

# List of Papers Accepted for NaCoMM 2011

Number of oral presentations : 63

Number of poster presentations : 20

## Oral Presentations

Paper ID	Author (s)	Paper Title
10	N.N. Krokmal, O.N. Krokmal	General Method of Optimal Kinematic Synthesis of Planar Lever Mechanisms based on its Structural Properties by Example of the Eight-link Mechanism
21	S.S. Chauhan, S.C. Bhaduri	Evaluation of the Polycentric above Knee Prosthesis
22	T A Dwarakanath and Gaurav Bhutani	Novel Design Solution to High Precision 3 Axes Translational Parallel Mechanism
24	B. Lakshmi Narayana, B. P. Nagaraj, G. Nagesh & C. D. Sridhara	Deployment Dynamics and Latch-Up Shock Estimation of Large Antenna Hold Down Mechanism
25	Atul Andhare , Anil Onkar, Pramod Padole	Design of Bed for Bedridden Patients: Analysis and Synthesis of Mechanisms
26	Gaurav Sharma, Srividhya G., Shamrao, K. Balaji, G. Nagesh , C.D. Sridhara	Performance Evaluation of Wheeled Rover by Analysis and Test
29	Nirmal Baran Hui	Neural Network-Based Coordinated Motion Planning of Multiple Mobile Robots
30	Bikash Panja and Santanu Das	On the Anti-Loosening Characteristics of M16 Threaded Fasteners under Vibratory Conditions
31	Tarun Kumar Hazra and Nirmal Baran Hui	Dynamically Stable Gait Planning of a Three-Legged Vertical Surface Climbing Robot
32	Atul Andhare, Tejas Lakhe, Vishal Vadabhat, Tejas Umbarkar	Application of Neural Network in Condition Monitoring of Ball Bearings
34	C. G. Rajeevlochana, A. Jain, S. V. Shah, S. K. Saha	Recursive Robot Dynamics in RoboAnalyzer
35	Subrata Kr. Mandal, Atanu Maity	Development and Performance Evaluation of a Light Weight Power Tiller
36	T A Dwarakanath, Gaurav Bhutani, Puneet Srivastava	Task Space Trajectory Planning among Cooperating Robots through Mirror Motions
38	Hemant A. Gaikwad, Nilesh P. Awate	Design of Multiside Tipper Tilting Mechanism
41	Sanjeev kumar, Jose Varghese, R. Vijayashree, S. Raghupathy, P. Chellapandi, S.C.Chetal	Kinematic Analysis Of Link System Used In Collapsible Type In-Vessel Handling Machine
43	U.Sudhakar, J.Srinivas	Modelling and Analysis of Three-degree of Freedom Micro-positioning Stage
44	A.S.M.Alhaji, J.Srinivas	An Optimization Approach for Path Synthesis of Four-bar Grashof Mechanisms
45	Gökhan Kiper, Eres Söylemez	Kinematic Analysis of a 3-UPU Parallel Manipulator Using Exponential Rotation Matrices
47	Garimella Yoganand, Dibakar Sen	Link Geometry Synthesis for Prescribed Inertia
50	Soumen Sen, Antonio Bicchi	A Nonlinear Elastic Transmission for Variable-Stiffness-Actuation: Objective and Design
51	Akhadkar Narendra Arun	Design Optimization Of Toggle Mechanism By Mathematical Model
55	H. P Jawale, H. T. Thorat	Analysis of Positional Error due to Joint Clearances in Four Bar Mechanism
59	Marco Ceccarelli	A history of TMM-MMS in Italy

62	Syed Ismail, Veeraraju V, Sarangi M	Experimental Study on Micro-Textured Thrust Pad Bearing
64	Abdul Jaleel, Tripuraneni Varun, Arun D. Mahindrakar	Control and Stability Analysis of a Walking Knee-less Biped with Torso
66	K.S.Zakiuddin , J.P.Modak	DEVELOPMENT OF POST HARVEST FOOD PROCESSING MACHINE
88	R.Keerthivasan	Innovative application of Kinetics for Low-Cost Vehicle Speed Control System using Linear Cable and Open-Coil spring
91	Shailaja Kurode, Chinmay Dharmadhikari, Mrinmay Atre, Aniruddha Katti, Shubham Shambharkar	Design and Development of Novel Two Axis Servo Control Mechanism
97	Nayan M. Kakoty, Shyamanta M. Hazarika	Biomimetic Design and Development of a Prosthetic Hand: Prototype 1.0
98	Vinay Gupta and S.K. Saha	Symbolic Computation and Simulation of a Spatial Pendulum
101	R. Rathee and P. M. Pathak	Trajectory Planning of Dual Arm Free Flying Space Robot using Polynomial Approach
104	Tao Li, Hao Gu , Conghui Liang, Giuseppe Carbone, Marco Ceccarelli, Christian Löchte, Annika Ratz	Test Results with a Binary Actuated Parallel Manipulator
107	Sudip Dey, Amit Karmakar	Natural Frequencies of Bending and Torsion Stiff Composite Conical Shells with Delamination
109	S. Bose, A. Nandi, S. Neogy	Stability Analysis of a Spinning and Precessing Viscoelastic Rotor Model Under the Effect of Tensile Centrifugal Force
116	Abdullah Aamir Hayat, Adnan Akhlaq, M. Naushad Alam	Design of a Flexural Joint using Finite Element Method
117	G Muthuveerappan, Rama Thirumurugan	Prediction of Theoretical Wear in High Contact Ratio Spur Gear Drive
119	Puneet Singh and G. K. Ananthasuresh	An SMA-actuated, Compact, Compliant Ring-actuator with Uniform Deformation
121	Josef Schadlbauer, Dominic R. Walter and Manfred L. Husty	A Complete Kinematic Analysis of the 3-RPS Parallel Manipulator
123	D K Biswas, S Bhaumik, J Saha	A Unique Path Tracking Method of a Rectangular Robot
124	Santosh D.B. Bhargav, Shanthanu Chakravarthy, G. K. Ananthasuresh	A Compliant End-effector to Limit the Force in Tele-operated Tissue-Cutting
130	Smitadhi Ganguly, A.Nandi , S.Neogy	Stability Analysis of Rotors using Three-Dimensional Finite Elements and HRZ Mass Lumping Scheme
131	K. S. Vinu, Ashitava Ghosal	Singularity Analysis of Closed-loop Mechanisms and Parallel Manipulators
134	Sachit Rao, Jagannath Raju	Forward and inverse kinematics of a hybrid series-parallel manipulator
138	Ranu Kundu, C. V. Aravind, Sudarshan Hegde, and G. K. Ananthasuresh	An Online Interactive Computer Program for Pragmatic Design of Compliant Mechanisms
139	Shyamsananth Madhavan, G. K. Ananthasuresh	Design of Force-amplifying Compliant Mechanisms for Resonant Accelerometers

141	Sambuddha Khan, P. Muddukrishna and G. K. Ananthasuresh	Development of a Meso-scale Dual-axis Steel Accelerometer with Hall-effect Sensors
144	P. Venkateshwara Chowdary, Gurunathan Saravana Kumar, Palaniappan Ramu	A Reliability Based Robust Multi-objective Optimal Synthesis of Linkage Mechanisms Considering Tolerances
146	Prasanna S Gandhi, Kaustubh Sonawale, Vaibhav Soni	Development of Double Parallelogram Flexure Mechanism via Assembly Route
148	Shanu Sharma, J Ramkumar, Shatrupa Thakurta Roy	User Centric Designed Mechanism For stairs-climbing Wheelchair (manual)
151	Ramakrishna K, Dibakar Sen	Curvature Based Mobility Analysis and Form Closure of Smooth Planar Curves with Multiple Contacts
156	Prateek Kumar, Saroj Mandal and S.Senthilvelan	Dedendum Optimization of Asymmetric Spur Gear
157	Sachindra Mahto	Shape Optimization of Revolute Single Link Flexible Robotic Manipulator for Vibration Suppression
170	Sartaj Singh and Ramachandra K	Boombot: Low Friction Co-efficient Stair Climbing Robot Using Rotating Boom and Weight Redistribution
175	Takafumi Matsumaru	Design and Evaluation of Handover Movement Informing Receiver of Weight Load
178	A. Rahmani Hanzaki, E. Yoosefi	An Improved Dynamic Modeling of a 3-RPS Parallel Manipulator using the concept of DeNOC Matrices
181	N. Harish Chandra , A.S. Sekhar	Vibration based Fatigue Damage Assessment of Cantilever Beams
183	M. Chandra Sekhar Reddy, A. S. Sekhar	Identification of Unbalance and Looseness in Rotor Bearing Systems using Neural Networks
187	Prof. Dr. Willi Rehwald , Prof. Dr. Kurt Luck	Investigation of Autonomous Oscillating Linkages
188	Aditya Soni, Ramanathan Muthuganapathy and Sandipan Bandyopadhyay	Adjustable Hand-cranked Tricycle for Mobility Disabled
189	Abhishek Agarwal, Chaman Nasa, Sandipan Bandyopadhyay	Dual-loop Control for Backlash Correction in Trajectory-tracking of a Planar 3-RRR Manipulator
190	Arjun Nagarajan, Sandipan Bandyopadhyay	A Framework for Analysis and Dynamic Visualisation of Mechanisms
191	Prasun Jana, Anindya Chatterjee	Frictional Dissipation at a Small Crack under Multiaxial Periodic Stresses
193	Sadiq Mohamed Anwar, Sandipan Bandyopadhyay	Trajectory-tracking Control of Semi-Regular Stewart Platform Manipulator

## Poster Presentations

Paper ID	Author (s)	Paper Title
13	Abhay Grover	Dynamic and Vibration Analysis of a Farm Tractor to Harness Energy via Piezoelectric Generators for Increasing the Fuel Efficiency
23	Gaurav Bhutani, T A Dwarakanath, Ali Asgar, D Venkatesh	Frame based to Frameless Stereotactic Neuro-Surgery
28	B.P.Chatterjee	Kinematics Study of Rapier Driven by a Coupled Crank-Variable Pitch Screw System in Weaving Machine
37	L. Suresh, Sajal Karmakar, R.Vijayashree, K. Natesan, S. Raghupathy, P. Chellapandi, S.C. Chetal	Conceptualisation of Stroke Limiting Device for Control & Safety Rod Drive Mechanism of Sodium Cooled Fast Reactor
40	A R Srinivas, Hemant Arora, Piyush Shukla	On the Development of a Controlled Compressible Collet Clamp Micro Mechanism (C4 $\mu$ M) for RF Cables in Spacecraft Components
54	Hakimuddin Hussain, Zakiuddin Syed Kazi, J.P.Modak	Design of the Pedal Operated Pipe Bending Machine
90	Shailaja Kurode, Sujit Jalkote	Robust Stabilization and Tracking of Position Servo-Mechanism using Integral Sliding Modes
96	Arun Dayal Udai, C.G Rajeevlochana, Subir Kumar Saha	Dynamic Simulation of a KUKA KR5 Industrial Robot using MATLAB SimMechanics
102	K. Ganesh, P. M. Pathak	Dynamic Modelling and Simulation of Four Legged Jumping Robot with Complaint Legs
112	Najeeb ur Rahman, M. Naushad Alam, Abdullah A. Hayat	Active Vibration Control of Piezoelectric Laminated Beam Under Clamped Conditions
114	Sudheer Patri, Muhammad Sabih, T.V. Maran, T. Logaiyan, C. Meikandamurthy, R. Veerasamy	Design and Development of an Innovative Stroke Limiting Device for Shutdown System of a Nuclear Power Plant
118	Adnan Akhlaq, Abdullah Aamir Hayat, M. Naushad Alam	Active Vibration Isolation using Stewart Gough Platform
127	Maheshwar Reddy, Akhadkar Narendra Arun, Dhairyshil Desai, Gnanaraj Charles	Dynamic Analysis of Electro-Mechanical Switch with Experimental Validation
143	B.B.Parth, J.Srinivas	Design of a Neural Network-Based Controller for Antilock Braking System
147	E. Yoosefi, A. Rahmani Hanzaki	Kinematic Analysis of a 3-RPS Parallel Manipulator using Euler Parameters
152	Mahek Mody, Anirban Guha, P. Seshu	Performance Optimization in Four Wheel Independent Steer-by-Wire Vehicles using Slip Angle Control
155	Arvind Bansode, P S Gandhi	Fabrication and Assembly of Displacement Amplifying Compliant Mechanism
159	M. Kodeeswaran, A. Bahrudheen, Pradeep Kumar, UJ. Naik	Stepper Motor Driven Rotary Electro-Mechanical Actuators for the Mixture Ratio Control Application of Launch Vehicle
160	Kidar Nath Rustagi, S.S.Rattan, Gian Bhushan Arora	An Effective Method to Estimate Performance of Parallel Manipulators
176	Hariharan.N	The case for Fail Safe Mechanisms