



# ReConFig 2010

2010 International Conference on ReConfigurable Computing and FPGAs

December 6-8, Cancun, Mexico

[www.reconfig.org](http://www.reconfig.org)

## CALL FOR PAPERS

It is our pleasure to invite you to participate in the **2010 International Conference on Reconfigurable Computing and FPGAs (ReConFig '10)**. The sixth ReConFig will be held in **Cancun, Mexico**, during **December 6-8, 2010**. Cancun, a world class tourist resort, is located on the Mexican Caribbean.

**ReConFig** is one of the leading forums in the field. In 2009, more than 130 submissions were received from 32 countries. After a peer-review process, 42 papers were accepted for oral presentation and 35 for poster presentation. **ReConFig** aims to bring together an appropriate mix of all theoretical and practical aspects of reconfigurable computing and FPGA technology. The conference seeks to promote the use of reconfigurable computing and FPGAs devices for research, education, and applications, covering from hardware architectures and devices to custom computers and high performance systems.

Reconfigurable computing and FPGA technology have become major subjects of research in computing and electrical engineering as they have been identified as powerful alternatives for creating highly efficient computing systems. Reconfigurable computing offers substantial performance improvements when compared against traditional processing architectures via custom design and reconfiguration capabilities. Reconfiguration is characterized by the ability of hardware architectures or devices to rapidly alter the functionalities of its components and the interconnection between them as needed. Existing theoretical models and algorithms combined with commercially available devices, such as FPGAs, make Reconfigurable Computing a very powerful computing paradigm.

**ReConFig** covers a broad spectrum of **topics** including, but not limited to:

- ✓ Models, methods, tools, and architectures for reconfigurable computing
- ✓ Compilation, simulation, debugging, synthesis, verification, and test of reconfigurable systems
- ✓ Field programmable gate arrays and other reconfigurable technologies
- ✓ Evolvable hardware and dynamic reconfiguration
- ✓ Algorithms implemented on reconfigurable hardware
- ✓ Reconfigurable computing education
- ✓ Reconfigurable computing applications

In addition to the general session, submissions are invited for the following special **tracks**:

- ✓ High Performance Reconfigurable Computing
- ✓ Reconfigurable Computing for Security and Cryptography
- ✓ Reconfigurable Computing for DSP and Communications
- ✓ Multiprocessor Systems and Networks on Chip
- ✓ Reconfiguration techniques
- ✓ Track on Reconfigurable Computing for Computer Vision and Image/Video Processing
- ✓ Cyber Physical Systems (Automotive, Robotics, Avionics, Industry)
- ✓ Adaptive and Organic Computing

Conference Proceedings will be edited by the IEEE Computer Society **Conference Publishing Services (CPS)** and will appear at the IEEE digital Library. Authors of selected papers will be invited to submit an extended version for a **Special Issue of the International Journal of Reconfigurable Computing (IJRC)**. Instructions for electronic submission are available in the conference web page.

### Important dates:

- ✓ **Paper Submission:** July 30, 2010
- ✓ **Acceptance Notification:** September 24, 2010
- ✓ **Camera-Ready Papers:** October 11, 2010
- ✓ **Conference:** December 6-8, 2010

### General Chair

René Cumplido, INAOE, Mexico

### Program co-Chairs

Viktor Prasanna, University of Southern California, USA  
Jürgen Becker, Karlsruhe Institute of Technology, Germany

### Publicity co-Chairs

Lesley Shannon, Simon Fraser University, Canada  
David Thomas, Imperial College, UK  
Elías Todorovich, UNICEN, Argentina

### Proceedings Chair

Claudia Feregrino, INAOE, Mexico

### Tracks co-Chairs

Miguel Arias, INAOE, Mexico  
Peter Athanas, Virginia Tech, USA  
Joao Cardoso, University of Porto, Portugal  
Paul Chow, University of Toronto, Canada  
Aravind Dasu, Utah State University, USA  
Suhaib Fahmy, Nanyang Technological University, Singapore  
Kris Gaj, George Mason University, USA  
Michael Hübner, Karlsruhe Institute of Technology, Germany  
Manuel Moreno, Technical University of Catalunya, Spain  
José Nuñez-Yañez, University of Bristol, UK  
Dac Pham, Freescale, USA  
Marco Platzner, University of Paderborn, Germany  
Marco D. Santambrogio, MIT, USA  
Patrick Schaumont, Virginia Tech, USA  
Ron Sass, UNC-Charlotte, USA  
Jürgen Teich, University of Erlangen-Nuremberg, Germany