1. **Co-developed the Unicone Method (Eslami & Fellenius, CGJ, 1997)**

   A pioneering CPT-based approach for axial pile design using CPT and CPTu data, widely cited in technical literature and applied in practice worldwide.

2. **Developed UniCone Software (UniSoft Ltd., 2002)**

   A professional program for processing and reporting Cone Penetration Tests (CPT and CPTu), soil profiling, and pile capacity analysis, used in geotechnical projects and education.

3. **Founded and Directed Sham-e Consulting Engineering Co. (2000–Present)**

   Led a multidisciplinary firm providing consulting services for residential buildings, industrial plants, bridges, highways, and marine structures for over two decades.

4. **Designed and Fabricated the Frustum Confining Vessel (FCV-AUT, 2020–2024)** A physical modeling apparatus for CPT and pile testing under confined conditions, simulating field stress up to 250 kPa, applied to research on helical and anchor piles.

5. **Referenced in Leading U.S. Textbooks for CPT-Based Pile Design**

   The Eslami–Fellenius method (1995–1997) has been cited in at least two widely adopted American textbooks:

   Soil Mechanics and Foundations by Budhu (2002–2008), and
   Foundation Design: Principles & Practices by Coduto (2001–2014).

6. **Compiled the AUT Geo-CPT & Pile Database (2010–2020)** Assembled over 600 case records of axial pile load tests with corresponding CPT/CPTu profiles, including offshore and nearshore sites, supporting research and predictive modeling.

7. **Taught a Broad Range of Postgraduate Courses (1988–2025)**

   Delivered advanced courses such as Marine Geotechnical Engineering, Offshore Foundations, Ground Improvement, Site Investigation, and CPT/CPTu Applications in Foundation Design.

8. **Peer Reviewer for Leading International Journals (1995–Present)** Actively served as referee for journals including *Ocean Engineering*, *Soil Dynamics*, *Canadian Geotechnical Journal*, *ASCE*, *Geotechnique*, *COMGEO*, *ICE Proceedings*, *Marine Georesources & Geotechnology*, and *Transportation Geotechnics*.

9. **Organized and Led Numerous Short Courses and Workshops (Since 1997)**

   Delivered training on CPT & CPTu applications, foundation systems, adjacent construction risk, uncertainty and reliability, sustainable solutions, and modern ground improvement techniques.

10. **Keynote and Invited Speaker at International Forums (2005–Present)**

    Presented invited lectures for organizations such as DFI, ASCE, IGS, UC Irvine, UC San Diego, and McGill University, sharing research findings and professional experience.

11. **Published Over 150 Research Papers in Reputable Journals**

    Contributions include papers in *DFI Journal (1995, 2023)*, *CGJ (1997, 2011)*, *COMGEO (2009, 2023, 2024)*, *ASCE (2015, 2020, 2024)*, *SDEE (2017, 2024, 2025)*, *Geotechnique (2024)*, *Soft Computing (2022)*, and *Ocean Engineering (2023–2024)*. Accumulated over 3,800 citations and an H-index of 33 (Google Scholar).

12. **Holder of Four Licensed National Inventions**
    Recognized by Iranian research authorities for innovations including:

    - Attached Single Foundations (2004)
    - Frustum Confining Vessel – large-scale (2014)
    - Inclined Retaining Wall System (2016)
    - Upgraded 1g Apparatus with Image Processing for Adjacent Foundations (2023)

13. **Led Dozens of Major Ground Engineering Projects (1988–Present)**

    Served as Principal Investigator, Chief Designer, and Reviewer for towers, highways, bridges, and infrastructure, emphasizing value engineering, performance, and sustainability.

14. **Supervised Graduate Research Projects (1997–2025)**

    Advised and mentored over 150 M.Sc. theses and more than 25 Ph.D. dissertations on topics related to geotechnical and foundation engineering.

15. **Authored Two Major Textbooks and Contributed to Reference Volumes**
    Books published by Elsevier (2020) and Wiley (2025):

- *Piezocone and Cone Penetration Test (CPTu and CPT) Applications in Foundation Engineering*

- *Advanced Foundation Engineering: Principles, Performance, and Prospect* Also contributed chapters to *Databases for Data-Centric Geotechnics* (CRC Press, 2024).

16. **Compiled the CPTu-Geo-Marine Dataset (PEM, 2022)**

    Focused on deltaic and soft deposits to develop the triangular Soil Behavior Classification (SBC) chart, an advancement in CPTu-based marine profiling and interpretation.

17. **Co-Advanced and Applied VMH Approach for 1D to 3D Foundations; Adopted and Advised for North Sea Offshore Wind Foundation Case Study (2022 - 2025)**

    Served as senior technical advisor for a feasibility study on gravity-based foundations for offshore wind turbines, contributing to innovation in marine renewable energy systems (Eslami & Ebrahimipour).

18. **Advanced the FELADD Package for AI-Driven Load–Displacement Modeling (2020–Present)**
    Promoted real-world data applications for various foundation types, including small-scale, footings, piles, pile groups, and prefabricated raft–pile systems (PRFs), toward an integrated stress–strain design framework using intelligent methods.