

### PREAMBLE

In recent years, a new transformation technique has emerged as a popular alternative to sinusoidal transforms at very low bit rates. Unlike DCTs and DFTs, which use sinusoidal waves as basis functions, this new variety of transformations use small waves of varying frequency and limited extent, known as wavelets. The wavelets can be scaled and shifted to analyse the spatial frequency contents of a signal at different resolutions and positions. A wavelet can therefore analyse at multiple resolutions, making it an effective tool in multiresolution analysis. Furthermore, wavelet analysis performs space frequency localisation so that at any specified location in space, one can obtain its details in terms of frequency. The objective of this STTP is to cover the basic theory of wavelets, multiresolution analysis, construction of scaling functions, bases, frames and their applications in signal, image processing and wireless communication.

Topics to be covered are wide but not restricted to:

- ❖ Review of Fourier Series and introduction to Multiresolution Analysis
- ❖ Application of Wavelets in Signal Denoising, Sub-band coding of Speech signals
- ❖ Application of Wavelets in Image Processing
- ❖ Multiresolution Analysis in the design of Wireless Communication Systems

Highlights of the STTP:

- ❖ Hands on Session from Mathworks
- ❖ Hands on Session on Cadence EDA Tool

### ELIGIBILITY

Faculty Members belonging to ECE/EEE/EIE/CSE/IT of AICTE approved institutions and industry professionals are eligible to attend the STTP. Admission will be offered subject to the availability based on AICTE course norms. The number of seats is limited to 40.

### REGISTRATION

The applicants can submit their duly filled-in registration form in the given format. Registration Form can be downloaded from the Institute website. Selected candidates will be informed through e-mail only.

### IMPORTANT DATES

Last date for receipt of filled in applications : 12.09.2019  
Date of Intimation of selection : 13.09.2019  
(Via e-mail only)

\*\*TA/DA and accommodation will be provided as per AICTE-STTP norms.

Participants are required to submit an amount of **Rs.1000/** as DD/ Cheque in favour of **"The Principal, PEC"** as caution deposit. The same shall be returned on successful completion of the course.

### AICTE Sponsored Short Term Training Programme on EMERGING TRENDS AND APPLICATIONS OF MULTIREOLUTION ANALYSIS TECHNIQUES IN WIRELESS COMMUNICATION 16.09.2019 to 21.09.2019 REGISTRATION FORM

Name :  
Designation :  
Department :  
Qualification :  
Specialization :  
Gender :  
Date of Birth :  
Experience Teaching/Industry :  
Institution :  
E - Mail ID :  
Is the Institution approved by AICTE : Yes / No  
Mailing Address :  
.....  
.....  
.....  
Telephone : (O) : (R):  
Mobile No. :  
Need Accommodation : Yes/No  
DD No. : ..... Date : .....  
Amount : .....  
Bank : .....



### DECLARATION BY THE CANDIDATE

The information furnished above is true to the best of my knowledge and belief. I agree to abide by the rules and regulations governing the program. If selected, I shall attend the program for the entire duration.

Signature of the applicant with date

### SPONSORSHIP CERTIFICATE

Certified that Dr/Mr/Ms.....is an employee of our Institution and is hereby sponsored for the AICTE sponsored STTP on "Emerging Trends and Applications of Multiresolution Analysis Techniques in Wireless Communication" organized by the Department of ECE, Pondicherry Engineering College, from 16<sup>th</sup> to 21<sup>st</sup> September, 2019. He / She will be permitted to attend the course fully, if selected.

Place: Signature of the Sponsoring  
Date: Authority with seal

Contact Address:

**Dr. GNANOU FLORENCE SUDHA**

**Dr. A. V. ANANTHALAKSHMI**

Department of

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### ABOUT THE INSTITUTION

Pondicherry Engineering College is an autonomous institution promoted and fully funded by the Government of Puducherry. The College was started in the academic year 1985-86 under the seventh five year plan. Ever since its inception, the college has registered progress in academic and research fronts. It now offers eight undergraduate courses, thirteen postgraduate courses and Ph.D programmes in all the branches of Engineering and basic Science. The college is spread across 186 acres and has excellent infrastructure, well equipped laboratories and highly qualified faculty. The college is actively involved in several research projects. The college is situated at Pillaichavady, about 12 km from Pondicherry town and about 150 km from Chennai along the scenic East Coast Road (ECR) on the shores of the Bay of Bengal. The lush green campus of great scenic beauty and picturesque environment forms an excellent setting for the pursuit of studies in Engineering, Science and Technology.

### ABOUT THE DEPARTMENT OF ECE

The Department of Electronics and Communication Engineering (ECE) was started in the academic year 1985-86. The department is offering a B.Tech course in ECE, and two M.Tech courses in ECE, and Wireless Communication and also Ph.D program. The department has a team of highly qualified and dedicated faculty members. The department has laboratories equipped with modern and state-of-the art equipment, a well-furnished seminar hall, smart class room, excellent computing facilities and a department library with several volumes of books. The department has been recognized as a minor QIP centre for pursuing Ph.D programs.

### ABOUT PUDUCHERRY

The coastal town of Puducherry with the French ambience is known for the serene atmosphere. Sri Aurobindo Ashram and the nearby Auroville International Township, Manakula Vinayagar temple and Churches lend a unique spiritual flavour to the city. There are several tourist attractions to visit and spend time in leisure, in and around Pondicherry.

## AICTE Sponsored Short Term Training Programme on EMERGING TRENDS AND APPLICATIONS OF MULTIRESOLUTION ANALYSIS TECHNIQUES IN WIRELESS COMMUNICATION

September 16 - 21, 2019



Coordinators

**Dr. GNANOU FLORENCE SUDHA**  
**Dr. A. V. ANANTHALAKSHMI**

Organized  
by

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