



**CALL FOR PAPERS**  
**45<sup>th</sup> Annual Asilomar Conference on**  
**Signals, Systems, and Computers**



**Asilomar Hotel and Conference Grounds**  
**Pacific Grove, California**  
**November 6-9, 2011**  
[www.asilomarssc.org](http://www.asilomarssc.org)

Authors are invited to submit papers before **May 1<sup>st</sup>, 2011**, in the following areas:

**A. Communications Systems:** 1. Modulation and Detection, 2. Error Control Coding, 3. OFDM / Multicarrier, 4. Cognitive Radio, 5. Adaptive Waveforms, 6. Wireless Security/Privacy, 7. Power line communication, 8. DSL and Wireline Technologies, 9. 60GHz, 10. Optical Communications, 11. 4G Applications

**B. MIMO Communications and Signal Processing:** 1. Space-Time Coding and Decoding, 2. Channel Estimation and Equalization, 3. Multi-user MIMO, 4. Base Station Cooperation, 5. Limited Feedback Techniques, 6. Interference Management

**C. Networks:** 1. Transmission Techniques for Ad Hoc Networks, 2. Wireless Sensor Networks, 3. Network Information Theory, 4. Cooperative Diversity, 5. Relays, 6. Heterogeneous Networks, 7. Cognitive/Adaptive Sensor Networks

**D. Signal Processing and Adaptive Systems:** 1. Compressive Sensing, 2. Machine Learning Based Statistical Signal Processing, 3. Information Theoretic Signal Processing, 4. Cognitive Information Processing, 5. Adaptive Filtering, 6. Fast Algorithms

**E. Array Signal Processing:** 1. Source Localization, 2. Source Separation, 3. Adaptive Beamforming

4. Robust Methods, 5. Computational Aspects, 6. Applications (Sonar, Radar, Microphone arrays, etc.)

**F. Biomedical Signal and Image Processing:** 1. Medical Image Analysis, 2. Imaging Modalities, 3. Advances in Medical Imaging, 4. Biomedical Signal Processing, 5. Biomedical Applications, 6. Bioinformatics, 7. Image Registration and Multi-modal Imaging, 8. Image Reconstruction, 9. Computer Aided Diagnosis, 10. Functional Imaging, 11. Visualization

**G. Architecture and Implementation:** 1. Energy efficient design, 2. High-speed computer arithmetic, 3. Reconfigurable signal processing, 4. Multicore, manycore and distributed systems, 5. Algorithm and architecture co-optimization, 6. System-level representation and synthesis, 7. Cyber-physical system prototypes/testbeds

**H. Speech, Image and Video Processing:** 1. Speech Processing, 2. Speech Coding, 3. Speech Recognition, 4. Narrowband / Wideband Speech and Audio Coding, 5. Document Processing, 6. Models for Signal and Image Processing, 7. Image and Video Coding, 8. Image and Video Segmentation, 9. Image and Video Analysis, 10. Image / Video Security, Retrieval and Watermarking, 11. Image and Video Enhancement / Filtering, 12. Biometrics and Security, 13. Wavelets

Submissions should include a 50 to 100 word abstract and an extended summary (500 to 1000 words, plus figures). Submissions must include the title of the paper, each author's name and affiliation, and the technical area(s) in which the paper falls with number(s) from the above list. Check the conference website ([www.asilomarssc.org](http://www.asilomarssc.org)) for specific information on the electronic submission process. Submissions will be accepted starting February 1, 2011. **No more than FOUR submissions are allowed** per contributor, as author or co-author. **All submissions must be received by May 1<sup>st</sup>, 2011.** Notifications of acceptance will be mailed by mid July 2011, and author information will be available on the conference website by late July 2011. Full papers will be due shortly after the conference and published in early 2012. All technical questions should be directed to the Technical Program Chair, **Dr. Robert W. Heath Jr.**, e-mail [rheath@ece.utexas.edu](mailto:rheath@ece.utexas.edu) or the General Chair, **Dr. Jim Schroeder**, e-mail [jim.schroeder@harris.com](mailto:jim.schroeder@harris.com). Prospective organizers are invited to submit proposals for **special sessions** to [rheath@ece.utexas.edu](mailto:rheath@ece.utexas.edu) or [jim.schroeder@harris.com](mailto:jim.schroeder@harris.com) by January 15, 2011. Proposals must include a topical title, rationale, session outline, contact information, and a description of how the session will be organized.

**CONFERENCE COMMITTEE**

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The site for the 2011 Conference is at the Asilomar Conference Grounds, in Pacific Grove, CA. The grounds border the Pacific Ocean and are close to Monterey, Carmel, and the scenic Seventeen Mile Drive in Pebble Beach.

The Conference is organized in cooperation with the Naval Postgraduate School, Monterey, CA, and ATK Space Systems, Monterey, CA. The IEEE Signal Processing Society is a technical co-sponsor of the conference.