Invitation

Department of
Electronics and Communication Engineering
National Institute of Technology Tiruchirappalli
Invites you to the

Guest Lecture
By

Prof. K.M.M. Prabhu
Department of Electrical Engineering
IIT Madras (Retd.)

2nd August 2018 **2:30PM** Onwards
Venue: **A11**
Topic: 1. Signals & Systems
2. DSP beyond DFT

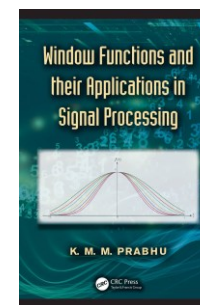Coordinator: **Dr. E. S. Gopi**
Head of the Department: **Dr. G. Lakshminarayanan**

Dr. Prabhu K.M.M., has made many significant theoretical and practical contributions in the broad area of Digital Signal Processing (DSP) with specific reference to high speed algorithm development, application of DSP to radar, communications and sonar. He has authored and co-authored nearly 130 research publications. He is the Associate editor for the Journal on Circuits, Systems and Design (Springer Publications). He is the author for the book titled "Window functions and their applications in signal processing" (Published by CRC Press (Taylor and Francis Group)).

Few Notable Publications of Prof. K. M. M. Prabhu

New radix - 3 and -6 decimation-in-frequency fast Hartley transform algorithms	Canadian Journal of Electrical and Computer Engineering
Improved least squares channel estimation for orthogonal frequency division multiplexing	IET Signal Processing
FIR digital filter design with variable parameter window families	Journal of Electronic and Radio Engineers
Generalized families of windows for use in signal processing	Journal of Electronic and Radio Engineers
On the Eigenvalues of Matrices for the Reconstruction of Missing Uniform Samples	IEEE Transactions on Signal Processing
Block filtered-s least mean square algorithm for active control of non-linear noise systems	IET Signal Processing
Fast Adaptive Algorithms for Active Control of Nonlinear Noise Processes	IEEE Transactions on Signal Processing
Sparse channel estimation in OFDM systems by threshold-based pruning	Electronics Letters
Optimised data windows	Electronics Letters
Performance comparison of data windows	Electronics Letters

Sum-cosine window	Electronics Letters
Synthesis of windows from raised-cosine pulse	Electronics Letters
Signal denoising techniques for partial discharge measurements	IEEE Transactions on Dielectrics and Electrical Insulation
An analysis of real-Fourier domain-based adaptive algorithms implemented with the Hartley transform using cosine-sine symmetries	IEEE Transactions on Signal Processing
Resolution capability of nonlinear spectral-estimation methods for short data lengths	IEE Proceedings F - Radar and Signal Processing
Optimum binary windows for discrete Fourier transforms	IEEE Transactions on Acoustics, Speech, and Signal Processing
Two-dimensional FIR compaction filter design	IEE Proceedings - Vision, Image and Signal Processing
Fast algorithm for pseudodiscrete Wigner-Ville distribution using moving discrete Hartley transform	IEE Proceedings - Vision, Image and Signal Processing
A note on "An accurate error analysis model for fast Fourier transform"	IEEE Transactions on Signal Processing
Split-radix FHT algorithm for real-symmetric data	Electronics Letters
Nonlinear spectral-estimation methods for ground clutter analysis	Electronics & Communication Engineering Journal
Radix-2 decimation-in-frequency algorithm for the computation of the real-valued FFT	IEEE Transactions on Signal Processing
Radar target detection in Weibull clutter by adaptive filtering with embedded CFAR	Electronics Letters
An improved LMS adaptive algorithm for narrowband interference suppression in direct sequence spread spectrum	IEEE Transactions on Aerospace and Electronic Systems
New radix-3 FHT algorithm	Electronics Letters
Systolic arrays for the discrete Hilbert transform	IEE Proceedings - Circuits, Devices and Systems
Simulation studies of moving-target detection: a new approach with Wigner-Ville distribution	IEE Proceedings - Radar, Sonar and Navigation
New method of computing Wigner-Ville distribution	Electronics Letters
Fixed-point error analysis of two DCT algorithms	IEE Proceedings - Vision, Image and Signal Processing
Computation of DWT via FHT-based implementation	Electronics Letters
Variable parameter window families for digital spectral analysis	IEEE Transactions on Acoustics, Speech, and Signal Processing
Fast Hartley transform pruning	IEEE Transactions on Signal Processing
Numerically stable algorithm for computing Wigner-Ville distribution	IEE Proceedings - Vision, Image and Signal Processing
Poisson image denoising using geometric platelets and geometric quadlets	Signal Processing-Science Direct
Poisson image denoising using fast discrete curvelet transform and wave atom	Signal Processing-Science Direct
A Krylov subspace based low-rank channel estimation in OFDM systems	Signal Processing-Science Direct
Fixed-point fast Hartley transform error analysis	Signal Processing-Science Direct
Complexity of pruning strategies for the frequency domain LMS algorithm	Signal Processing-Science Direct
Pipelined CORDIC processors for generating Gaussian random numbers	Signal Processing-Science Direct
Transform decomposition method of pruning the FHT algorithms	Microprocessors and Microsystems-Science Direct
The fractional Fourier transform: theory, implementation and error analysis	Microprocessors and Microsystems-Science Direct