Call for Papers
Special Session on Challenging Applications, Architectures and Algorithms for Advanced Real Time Signal Processing Designs

in Conjunction with

2nd International Conference on Signal Processing and Integrated Networks (SPIN 2015)

Digital signal processing (DSP) involves many core signal processing techniques like linear filtering, convolution, DFT, etc. which were well known for a hundred years back, but were rarely used till last two decades. In the last two decades the VLSI technology and architecture have made remarkable advancements. This lead availability of extremely high computational power with very low cost along with scaling down of device size. So the large number of computations required for diversified DSP applications can be achieved with low cost small size processors. This leads to the growth of use of DSP applications as well as creating a demand for higher speed, low power, and low cost computational capability to meet ever increasing DSP applications. In this SPIN-2015 the chair wants to offer a dazzling research, multicultural gathering to have multidimensional presentations and collaborations between the researchers in the field of architectures and algorithms for new generation signal and image processing applications. The main objectives of the special session are as follows:

- To take the research forward in the existing real time designs for noise and echo cancellation systems.
- Real time implementation for image and speech enhancement using innovative DSP algorithms.
- To have technical discussion on real-time implementation of adaptive filters and designs on DSP Processors.
- Radar signal processing and under water communication using advanced process control signaling technology.
- To study the existing DSP algorithms for implementation of AI application and soft computing issues.
- Real Time Adaptive Filtering algorithms and low power system design.
- To develop new idea in the signal processing field to address real world problems by the help of adaptive filtering mechanisms.
TOPICS OF INTEREST

- Low power real time digital filter design
- High speed real time digital filter design
- Low power arithmetic circuit design
- High speed arithmetic circuit design
- Nano scale circuits for real time digital signal processing
- Algorithms and real time architectures for FFT processing
- Low power VLSI circuits for biomedical signal processing application
- VLSI systems for biomedical application
- FPGA based architectures for image/video processing
- VLSI architecture for real time image/video compression
- Real time Image processing and applications
- Sensory signal processing
- Recent development in real time adaptive filtering algorithms
- Adaptive networking and current challenges
- Innovative real time system design for solving real world issues.
- Adaptive filter applications for cellular network control and management
- Advances in computing using adaptive and innovative systems
- Statistical Signal analysis
- Acoustic noise and echo reduction applying adaptive algorithms and designs
- AI and soft computing applications of real time adaptive systems
- Implantation of adaptive filters for real time applications using DSP Processors and FPGA

The researchers and practitioners in the area of signal processing and communication are invited to submit their original unpublished research work of not more than 6 pages in IEEE two-column format. Submitted papers will be evaluated for originality, significance, clarity, and soundness, and will be reviewed by at least two independent reviewers. Authors can use Microsoft Word or Latex for preparing their manuscript. The required templates can be downloaded from IEEE website.

Important Dates
Paper submission due: November 7, 2014
Notification of acceptance: December 20, 2014
Final manuscript due: January 10, 2015
Registration due: January 10, 2015
Special session dates: February 19-20, 2015

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Instructions to the Authors

Proceeding
All accepted and registered papers will appear in the proceedings and will be digitally archived in IEEE Xplore provided they are presented by author(s) personally.

Submission
Papers should be submitted online through the Conference website www.spin2015.com and a copy of the paper in PDF format should be e-mailed at shrotriya@bitmesra.ac.in and asutosh@iiit-bh.ac.in. A track has been created in the online Easy chair submission for this special session.