NRI: FND: Investigating the Safety Challenges of Co-drones in Future Construction Workplaces

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Project Investigators:

PI: Masoud Gheisari, Ph.D. Rinker School of Construction Management University of Florida

Co-PI: Idris Jeelani, Ph.D. Rinker School of Construction Management University of Florida

Co-PI: Boyi Hu, Ph.D. Department of Industrial & Systems Engineering University of Florida

NSF

National Robotics Initiative 2.0: Ubiquitous Collaborative Robots (NRI-2.0)



Structural and Infrastructure Inspection	 Building Inspection Bridge Inspection Other Inspection (Roads, Photovoltaic Cells, Dams, Retaining Walls, Microwave Towers)
Transportation	 Landslide Monitoring and Mapping Earthwork Volume Calculations Traffic Surveillance
Cultural Heritage Conservation	 Historic Preservation and Reconstruction Monitoring Historic Monuments 3D Modelling of Heritage Buildings Landscape Preservation
City/Urban Planning	 Land Policy Monitoring Cadastral Surveying City and Building Modeling Cartography Updating
Progress Monitoring	Construction Progress Monitoring Tracking Material on Complex Jobsites
Post-Disaster Assessment	Assessing Damages (Including Structural) of Cities/Buildings After Disastrous Events
Construction Safety	 Construction Safety Inspection Monitoring Safety Hazards of Equipment in Construction Sites

Drone-dominant Construction Sites of Future



Safety Challenges of Worker-UAS Interactions



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Masoud Gheisari Rinker School of Construction Management University of Florida masoud@ufl.edu