Ang, M.H.

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Florentine, E., Andersen, H., Ang, M.A., Pendleton, S.D., Fu, G.M.J., Ang, M.H.

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Qin, B., Chong, Z.J., Soh, S.H., Bandyopadhyay, T., Ang, M.H., Frazzoli, E., Rus, D.

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Shen, X., Pendleton, S., Ang, M.H., Jr.

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Kim, S.-W., Liu, W., Ang, M.H., Frazzoli, E., Rus, D.
**The Impact of Cooperative Perception on Decision Making and Planning of Autonomous Vehicles**

Shen, X., Chong, Z.J., Pendleton, S., Liu, W., Qin, B., Fu, G.M.J., Ang, M.H.
**Multi-vehicle motion coordination using V2V communication**

Liu, W., Kim, S.-W., Pendleton, S., Ang, M.H.
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Nonlinear double-integral observer and application to quadrotor aircraft  

Low, J.-H., Ang, M.H., Yeow, C.-H.  
Customizable soft pneumatic finger actuators for hand orthotic and prosthetic applications  

Lessons from the design and testing of a novel spring powered passive robot joint  

Ma, Z., Poo, A.-N., Ang, M.H., Jr., Hong, G.-S., Huo, F.  
Design, simulation and implementation of a 3-PUU parallel mechanism for a macro/mini manipulator  

Liu, W., Kim, S.-W., Ang, M.H., Jr.  
Probabilistic road context inference for autonomous vehicles  

Kim, S.-W., Bandyopadhyay, T., Qin, B., Chong, Z.J., Liu, W., Shen, X., Pendleton, S., Fu, J.G.M., Ang, M.H., Jr., Frazzoli, E., Rus, D.  
Vehicle autonomy using cooperative perception for mobility-on-demand systems  

Kim, S.-W., Qin, B., Chong, Z.J., Shen, X., Liu, W., Ang, M.H., Frazzoli, E., Rus, D.  
Multivehicle Cooperative Driving Using Cooperative Perception: Design and Experimental Validation  
Bai, Y., Chong, Z.J., Ang, M.H., Gao, X.
An online approach for intersection navigation of autonomous vehicle

Sensor fusion for localization, mapping and navigation in an indoor environment

Pendleton, S., Chong, Z.J., Qin, B., Liu, W., Uthaicharoenpong, T., Shen, X., Fu, G.M.J., Scarnecchia, M., Kim, S.-W., Ang, M.H., Jr., Frazzoli, E.
Multi-class driverless vehicle cooperation for mobility-on-demand

Liu, W., Kim, S.-W., Marczuk, K., Ang, M.H.
Vehicle motion intention reasoning using cooperative perception on urban road

Yan, H., Ang Jr., M.H., Poo, A.N.
A Survey on Perception Methods for Human-Robot Interaction in Social Robots

Ong, L.L.S., Dauwels, J., Ang, M.H., Asada, H.H.
A Bayesian filtering approach to incorporate 2D/3D time-lapse confocal images for tracking angiogenic sprouting cells interacting with the gel matrix
Vuong, N.D., Ma, C., Ang, M.H., Jr
Sensitivity of task space performance to null space control in presence of model uncertainties

Shen, X., Kim, S.-W., Ang, M.H., Jr.
Spatio-temporal motion features for laser-based moving objects detection and tracking

Short, J.S., Poo, J.A.N., Ang Jr., M.H., Lai, C.Y., Tao, P.Y.
Hamiltonian exploitation in underactuated robot system inversion

Qin, B., Chong, Z.J., Bandyopadhyay, T., Ang, M.H., Jr., Frazzoli, E., Rus, D.
Learning pedestrian activities for semantic mapping

Liu, W., Ang, M.H., Jr.
Incremental sampling-based algorithm for risk-aware planning under motion uncertainty

Qin, B., Chong, Z.J., Bandyopadhyay, T., Ang, M.H., Frazzoli, E., Rus, D.
Road detection and mapping using 3D rolling window
(2013) IEEE Intelligent Vehicles Symposium, Proceedings, art. no. 6629636, pp. 1239-1246.

Yang, T., Liu, J., Huang, W., Yang, L., Chui, C.K., Ang Jr., M.H., Su, Y., Chang, S.K.Y.
Mechanism of a learning robot manipulator for laparoscopic surgical training
Chong, Z.J., Qin, B., Bandyopadhyay, T., Ang Jr., M.H., Frazzoli, E., Rus, D.
*Mapping with synthetic 2D LIDAR in 3D urban environment*

Qin, B., Liu, W., Shen, X., Chong, Z.J., Bandyopadhyay, T., Ang Jr., M.H., Frazzoli, E., Rus, D.
*A general framework for road marking detection and analysis*

*Cooperative perception for autonomous vehicle control on the road: Motivation and experimental results*

Chong, Z.J., Qin, B., Bandyopadhyay, T., Ang, M.H., Frazzoli, E., Rus, D.
*Synthetic 2D LIDAR for precise vehicle localization in 3D urban environment*

Cabibihan, J.-J., Javed, H., Ang Jr., M., Aljunied, S.M.

Arifin, A.S., Ang, M.H., Lai, C.Y., Lim, C.W.
*General framework of the force and compliant motion control for macro mini manipulator*

*Improving positioning accuracy using a general framework for macro mini manipulation*
Qin, B., Chong, Z.J., Bandyopadhyay, T., Ang Jr., M.H.  
**Metric mapping and topo-metric graph learning of urban road network**  
(2013) IEEE Conference on Robotics, Automation and Mechatronics, RAM - Proceedings, art. no. 6758570, pp. 119-123.

Ge, S.S., Wang, C., Li, Y., Lee, T.H., Ang Jr., M.H.  
**Adaptive optimal control for linear discrete time-varying systems**  

Liu, W., Kim, S.W., Chong, Z.J., Shen, X.T., Ang Jr., M.H.  
**Motion planning using cooperative perception on urban road**  

Yang, T., Liu, J., Huang, W., Su, Y., Yang, L., Chui, C.K., Ang Jr., M.H., Chang, S.K.Y.  
**Mechanism of a learning robot manipulator for laparoscopic surgical training**  

Benjamen, L.H.Y., Ang Jr., M.H.  
**Design of a sensing limited autonomous robotic system**  

Chong, Z.J., Qin, B., Bandyopadhyay, T., Wongpiromsarn, T., Rebsamen, B., Dai, P., Rankin, E.S., Ang Jr., M.H.  
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Rebsamen, B., Bandyopadhyay, T., Wongpiromsarn, T., Kim, S., Chong, Z.J., Qin, B., Ang, M.H., Frazzoli, E., Rus, D.  
**Utilizing the infrastructure to assist autonomous vehicles in a mobility on demand context**  
Short, J.S., Poo, A.-N., Ang Jr., M.H., Lim, C.W.
Passive dynamic analysis: Motivation for use and method extension

Chong, Z.J., Qin, B., Bandyopadhyay, T., Wongpiromsarn, T., Rebsamen, B., Dai, P., Kim, S., Ang, M.H., Hsu, D., Rus, D., Frazzoli, E.
Autonomy for mobility on demand

Yan, H., Ang Jr., M.H., Poo, A.N.
Dorothy Robotubby: A robotic nanny

Yan, H., Ang Jr., M.H., Poo, A.N.
Adaptive discriminative metric learning for facial expression recognition

Qin, B., Chong, Z.J., Bandyopadhyay, T., Ang Jr., M.H., Frazzoli, E., Rus, D.
Curb-intersection feature based Monte Carlo Localization on urban roads

Stochastic tracking of migrating live cells interacting with 3D gel environment using augmented-space particle filters
Ong, L.-L., Han, M.-D., Xiao, W.-D., Tham, C.-K., Ang Jr., M.H.
**Human motion tracking in a wireless network of mobile and static sensors**

Chong, Z.J., Qin, B., Bandyopadhyay, T., Wongpiromsarn, T., Rankin, E.S., Ang Jr., M.H., Frazzoli, E., Rus, D., Hsu, D., Low, K.H.
**Autonomous personal vehicle for the first- and last-mile transportation services**

Ramanathan, K., Ong, L.-L.S., Asada, H.H., Ang Jr., M.H.
**Automated tracking of biological cells in an "in-vitro" environment using active contours and distance measures**

Yan, H., Ang Jr., M.H., Poo, A.N.
**Cross-dataset facial expression recognition**

Yan, H., Ang Jr., M.H., Poo, A.N.
**Weighted biased linear discriminant analysis for misalignment-robust facial expression recognition**

Ong, L.-L., Ang, M.H., Asada, H.H.
**Simultaneous tracking of cell nuclei and conduit parameters from time-lapse confocal microscopy images**
Soewandito, D.B., Oetomo, D., Ang Jr., M.H.
Neuro-adaptive motion control with velocity observer in operational space formulation

Bandyopadhyay, T., Ang Jr., M.H., Hsu, D.
Motion planning for 3-D target tracking among obstacles

Rebsamen, B., Guan, C., Zhang, H., Wang, C., Teo, C., Ang Jr., M.H., Burdet, E.
A brain controlled wheelchair to navigate in familiar environments
(2010) IEEE Transactions on Neural Systems and Rehabilitation Engineering, 18 (6), art. no. 5462915, pp. 590-598.

Zhang, S., Xiao, W., Gong, J., Ang Jr., M.H., Tham, C.K., Tham, R.Q.F.
Mobile sensing and simultaneously node localization in wireless sensor networks for human motion tracking

Ong, L.-L.S., Ang Jr., M.H., Asada, H.H.
Tracking of cell population from time lapse and end point confocal microscopy images with multiple hypothesis kalman smoothing filters

Vuong, N.D., Ang Jr., M.H., Lim, T.M., Lim, S.Y.
An analysis of the operational space control of robots

Ngoc Dung, V., Ang Jr., M.H., Tao Ming, L., Ser Yong, L.
Multi-rate operational space control of compliant motion in robotic manipulators
Vuong, N.D., Ang Jr., M.H.
Dynamic model identification for industrial robots

Bandyopadhyay, T., Hsu, D., Ang Jr., M.H.
Motion Strategies for People Tracking in Cluttered and Dynamic Environments

Fu, J.G.M., Ang Jr., M.H.
Probabilistic ants (Pants) in multi-agent patrolling

Fu, J.G.M., Bandyopadhyay, T., Ang Jr., M.H.
Local voronoi decomposition for multi-agent task allocation

Sun, J., Poo, A.N., Chew, C.M., Ang, M.H., Hong, G.S., De Silva, C.W., Tan, K.K.
Optimization of mechatronic design quotient using genetic algorithm in vibration controllers for flexible beams

Hang, C.-C., Ang, M., Wong, P.-K., Subramanian, A.
Technology management educational initiatives in Asia: A case study from the national university of Singapore

Ong, L.-L., Xiao, W., Tham, C.-K., Ang Jr., M.H.
Resource constrained particle filtering for real-time multi-target tracking in sensor networks
Koh, N.W., Zieliński, C., Ang Jr., M.H.
The matrix-based framework: Its role as a job-agent supervisory controller

Zhang, S., Ang Jr., M.H., Xiao, W., Tham, C.K.
Detection of activities by wireless sensors for daily life surveillance: Eating and drinking

Oetomo, D., Ang Jr, M.H.
Singularity robust algorithm in serial manipulators

Soewandito, D., Oetomo, D.N., Ang Jr., M.H.
Neuro-adaptive motion controller with velocity observer for operational space formulation
(2008) IFAC Proceedings Volumes (IFAC-PapersOnline), 17 (1 PART 1).

Xia, Q.H., Lim, S.Y., Ang Jr., M.H., Lim, T.M.
Parallel force and motion control using adaptive observer-controller

Sun, J., Poo, A.N., Ang, M.H., Chew, C.M., Hong, G.S., Tan, K.K., De Silva, C.W.
Evaluation and optimization of passive vibration controller design for flexible beams

Xiao, W., Nan, F., Zhang, S., Tham, C.K., Ang Jr., M.H., Biswas, J.
Particle filter for target tracking in multi-modality wireless sensor networks
Rebsamen, B., Burdet, E., Zeng, Q., Zhang, H., Ang, M., Teo, C.L., Guan, C., Laugier, C.  
*Hybrid P300 and mu-beta brain computer interface to operate a brain controlled wheelchair*  