



# Mirror Technologies

*Reflecting Ideas..*

- ✓ 100 % OUTPUT AND QUALITY ASSURANCE
- ✓ 100% PRACTICAL TRAINING ON ALL DOMAINS

## DIGITAL SIGNAL PROCESSING:

S.NO	TITLE	YEAR	DESCRIPTION
1	Classification of Mental Task From EEG Signals Using Immune Feature Weighted Support Vector Machines	2011	Immune algorithm (IA) was then introduced in searching for the optimal feature weights and the parameters simultaneously. IFWSVM was used to multi classify five different mental tasks
2	The research of mental task classification based on wavelet packet and phase synchrony	2011	A method of classification based on feature combination of wavelet packet and phase synchrony was proposed to improve the correct classification rates of mental task EEG signal
3	An ECG data compression method via R-Peak detection and ASCII Character Encoding	2011	In this compression methodology, all the R-Peaks are detected at first by differentiation technique and QRS regions are located. To achieve a strict lossless compression in QRS regions and a tolerable lossy compression in rest of the signal, two different compression algorithms have developed
4	Fault detection and classification using Kalman filter and genetic neuro-fuzzy systems	2011	An efficient scheme to detect the unprecedented changes in system reliability and find the failed component state by classifying the faults is proposed using kalman filter and hybrid neuro-fuzzy computing techniques
5	adaptive neuro-fuzzy inference system for classification of ecg signals	2011	An intelligent diagnosis system using hybrid approach of adaptive neuro-fuzzy

			inference system (ANFIS) model for classification of Electrocardiogram (ECG) signals
6	Study of Feature Extraction Based on Autoregressive Modeling in ECG Automatic Diagnosis	2011	The ability of multivariate autoregressive model (MAR) and scalar AR model to extract the features from two-lead electrocardiogram signals in order to classify certain cardiac arrhythmias
7	Accurate Derivation of Heart Rate Variability Signal for Detection of Sleep Disordered Breathing in Children	2011	A description of the EHT algorithm and analyze pilot data for eight children undergoing nocturnal poly somnography. The pilot data demonstrated that the EHT method provides an accurate way of deriving the HRV
8	Design of Optimal Comb FIR Filters-Speed and Robustness	2009	The design runs from the filter specification through the degree formula to the impulse response coefficients, which are evaluated by an extremely efficient recursive algorithm
9	Optimal Low-Frequency Filter Design for Uncertain 2-1 Sigma-Delta Modulators	2009	Design of robust matching filters based on low-frequency weighted convex optimization over uncertain linearized representations are mathematically very complex and computationally intensive, and offer little insight into the solution
10	Analysis of Emotionally Salient Aspects of Fundamental Frequency for Emotion Detection		proposed approach is tested with four acted emotional databases spanning different emotional categories, recording settings, speakers and languages
11	A New Delayless Subband Adaptive Filtering Algorithm for Active Noise Control Systems	2009	propose a new UDFTM-based adaptive subband filtering method that alleviates the degrading effects of the delay and side-lobe distortion introduced by the prototype filter on the system performance
12	A Blind I/Q Imbalance Compensation Technique for Direct-Conversion Digital Radio Transceivers	2009	presents a novel I/Q imbalance extraction technique that uses a Cholesky decomposition of the received signal's covariance matrix to extract the exact imbalances of the front-end.

