

# Tarun Pareek | Senior Forensic Structural Engineer, P.E.

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## **Professional Summary:**

Mr. Pareek has over 10 years of experience in structural engineering, including 6 years performing forensic investigations. His professional experience encompasses a broad spectrum of knowledge including wind and seismic loadings; steel fiber reinforced concrete; structural steel framing for electric power generating facilities; transmission lines structures; telecommunication towers; reinforced concrete structures; and foundations.

He currently serves as Structural Engineer and conducts forensic engineering investigations. His areas of expertise include, but are not limited to the following:

- Commercial and Residential Roof Evaluation
- Foundation Settlement Investigation
- Construction Defect Analysis
- · Structural Damage Cause and Origin
- Moisture Intrusion Investigations
- Natural Disaster Building Evaluations
- Collapse Evaluation
- Structural Evaluations of Fire-Damaged Structures

## **Licenses and Certifications:**

Professional Engineer, TX, #123280

Professional Engineer, MS, #29466

Professional Engineer, NC, #047569

Professional Engineer, LA, #43398

## **Project Experience:**

#### Damage Assessment, Hurricane Harvey

Structural assessment and report associated with flood damage from hurricane Harvey for various residential and commercial structures located in Houston.

#### Structural Investigation

Structural investigation and report into the cause of cracks along recently placed concrete pavements being utilized as airport taxiway.

## **Structural Integrity Analysis**

Structural damage assessment and report for a single-family residence located in Splendora, Texas that sustained an impact from a front loader. The report included assessment of the overall structural stability as well as repair recommendations.



#### Structural Assessment

Structural assessment for a fire damaged wood framed structure located in McAllen, Texas. The report included assessment of the overall structural stability as well as repair recommendations.

#### Structural Investigation

Structural investigation into the cause of brick veneer collapse along a two storied apartment complex.

#### **Building Demolition Assessment**

Performed structural assessment of the fire damaged commercial warehouse building to evaluate the extent of damage to the structural steel framing and recommend strategies for safe demolition.

## **Explosion Damage Evaluation**

Evaluated damage sustained by residential and commercial structures impacted by an explosion in a TPC Group plant located in Port Neches, Texas.

## Damage Assessment, Hurricane Laura

Damage evaluation of single-family residential structures; multi-family residential structures and light commercial structures.

## **Professional Experience:**

EFI Global, Inc/Unified Investigations & Sciences, Inc., Forensic Structural Engineer, 2016 – Present.

MasTec TSG, Substation Civil/Structural Engineer II, 2014 – 2016.

Allpro Consulting Group, Inc., Staff Engineer, 2012 – 2014.

#### **Specialized Education:**

Roofing - Flexible Membrane Edge Design, 2021, 2 hours (tested).

Roofing - Flexible Membrane Wind Load Design, 2021, 2 hours (tested).

Movement Joints in Brick Masonry, 2021, 1 hours (tested).

Coastal Engineering: Hurricanes and Nor'easters, 2021, 2 hours (tested).

Seawalls and Boat Docks for Home Inspectors, 2021, 2 hours (tested).

International Association of Arson Investigators (IAAI) – CFITrainer.net.

Fundamentals of Residential Building Construction, 2016, 3 hours (tested).

Ethics & Social Media, 2016, 3 hours (tested).

Documenting The Event, 2016, 4 hours (tested).

Haag Certified Inspector - Residential Roofs, Haag Education, LLC, April 3-5, 2017, 20 hours (tested).

Haag Certified Inspector - Commercial Roofs, Haag Education, LLC, April 6-8, 2017, 20 hours (tested).



## **Education:**

Master of Science, Civil Engineering, University of Texas at Arlington, Arlington, Texas, 2011.

Bachelor of Engineering, Civil Engineering, Maharaja Sayajirao University, Vadodara, Gujarat, 2009.

## **Publications:**

Liu, X., Pareek, T., and Chao, S. (2016), "New Methodology for Design and Construction of Concrete Members with Complex Stress Fields Using Steel Fiber–Reinforced Concrete" J.Struct.Eng.

Chao, S.-H., Pareek, T., and Sahoo, D. R. (2011), "Effect of Fiber Reinforced Concrete in Members with Highly Complex Stress Fields," High Performance Fiber Reinforced Cement Composites (HPFRCC 6), International Workshop, Ann Arbor, MI., June 20-22, 2011.

Dissertation (2011), "Use of Steel Fiber Reinforced Concrete in Structural Members with Highly Complex Stress Fields", 2011.