Dept. of ECE, ACE Academy, Hyderabad 9291511985 narasimhamml@gmail.com
02-03-2021 Tuesday	Introduction to Sampling, Practical aspects of Sampling Sampling in Frequency domain By Dr. P. Srihari Professor, Geetanjali College of Engineering, Hyderabad 9000836630 posttopshari@gmail.com			Types of Sampling with case study By Dr. P. Srihari Professor, Geetanjali College of Engineering, Hyderabad 9000836630 posttopshari@gmail.com		Laplace Transform, Properties and Inverse Laplace Transform by Mr. R. Priyakanth Assoc. Professor, BVRIT College of Engg for Women, Hyderabad priyakanth.r@bvrithyderabad.edu.in		Example Problems on Laplace Transform by Mr. R. Priyakanth Assoc. Professor, BVRIT College of Engg for Women, Hyderabad
03-03-2021 Wednesday	Convolution in time and frequency domain by Dr. R. Murali Prasad Professor, Dept. of ECE, Vardhaman Engineering College, Hyderabad 9849184166 rmuraliprasad@gmail.com			Correlation by Dr. R. Murali Prasad Professor, Dept. of ECE, Vardhaman Engineering College, Hyderabad		Linear & Time Invariant Systems Stable and Casual Systems, Ideal Characteristics of filter by Dr. Anil Kumar Vuppala Asst. Professor, IIIT, Hyderabad 8500727346 anil.vuppala@iiit.ac.in		Example Problems on LTI, Stability and Causality by Dr. Anil Kumar Vuppala Asst. Professor, IIIT, Hyderabad 8500727346 anil.vuppala@iit.ac.in
04-03-2021 Thursday	Z Transform, Properties and Inverse Z Transform by Dr. K.V. Sridhar Assoc. Professor, Dept. of ECE, NIT, Warangal 9849548428 sridhar@nitw.ac.in			Example Problems on Z Transform by Dr. K.V. Sridhar Assoc. Professor, Dept. of ECE, NIT, Warangal 9849548428		Introduction to Probability Theory and Stochastic Processes Definition of Random Variable, Distribution and Density Functions by Dr. A. Rajani Assoc Prof of ECE, JNTUHCEH rajani.akula@jntuh.ac.in		Operations on One Random variable by Dr. A. Rajani Assoc Prof of ECE, JNTUHCEH rajani.akula@jntuh.ac.in
05-03-2021 Friday	Operations on Multiple Random variable by Dr. A. Rajani Assoc Prof of ECE, JNTUHCEH			Example Problems on Random Variables by Dr. A. Rajani Assoc Prof of ECE, JNTUHCEH		Stochastic Processes Temporal Characteristics by Dr. P. Srihari Professor, Geetanjali College of Engineering, Hyderabad 9000836630 posttopshari@gmail.com		Stochastic Processes Temporal Characteristics by Dr. P. Srihari Professor, Geetanjali College of Engineering, Hyderabad 9000836630 posttopshari@gmail.com
06-03-2021 Saturday	Random Process - Spectral Characteristics by Dr. J. Naga Vishnu Vardhan Professor & HOD, Dept. of ECE, BVRITW, Hyderabad 9848805545 nvtech22@yahoo.com			Random Processes - Spectral Characteristics by Dr. J. Naga Vishnu Vardhan Professor & HOD, Dept. of ECE, BVRITW, Hyderabad 9848805545 nvtech22@yahoo.com		Laboratory Session - 1 Programs related to Signals and Systems by Mr. R. Priyakanth Assoc. Professor, BVRIT College of Engg for Women, Hyderabad priyakanth.r@bvrithyderabad.edu.in		Laboratory Session - 2 Programs related to Signals and Systems by Mr. R. Priyakanth Assoc. Professor, BVRIT College of Engg for Women, Hyderabad

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2nd Week Time Table

Date	10.00 to 11.30		11.45 to 1.15		2.00 to 3.30		3.45 to 5.15
08-03-2021 Monday	Convolution using DFT and IDFT and Overlap add and Save method By Dr. J.V. R. Ravindra Professor, Dept. of ECE, Vardhaman College of Engineering, Hyderabad 9440114765 jvrravindra@gmail.com	TEA BREAK	DIF-FFT, DIT-FFT Derivation and problems By Dr. J.V. R. Ravindra Professor, Dept. of ECE, Vardhaman College of Engineering, Hyderabad 9440114765 jvrravindra@gmail.com	Lunch Break	Discrete Fourier Series (DFS), Properties and Problems By Dr. T. Satya Savitri Professor of ECE JNTUHCEH tirumalasatya@gmail.com	TEA BREAK	Discrete Fourier Transform (DFT), IDFT, Properties and Problems By Dr. T. Satya Savitri Professor of ECE JNTUHCEH tirumalasatya@gmail.com
09-03-2021 Tuesday	IIR Filter Design Introduction, Analog filter approximation techniques By Dr. Kakarla Subba Rao Retd. Professor, OU, Hyderabad & Professor, CBIT, Hyderabad 8247755812		IIR Filter design using Bilinear transformation technique for Butter worth By Dr. Kakarla Subba Rao Retd. Professor, OU, Hyderabad & Professor, CBIT, Hyderabad kakarlasubbarao@yahoo.com		IIR Filter design using Bilinear transformation technique for Chebyshev and Realization of structures By Dr. Kakarla Subba Rao Retd. Professor, OU, Hyderabad & Professor, CBIT, Hyderabad		IIR Frequency transformations By Dr. Kakarla Subba Rao Retd. Professor, OU, Hyderabad & Professor, CBIT, Hyderabad 8247755812
10-03-2021 Wednesday	FIR Filter Design Introduction, FIR filter design using Frequency sampling method By Dr. J.V. R. Ravindra Professor, Dept. of ECE, Vardhaman College of Engineering, Hyderabad 9440114765 jvrravindra@gmail.com		FIR Filter Design using Windowing Techniques and Realization of structures By Dr. J.V. R. Ravindra Professor, Dept. of ECE, Vardhaman College of Engineering, Hyderabad 9440114765		ARM/DSP Architectures By Dr.M. Asha Rani Professor of ECE, JNTUHCEH ashajntu1@jntuh.ac.in		ARM/DSP Architectures By Dr.M. Asha Rani Professor of ECE, JNTUHCEH ashajntu1@jntuh.ac.in
11-03-2021 Thursday			Holiday				
12-03-2021 Friday	Multirate Signal Processing By Dr. J. Naga Vishnu Vardhan Professor & HOD, Dept. of ECE, BVRITW, Hyderabad 9848805545 nvvttech22@yahoo.com		Multistage Signal Processing with Problems By Dr. J. Naga Vishnu Vardhan Professor & HOD, Dept. of ECE, BVRITW, Hyderabad		Realization of Structures By Dr. J. Naga Vishnu Vardhan Professor & HOD, Dept. of ECE, BVRITW, Hyderabad		Problems on Realization of Structures By Dr. J. Naga Vishnu Vardhan Professor & HOD, Dept. of ECE, BVRITW, Hyderabad
13-03-2021 Saturday			Holiday				
14-03-2021 Sunday		Holiday					
15-03-2021 Monday	Finite word length effects	Finite word length effects	Laboratory Session by Mathworks By Mr Ramana Anchuri ranchuri@mathworks.com ppai@mathworks.com	Laboratory Session Mathworks By Mr Ramana Anchuri ranchuri@mathworks.com ppai@mathworks.com			
16-03-2021 Tuesday	Cyber Crimes and Security Forensics By Sri. U. Ram Mohan Irs SP, Cyber Crimes in CID, Amaravathi, A.P.	Cyber Crimes and Security Forensics By Sri. U. Ram Mohan Irs SP, Cyber Crimes in CID, Amaravathi	MCQ Quiz	Valedictory Session			

S. No.	Title of the Programme	Schedule	Sponsored by	No. of Days	No. of Participants registered
1	Two-week Online Refresher Course on "Systems and Signal Processing"	01-03-2021 to 16-03-2021	UGC	12	28

Photo:

