

Chung Choo Chung

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

166
papers

2,273
citations

21
h-index

41
g-index

234
ext. papers

3,061
ext. citations

3.8
avg, IF

5.52
L-index

#	Paper	IF	Citations
166	Nonlinear control of a swinging pendulum. <i>Automatica</i> , 1995 , 31, 851-862	5.7	158
165	High-Gain Disturbance Observer-Based Backstepping Control With Output Tracking Error Constraint for Electro-Hydraulic Systems. <i>IEEE Transactions on Control Systems Technology</i> , 2015 , 23, 787-795	4.8	152
164	Probabilistic vehicle trajectory prediction over occupancy grid map via recurrent neural network 2017 ,		131
163	Sequence-to-Sequence Prediction of Vehicle Trajectory via LSTM Encoder-Decoder Architecture 2018 ,		127
162	Disturbance-Observer-Based Position Tracking Controller in the Presence of Biased Sinusoidal Disturbance for Electrohydraulic Actuators. <i>IEEE Transactions on Control Systems Technology</i> , 2013 , 21, 2290-2298	4.8	97
161	. <i>IEEE Transactions on Vehicular Technology</i> , 2015 , 64, 3378-3391	6.8	86
160	Output feedback nonlinear control for electro-hydraulic systems. <i>Mechatronics</i> , 2012 , 22, 766-777	3	80
159	Converse Lyapunov functions for exponentially stable periodic orbits. <i>Systems and Control Letters</i> , 1994 , 23, 27-34	2.4	72
158	Improved Direct Power Control for Grid-Connected Voltage Source Converters. <i>IEEE Transactions on Industrial Electronics</i> , 2018 , 65, 8041-8051	8.9	60
157	Microstepping Using a Disturbance Observer and a Variable Structure Controller for Permanent-Magnet Stepper Motors. <i>IEEE Transactions on Industrial Electronics</i> , 2013 , 60, 2689-2699	8.9	52
156	. <i>IEEE Transactions on Vehicular Technology</i> , 2016 , 65, 4379-4392	6.8	46
155	Adaptive Output Regulation for the Rejection of a Periodic Disturbance With an Unknown Frequency. <i>IEEE Transactions on Control Systems Technology</i> , 2011 , 19, 1296-1304	4.8	38
154	. <i>IEEE Transactions on Magnetics</i> , 2011 , 47, 4231-4234	2	37
153	Passivity-Based Control With Nonlinear Damping for Type 2 STATCOM Systems. <i>IEEE Transactions on Power Systems</i> , 2016 , 31, 2824-2833	7	32
152	The Lyapunov-based controller with a passive nonlinear observer to improve position tracking performance of microstepping in permanent magnet stepper motors. <i>Automatica</i> , 2012 , 48, 3064-3074	5.7	26
151	Optimized structured treatment interruption for HIV therapy and its performance analysis on controllability. <i>IEEE Transactions on Biomedical Engineering</i> , 2006 , 53, 380-6	5	26
150	Robust Multirate On-Road Vehicle Localization for Autonomous Highway Driving Vehicles. <i>IEEE Transactions on Control Systems Technology</i> , 2017 , 25, 577-589	4.8	25

149	LPV H_∞ Control with Disturbance Estimation for Permanent Magnet Synchronous Motors. <i>IEEE Transactions on Industrial Electronics</i> , 2018 , 65, 488-497	8.9	24
148	Comparative evaluation of dynamic and kinematic vehicle models 2014 ,		24
147	Control Methods in Data-Storage Systems. <i>IEEE Transactions on Control Systems Technology</i> , 2012 , 20, 296-322	4.8	24
146	Microstepping With Nonlinear Torque Modulation for Permanent Magnet Stepper Motors. <i>IEEE Transactions on Control Systems Technology</i> , 2013 , 21, 1971-1979	4.8	22
145	Predictive virtual lane method using relative motions between a vehicle and lanes. <i>International Journal of Control, Automation and Systems</i> , 2015 , 13, 146-155	2.9	21
144	Coordinated Control of Wind Turbine and Energy Storage System for Reducing Wind Power Fluctuation. <i>Energies</i> , 2018 , 11, 52	3.1	21
143	Robust Fast Seek Control of a Servo Track Writer Using a State Space Disturbance Observer. <i>IEEE Transactions on Control Systems Technology</i> , 2012 , 20, 346-355	4.8	21
142	On-Road Path Generation and Control for Waypoints Tracking. <i>IEEE Intelligent Transportation Systems Magazine</i> , 2017 , 9, 36-45	2.6	21
141	Grid voltage modulated direct power control for grid connected voltage source inverters 2017 ,		20
140	Lane estimation using a vehicle kinematic lateral motion model under clothoidal road constraints 2014 ,		20
139	Multirate Lane-Keeping System With Kinematic Vehicle Model. <i>IEEE Transactions on Vehicular Technology</i> , 2018 , 67, 9211-9222	6.8	20
138	Robust output feedback control for unknown non-linear systems with external disturbance. <i>IET Control Theory and Applications</i> , 2016 , 10, 173-182	2.5	19
137	Direct power control of grid connected voltage source inverters using port-controlled Hamiltonian system. <i>International Journal of Control, Automation and Systems</i> , 2017 , 15, 2053-2062	2.9	18
136	Maximum Power Point Tracking of a Wind Power Plant With Predictive Gradient Ascent Method. <i>IEEE Transactions on Sustainable Energy</i> , 2017 , 8, 685-694	8.2	18
135	Phase-Compensated Microstepping for Permanent-Magnet Stepper Motors. <i>IEEE Transactions on Industrial Electronics</i> , 2013 , 60, 5773-5780	8.9	18
134	Integral sliding mode control with a disturbance observer for next-generation servo track writing. <i>Mechatronics</i> , 2016 , 40, 106-114	3	18
133	Design and analysis of dual-stage servo system for high track density HDDs. <i>Microsystem Technologies</i> , 2002 , 8, 161-168	1.7	17
132	Discrete-time LQG/LTR dual-stage controller design in magnetic disk drives. <i>IEEE Transactions on Magnetics</i> , 2001 , 37, 1891-1895	2	17

131	Nonlinear H _∞ control around periodic orbits. <i>Systems and Control Letters</i> , 1997 , 30, 127-137	2.4	16
130	Active high-frequency vibration rejection in hard disk drives. <i>IEEE/ASME Transactions on Mechatronics</i> , 2006 , 11, 339-345	5.5	16
129	Dual-stage actuator disk drives for improved servo performance: track follow, track seek, and settle. <i>IEEE Transactions on Magnetics</i> , 2001 , 37, 1887-1890	2	16
128	Discrete-time nonlinear damping backstepping control with observers for rejection of low and high frequency disturbances. <i>Mechanical Systems and Signal Processing</i> , 2018 , 104, 436-448	7.8	16
127	Observer-based backstepping control method using reduced lateral dynamics for autonomous lane-keeping system. <i>ISA Transactions</i> , 2018 , 83, 214-226	5.5	16
126	. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2018 , 19, 3818-3829	6.1	15
125	Improved low-voltage ride through capability for PMSG wind turbine based on port-controlled hamiltonian system. <i>International Journal of Control, Automation and Systems</i> , 2016 , 14, 1195-1204	2.9	15
124	Simplified torque modulated microstepping for position control of permanent magnet stepper motors. <i>Mechatronics</i> , 2016 , 35, 162-172	3	15
123	Novel Position Detection Method for Permanent Magnet Stepper Motors Using Only Current Feedback. <i>IEEE Transactions on Magnetics</i> , 2011 , 47, 3590-3593	2	13
122	Multirate active steering control for autonomous vehicle lateral maneuvering 2012 ,		13
121	Design of a New Multi-Loop Disturbance Observer for Optical Disk Drive Systems. <i>IEEE Transactions on Magnetics</i> , 2009 , 45, 2224-2227	2	13
120	. <i>IEEE/ASME Transactions on Mechatronics</i> , 2017 , 22, 1349-1359	5.5	12
119	Analysis and design of servomechanism and its application to disk drives. <i>IEEE Transactions on Control Systems Technology</i> , 2003 , 11, 233-241	4.8	12
118	Discrete-Time LPV \mathcal{H}_2 Observer With Nonlinear Bounded Varying Parameter and Its Application to the Vehicle State Observer. <i>IEEE Transactions on Industrial Electronics</i> , 2018 , 65, 8768-8777	8.9	11
117	Novel clamping force control for electric parking brake systems. <i>Mechatronics</i> , 2011 , 21, 1156-1162	3	11
116	Two degree-of-freedom dual-stage actuator controller design for hard disk drives. <i>IEEE Transactions on Magnetics</i> , 2000 , 36, 2255-2257	2	11
115	Lateral Control System for Autonomous Lane Change System on Highways. <i>SAE International Journal of Passenger Cars - Mechanical Systems</i> , 2016 , 9, 877-884	0.3	11
114	Robust Camera Lidar Sensor Fusion Via Deep Gated Information Fusion Network 2018 ,		11

113	Kinematics-based Fault-tolerant Techniques: Lane Prediction for an Autonomous Lane Keeping System. <i>International Journal of Control, Automation and Systems</i> , 2018 , 16, 1293-1302	2.9	11
112	Proximate In-Phase Current Estimator to Reduce Torque Ripple in Permanent-Magnet Stepping Motor. <i>IEEE Transactions on Industrial Electronics</i> , 2016 , 63, 1707-1716	8.9	10
111	Atomic force microscope anodization lithography using pulsed bias voltage synchronized with resonance frequency of cantilever. <i>Nanotechnology</i> , 2005 , 16, 2082-5	3.4	10
110	Clamping Force Control for an Electric Parking Brake System: Switched System Approach. <i>IEEE Transactions on Vehicular Technology</i> , 2013 , 62, 2937-2948	6.8	9
109	Bias Compensation for Fast Servo Track Writer Seek Control. <i>IEEE Transactions on Magnetics</i> , 2011 , 47, 1937-1943	2	9
108	Reconstruction of a scanned topographic image distorted by the creep effect of a Z scanner in atomic force microscopy. <i>Review of Scientific Instruments</i> , 2011 , 82, 053709	1.7	9
107	Fault detection method for electric parking brake (EPB) systems with sensorless estimation using current ripples. <i>International Journal of Automotive Technology</i> , 2010 , 11, 387-394	1.6	9
106	A comparative study of lane keeping system: Dynamic and kinematic models with look-ahead distance 2015 ,		8
105	GPS waypoint fitting and tracking using model predictive control 2015 ,		8
104	Control Design for Self-Servo Track Writing Using a State-Space Disturbance Observer. <i>IEEE Transactions on Magnetics</i> , 2009 , 45, 5094-5099	2	8
103	Lane keeping system based on kinematic model with road friction coefficient adaptation 2016 ,		7
102	Enhanced nonlinear damping for a class of singularly perturbed interconnected nonlinear systems. <i>Automatica</i> , 2016 , 65, 36-42	5.7	7
101	Autonomous Vehicle Lateral Maneuvering by Approximate Explicit Predictive Control 2018 ,		7
100	. <i>IEEE/ASME Transactions on Mechatronics</i> , 2019 , 24, 2040-2051	5.5	7
99	Adaptive side slip angle observer using simple combined vehicle dynamics 2013 ,		7
98	Predictive control with sliding mode for autonomous driving vehicle lateral maneuvering 2017 ,		7
97	A Lyapunov method in microstepping control for Permanent Magnet stepper motors 2009 ,		7
96	Optimal Switching In Structured Treatment Interruption For Hiv Therapy. <i>Asian Journal of Control</i> , 2008 , 8, 290-296	1.7	7

95	Multirate digital control for high track density magnetic disk drives. <i>IEEE Transactions on Magnetics</i> , 2003 , 39, 832-837	2	7
94	Nonlinear Steering Wheel Angle Control Using Self-Aligning Torque with Torque and Angle Sensors for Electrical Power Steering of Lateral Control System in Autonomous Vehicles. <i>Sensors</i> , 2018 , 18,	3.8	7
93	On-Road Vehicle Localization with GPS under Long Term Failure of a Vision Sensor 2015 ,		6
92	Predictive risk assessment using cooperation concept for collision avoidance of side crash in autonomous lane change systems 2017 ,		6
91	Direct power control for three phase grid connected inverter via port-controlled Hamiltonian method 2015 ,		6
90	Adaptive digital demodulation of sinusoidal encoder signal for positioning control of spiral servo track writing. <i>Microsystem Technologies</i> , 2012 , 18, 1247-1253	1.7	6
89	Passivity-based control with nonlinear damping for STATCOM system 2012 ,		6
88	Output tracking control with enhanced damping of internal dynamics and its output boundedness 2010 ,		6
87	Design of the Tracking Controller for Holographic Digital Data Storage. <i>IEEE/ASME Transactions on Mechatronics</i> , 2010 , 15, 242-252	5.5	6
86	Radar Accuracy Modeling and Its Application to Object Vehicle Tracking. <i>International Journal of Control, Automation and Systems</i> , 2020 , 18, 3146-3158	2.9	6
85	Dynamic Extension Algorithm-Based Tracking Control of STATCOM Via Port-Controlled Hamiltonian System. <i>IEEE Transactions on Industrial Informatics</i> , 2020 , 16, 5076-5087	11.9	6
84	Vehicle lateral motion estimation with its dynamic and kinematic models based interacting multiple model filter 2016 ,		6
83	Automated Perpendicular Parking System With Approximated Clothoid-Based Local Path Planning 2021 , 5, 1940-1945		6
82	Linear Parameter Varying Design for Lateral Control using Kinematics of Vehicle Motion 2018 ,		5
81	Nonlinear Controller With the Dead-Zone and Saturation for Optical Disk Drive Systems in the Presence of External Shocks. <i>IEEE/ASME Transactions on Mechatronics</i> , 2014 , 19, 1458-1463	5.5	5
80	Parametric trajectory prediction of surrounding vehicles 2017 ,		5
79	Waypoint tracking predictive control with vehicle speed variation 2017 ,		5
78	Slip Angle Estimation: Development and Experimental Evaluation. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2013 , 46, 286-291		5

77	New position error signal generation method for SPM based data storage system. <i>Microsystem Technologies</i> , 2009 , 15, 1663-1674	1.7	5
76	Local Path Planning Using Artificial Potential Field for Waypoint Tracking with Collision Avoidance 2020 ,		5
75	Object Vehicle Tracking by Convex Interpolation with Radar Accuracy 2019 ,		5
74	Discrete-Time Integral Sliding Model Predictive Control for Dynamic Lateral Motion of Autonomous Driving Vehicles 2018 ,		5
73	Stabilisation of asymmetrically structured back-to-back static synchronous compensator system with non-linear damping control. <i>IET Power Electronics</i> , 2015 , 8, 1952-1962	2.2	4
72	Vehicle trajectory prediction for adaptive cruise control 2015 ,		4
71	Uniform output regulation via approximated input-output linearisation for lightly damped internal dynamics. <i>International Journal of Control</i> , 2013 , 86, 159-171	1.5	4
70	Nonlinear Control With State-Dependant Reset Integrator for a Class of Singularly Perturbed Interconnected Nonlinear Systems. <i>IEEE Transactions on Control Systems Technology</i> , 2017 , 25, 1193-1203 ^{4.8}	4.8	4
69	Model predictive control in dynamic economic dispatch using Weibull distribution 2013 ,		4
68	Adaptive observer-based nonlinear control in microstepping for permanent magnet stepper motors 2010 ,		4
67	Nonlinear Hybrid Impedance Control for Steering Control of Rack-Mounted Electric Power Steering in Autonomous Vehicles. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2020 , 21, 2956-2965	6.1	4
66	Autonomous-Driving Vehicle Control With Composite Velocity Profile Planning. <i>IEEE Transactions on Control Systems Technology</i> , 2021 , 29, 2079-2091	4.8	4
65	Nonlinear Backstepping Control Design for Coupled Nonlinear Systems under External Disturbances. <i>Complexity</i> , 2019 , 2019, 1-13	1.6	3
64	Sliding mode control for LVRT of a PMSG wind turbine using stored energy in rotor inertia 2016 ,		3
63	Robust Real-time Optimal Autonomous Highway Driving Control System: Development and Implementation. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014 , 47, 10706-10712		3
62	Predictive virtual lane using relative motions between a vehicle and lanes 2013 ,		3
61	Vision-based autonomous indoor valet parking system 2017 ,		3
60	Lateral control for autonomous lane keeping system on highways 2015 ,		3

59	HI control based on LPV for load torque compensation of PMSM 2015 ,		3
58	A model-free method for wind power plant control with variable wind 2014 ,		3
57	Robust high order augmented observer based control for nonlinear systems 2012 ,		3
56	Driving environment assessment and decision making for cooperative lane change system of autonomous vehicles. <i>Asian Journal of Control</i> , 2020 , 23, 1135	1.7	3
55	LPV HI State Feedback Controller for Automated Parking System 2022 , 6, 572-577		3
54	A Coordinated LVRT Control for a PMSG Wind Turbine. <i>IFAC-PapersOnLine</i> , 2017 , 50, 8758-8763	0.7	2
53	Nonlinear control for PMSG wind turbine via port-controlled Hamiltonian system 2015 ,		2
52	Minimizing Residual Vibration With Resonance Filter for Nonminimum-Phase Plants. <i>IEEE Transactions on Magnetics</i> , 2013 , 49, 2657-2660	2	2
51	Economic dispatch for wind farm using model predictive control method 2013 ,		2
50	Intra-day unit commitment for wind farm using model predictive control method 2013 ,		2
49	Object detection in adaptive cruise control using multi-class support vector machine 2017 ,		2
48	Microstepping with nonlinear torque modulation for position tracking control in permanent magnet stepper motors 2011 ,		2
47	Observer-based variable structure control in microstepping for permanent magnet stepper motors 2010 ,		2
46	Position control of a permanent magnet stepper motor by MISO backstepping in semi-strict feedback form 2011 ,		2
45	Implementation of a Position Error Signal for Scanning Probe Microscopy-Based Data Storage Systems. <i>IEEE Transactions on Magnetics</i> , 2009 , 45, 2324-2327	2	2
44	Servo controller design for high-bandwidth HDDs. <i>IEEE Transactions on Magnetics</i> , 2002 , 38, 2177-2179	2	2
43	Model Predictive Path Planning Based on Artificial Potential Field and Its Application to Autonomous Lane Change 2020 ,		2
42	Constant drug dose in human immuno-deficiency virus-infected patients to induce long-term non-progressor status: bifurcation and controllability approach. <i>IET Systems Biology</i> , 2013 , 7, 79-88	1.4	2

41	Decision Methodology Based on Dynamic Occupancy Grid Zone for Autonomous Lane Change System on Highways 2019 ,		2
40	. <i>IEEE Access</i> , 2021 , 1-1	3.5	2
39	Interacting Multiple Model Kalman Filter Based Vehicle Lateral Motion Estimation Under Various Road Surface Conditions 2018 ,		2
38	Trajectory Folding-based Path Planning for Automated Parking System 2018 ,		2
37	Encoder Calibration Method for High Precision Servo Systems With a Sinusoidal Encoder. <i>IEEE Transactions on Industrial Electronics</i> , 2021 , 1-1	8.9	2
36	Lateral Vehicle Trajectory Planning Using a Model Predictive Control Scheme for an Automated Perpendicular Parking System. <i>IEEE Transactions on Industrial Electronics</i> , 2022 , 1-1	8.9	2
35	Robust Nonlinear Control of STATCOMs. <i>Power Systems</i> , 2015 , 187-223	0.4	1
34	Flatness based angle control with augmented observer for electric power steering in autonomous vehicles 2017 ,		1
33	Backstepping Control Method with Sliding Mode Observer for Autonomous Lane Keeping System. <i>IFAC-PapersOnLine</i> , 2017 , 50, 6989-6995	0.7	1
32	Coordinated control of wind turbine and energy storage system for reducing wind power fluctuation 2017 ,		1
31	A sliding mode based model predictive control structure for permanent magnet synchronous motor 2015 ,		1
30	H2 control based on LPV for speed control of permanent magnet synchronous motors 2014 ,		1
29	Guest Editorial Introduction to the Special Section on Advanced Servo Control for Emerging Data Storage Systems. <i>IEEE Transactions on Control Systems Technology</i> , 2012 , 20, 292-295	4.8	1
28	Nonlinear control based on singular perturbation theory for position tracking of permanent magnet stepper motors 2012 ,		1
27	Advanced flattening method for scanned atomic force microscopy images. <i>Journal of the Korean Physical Society</i> , 2012 , 60, 680-683	0.6	1
26	Multilevel approximate model predictive control and its application to autonomous vehicle active steering 2013 ,		1
25	Seek and Track-Follow for Scanning Probe Microscopy-Based Data Storage. <i>IEEE Transactions on Magnetics</i> , 2009 , 45, 3695-3698	2	1
24	An approach to discrete-time sliding mode control with variable convergence rate to sliding surface 2008 ,		1

23	A Discrete-Time Modified Sliding Mode Proximate Time-Optimal Servomechanism for Scanning-Probe-Microscope-Based Data Storage. <i>IEEE Transactions on Magnetics</i> , 2008 , 44, 3750-3753	2	1
22	Analysis of Treatment for HIV-infected Patients Considering CD4 T Cell Count in STI 2006 ,		1
21	Robust control using a state space disturbance observer		1
20	An approach to discrete-time sliding mode control		1
19	Multirate digital control system design 2002 ,		1
18	Position Estimation of Stepping Motor Using Adaptive Gain Super Twisting Algorithm Sliding Mode Observer 2021 ,		1
17	Potential field-based path planning for emergency collision avoidance with a clothoid curve in waypoint tracking. <i>Asian Journal of Control</i> ,	1.7	1
16	Horizon-wise Model Predictive Control with Application to Autonomous Driving Vehicle. <i>IEEE Transactions on Industrial Informatics</i> , 2021 , 1-1	11.9	1
15	SAFE-STOP System: Tactical Intention Awareness Based Emergency Collision Avoidance for Malicious Cut-in of Surrounding Vehicle 2021 ,		1
14	Autonomous Driving Vehicles with Unmatched Disturbance Compensation using Deep Neural Networks 2019 ,		1
13	Waypoint Tracking for Collision Avoidance Using Artificial Potential Field 2020 ,		1
12	Phase Shift Calibration Method in Optical Sinusoidal Encoder Signals Applied to Servo Track Writer. <i>IFAC-PapersOnLine</i> , 2016 , 49, 1-6	0.7	1
11	Temporary primary frequency control support by deloaded wind power plant using input-output linearization 2016 ,		1
10	Autonomous Lane Keeping Control System Based on Road Lane Model Using Deep Convolutional Neural Networks * 2019 ,		1
9	Nonlinear Gain Position Control Using Only Position Feedback for Permanent Magnet Stepper Motors. <i>IEEE Transactions on Power Electronics</i> , 2021 , 36, 8506-8516	7.2	1
8	Robust Vehicular Lane-Tracking Control With a Winding Road Disturbance Compensator. <i>IEEE Transactions on Industrial Informatics</i> , 2021 , 17, 6125-6133	11.9	1
7	Vehicular Lateral Tracking Control with Winding Road Disturbance Compensation. <i>IFAC-PapersOnLine</i> , 2020 , 53, 15699-15704	0.7	0
6	Adaptive Feedforward Compensator Based on Approximated Causal Transfer Function for CACC with Communication Delay. <i>IFAC-PapersOnLine</i> , 2020 , 53, 15192-15197	0.7	0

- 5 H ∞ Control Using Linear Parameter Varying Approach for Motion Control Systems Under Communication Delays: Application to PMSM. *Journal of Electrical Engineering and Technology*, **2020**, 15, 1797-1809 1.4 0
- 4 Special Issue on 2015 IEEE Intelligent Vehicle Symposium (IV?15) [Guest Editorial]. *IEEE Intelligent Transportation Systems Magazine*, **2017**, 9, 6-7 2.6
- 3 Analysis of sliding mode proximate time-optimal disk drive servo control. *Microsystem Technologies*, **2011**, 17, 1083-1090 1.7
- 2 On-Road Object Collision Point Estimation by Radar Sensor Data Fusion. *IEEE Transactions on Intelligent Transportation Systems*, **2021**, 1-11 6.1
- 1 MC-10 HIGH FREQUENCY VIBRATION REJECTION IN HARD DISK DRIVES. *Proceedings of JSME-IIP/ASME-ISPS Joint Conference on Micromechatronics for Information and Precision Equipment IIP/ISPS Joint MIPE*, **2003**, 2003, 24-25