Course: ME597 Innovation and Problem Solving With an Emphasis on TRIZ Tools.  
Instructor: Kartik Ariyur

Video pitch on Youtube:  https://www.youtube.com/watch?v=6-UaEpj2Ajs

https://engineering.purdue.edu/ProEd/courses/innovation-problem-solving-emphasis-triz-tools

Spring 2019, entirely online (course lectures on video, flipped classroom on campus). Office hours via telecon/teamviewer/in person for project help--note that there is an online section, and an on-campus section for those on campus.

Are you facing hard technical problems that have eluded solution for months or even years? Are you looking to generating multiple alternative approaches to the problems you are attacking? Have you have ever wondered how you could be Sherlock Holmes, and crunch through any complex problem, using both imagination and deduction systematically? If the answer to any of these questions is yes, then this course will help. This has produced valuable results for students in the form of solved problems in engineering (which previously had escaped solution for months or sometimes years) and intellectual property. One student won the top innovation award at Purdue (Burton Morgan competition) in Spring 2018, and another created a predictor of bitcoin value that predicted its value some 20-30 days in advance for the whole of last fall (took the course in Fall 2017). Based on your results in the class project, you may be able to publish a paper in TRIZCON 2019 also if Purdue hosts it as it did in 2018.

For proof, see the variety of areas I have solved problems in. Check out my researchgate profile: https://www.researchgate.net/profile/Kartik_Ariyur

The class integrates expertise from innovative engineers and TRIZ experts from around the world (see http://opensourcetriz.com/) and goes much beyond in integrating the insights of many disciplines inside a function modeling + TRIZ framework. When I taught a portion of the material in industry, many hard and pending problems got solved during an intensive 40 hour course, and the participating engineering teams generated a great deal of Intellectual Property.