



Moamel Kassem, BSME

Moamel Kassem is a mechanical engineer and graduate of The University of Texas at San Antonio, with a strong foundation in advanced engineering principles, analytical methodologies, and technical practices. His engineering expertise encompasses materials science, mechanical design, engineering graphics, statistical analysis, and quality control.

Mr. Kassem is proficient in industry-standard engineering and analytical software, including current versions of MATLAB, SOLIDWORKS, and Abaqus. He applies these tools and engineering methodologies to support the investigation and analysis of complex vehicular collisions.

His experience includes conducting vehicle and collision site inspections, capturing drone-based aerial photography and imaging, and retrieving and analyzing passenger vehicle Event Data Recorder (EDR) information. He prepares detailed professional engineering reports and contributes to the development and presentation of technical opinions and expert witness testimony.

Mr. Kassem is fluent in both Arabic and English, allowing him to effectively communicate technical information in both languages.

EDUCATION AND LICENSING

University of Texas, San Antonio	
BS Mechanical Engineering	2026

CERTIFICATIONS AND PROFESSIONAL MEMBERSHIPS

Remote Pilot Certified by the Federal Aviation Administration	
FAA	No. <u>Pending</u>

American Society of Mechanical Engineers	
ASME	No. 22028855283

Society of Automotive Engineers	
SAE	No. 6163592721

SPECIALIZED COURSEWORK AND CONFERENCES

- *How to Use the Bosch CDR Tool*, Crash Academy – Online, August 2026.

CAREER ENGAGEMENTS

08/26 – Present

Crash Engineer, L.L.C., San Antonio, Texas

Engineer I Conducts engineering investigation and analysis of collisions involving passenger vehicles, heavy trucks, motorcycles, bicycles, and pedestrians. Performs comprehensive vehicle and collision site inspections, digital mapping and documentation of collision scenes, and retrieval and imaging of passenger vehicle Event Data Recorder (EDR) information.

Applies mathematical modeling, computer simulations, and advanced animation techniques to reconstruct, analyze, and visually demonstrate vehicular collisions and vehicle dynamics. Prepares detailed professional engineering reports and develops and presents technical opinions and expert witness testimony.

RESEARCH PROJECTS

University of Texas, San Antonio

Conducted research within the Advanced Materials and Mechanical Systems (AMMS) Lab, supporting the investigation of nonlinear material behavior and failure mechanisms in engineered materials. Assisted with computational simulations and theoretical analyses to evaluate complex material responses and develop a deeper understanding of structural performance under varying conditions.

Applied engineering principles and computational methods to support research focused on the behavior, performance, and failure of advanced engineered materials.

Terracon Consultants, Inc., San Antonio

Performed pre-construction materials testing and quality-control evaluations for highway and infrastructure projects, verifying that construction materials and proposed applications met established project specifications, engineering requirements, and applicable Department of Transportation (DOT) standards.

Applied established testing procedures and engineering criteria to support quality assurance, regulatory compliance, and the successful execution of critical transportation infrastructure projects.