

## Dr. Mostafa Namian – Assistant Professor



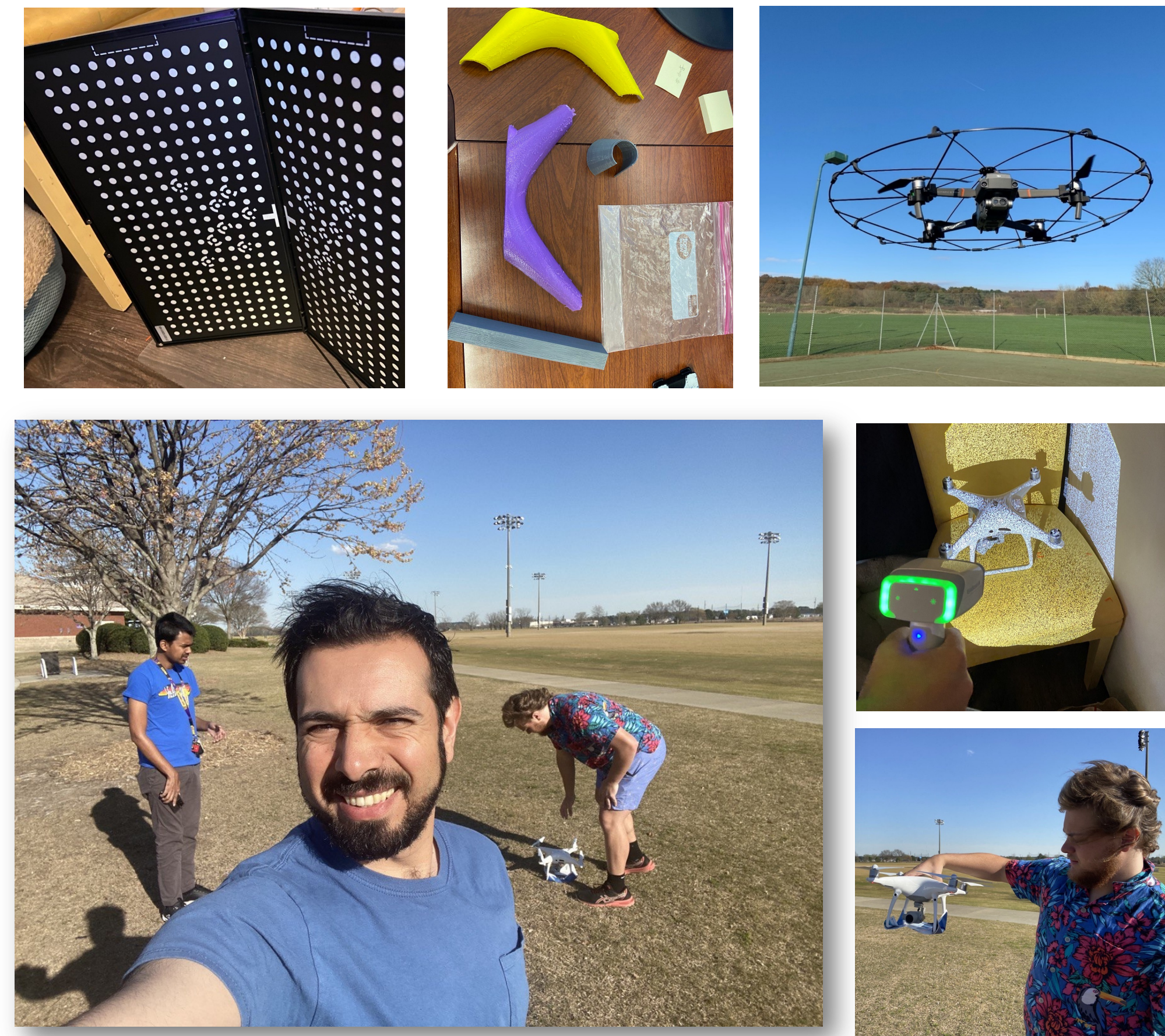
## Research and Teaching Interests

- Research:
  - Construction Safety Management
  - Human Behavior in Construction
  - UAVs in Construction Management
  - AI in Construction Management
  - Hazard Recognition and Safety Risk Perception
- Teaching:
  - Construction Safety Management
  - Leadership in Construction
  - BIM in Construction

## Teaching Philosophy

My passion and philosophy for teaching are built out of my past teaching experiences, relevant research on safety training, and professional experience working in construction. In my view, in a successful classroom, students are engaged, actively participate in group discussions, receive feedback in a timely manner, and openly ask questions. My classes are:

- Engaging and Fun
- Challenging
- Memorable and Inspiring
- Contemporary
- Learner-centered



Undergraduate and Graduate Students' Research Involvement

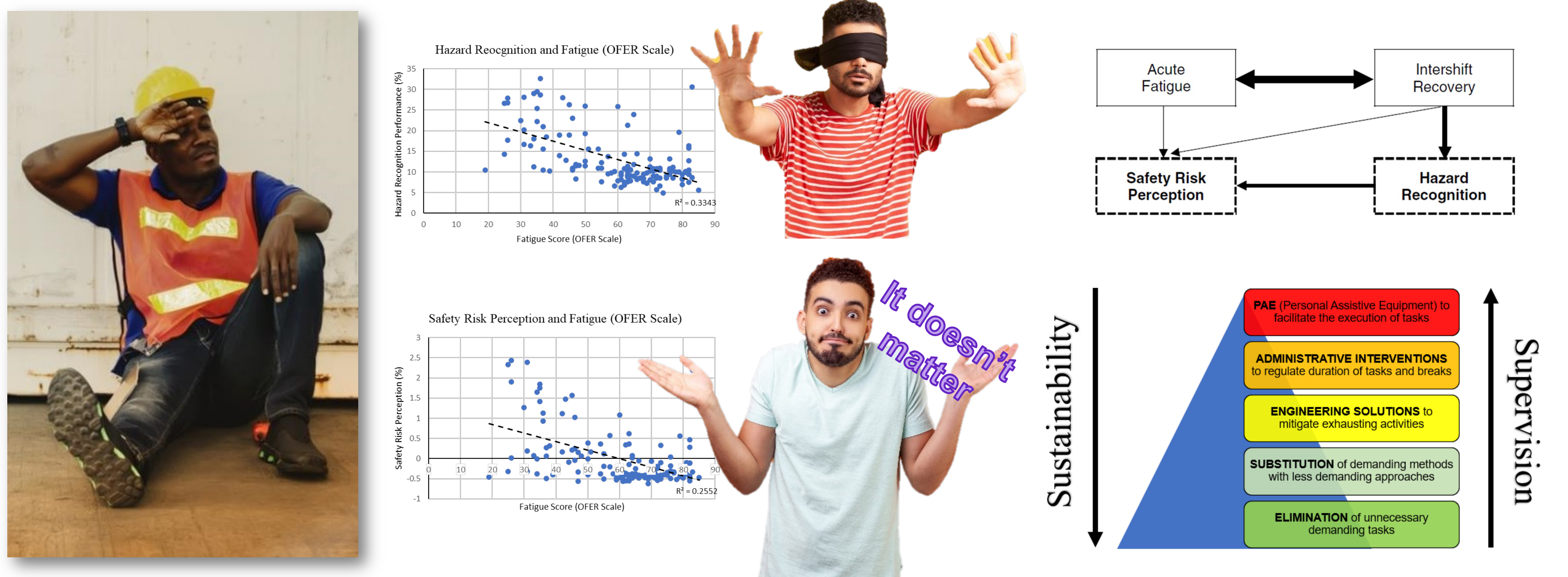
## Mohammad Khalid

- Worked on a funded federal grant
- Published: 1 journal and 4 conference papers
- Submitted 2 proposals as the PI
- Received Education & Research Foundation AGC Scholarship
- Received CIB Best Paper Award (picture)
- Received CET student research award
- Currently PhD student at VT



Student Success Story

## Mitigating Risk of Fatigue Among Construction Workers (Federal Grant)



**Hazard Recognition and Fatigue (OFER Scale)**

Hazard Recognition Performance (%) vs Fatigue Score (OFER Scale).  $R^2 = 0.3343$

**Safety Risk Perception and Fatigue (OFER Scale)**

Safety Risk Perception (%) vs Fatigue Score (OFER Scale).  $R^2 = 0.2553$

**Diagram: Acute Fatigue ↔ Intershift Recovery**

**Diagram: Safety Risk Perception ↔ Hazard Recognition**

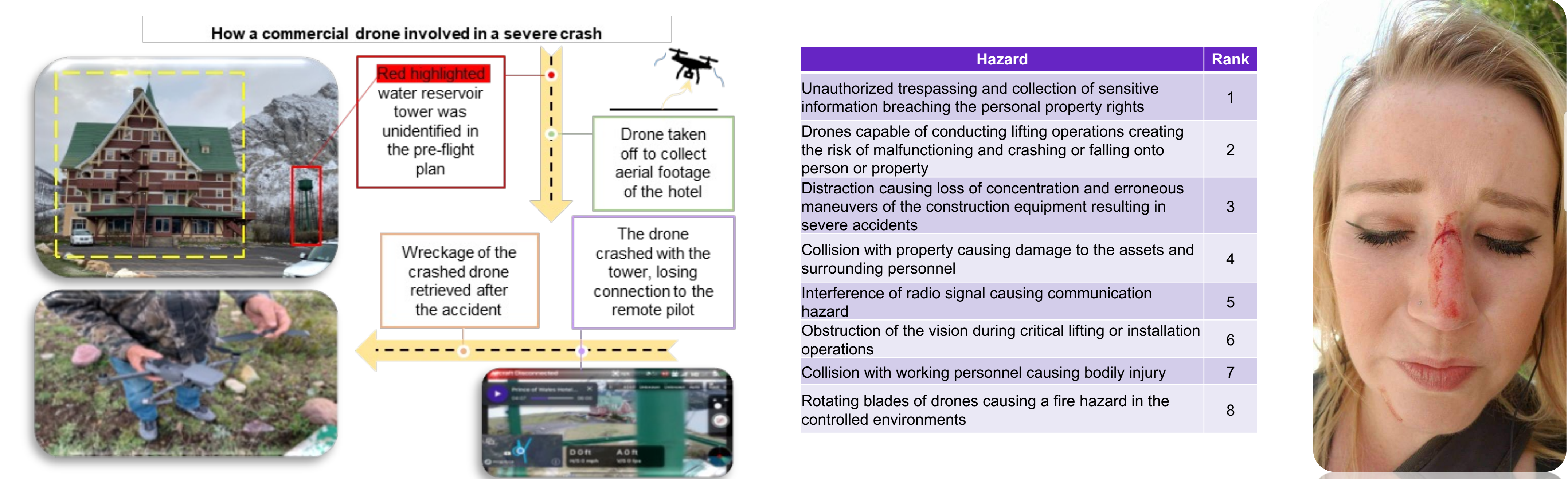
**Pyramid of Interventions:**

- PAE (Personal Assistive Equipment) to facilitate the execution of tasks
- ADMINISTRATIVE INTERVENTIONS to regulate duration of tasks and breaks
- ENGINEERING SOLUTIONS to mitigate exhausting activities
- SUBSTITUTION of demanding methods with less demanding approaches
- ELIMINATION of unnecessary demanding tasks

Sustainability ↑ Supervision ↑

*It doesn't matter*

## UAV Safety in Construction (Federal Grant)



**How a commercial drone involved in a severe crash**

- Red highlighted water reservoir tower was unidentified in the pre-flight plan
- Drone taken off to collect aerial footage of the hotel
- The drone crashed with the tower, losing connection to the remote pilot
- Wreckage of the crashed drone retrieved after the accident

Hazard	Rank
Unauthorized trespassing and collection of sensitive information breaching the personal property rights	1
Drones capable of conducting lifting operations creating the risk of malfunctioning and crashing or falling onto person or property	2
Distraction causing loss of concentration and erroneous maneuvers of the construction equipment resulting in severe accidents	3
Collision with property causing damage to the assets and surrounding personnel	4
Interference of radio signal causing communication hazard	5
Obstruction of the vision during critical lifting or installation operations	6
Collision with working personnel causing bodily injury	7
Rotating blades of drones causing a fire hazard in the controlled environments	8

## Awards and Honors

- Scholar-Teacher Award - College of Engineering and Technology, East Carolina University | November 2023
- Recognized as "The person at ECU who made the most significant positive contribution to student education" | May 2021, May 2022, and May 2023.
- Outstanding contribution as a Student Employee Supervisor of East Carolina University (nominated) | April 2022
- Featured as the Editor's Choice (2021), Namian, Mostafa, Taherpour, F., Ghiasvand, E., & Turkan, Y. Insidious Safety Threat of Fatigue: Investigating Construction Workers' Risk of Accident Due to Fatigue. Journal of Construction Engineering and Management (ASCE), 147(12), 04021162.
- Jimmie Hinze's Best Paper Award (2021), "Safety Implications of Using UAVs in Construction: An Ethical Perspective," the Proceedings of the Joint CIB W099 & W123 International Conference 2021: Changes and innovations for improved wellbeing in construction | September 2021
- East Carolina University, College of Engineering & Technology Faculty Research Award (Nominated) | April 2021
- Recipient of ECU Alternative Textbook Program Award | March 2021

## Peer-reviewed Journal Publications

- Tafazzoli, M., Hazrati, A., and Namian, M. (2024) "A Hierarchical Fuzzy Expert System for Contractor Prequalification." Journal of Legal Affairs and Dispute Resolution in Engineering and Construction.
- Ibrahim, A., Nnaji, C., Namian, M., & Shakouri, M. (2024). Evaluating the Impact of Hazard Information on Fieldworkers' Safety Risk Perception. Journal of Construction Engineering and Management, 150(3), 04023174.
- Karthick, S., S. Kermanshachi, A. Pamidimukkala, and M. Namian. (2024). "Analysis of Construction Workers' Health and Safety in Cold Weather Conditions." J. Cold Reg. Eng., 38 (1): 04023022. American Society of Civil Engineers. <https://doi.org/10.1061/JCRGEI.CRENG-687>.
- Ibrahim, A., Nnaji, C., Namian, M., Koh, A., & Techera, U. (2023). Investigating the impact of physical fatigue on construction workers' situational awareness. Safety science, 163, 106103.
- Al-Mhdawi, M. K. S., Brito, M., Onggo, B. S., Qazi, A., O'connor, A., & Namian, M. (2023). Construction Risk Management in Iraq during the COVID-19 Pandemic: Challenges to Implementation and Efficacy of Practices. Journal of Construction Engineering and Management, 149(9), 04023086.
- Ahmed Jalil Al-Bayati, P., P. Ali A. Karakhan, and P. Mostafa Namian. (2023). "Construction Safety Personnel Qualifications: The Impact of Education, Experience, and Certification Programs." SHIFT Glob. EHS Res. Pract., 2 (1): 19–29. BCSP Foundation.
- Namian, M., Z. Ghorbani, F. Taherpour, E. Ghiasvand, and A. Karji. (2022). "Demystifying the Impact of Age on Safety Performance of Construction Workers: Examining the Mediating Roles of Experience and Fatigue." Practice Periodical on Structural Design and Construction (ASCE), 27 (4): 04022038. American Society of Civil Engineers. [https://doi.org/10.1061/\(ASCE\)SC.1943-5576.0000718](https://doi.org/10.1061/(ASCE)SC.1943-5576.0000718).
- Karthick, S., S. Kermanshachi, A. Pamidimukkala, and M. Namian. (2022). "A Review of Construction Workforce Health Challenges and Strategies in Extreme Weather Conditions." International Journal of Occupational Safety and Ergonomics, 1–35. Taylor & Francis. <https://doi.org/10.1080/10803548.2022.2082138>.
- Namian, Mostafa, Mohammadsoroush Tafazzoli, Ahmed Jalil Al-Bayati, and Sharareh Kermanshachi. (2022). "Are Construction Managers from Mars and Workers from Venus? Exploring Differences in Construction Safety Perception of Two Key Field Stakeholders." International Journal of Environmental Research and Public Health (MDPI) 19 (10): 6172. <https://doi.org/10.3390/ijerph19106172>.
- Namian, Mostafa, Taherpour, F., Ghiasvand, E., & Turkan, Y. (2021). Insidious Safety Threat of Fatigue: Investigating Construction Workers' Risk of Accident Due to Fatigue. Journal of Construction Engineering and Management (ASCE), 147(12), 04021162. (Editor's Choice). [https://doi.org/10.1061/\(ASCE\)CO.1943-7862.0002180](https://doi.org/10.1061/(ASCE)CO.1943-7862.0002180)
- Namian, Mostafa, Khalid, Mohammad, Wang, George, Turkan, Yelda, (2021). "Revealing Safety Risks of Unmanned Aerial Vehicles in Construction." Transportation Research Record, 03611981211017134. <http://worldcat.org/issn/03611981>
- Taherpour, Farshid, Ghiasvand, Ebrahim, Namian, Mostafa. (2020). The Effect of Fatigue on Safety Attitude, Hazard Recognition and Safety Risk Perception among Construction Workers. Amirkabir Journal of Civil Engineering. <https://dx.doi.org/10.22060/ceej.2020.17830.6688>
- Karji, A., Namian, M., & Tafazzoli, M. (2020). Identifying the Key Barriers to Promote Sustainable Construction in the United States: A Principal Component Analysis. Sustainability, 12(12), 5088. <https://doi.org/10.3390/su12125088>