

## Profile Page



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### **Research Interests :**

Optimal Control Systems, Robust Control and Fuzzy Control of Active Vehicle suspension system  
Modeling and optimal control of 2- Link Rigid Manipulator and Single Link Flexible Manipulator

### **Journal Publications :**

<b>Year</b>	<b>Journal</b>	<b>Publication</b>
May 2015	International Journal of Information and Electronics Engg., vol 5,no3,pp 198-203	Narinder Singh Bhangal, Robust Control of Two Link Rigid Manipulator
June 2017	Journal of Automation and Control Engg.,vol5, no1, pp 14-20, June2017	Narinder Singh Bhangal, Robust Control of Double Inverted Pendulum System
June 2013	Journal of Image and Graphics, vol 1, no2, pp 143-146	Narinder Singh Bhangal, Design and Performance of LQR and LOR based Fuzzy Controller for Double Inverted Pendulum System
July 2012	International Journal of Engineering Research and Development, vol 1,no 12,pp 69-74	Narinder Singh Bhangal, Comparison of LQR and PD Controller for Stabilizing Double Inverted Pendulum System
Feb, 2012	International Journal of Advanced Research in computer science and Software Engg., vol 2,no 2,pp 189-192	Narinder Singh Bhangal, Optimal Control of Double Inverted Pendulum System using LOR controller
Aug.2013	International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engg., vol 2,no 8,pp 3967-3979	Narinder Singh Bhangal, Hub Angle Regulation and End Effector Control of Single Link Flexible Manipulator
April 2016	International Journal of Control and Automation, vol 9,no4,pp 149-160	Narinder Singh Bhangal, Robust Control of Vehicle Active Suspension System
April 2016	International Journal of Mechanical Engg. and Robotics Research, vol 5,no2,pp 144-148	Narinder Singh Bhangal, Fuzzy Control of Vehicle Active Suspension System

2014	International Journal of Control and Automation, vol 7,no 4,pp pp 417-428	Narinder Singh Bhangal, Comparison of Neural Network and Fuzzy Logic Controller for nonlinear model of Two Link Rigid Manipulator
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### Conference Publications :

Year	Conference	Publication
Sept. 2013	IEEE International Conference on Signal Processing and Control, Shimla, Himachal Pradesh, India	Narinder Singh Bhangal, Performance Comparison of LQR and ANFIS controller for Stabilizing Double Inverted Pendulum System
Oct.2015	International Conference on Computer and Electrical Engg.(ICCEE-2015),Paris ,France	Narinder Singh Bhangal,Fuzzy Control of Vehicle Active Suspension System
Oct.2014	International Conference on Computer and Electrical Engg.(ICCEE-2014), Geneva, Switerland	Narinder Singh Bhangal, Robust control of Two Link Rigid Manipulator
Oct.2012	International Conference on Computer and Electrical Engg.(ICCEE-2012), Hongkong, China	Narinder Singh Bhangal, Design and Performance of PD and LQR controller for Double Inverted Pendulum System
June 2013	International Conference on Computing and Computer Vision (ICCCV-2013) , Paris, France	Narinder Singh Bhangal, Design and Performance of LQR and LQR based Fuzzy controller for Double Inverted Pendulum System
Dec. 2016	International Conference on Computer and Electrical Engg.(ICCEE-2016),Barcelona, Spain	Narinder Singh Bhangal,Robust Control of Double Inverted Pendulum System
Dec,2010	International Conference on Biomedical Engineering and Assistive Technologies,Jalandhar,India	Narinder Singh Bhangal, LQR control of Two Link Rigid Manipulator
Dec, 2012	2nd International Conference on Biomedical Engineering and Assistive Technologies,Jalandhar,India	Narinder Singh Bhangal, Design and Simulation of LQR controller forStabilizing Double Inverted Pendulum System
Dec, 2012	2nd International Conference on Biomedical Engineering and Assistive Technologies,Jalandhar,India	Narinder Singh Bhangal, Design and Performance of LQR and Fuzzy logic controller for Two Link Rigid Manipulator
Dec, 2010	International Conference on Test and Measurement(ICTM- 2010),Puket, Thailand	Narinder Singh Bhangal, Optimal Control of Flexible Link Manipulator