Prof. F. Marvasti received his B.S. (Magna Cum Laude), MS and Ph.D. Degrees from Rensselaer Polytechnic Institute in 1970, 1971 and 1973 all in Electrical Engineering and Communication Systems. He is a Professor in Sharif University of Tech since 2000, he was a visiting Professor in University College London (UCL) in 2011-2012, is associated with Iran Telecommunication Research Center, International Affairs since 1999, is Head of Multimedia Group and Head of Institute of IT, was a lecturer in King's College London during 1992-2003, working on Error Concealment (1997-1998) in Lucent Technologies UK, had been Associate Professor, Illinois Institute of Technology during (1987-1991), Consultant in Video Compression in (1991-1992), AT&T Bell Labs., USA., Member of Technical Staff on ATM, 4ESS, 5ESS Switching Systems and Operator Systems (OSPS) (1985-1987). His research area is Non-uniform Sampling in Signal Processing, Telecommunications, Speech, Image and Video Processing.

Prof. Poonam Singh is Associate Professor in the Department of Electronics and Communication Engineering Department of National Institute of Technology, Rourkela since 2006. Her research interests include Wireless and Mobile Communications, Cognitive Radio, Device-to-Device Communication.

About NIT Rourkela

NIT Rourkela is one of the premier national level institutions for technical education in the country and is funded by MHRD, Government of India. The institute established 1961 as Regional Engineering College Rourkela and was elevated to a deemed university under the name of National Institute of Technology, Rourkela in the year 2002. According to the Times Higher Education (THE) ranking of the World's best Universities 2017, it is ranked in top 800 institutes of world, and it is only NIT to feature in the list.

The main objective of the Institute is to produce quality Engineers and Scientists in Graduate and Post-Graduate levels in various branches of engineering and science. The institute with a lush green campus area of 650 acres has twenty departments, three academic centers and six service centers. The Institute has a very vibrant campus life with ten hall of residence for students, residential quarters for employees and two guest houses for visitors. The Institute has been consistently ranked among the best technical institutes in India. The Institute has been modernized by several foreign collaborative research projects. A very good number of sponsored research and consultancy projects are running at present.

For More Information

Visit: http://www.gian.iitkgp.ac.in/

Contact

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GLOBAL INITIATIVE OF ACADEMIC NETWORKS

Sparse Signal Processing and Random Sampling

December 11 – 15, 2017

National Institute of Technology
Rourkela, Odisha, India

Under the aegis

Government of India
Ministry of Human Resources and Development

Course Overview

For the last 70 years, communication signals have been assumed to be low pass and the sampling scheme has been assumed to be uniform. If speech or images were not low pass, antialiased filters would be used to remove high frequency distortions. This has been the basic of all Analog to Digital converters. However, real signals are typically sparse in the frequency domain. In this scenario, uniform sampling is not optimal for sparse signals. Nonuniform (random) sampling is actually appropriate for these types of signals. A significant consequence of this fact is that antialiased filters are not needed and thus there is no need to introduce distortion at the outset. Random sampling could be regarded as a subset of compressed sensing.

Course Objectives

Primary objectives of the course are as follows:

- Exposing participants to the fundamentals of sparse signal processing and random sampling.
- Building in confidence and capability amongst the participants in the theory of compressed sensing.
- Using MATLAB and Mathcad simulations to get practical experience about the theory.

You Should Attend If…

- You are a Signal Processing/Communication engineer or research scientist interested in development and application of Advanced Digital Signal Processing.
- You are a researcher in the field of Signal Processing.
- You are a student or faculty from academic institution interested in learning/ to take up research in the field of Signal Processing.

Registration/Course Fee (Non-refundable)

The participation fee for taking the course is as follows:

- Participants from abroad : US $300
- Industry/ Research Organizations: Rs. 6000/-
- Academic Institutions: Rs.2000/-
- Students (India): Rs.1000/-

The above fee includes all instructional materials, computer use for tutorials and assignments. The registration/course fee is to be paid through a Demand Draft which should be drawn in favor of **'Continuing Education, NIT Rourkela'** payable at **SBI, NIT Rourkela Branch (Code:2109)** or by NEFT/RTGS to A/C No.: **10138951784, State Bank of India, NIT Rourkela Branch IFSC Code: SBIN0002109.**

In addition to the above fee, one-time online fee of Rs.500/- is to be paid for registration in the GIAN web portal. (See registration process)

Accommodation

Out station, participants can be provided accommodation and boarding in the Institute Guest Houses inside the campus on direct payment as the Registration fee does not include lodging and boarding. Limited accommodation is available at the Institute Guest Houses, which may be provided on first-cum-first serve basis. The lodging (twin sharing) and boarding charges may range from Rs.2000/- to Rs.3000/- for the entire duration of the course. Participants may also arrange their own accommodation.

Important Dates

- **Last date for receiving applications:** 30th Nov 2017
- **Last date for Intimation to Participants**: 2nd Dec, 2017
- **Course Dates:** December 11 – 15, 2017

Registration Process

Registration for any GIAN course is a two-step process.

Step 1:

One Time Registration with the GIAN web portal of IIT Kharagpur using the following steps:

- Create login and password at: http://www.gian.iitkgp.ac.in/GREGN/index
- Complete the personal details and pay Rs. 500/- (non-refundable) through the online payment gateway.
- Select the Course(s) you are interested in.
- Confirm your application.

(Individuals who have already registered to GIAN earlier do not need to repeat)

Step 2:

Course registration with the course coordinator.

- Institute registration process is an offline process. The participants are required to take print out of Registration Form.
- He/she then may proceed for the course registration by filling out the registration form and paying the registration course fee.

Documents to be sent online

- Scanned copy of filled in "Registration Form".
- Scanned copy of "Demand Draft/ receipt of NEFT".

Above documents must be sent to course coordinator via email: psingh@nitrkl.ac.in.

Documents to be sent by post

- Original registration form.
- Demand Draft/ receipt of NEFT.

The above documents must be sent by post to:
Prof. Poonam Singh,
Electronics and Communication Engineering,
National Institute of Technology Rourkela,
Odisha, India-769008.
The DD/Receipt of NEFT and the original registration form must reach to the coordinator on or before **30th November 2017.**

Note:

Maximum number of students: 50.
(Participants will be selected on first-cum-first serve basis)