

Monday = 10th		
Neural Networks, Machine Learning		
M1	Meta learning of bounds on the Bayes classifier error	Kevin Moon; Véronique Delouille; Alfred Hero III
	The Performance Limit for Distributed Bayesian Estimation with Identical One-Bit Quantizers	Xia Li; Jun Guo; Uri Rogers; Hao Chen
	Randomized Robust PCA for High Dimensional Data Matrices	Mostafa Rahmani
	Highly Accurate Palmprint Recognition Using Statistical and Wavelet Features	Shervin Minaee; AmirAli Abdolrashidi
	Iris Recognition Using Scattering Transform and Textural Features	Shervin Minaee; AmirAli Abdolrashidi
	Reduced Dimensionality, Information Rich Visual Representations for Scene Classification	Kaveri Thakoor
	Studying the relationship between physical and language environments of children: Who's speaking to whom and where?	Abhijeet Sangwan; John Hansen; Dwight Irvin; Stephen Crutchfield; Charles Greenwood
SP Education		
M1	Introductory Signal Processing Course Offered Across the Curriculum	Andreas Spanias
	Real-Time DSP Basics Using Arduino and the Analog Shield SAR Codec Board	Mark Wickert
	Hands-on Software Defined Radio Experiments with the Low-cost RTL-SDR Dongle	Mark Wickert; McKenna Lovejoy
	An Inquiry-based Acoustic Signal Processing Lab Module for Introducing Digital Communications	Andrew G. Klein
	Question Review Model For Q&A Systems	Greg Krudysz; James H McClellan
	Developing an Educational Electro-Mechanical Model of the Middle Ear and Impulse Noise Reduction Algorithm for Cochlear Implant Users	John Hansen
	Nine C Programming Labs to Turn Students into Filtering and Signal Analysis Experts	Jake Gunther; Todd Moon
Digital Signal Processing		
M1	A Comparative Study Of Commuting Matrix Approaches For The Discrete Fractional Fourier Transform	Ishwor Bhatta; Balu Santhanam
	Wideband-FM Demodulation for Large Wideband to Narrowband conversion factors Via Multirate Frequency Transformations	Wenjing Liu; Balu Santhanam
SP for Communications		
M2	Relay misbehavior detection for robust diversity combining in cooperative communications	Tsang-Yi Wang; Po-Heng Chou; Wan-Jen Huang
	Doubly Weighted DFT-Based Feedback Codebook Design For Orthogonal Space-Time Block Codes	Juinn-Horng Deng; Sheng-Yang Huang; Jeng-Kuang Hwang
	Fast Detection of OFDM systems using Graphical Models	Seare Rezenom; Fambirai Takawira
	Real-Time Rate-Adaptable Coding for Fading Channels	Sam Schmidt; Willie K Harrison
	Tail Shortening by Virtual Symbols in FBMC-OQAM Signals	Fang Wang; Daiming Qu; Tao Jiang; Behrouz Farhang-Boroujeny
	An Autoregressive Model for a single-hop Relay channel	Tadesse Ghirmai
	Applying Metropolis-Hastings-Within-Gibbs algorithm for data detection in relay-based communication system	Tadesse Ghirmai
	Optimal Non-coherent Data Detection for Massive SIMO Wireless Systems: A Polynomial Complexity Solution	Haider Alshamary; Tareq Y. Al-Naffouri; Alam Zaib; Weiyu Xu
	Impact of Timing and Frequency Offsets on Multicarrier Waveform Candidates for 5G	Amir Aminjavaheri; Arman Farhang; Ahmad RezazadehReyhani; Behrouz Farhang-Boroujeny
	Practical Insights on Full-Duplex Personal Wireless Communications Gained from Operational Experience in the	Glenn Collins
Adaptive Methods for Estimation, Compression, Fusion and Control		
M2	Coherent Combination of Signals From Diverse Sensors	Todd Moon; Jake Gunther; McKay Bonham; Gustavious P Williams
	Using Extended Kalman Filter for Robust Control of a Flying Inverted Pendulum	D. Maughan; Ishmaal Ereksan; Rajnikant Sharma
	Adaptive Likelihood Codebook Reordering Vector Quantization for 1-D Data Sources	Chu Meh Chu; Nathan Parrish; David Anderson
	Generating Laplace Process With Desired Autocorrelation from Gaussian AR processes	Tadesse Ghirmai
	Impact of Common Observations in Parallel Distributed Detection	Hao Chen; Tsang-Yi Wang

Tuesday = 11th		
Signal Processing Applications: Finance, Radio Astronomy, Radar		
T1	Spectral Analysis of Stock-Return Volatility, Correlation, and Beta	Shomesh Chaudhuri; Andrew W Lo
	Fast Raw Data Simulator of Extended Scenes for Bistatic Forward-looking Synthetic Aperture Radar with Constant	Ziqiang Meng; Yachao Li; Mengdao Xing; Zheng Bao
	Analysis to Distinguish Range Deception Jamming with Kernel Local Fisher Discriminant	Sajjad Abazari Aghdam; Mahdi Nouri
	The Cross-Ambiguity Function for Emitter Location and Radar - Practical Issues for Time Discretization	James Schatzman
	You're Crossing the Line: Localizing Border Crossings Using Wireless RF Links	Peter Hillyard; Neal Patwari; Samira Daruki; Suresh Venkatasubramanian
	Compensating for Oversampling Effects in Polyphase Channelizers: A Radio Astronomy Application	John Tuthill; Grant Hampson; John Bunton; Frederic j harris; Andrew Brown; Richard Ferris; Timothy Bateman
	Multi-Tier Interference-Cancelling Array Processing for the ASKAP Radio Telescope	Richard A Black; Brian D. Jeffs; Karl Warnick; Gregory Hellbourg; Aaron Chippendale
	A Reconfigurable Optically Connected Beamformer and Correlator Processing Node for SKA	Grant Hampson; John Tuthill; Andrew Brown; John Bunton; Timothy Bateman
	Cancelling non-linear processing products due to strong out-of-band interference in radio astronomical arrays	Yifeng Wu; Richard A Black; Brian D. Jeffs
	Subspace smearing and interference mitigation with array radio telescopes	Gregory Hellbourg
Compressive Sensing and Reconstruction		
T1	Approximate Regularization Paths for Nuclear Norm Minimization Using Singular Value Bounds	Niclas Blomberg; Cristian Rojas; Bo Wahlberg
	Learning Anomalous Features via Sparse Coding Using Matrix Norms	Bradley Whitaker; David Anderson
	Sparse Recovery Using an SVD Approach to Interference Removal and Parameter Estimation	Charles Hayes; James H McClellan; Waymond R Scott, Jr.
	Multi-Frame Super-Resolution for Mixed Gaussian and Impulse Noise based on Blind Inpainting	Ismael Silva; Boris Mederos-Madrado; Leticia Ortega Maynez; Sergio D Cabrera
	Polarimetric target decomposition based on sparse attributed scattering center base decomposition	Jia Duan; Lei Zhang; Yifeng Wu
	Fast Imaging In Cannula Microscope Using Orthogonal Matching Pursuit	Ahmad Zoubi; Kishan Supreet Alguri; Ganghun Kim; V. John Mathews; Rajesh Menon; Joel Harley
	On The Block-Sparsity Of Multiple-Measurement Vectors	Mohammad Shekaramiz; Todd Moon; Jake Gunther
	Dynamic Model Generation for Application of Compressed Sensing to CRYO-Electron Tomography Reconstruction	Sally Wood; Ernesto Fontenla; Christopher Metzler; Wah Chiu; Richard Baraniuk
Spectral Estimation, Array Processing, Signal Separation		
T2	Parametric spectral signal restoration via maximum entropy constraint and its application	Hai Liu; Zhaoli Zhang; Sanya Liu; Jiangbo Shu; Tingting Liu
	A new method for determination of instantaneous pitch frequency from speech signals	Abhay Upadhyay; Ram Bilas Pachori
	Source Localization with Sparse Recovery for Coherent Far- and Near-Field Signals	Ahmet M Elbir; T. Engin Tuncer
	Direction Finding and Localization for Far-Field Sources with Near-Field Multipath Reflections	Ahmet M Elbir; T. Engin Tuncer
	Shrinkage estimation of spectral matrices: A EEG analysis centered approach	Deborah Schneider-Luftman
	Memory Efficient Spectral Estimation on Parallel Computing Architectures	Michael Barjenbruch; Franz Gritschneider; Jens Klapstein; Juergen Dickmann; Klaus Dietmayer
	Extracting The Fundamental Frequency of a Nonlinear Chirp Signal with Modulated Harmonic Structure Using ML, Target Tracking, and the Viterbi Algorithm	Todd Moon; Jake Gunther; Gustavious P Williams
SP Education		
T2	Using the ARM Cortex-M4 and the CMSIS-DSP Library for Teaching Real-Time DSP	Mark Wickert
	Using the IPython Notebook as the Computing Platform for Signals and Systems Courses	Mark Wickert; McKenna Lovejoy
	DSP Education by Fixed-Point Implementation & Measurement	Jorge Cadena; A. A. (Louis) Beex
	The Lab-in-a-box Project: An Arduino Compatible Signals And Electronics Teaching System	William Esposito; Fernando A Mujica; Domingo Garcia; Gregory T.A. Kovacs
	Teaching Digital Signal Processing with Stanford's Lab-in-a-Box	Fernando A Mujica; William Esposito; Alex Gonzalez; Charles R Qi; Christopher Vassos; Maisey Wieman; Reggie Wilcox; Gregory T.A. Kovacs; Ronald Schafer
	Using smartphones as mobile implementation platforms for applied digital signal processing courses	Nasser Kehtarnavaz
Leveraging Student Knowledge of DSP for Optical Engineering	Cameron Wright; Thad B. Welch; Michael Morrow	

Wednesday = 12th			
Image Processing, Video Processing, Hyperspectral and Multispectral Image Processing			
Wednesday	W1	Face Recognition in Vehicles with Near Infrared Frame Differencing Jinwoo Kang; David Anderson; Monson Hayes	
		Evaluating the performance of Max Current AC-DCT based colored Digital Image Fusion for Visual Sensor Networks Arun Begill; Shruti Puniani; Kamaljit Singh; Navjot Kaur	
		Body markers detection based on 3D video processing oriented to children gait analysis Mario Chacon; Carlos Avalos; Omar Arias	
		Eigen-gap of Structure Transition Matrix: A New Criterion for Image Quality Assessment Mohsen Joneidi; Mostafa Rahmani; Hossein Bakhshi Golestani; Mohammad Ghanbari	
		Image Loss Concealment Using Edge-Guided Interpolation and Multi-scale Transformation Bahareh Langari; John Stonham; Alireza Mousavi	
		A Practical Strategy for Spectral Library Partitioning and Least-Squares Identification Shawn Higbee	
		Temperature Emissivity Separation: Estimation with a Parameter Affecting Both the Mean and Variance of the Todd Moon; David Neal; Jake Gunther; Gustavious P Williams	
		Signal Processing Techniques for Enhancing Multispectral Images of Ancient Documents Trace Griffiths; Gene Ware; Todd Moon	
		Neural Networks, Machine Learning	
		W1	A Novel Method for Blind Segmentation of Thai Continuous Speech Siripong Potisuk
Mapping Arabic Acoustic Parameters to Their Articulatory Features Using Neural Networks Yousef A Alotaibi; Yasser M Seddiq			
A neural bio-inspired scheme for head pose recognition Mario Chacon; Huber Orozco; Juan Ramirez			
Deep Emotion Recognition using Prosodic and Spectral Feature Extraction and Classification based on Cross Validation and Ayush Sharma; David Anderson			
Traffic Flow Forecasting Research Based on Bayesian Normalized Elman Neural Network Wenchi Ma			