ENGR 491-510: A SMART SUPPORT SYSTEM FOR VETERANS WITH PTSD

Our Grand Challenge
To develop an advanced PTSD information system that involves continuous patient monitoring, big data analysis, and integration of data into clinicians’ work.

Key challenges:
- Development of a machine learning algorithm with acceptable specificity and sensitivity
- Analysis and presentation of big data associated with patient data

Project Goals
- To design and evaluate a wearable tool to predict the onsets of posttraumatic stress disorder (PTSD) among Veterans and First Responders.
- To design and evaluate a clinician-facing display to make sense of objectively-derived patient data

Impact to Society
Predicting the onsets of PTSD has life-saving implications in particular among Veterans who experience ‘emotional numbness.’ By providing support at an opportune time and integration into clinician’s work, PTSD patients can benefit from improved treatment and can integrate back into society.

Desired Engineering Majors
Electrical Engineering, Computer Science, Biomedical Engineering, Industrial Engineering

Faculty Mentors
Dr. Farzan Sasangohar