#### **About the Course**

This course is an amalgamation of basic concepts of Digital signal processing and hands on session. The main course of the training program is to introduce the fundamentals and find applications in different fields. Digital signal processing has immense importance and has wide area of applications which will be discussed. The emphasis will be on introducing the concepts in a very lucid manner along with physical interpretation and easy to understand examples.

### **Course objectives**

## Topics----

- Introduction
- Signals and Systems
- Sinusoids and complex numbers
- Spectrum Representation
- Sampled System
- Sampling and Aliasing
- Z Transformation
- Discrete & Fast Fourier Transformation
- ADCs and DAC
- Interpolation and Decimation
- Convolution
- Linear Filter Design
- Noise
- Various Applications
- Hands On

### **About the Department**

Instrumentation Engg Department, JEC, Jorhat

The North Eastern region of India is abundant in natural resources like petroleum, Natural gas, coal, limestone and other minor minerals such as magnetic quartzite, clay etc. Furthermore, Assam is also the largest producer of tea in India. In that capacity, so as to take care of the demand of Instrumentation Engineers in these industries, Instrumentation Engineering Department was established in the year 1992 in Jorhat Engineering College, with JEC turning into the main institute in N.E area of the nation to offer four years, eight semester B.E programme in Instrumentation Engineering.



# About the Institute Jorhat Engineering College:

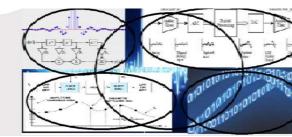
Jorhat Engineering College, one of the oldest premier Government institution of North East India, Assam has completed its fifty years of relentless service to the nation. The College came into existence on 7th January, 1959 at H.R.H.P.O.W. Institute of Engineering & Technology. The College has been offering UG degree for five departments and post-graduate courses in Electrical, Civil, Mechanical and Master of Computer Applications.



Students Development Program

# Fundamentals of Digital Signal Processing and Its Applications

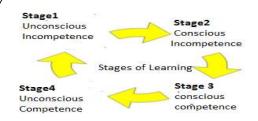
(March 6th and 7th, 2020)



Organized by



**Department of Instrumentation Engineering**Jorhat Engineering College
Jorhat-7



#### Eligibility for participation:

- Undergraduates from Jorhat Engg College.
- PG/Research Scholars working in this area

#### **Resource Person:**

Dr Debasish Deb, Scientist F, DRDO Bangalore Email: debudeb@gmail.com

#### Brief Biodata of the Resource Person

Dr Debasish Deb is working as a Senior Scientist with DRDO Bangalore. He is working in the field of signal processing, MIMO Systems, Multiprocessor based system design, System Engineering and allied areas. He was the First rank holder both during his B.Tech from NIT Silchar, and MTech from IIT Kanpur. He received his PhD degree from IITG. He had been working with DRDO for last two decade and is presently leading/associated with several projects under Govt. of India. He has many research publications to his credit both of National and International repute. He has reviewed Journals of International importance and is presently an expert in Signal Processing area. He is the recipient of many awards for his outstanding contribution in the field of science and Technology.

#### Important Dates

Deadlines: Receiving completed application: 5<sup>th</sup> March 2020.

#### **Registration Process and fee**

This course is mainly for the UG students of Jorhat Engineering College. However, Interested PG and Ph.D. students are eligible based on the available seats. Total no. of seats are 65, and preference is based on First come first basis.

- 1. There is no registration fee for the course.
- 2. Please fill up the Registration form.
- 3. Fill up the form and email the scanned copy to the coordinator mail id.
- 4. The hard copy of original registration form to be submitted before the commencement of course at the registration desk.

#### **COMMITTEE**

<u>Patron</u>: Dr. (Mrs) Reeta Sarmah , Principal, IEC

<u>Convene</u>r Dr. (Mrs.) Neelanjana Baruah, HOD, IED. JEC

#### **Event Co-ordinator**

Dr. Sonali Biswas Assistant Professor, JEC Email: Sonali.jec@gmail.com Ph: 09606722210

#### **TEOIP3 Co-ordinator**

Dr. Diganta Hatibaruah Associate Professor,JEC Email: <a href="mailto:dhbaruah@gmail.com">dhbaruah@gmail.com</a>

#### **Organizing Committee**

Mr Arabindra Saikia, Assistant Professor, JEC Mrs Monisha Pathak, Assistant Professor, JEC Mr. Ujjal Manikkya Nath, (TEQIP Faculty) Miss Nabasmita Phukan, (TEQIP Faculty) Mr. Pronoy Baishya, Assistant Professor, IED, JEC

## TEQIP3 sponsored SDP Programme

# Fundamentals of Digital Signal Processing and Application

(March 6<sup>th</sup> and 7<sup>th</sup>, 2020)

#### **Registration Form**

(Please mail to reach before 5<sup>th</sup> March, 2020)

1. Name:	
2. DOB: S	ex: Male/Female
3. Designation:	
4. Class and Branch	
5. Roll No	
5. Mobile No	
6. Email ID:	
7. Academic Qualifications:	
8. Teaching Experience (Years)	
I agree to abide by the rules of the QIP courses. If selected, I shall participate in the course for the entire duration.	
Date: Place:	Applicant's Signature
Recommended by	
Signature of the HOD / Principal of the Institution	
Date:	seal