Dr. George K.I. MANN
Memorial University of Newfoundland, Canada

Nguyen, T., Mann, G.K.I., Gosine, R.G., Vardy, A.
Appearance-Based Visual-Teach-And-Repeat Navigation Technique for Micro Aerial Vehicle
(2016) Journal of Intelligent and Robotic Systems: Theory and Applications, pp. 1-24. Article in Press.

Wanasinghe, T.R., Mann, G.K.I., Gosine, R.G.
Stability analysis of the discrete-time cubature Kalman filter
(2016) Proceedings of the IEEE Conference on Decision and Control, 2016-February, art. no. 7403006, pp. 5031-5036.

Jayasiri, A., Gosine, R.G., Mann, G.K.I., McGuire, P.
AUV-based plume tracking: A simulation study
(2016) Journal of Control Science and Engineering, 2016, art. no. 1764527, .

Wanasinghe, T.R., Mann, G.K.I., Gosine, R.G.
Distributed Leader-Assistive Localization Method for a Heterogeneous Multirobotic System
(2015) IEEE Transactions on Automation Science and Engineering, 12 (3), art. no. 7114338, pp. 795-809.

De Silva, O., Mann, G.K.I., Gosine, R.G.
An ultrasonic and vision-based relative positioning sensor for multirobot localization
(2015) IEEE Sensors Journal, 15 (3), art. no. 6934978, pp. 1716-1726.

De Silva, O., Mann, G.K.I., Gosine, R.G.
Efficient distributed multi-robot localization: A target tracking inspired design
(2015) Proceedings - IEEE International Conference on Robotics and Automation, 2015-June (June), art. no. 7139035, pp. 434-439.

Mehrez, M.W., Mann, G.K.I., Gosine, R.G.
Comparison of stabilizing NMPC designs for wheeled mobile robots: An experimental study
(2015) MERCon 2015 - Moratuwa Engineering Research Conference, art. no. 7112333, pp. 130-135.

De Silva, O., Mann, G.K.I., Gosine, R.G.
An efficient distributed data correspondence scheme for multi-robot relative localization
(2015) MERCon 2015 - Moratuwa Engineering Research Conference, art. no. 7112329, pp. 106-111.

Madusanka, D.G.K., Wijayasingha, L.N.S., Gopura, R.A.R.C., Amarasinghe, Y.W.R., Mann, G.K.I.
A review on hybrid myoelectric control systems for upper limb prosthesis
(2015) MERCon 2015 - Moratuwa Engineering Research Conference, art. no. 7112334, pp. 136-141.

Worthmann, K., Mehrez, M.W., Zanon, M., Mann, G.K.I., Gosine, R.G., Diehl, M.
Regulation of Differential Drive Robots using Continuous Time MPC without Stabilizing Constraints or Costs
(2015) IFAC-PapersOnLine, 48 (23), pp. 129-135.

De Silva, S., Mann, G.K.I., Gosine, R.G.
Pairwise observable relative localization in ground aerial multi-robot networks
(2014) 2014 European Control Conference, ECC 2014, art. no. 6862597, pp. 324-329.

Wanasinghe, T.R., Mann, G.K.I., Gosine, R.G.
Distributed collaborative localization for a heterogeneous multi-robot system
(2014) Canadian Conference on Electrical and Computer Engineering, art. no. 6900998, .

Mehrez, M.W., Mann, G.K.I., Gosine, R.G.
Nonlinear moving horizon state estimation for multi-robot relative localization
(2014) Canadian Conference on Electrical and Computer Engineering, art. no. 6901134, .

Wanasinghe, T.R., Mann, G.K.I., Gosine, R.G.
A Jacobian free approach for multi-robot relative localization
(2014) Canadian Conference on Electrical and Computer Engineering, art. no. 6901013, .

Mehrez, M.W., Mann, G.K.I., Gosine, R.G.
Formation stabilization of nonholonomic robots using nonlinear model predictive control
(2014) Canadian Conference on Electrical and Computer Engineering, art. no. 6901011, .

De Silva, O., Mann, G.K.I., Gosine, R.G.
Relative localization with symmetry preserving observers
(2014) Canadian Conference on Electrical and Computer Engineering, art. no. 6901032, .

Nguyen, T., Mann, G.K.I., Gosine, R.G.
Vision-based qualitative path-following control of quadrotor aerial vehicle
(2014) 2014 International Conference on Unmanned Aircraft Systems, ICUAS 2014 - Conference
Proceedings, art. no. 6842281, pp. 412-417.

Wanasinghe, T.R., Mann, G.K.I., Gosine, R.G.
Decentralized cooperative localization for heterogeneous multi-robot system using split covariance
intersection filter
(2014) Proceedings - Conference on Computer and Robot Vision, CRV 2014, art. no. 6816839, pp. 167-
174.

Nguyen, T., Mann, G.K.I., Gosine, R.G.
Vision-based qualitative path-following control of quadrotor aerial vehicle with speeded-up robust
features
(2014) Proceedings - Conference on Computer and Robot Vision, CRV 2014, art. no. 6816860, pp. 321-
327.

Dasanayake, W.D.I.G., Gopura, R.A.R.C., Dassanayake, V.P.C., Mann, G.K.I.
Estimation of prosthetic arm motions using stump arm kinematics
(2014) 2014 7th International Conference on Information and Automation for Sustainability:
"Sharpening the Future with Sustainable Technology", ICIAfS 2014, art. no. 7069615, .

Gunasekara, M.P., Gopura, R.A.R.C., Jayawardena, T.S.S., Mann, G.K.I.
Dexterity measure of upper limb exoskeleton robot with improved redundancy
(2013) 2013 IEEE 8th International Conference on Industrial and Information Systems, ICIIS 2013 -
Conference Proceedings, art. no. 6732043, pp. 548-553.

Dasanayake, W.D.I.G., Gopura, R.A.R.C., Dassanayake, V.P.C., Mann, G.K.I.
Surface EMG signals based elbow joint torque prediction
(2013) 2013 IEEE 8th International Conference on Industrial and Information Systems, ICIIS 2013 -
Conference Proceedings, art. no. 6731965, pp. 110-115.

Herath, H.M.D.B., Amarasinghe, Y.W.R., Piyasena, R.S.V., Dao, D., Prasanna, P.P.G.C., Mann, G.
RFID assisted flexible manufacturing system
(2013) Proceedings of the International Conference on Sensing Technology, ICST, art. no. 6727700, pp.
483-489.

De Silva, O., Mann, G.K.I., Gosine, R.G.
Automated tuning of the nonlinear complementary filter for an Attitude Heading Reference observer
(2013) 2013 IEEE Workshop on Robot Vision, WORV 2013, art. no. 6521934, pp. 171-176.

Yu, Y., Gu, J., Mann, G.K.I., Gosine, R.G.
Development and evaluation of object-based visual attention for automatic perception of robots
(2013) IEEE Transactions on Automation Science and Engineering, 10 (2), art. no. 6329377, pp. 365-379.

Mehrez, M.W., Mann, G.K.I., Gosine, R.G.
Stabilizing NMPC of wheeled mobile robots using open-source real-time software
(2013) 2013 16th International Conference on Advanced Robotics, ICAR 2013, art. no. 6766536, .

Wanasinghe, T.R., Mann, G.K.I., Gosine, R.G.
Pseudo-linear measurement approach for heterogeneous multi-robot relative localization
(2013) 2013 16th International Conference on Advanced Robotics, ICAR 2013, art. no. 6766521, .

El Badawe, M., Iqbal, T., Mann, G.K.I.
Optimization and modeling of a stand-alone wind/PV hybrid energy system
(2012) 2012 25th IEEE Canadian Conference on Electrical and Computer Engineering: Vision for a
Greener Future, CCECE 2012, art. no. 6335048, .

El Badawe, M., Iqbal, T., Mann, G.K.

Optimization and a comparison between renewable and non-renewable energy systems for a telecommunication site

(2012) 2012 25th IEEE Canadian Conference on Electrical and Computer Engineering: Vision for a Greener Future, CCECE 2012, art. no. 6335047, .

De Silva, O., Mann, G.K.I., Gosine, R.G.

Development of a relative localization scheme for ground-aerial multi-robot systems

(2012) IEEE International Conference on Intelligent Robots and Systems, art. no. 6386015, pp. 870-875.

Yu, Y., Mann, G.K.I., Gosine, R.G.

A single-object tracking method for robots using object-based visual attention

(2012) International Journal of Humanoid Robotics, 9 (4), art. no. 1250030, .

Jayasiri, A., Mann, G.K.I., Cosine, R.G.

A general architecture for decentralized supervisory control of Fuzzy Discrete Event Systems

(2012) Proceedings of the American Control Conference, art. no. 6315230, pp. 6089-6094.

Jayasiri, A., Mann, G.K.I., Gosine, R.G.

Generalizing the decentralized control of fuzzy discrete event systems

(2012) IEEE Transactions on Fuzzy Systems, 20 (4), art. no. 6112712, pp. 699-714.

Jayasiri, A., Mann, G.K.I., Gosine, R.G.

Modular supervisory control and hierarchical supervisory control of fuzzy discrete-event systems

(2012) IEEE Transactions on Automation Science and Engineering, 9 (2), art. no. 6140607, pp. 353-364.

Lewis, R.S., Drogou, M., King, P., Mann, G., Bose, N., Worby, A.

An acoustic signal propagation experiment beneath sea ice

(2012) Ocean Engineering, 43, pp. 56-63.

Yu, Y., Mann, G.K.I., Gosine, R.G.

A goal-directed visual perception system using object-based top-down attention

(2012) IEEE Transactions on Autonomous Mental Development, 4 (1), art. no. 5978202, pp. 87-103.

Jayasiri, A., Mann, G.K.I., Gosine, R.G.

Tightly-coupled multi robot coordination using decentralized supervisory control of fuzzy discrete event systems

(2011) Proceedings - IEEE International Conference on Robotics and Automation, art. no. 5980064, pp. 3358-3363.

Jayasiri, A., Mann, G.K.I., Gosine, R.G.

Behavior coordination of mobile robotics using supervisory control of fuzzy discrete event systems

(2011) IEEE Transactions on Systems, Man, and Cybernetics, Part B: Cybernetics, 41 (5), art. no. 5732710, pp. 1224-1238.

Jayasiri, A., Mann, G.K.I., Gosine, R.G.

Hierarchical supervisory control of fuzzy discrete event systems

(2011) Proceedings of the American Control Conference, art. no. 5991437, pp. 4490-4495.

Mann, G.K.I., Roy, P.K., Hawlader, B.C.

Adaptive fuzzy model based predictive control for a multi-variable heating system

(2011) Control and Intelligent Systems, 39 (1), pp. 68-77.

Yu, Y., Mann, G.K.I., Gosine, R.G.

Target tracking for moving robots using object-based visual attention

(2010) IEEE/RSJ 2010 International Conference on Intelligent Robots and Systems, IROS 2010 - Conference Proceedings, art. no. 5654417, pp. 2902-2907.

Ahshan, R., Iqbal, M.T., Mann, G.K.I., Quaicoe, J.E.

Micro-grid system based on renewable power generation units

(2010) Canadian Conference on Electrical and Computer Engineering, art. no. 5575112, .

Gamage, G.W., Mann, G.K.I., Gosine, R.G.

Leader follower based formation control strategies for nonholonomic mobile robots: Design, implementation and experimental validation

(2010) Proceedings of the 2010 American Control Conference, ACC 2010, art. no. 5530618, pp. 224-229.

Jayasiri, A., Mann, G.K.I., Gosine, R.G.

Decentralized modular control of concurrent fuzzy discrete event systems

(2010) Proceedings of the 2010 American Control Conference, ACC 2010, art. no. 5530922, pp. 3359-3364.

Begum, M., Karray, F., Mann, G.K.I., Gosine, R.G.

A probabilistic model of overt visual attention for cognitive robots

(2010) IEEE Transactions on Systems, Man, and Cybernetics, Part B: Cybernetics, 40 (5), art. no. 5393078, pp. 1305-1318.

Yu, Y., Mann, G.K.I., Gosine, R.G.

An object-based visual attention model for robotic applications

(2010) IEEE Transactions on Systems, Man, and Cybernetics, Part B: Cybernetics, 40 (5), art. no. 5404221, pp. 1398-1412.

Amarasinghe, D., Mann, G.K.I., Gosine, R.G.

Landmark detection and localization for mobile robot applications: A multisensor approach

(2010) Robotica, 28 (5), pp. 663-673.

Jayasiri, A., Mann, G.K.I., Gosine, R.G.

Mobile robot behavior coordination using supervisory control of fuzzy discrete event systems

(2009) 2009 IEEE/RSJ International Conference on Intelligent Robots and Systems, IROS 2009, art. no. 5354780, pp. 690-695.

Gamage, G.W., Mann, G.K.I., Gosine, R.G.

Discrete event systems based formation control framework to coordinate multiple nonholonomic mobile robots

(2009) 2009 IEEE/RSJ International Conference on Intelligent Robots and Systems, IROS 2009, art. no. 5354788, pp. 4831-4836.

Yu, Y., Mann, G.K.I., Gosine, R.G.

Modeling of top-down influences on object-based visual attention for robots

(2009) 2009 IEEE International Conference on Robotics and Biomimetics, ROBIO 2009, art. no. 5420737, pp. 1021-1026.

Yu, Y., Mann, G.K.I., Gosine, R.G.
An autonomous visual perception model for robots using object-based attention mechanism
(2009) 2009 IEEE International Conference on Robotics and Biomimetics, ROBIO 2009, art. no. 5420945, pp. 1474-1479.

Begum, M., Karray, F., Mann, G.K.I., Gosine, R.
A probabilistic approach for attention-based multi-modal human-robot interaction
(2009) Proceedings - IEEE International Workshop on Robot and Human Interactive Communication, art. no. 5326198, pp. 200-205.

Yu, Y., Mann, G.K.I., Gosine, R.G.
A novel robotic visual perception method using object-based attention
(2009) 2009 IEEE International Conference on Robotics and Biomimetics, ROBIO 2009, art. no. 5420944, pp. 1467-1473.

Jayasiri, A., Mann, G.K.I., Gosine, R.G.
Mobile robot navigation in unknown environments based on supervisory control of partially-observed fuzzy discrete event systems
(2009) 2009 International Conference on Advanced Robotics, ICAR 2009, art. no. 5174769, .

Gamage, G.W., Mann, G.K.I., Gosine, R.G.
Formation control of multiple nonholonomic mobile robots via dynamic feedback linearization
(2009) 2009 International Conference on Advanced Robotics, ICAR 2009, art. no. 5174770, .

Jayasiri, A., Mann, G.K.I., Gosine, R.G.
Supervisory control of fuzzy discrete event systems and its application to mobile robot navigation
(2009) Canadian Conference on Electrical and Computer Engineering, art. no. 5090305, pp. 1147-1151.

Gamage, G.W., Mann, G.K.I., Gosine, R.G.
A hybrid control strategy for multiple mobile robots with nonholonomic constraints
(2009) Canadian Conference on Electrical and Computer Engineering, art. no. 5090211, pp. 660-663.

Arvani, F., Mann, G.K.I., Fisher, A., Gosine, R.G.

Sampling-based path planning for robust feature-based visual servoing

(2009) Canadian Conference on Electrical and Computer Engineering, art. no. 5090243, pp. 823-826.

Yu, Y., Mann, G.K.I., Gosine, R.G.

Modeling of top-down object-based attention using probabilistic neural network

(2009) Canadian Conference on Electrical and Computer Engineering, art. no. 5090188, pp. 533-536.

Ahshan, R., Iqbal, M.T., Mann, G.K.I.

Control and instrumentation for small wind turbines

(2008) Proceedings of ICECE 2008 - 5th International Conference on Electrical and Computer Engineering, art. no. 4769167, pp. 25-31.

Amarasinghe, D., Mann, G.K.I., Gosine, R.G.

Dynamic object identification by a moving robot using laser data

(2008) IFAC Proceedings Volumes (IFAC-PapersOnline), 17 (1 PART 1), .

Arvani, F., Mann, G.K.I., Fisher, A., Gosine, R.G.

Range estimation using TDL neural networks and application to image-based visual servoing

(2008) SMCia/08 - Proceedings of the 2008 IEEE Conference on Soft Computing on Industrial Applications, art. no. 5045959, pp. 194-198.

Yu, Y., Mann, G.K.I., Gosine, R.G.

Task-driven moving object detection for robots using visual attention

(2008) Proceedings of the 2007 7th IEEE-RAS International Conference on Humanoid Robots, HUMANOIDS 2007, art. no. 4813905, pp. 428-433.

Begum, M., Mann, G.K.I., Gosine, R., Karray, F.

Object- and space-based visual attention: An integrated framework for autonomous robots

(2008) 2008 IEEE/RSJ International Conference on Intelligent Robots and Systems, IROS, art. no. 4650651, pp. 301-306.

Amarasinghe, D., Mann, G.K.I., Gosine, R.G.

Robust landmark detection and localization; a multisensor approach

(2008) IFAC Proceedings Volumes (IFAC-PapersOnline), 17 (1 PART 1), .

Ferdaus, S.N., Vardy, A., Mann, G., Gosine, R.

Comparing global measures of image similarity for use in topological localization of mobile robots

(2008) Canadian Conference on Electrical and Computer Engineering, art. no. 4564669, pp. 913-918.

Harinath, E., Mann, G.K.I.

Design and tuning of standard additive model based fuzzy pid controllers for multivariable process systems

(2008) IEEE Transactions on Systems, Man, and Cybernetics, Part B: Cybernetics, 38 (3), pp. 667-674.

Ahshan, R., Iqbal, M.T., Mann, G.K.I.

Controller for a small induction-generator based wind-turbine

(2008) Applied Energy, 85 (4), pp. 218-227.

Begum, M., Mann, G.K.I., Gosine, R.G.

Integrated fuzzy logic and genetic algorithmic approach for simultaneous localization and mapping of mobile robots

(2008) Applied Soft Computing Journal, 8 (1), pp. 150-165.

Huq, R., Mann, G.K.I., Gosine, R.G.

Mobile robot navigation using motor schema and fuzzy context dependent behavior modulation

(2008) Applied Soft Computing Journal, 8 (1), pp. 422-436.

Harinath, E., Mann, G.K.I.

Design and tuning of standard additive model based fuzzy PID controllers for multi-variable process systems

(2007) Proceedings of the IEEE Conference on Decision and Control, art. no. 4434342, pp. 5306-5311.

Ahshan, R., Iqbal, M.T., Mann, G.K.I.
Performance of a controller for small grid connected wind turbines
(2007) 2007 IEEE Canada Electrical Power Conference, EPC 2007, art. no. 4520381, pp. 490-495.

Begum, M., Mann, G.K.I., Gosine, R.G.
An evolutionary algorithm for simultaneous localization and mapping (SLAM) of mobile robots
(2007) Advanced Robotics, 21 (9), pp. 1031-1050.

Amarasinghe, D., Mann, G.K.I., Gosine, R.G.
Vision-based hybrid control scheme for autonomous parking of a mobile robot
(2007) Advanced Robotics, 21 (8), pp. 905-930.

Harianth, E., Mann, G.K.
Decoupled fuzzy PI controller tuning scheme for multivariable processes
(2006) IEEE International Conference on Fuzzy Systems, art. no. 1681983, pp. 2040-2047.

Huq, R., Mann, G.K.I., Gosine, R.G.
Behavior-based robot control using fuzzy discrete event system
(2006) IEEE International Conference on Fuzzy Systems, art. no. 1681854, pp. 1146-1153.

Huq, R., Mann, G.K.I., Gosine, R.G.
A behavior-based control of an object-pulling robot using fuzzy discrete event system
(2006) IEEE International Conference on Intelligent Robots and Systems, art. no. 4059060, pp. 4145-4150.

Begum, M., Mann, G.K.I., Gosine, R.G.
An evolutionary SLAM algorithm for mobile robots
(2006) IEEE International Conference on Intelligent Robots and Systems, art. no. 4059046, pp. 4066-4071.

Amarasinghe, D., Mann, G.K.I., Gosine, R.G.
Moving object detection in indoor environments using laser range data
(2006) IEEE International Conference on Intelligent Robots and Systems, art. no. 4058459, pp. 802-807.

Begum, M., Mann, G.K.I., Gosine, R.

A fuzzy-evolutionary algorithm for simultaneous localization and mapping of mobile robots

(2006) 2006 IEEE Congress on Evolutionary Computation, CEC 2006, art. no. 1688549, pp. 1975-1982.

Huq, R., Mann, G.K.I., Gosine, R.G.

Distributed fuzzy discrete event system for robotic sensory information processing

(2006) Expert Systems, 23 (5), pp. 273-288.

Huq, R., Mann, G.K.I., Gosine, R.G.

Behavior-modulation technique in mobile robotics using fuzzy discrete event system

(2006) IEEE Transactions on Robotics, 22 (5), pp. 903-916.

Mann, G.K.I., Gosine, R.G.

Three-dimensional min-max-gravity based fuzzy PID inference analysis and tuning

(2005) Fuzzy Sets and Systems, 156 (2), pp. 300-323.

Huq, R., Mann, G.K.I., Gosine, R.G.

Fuzzy discrete event system based behavior modulation in mobile robotics

(2005) 2005 IEEE/RSJ International Conference on Intelligent Robots and Systems, IROS, art. no. 1545415, pp. 2894-2899.

Begum, M., Mann, G.K.I., Gosine, R.G.

Concurrent mapping and localization for mobile robot using soft computing techniques

(2005) 2005 IEEE/RSJ International Conference on Intelligent Robots and Systems, IROS, art. no. 1545120, pp. 1059-1064.

Huq, R., Mann, G., Gosine, R.

Integrated motion planning for indoor mobile robots using motor schema and adaptive fuzzy behavioral modulation

(2004) 2004 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 3, pp. 2985-2990.

Huq, R., Gosine, R., Mann, G.

An integrated approach for multilane robot motion planning using motor schema and fuzzy logic

(2004) Conference Proceedings - IEEE International Conference on Systems, Man and Cybernetics, 6, pp. 5301-5306.