

## 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 :**

| Year       | Journal  | Publication  |
|------------|--|--|
| 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  |

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|------|---|---|
| 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   |