



Third International Conference on  
Advances in Control and Optimization of Dynamical Systems  
ACODS-2014  
March 13-15, 2014  
Indian Institute of Technology Kanpur, India



INVITED SESSION CALL FOR PAPERS  
ACODS-2014 INVITED SESSION ON  
**Adaptive Critic Designs for Control**

[http://www.iitk.ac.in/acods2014/Home\\_ACODS-2014.html](http://www.iitk.ac.in/acods2014/Home_ACODS-2014.html)

**Invited Session Chair**

**Dr. Alok Kanti Deb**

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**Invited Session  
Co-chair**

**Dr. B. M. Mohan**

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Kharagpur, India

**Background:** Controller design boils down to training a system that can generate the appropriate control actions for dynamical systems. In recent years, among the numerous methods to solve the nonlinear control problem, Adaptive Critic approach based on Approximate Dynamic Programming has emerged as a powerful technique to solve the optimal control problem. Adaptive Critic solves the problem of “Curse Of Dimensionality” in Dynamic Programming and gives a solution in nonlinear state feedback form. Primarily two types of agents, the ‘Action’ and the ‘Critic’ exist that operates in tandem for attaining the control objective. These agents can be realized by any sophisticated learning element. Apart from demonstrating its performance in benchmark control problems, it is also being applied in practical applications some of which are power systems, aerospace control, biochemical processes, robotics and autonomous vehicles. This special session envisages attracting researchers from diverse domains involved in designing adaptive critics for solving control problems.

**Topics :** Potential topics of this invited session include, but are not limited to:

- Approximate Dynamic Programming;
- Neuro Dynamic Programming;
- Fuzzy Control, Neuro-fuzzy control;
- System Identification;
- Intelligent Agent Architectures;
- Machine Learning algorithms and related Applications.

**Important Dates :**

31<sup>st</sup> October 2013: Deadline for submission of full-length papers

15<sup>th</sup> December 2013: Acceptance/rejection notification

15<sup>th</sup> January 2013: Final camera-ready papers due in electronic form.

Papers for the Invited Session should be submitted through **papercept**. Please visit the conference website for more information.