



# Sayed Naser Mousavi

Industrial engineer

+98 913 8214671

## Details

+98 913 8214671

seyednasserm6@yahoo.com

## Software

SPSS

Minitab

R

Microsoft Office

MATLAB

RETScreen

## Research Interests

- Statistical modeling and analysis
- Time series
- Statistical quality control
- Statistical process control
- Profile monitoring
- Quality management
- Data mining
- Design of experiments
- Healthcare analysis
- Reliability
- Project engineering and management



## Profile

Department of Industrial Engineering  
Yazd University  
Yazd, Iran  
Date of birth: April 16, 1990  
Born in: Iran  
Marital status: single



## Educational Background

2014-2017

Master of Science in industrial engineering

Department of industrial engineering, Yazd University, Yazd, Iran

Thesis title: Developing quality control methods in profile monitoring

Supervisor: Dr. Mohammad Saleh Owlia

Advisor: Dr. Mohammad Saber Fallah Nezhad

GPA (overall): 17.49/20

2009-2013

Bachelor of Science in statistics

Department of statistics, University of Isfahan, Isfahan, Iran

Thesis title: The fundamentals of data mining

Supervisor: Dr. Amir Hosein Aghajani

GPA (overall): 14.29/20



## IELTS Test

Taken on July 1, 2021

Overall Band Score: 8.0

Listening: 8.5 Reading: 8.5 Writing: 7.0 Speaking: 7.5



## Research Experience

### A new method for phase II monitoring of multivariate simple linear profiles

A scope in quality control, which has recently received a great deal of attention, is profile that characterizes the quality of a product or process using a relationship between two or more variables. We have proposed an EWMA chart for phase II monitoring of multivariate simple linear profile in which several correlated response variables have linear relationships with one explanatory variable. The statistical performance of this scheme has been evaluated in terms of out-of-control average run length (ARL) index, using simulation with 5000 iterations. Although it seldom signals for small shifts, it is superior to previous works in detecting moderate to big shifts.

### Estimating the length of hospital stay, with regard to associated factors; a model to enhance healthcare service efficiency and reduce healthcare resource consumption

An important index used to determine healthcare service efficiency and resource consumption, is the patient's length of hospital stay (LOS). In this research, we have tried to analyze the impact of three factors, namely the season during which the patient is hospitalized, the patient's age and their gender on LOS. The required information pertaining to 82718 patients who have been hospitalized, was collected. In any DOE problem, a crucial decision is how to choose the proper sample size. An OC (operation characteristic) curve has been applied to this end, and by increasing the sample size, the required sensitivity has been attained. In the next step, the normality and variance constancy assumptions have been tested and the ANOVA model has been adjusted using a variance stabilizing transformation. Finally, an unbalanced factorial design was used to prove the significance of the whole model, the separate effects and interactions. A regression model has also been proposed for estimating LOS.

## Teaching Experience

1. Teaching assistant for the course "Engineering Statistics" at Yazd University (instructor: Prof. Masoud Abessi)
2. Teaching English and running IELTS courses in language institutes and as the tutor since 2014
3. Teaching R software to students
4. Running SPSS courses at universities
5. Working as the IELTS instructor in IELTS Protalk Language Institute in Tehran

## References

- Dr. Mohammad Saleh Owlia  
(professor of industrial engineering,  
Yazd University – The deputy of  
research and human resources in Iran  
Ministry of Power)  
Owliams @ gmail.com
- Dr. Mohammad Saber Fallahnezhad  
(associate professor of industrial  
engineering, Yazd University)  
Fallahnezhad @ yazd.ac.ir
- Dr. Ali Mostafaeipour (associate  
professor of industrial engineering,  
Yazd University)  
Mostafaei @ yazd.ac.ir
- Mohammad Ali Vahdat (associate  
professor of industrial engineering,  
Yazd University)  
Mvahdat @ yazd.ac.ir
- Ahmad Sadeghieh (professor of  
industrial engineering, system  
optimization, Yazd University)  
Sadeghieh @ yazd.ac.ir

## Hobbies

Reading English novels and listening to audio books, Oil painting, Chess, Table tennis, Football, Volleyball

## Analyzing the impact of two major factors on medical expenses paid by health insurance organization in Iran

In healthcare sector, the profound role of insurance companies is undeniable. The main responsibility of health insurance establishments is to financially support the public health and promote the quality of health service. Governments' subsidies to healthcare insurance, insured payments and insurance companies' costs must be specified in such a way that both people and insurers mutually benefit. In this research, the data relating to 827637 patients who have been in hospitals under contract to the insurance organization to receive medical service, have been analyzed. We have proposed a model for determining healthcare costs paid by health insurance organization with regard to two major factors, the geographical location of the patients and the season during which they receive the service, using two-way ANOVA method. Since both effects are proved to be significant ( $P$ -value=0.00<0.01), allocating different insurance costs to the people residing in different regions and also changing the patterns of insurance extensions in different seasons with regard to the results derived from the model, can detract healthcare costs and give more satisfaction to the lower-income, insured patients.

## Recognition of the main in-operation defense projects of the world and the principal defense technologies of the future

I did this research project as a part of my military service in Iran's Army. It was a book comprising 9 chapters, including military vehicles, the technologies of ground forces, naval technologies, cyber technologies and electronic warfare, robotics and drone technologies, air force breakthroughs etc. I collected the content through exploring military websites accessible to the public and translated the collected information into Farsi. This resulted in a book 580 pages thick.

## Work Experience

1. Working as the sales manager of Satrap Electric company (manufacturing climate control systems and selling them in Iran and neighboring countries) in Yazd in 2016 and 2017
2. Working as the tour guide in Yazd, Isfahan and Tehran since 2016
3. Teaching English and running IELTS courses in language institutes and as the tutor since 2014
4. Teaching statistics and related software to nonstatistical students
5. Currently translating the novel "Peak" by Roland Smith to Farsi, to be published in Porteghal Publications
6. Working in "Gonbad Abi" travel agency as the translator and tour leader between 2015 and 2018
7. Doing military service after graduation in 2017 (I attended the army for around ten months and wrote a book for the rest of my service, which has been mentioned above)
8. Working as the production manager of "Naghme Mehr Pirooz" company since July, 2020 until October, 2021 (This is a Chinese company established in Iran, which is one of the few segment and metal powder producers in Iran. Our products are sold in Iran and other Asian countries including China. I was first employed here as the translator, and three months later I was appointed the production manager).
9. Working as the IELTS instructor and English teacher in IELTS Protalk Language Institute since October, 2021

## Courses and Seminars

- Information day on German higher education and funding landscapes & opportunities (Yazd University – September 9th, 2018)
- The training course of Basics, Structure & Introduction of Environmental Management System (EMS) (Yazd University, November 13th, 2015)
- Statistical Quality Control course

## Memberships

- Member of Industrial Engineering Scientific Association of Yazd University
- Member of Iranian Tour Leaders Association

## Languages

- Farsi (native)
- English (fluent)