

**CALL FOR PAPERS**  
**P-BASICS<sup>2</sup> TECHNICAL CONFERENCE**  
**(Power, Biotechnology, Avionics, Security, Informatics, Computers, Software, Systems)**  
**2008 IEEE REGION 5 TECHNICAL, PROFESSIONAL AND STUDENT CONFERENCE**  
**APRIL 17-20, 2008** INTERCONTINENTAL HOTEL-KANSAS CITY AT THE PLAZA  
**Website: <http://ewh.ieee.org/conf/basics2/>**



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**Submissions:**

All submissions must be electronic. More details on the conference website:  
<http://ewh.ieee.org/conf/basics2/>

**Special Sessions:**

Proposals for organizing special sessions for areas related to P-BASICS<sup>2</sup> should be sent to the Program Chairs.

The 2008 IEEE Region 5 Technical, Professional and Student Conference will be hosted by the Kansas City Section and the University of Missouri-Kansas City (UMKC), April 17-20, 2008 at the Intercontinental Hotel on the Plaza, Kansas City, Missouri. Known as the City of Fountains, Kansas City is home to the KC Chiefs, KC Royals and KC Wizards teams, and has a wide array of entertainment and attractions such as Worlds of Fun, Union Station, Nelson-Atkins Museum of Art, Country Club Plaza, The Jazz District and KC's BBQ.

The technical sessions, short courses, and student competitions are all arranged to provide a great interaction forum for people in industry and academia. There are many sessions planned with the intention of forming an over-arching bridge between various disciplines in state-of-the-art electrical engineering, computer engineering, and computer science research.

The committee is soliciting papers describing original unpublished research in all areas of electrical engineering, computer engineering and computer science, including theoretical, experimental, and commercial works. Topics include, but not limited to, the following research areas:

**Power:**

Transmission and Distribution Systems  
 Energy Storage / Distributed Generation  
 Substation Automation  
 Integration of Wind Generation

**Biotechnology:**

High Performance Computational Biology  
 Medical Signal and Image Processing  
 Bioinformatics  
 Adaptive and Nonlinear biomedical signal analysis  
 System Identification  
 Brain Computer Interfacing  
 Assistive Technologies  
 Emerging Areas in Biomedical Engineering

**Avionics:**

Meta Materials  
 Analog/Mixed Signal Systems  
 Space and Military Systems  
 Avionic robotic and Mechatronic

**Security:**

Biometrics  
 Sensors / RFIDs  
 Remote Sensing  
 MMIC Technology  
 Hardware-level Secure Computing  
 New Imaging Technologies

**Informatics:**

Pattern Recognition  
 Machine Learning  
 Artificial Neural Networks  
 Evolutionary Computing  
 Augmented Cognition  
 Scientific Computing  
 Trends in Computational Intelligence

**Computer Hardware:**

Parallel Architectures & Interconnection Networks  
 System-On-Chip (SOC)  
 VLSI Custom Designs (ASIC and FPGA)  
 Embedded Systems Architectures & Performance  
 Clockless System Design & NULL Logic  
 Fast Arithmetic Circuits, Applications, and Performance  
 HDL-Based System Designs  
 High-Speed Low-Power Chip Design  
 Emerging Trends in VLSI  
 Evolvable Hardware  
 Analog Digital Hybrid Computing  
 Quantum Computing  
 Human Computer Interaction  
 Wearable Hardware

**Software Design:**

Software Development and Tools  
 Mapping, Embedding and Scheduling  
 Load Balancing & Load Sharing  
 Performance Modeling & Simulations  
 Cluster & Grid Computing  
 Routing and Communication Techniques  
 Real-Time Distributed Systems  
 Distributed Data Base Systems  
 Cooperative Information Systems  
 Reliability and Fault Tolerance  
 Distributed Query Processing  
 Parallel Algorithms  
 Languages, Compilers and Operating Systems

**Systems Engineering:**

Multiscale Modeling & Forecasting of Complex Systems  
 Large-scale Internet Applications  
 Social Modeling  
 Market Simulation and Dynamics  
 Agent-based large scale models  
 Emergent Behavior

Images: Courtesy of KC Convention and Visitors Assoc.

**IMPORTANT DATES**

**Deadline to Submit Full Paper/Extended Summary via EDAS: February 15<sup>th</sup>, 2008**  
**Paper Acceptance or Rejection: March 15<sup>th</sup>, 2008**  
**Final Paper Due: April 2<sup>nd</sup>, 2008**