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| # | Title | Summary |
| ~~27~~ | ~~Non-linear control for ground-air path tracking~~ | ~~Hybrid UAV UGV~~ |
| 27 | On-board and ground visual pose estimation techniques | On-board sensors can be aided with external sensing  Visual information included in UAV control loop  Detection of landmarks  Aids position controller  Applicable when GPS or other sensing is unavailable |
| 28 | Vector field guidance for path following of MAVs in 3D for variable altitude | Simulations of 3D vector field, initial error converges to path  Vector fields constructed around path to be tracked  Far away, head towards path  Near, fly along path  Lyapunov stability arguments to show guidance error asymptotically decays |
| 29 | Vector field following quadrotors using differential flatness | Obstacles represented by repulsive fields  Vector field guidance applicable to quadrotors |
| 30 | Unmanned aircraft vector field path following with arrival angle control | Stitching together waypoints to produce desired behavior  Commanded arrival angle  Useful for flight formation, target tracking, and target intercept  Stability evaluated with traditional controls techniques |
| 31 | Tangent vector field approach for curved path following | Arbitrary twice differentiable curves  Coordinate transformation  Considers input saturation explicitly |
| 32 | Orthogonal vector field-based control for a mutli robot system | Another 3D vector field, multiple vehicles  Implicit functions defining curves to follow |
| 33 | Guidance algorithm for smooth trajectory tracking of fixed wing UAV | Fixed wing UAV following path in wind flows |
| 34 | Adam’s Thesis | Enhanced VF with Gaussian process machine learning  Automatically generates vector field from waypoints  Functional representation of ground track  Radial basis function approximation |
| ~~35~~ | ~~Mobile robot navigation and obstacle avoidance techniques~~ |  |
| 35 | Vision based autonomous flocking of UAVs in unknown forest environment | Appears somewhat similar to histogram method |
| 36 | Open source computer-vision based guidance system for UAVs on-board decision making | Data collection devices on-board |
| 37 | Integrated guidance and autopilot for a path-following UAV via high-order sliding modes | Receding virtual waypoint (virtual target)  Connecting waypoints with cubic spline with minimum curvature |
| ~~38~~ | ~~High-level nonlinear under actuated controller for a leader-follower formation~~ |  |
| 38 | Coordinated standoff tracking of moving target groups using multiple UAVs | UAVs may fly missions solo or as groups to assist in data collection  Tracking targets |
| 39 | Coordinated standoff tracking of groups of moving targets using multiple UAVs |  |
| 40 | Coordinated motion of UGVs and a UAV | UAVs, UGVs cooperation |
| 41 | Cascaded Line-of-sigh path-following and sliding mode controllers for fixed-wing UAVs | LOS path following  SITL  Low computational cost  Simulation in wind, significant error |
| 42 | A Simulation-based approach for control design of uncertain UAVs | Validation of controller in simulation prior to flight  LQR |
| 43 | Application of virtual target based guidance laws to path following of a quadrotor UAV | Another method for path following  Virtual target navigation |
| 44 | Managing the dynamics of a potential field-guided robot in cluttered environments |  |
| 45 | Control design for a class of nonholonomic systems via reference vector fields and output regulation |  |
| 46 | Motion planning and collision avoidance using navigation vector fields |  |
| 47 | Motion planning and collision avoidance using non gradient vector fields |  |
| 48 | Multi-agent motion planning and coordination in polygonal environments using vector fields and model predictive control |  |
| 49 | Beard | Something controls system wise |
| 50 | Moving path following for unmanned aerial vehicles with applications to single and multiple target tracking problems |  |
| 54 | A guiding vector-field algorithm for path following control of nonholonomic mobile robots |  |
| 55 | Obstacle avoidance for an autonomous marine robot | Vector fields may find uses in ground and marine robots as well |
| 56 | Closed-curve path tracking for decentralized systems on multiple mobile robots |  |
| 57 | Curved path following control for fixed wing unmanned aerial vehicles with control constraint |  |
| 58 | Autonomous tracking of a ground vehicle by a UAV |  |
| 59 | Chasing a moving target from a flying UAV |  |
| 60 | Strategies of path-planning for a UAV to track a ground vehicle |  |
| 61 | UAV coordination for autonomous target tracking |  |
| 62 | Fundamentals of small unmanned aircraft flight |  |