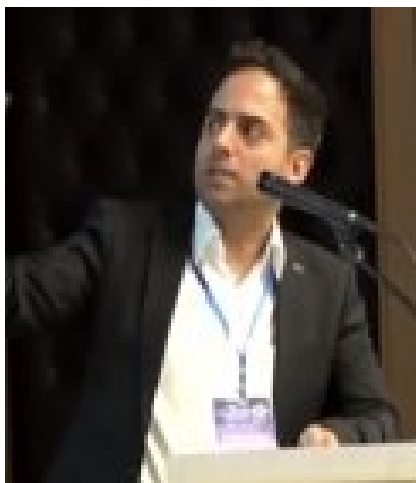




Mir mohammad Khalilipour langroudi

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University of Sistan and Baluchestan, Daneshgah Ave., Zahedan,
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Education

- ✓ B.Sc, Chemical Engineering Processes Design, - 2008
- ✓ MS, Chemical Engineering Processes Design, Sistan and Baluchestan University - 2011
- ✓ PhD, Chemical Engineering Processes Design, Sistan and Baluchestan University - 2016

Courses

- | | |
|---|--|
| 1. laboratory of processes control | 2. workshop on chemical engineering soft wares |
| 3. safety in chemical industries | 4. measuring methods of engineering |
| 5. Design of heat and mass transfer devices | 6. process equipment design |
| 7. heat transfer II | 8. safety in chemical industries |
| 9. Laboratory of heat transfer | 10. Environmental and Safety in Gas Industry |

Thesis

1. [pvg-elite](#)
طبيب مسعودي, [Mir mohammad Khalilipour langroudi]
2. [phat](#)
عمران رئيسي, [Mir mohammad Khalilipour langroudi]
3. [phat](#)
عارف قائد, [Mir mohammad Khalilipour langroudi]
نیمسال دوم سال تحصیلی 96-97
4. [fcc](#)
محسن فراهت, [Mir mohammad Khalilipour langroudi]
نیمسال اول سال تحصیلی 95-96

Master Thesis

1. Investigating the possibility of replacing LPG feed with normal butane in the alkylation unit of Abadan Refinery

پریسا جلالی نیا [Farhad Shahraki, Mir mohammad Khalilipour langroudi, Mohammad Reza Sardashti Birjandi, Davod Mohebbi Kalhori, Bahareh Bidar, Alireza Shahraki]

نیمسال دوم سال تحصیلی 1401

2. Investigation of linear and non-linear programming on the refinery network structure

محدثه پودینه [Farhad Shahraki, Mohammad Reza Sardashti Birjandi, Mir mohammad Khalilipour langroudi, Jafar Sadeghi, Davod Mohebbi Kalhori, Pooria Akbarzadeh]

نیمسال اول سال تحصیلی 1401-1402

3. dynamic data reconciliacion filter design based on general additive model in non minimal state space

بهرز کیانی طلائی [Farhad Shahraki, Jafar Sadeghi, Mir mohammad Khalilipour langroudi, Bahareh Bidar, Morteza Zivdar, , Mohamad Javad Azinfar]

نیمسال دوم سال تحصیلی 99-00

4. Investigation the environmental effect of using different type of fuels in industrial furnaces

مه لقا نوروزی حصاری [Mir mohammad Khalilipour langroudi, Mohammad Reza Sardashti Birjandi, Jafar Sadeghi, Kiyanoosh Razzaghi, Hadi Bejari Valam]

نیمسال دوم سال تحصیلی 99-00

5. Design and fabrication of solar tracking desalination focusing on enviromental issues

بابک کمالی شهری [Mir mohammad Khalilipour langroudi, Hamid Moghadam Deymeh, Vajihe Yousefi, Bahareh Bidar, Mostafa Dehghani Mohammad Abadi]

نیمسال دوم سال تحصیلی 99-00

6. dynamic data reconciliacion filter design based on general additive model in non minimal state space

بهرز کیانی طلائی [Farhad Shahraki, Jafar Sadeghi, Mir mohammad Khalilipour langroudi]

نیمسال دوم سال تحصیلی 98-99

7. soft sensor design using multi-state dependent parameter methodology based on generalized random walk method

فرشته توکلی دستجرد [Jafar Sadeghi, Farhad Shahraki, Mir mohammad Khalilipour langroudi, Bahareh Bidar]

نیمسال دوم سال تحصیلی 98-99

8. dynamic data reconciliacion filter design based on general additive model in non minimal state space

بهرز کیانی طلائی [Farhad Shahraki, Jafar Sadeghi, Mir mohammad Khalilipour langroudi]

نیمسال اول سال تحصیلی 98-99

9. Dynamic simulation and centralized control of extractive distillation foe separating ethane-carbondioxide azeotropic mixture by natural gas and light light hydrocarbon recovery

پوریا قربان زاده [Jafar Sadeghi, Mir mohammad Khalilipour langroudi]

نیمسال اول سال تحصیلی 98-99

10. optimization of hydrogen network structure by lagrange method in refinery

پروانه ناروئی محمد [Mir mohammad Khalilipour langroudi, Farhad Shahraki, Mohammad Reza Sardashti Birjandi]

نیمسال اول سال تحصیلی 98-99

11. Simulation and plant- wide control of carbon dioxide Absorption unit with Potassium Carbonate Ethylene Oxide plant

ارسلان همتي, [Jafar Sadeghi, Farhad Shahraki, Mir mohammad Khalilipour langroudi]

نیمسال دوم سال تحصیلی 97-98

Journals Papers

2026

1. Machine learning-based online parameter estimation for noise-resilient process measurements using state-dependent models

Behrooz Kiani talaee, Mir mohammad Khalilipour langroudi, Jafar Sadeghi

Measurement: Journal of the International Measurement Confederation Volume: (258) 1 - 14

2025

2. Energy-Efficient Optimal Control of Crude Distillation Columns Using Proportional-Integral-Plus PIP) Framework: A Simulation-Based Approach

Mir mohammad Khalilipour langroudi, Farhad Shahraki, Jafar Sadeghi, Kiyanoosh Razzaghi

international journal of industrial electronics, control and optimization Volume: (8) 177 - 189

3. Optimization of Refinery Network Structure Using Mathematical Modeling

Mohadeseh Poudineh, Farhad Shahraki, Mohammad Reza Sardashti Birjandi, Mir mohammad Khalilipour lang

Volume: (35) 92 - 103

2024

4. Enhancing Soft Sensor Performance in Control Loops: Integrating State-Dependent Parameter Method With Regression-Based Dynamic Data Reconciliation Filter

Behrooz Kiani talaee, Farhad Shahraki, Jafar Sadeghi, Mir mohammad Khalilipour langroudi

IEEE SENSORS JOURNAL Volume: (24) 7018 - 7029

5. Design of Data-Driven Soft Sensor for Quality Prediction in Industrial Polyester Resin Production Process

Gohar Hadizadeh, Jafar Sadeghi, Mir mohammad Khalilipour langroudi, Bahareh Bidar

Volume: (6) 97 - 114

6. Enhanced Monitoring of Water Quality in Crude Oil Desalting/Dehydration Plant (DDP) using Soft Sensing Techniques

Farzane Naimirad, Mir mohammad Khalilipour langroudi, Bahareh Bidar, Farhad Shahraki, Jafar Sadeghi

Pollution Volume: (11) 175 - 190

7. Cultivating Spirulina in Waste Saltwater: A Sustainable Solution for High-Protein Biomass Production from Solar Still Brine Discharge

Babak Kamali shahri, Mir mohammad Khalilipour langroudi, Hamid Moghadam Deymeh

Chemical Process Design Volume: (3) 49 - 56

2023

8. بررسی مدیریت تولید و بهینه سازی گاز هیدروژن

Parvane Naroeimohammad, Mir mohammad Khalilipour langroudi, Farhad Shahraki, Mohammad Reza Sardashti

Volume: (17) 19 - 38

9. Consequences modeling and determining of safe distance in the natural gas pressure reduction station using PHAST software (Case study: Borumi station in Ahvaz)

Ahmad Torfi Alivi, Farhad Shahraki, Mohammad Reza Sardashti Birjandi, Mir mohammad Khalilipour langr

Volume: (15) 37 - 57

10. Optimal metaheuristic state-dependent parameter proportional-integral-plus control: Alternative to gain-scheduled controller for control of a nonlinear continuous stirred tank reactor

Behrooz Kiani talaei, Farhad Shahraki, Jafar Sadeghi, Mir mohammad Khalilipour langroudi

Systems and Soft Computing Volume: (5) 200053-1 - 200053-10

11. SDP-Based Quality Monitoring with Application to the Tennessee Eastman Process (TEP)

, Mir mohammad Khalilipour langroudi, Jafar Sadeghi, Bahareh Bidar

JOURNAL OF CONTROL Volume: (17) 77 - 91

12. Tail Gas Quality Warning System in a Sulfur Recovery Unit based on H₂S and SO₂ Concentration Soft Sensor utilizing Multi-State-Dependent Modeling Method

Fereshte Tavakoli dastjerd, Farhad Shahraki, Jafar Sadeghi, Mir mohammad Khalilipour langroudi, Baha

international journal of industrial electronics, control and optimization Volume: (6) 307 - 319

2022

13. Soft Sensor Design Using Multi-State Dependent Parameter Methodology Based on Generalized Random Walk Method

Fereshte Tavakoli dastjerd, Jafar Sadeghi, Farhad Shahraki, Mir mohammad Khalilipour langroudi, Baha

IEEE SENSORS JOURNAL Volume: (22) 7888 - 7901

14. بهینه سازی شبکه هیدروژن با استفاده از مدیریت دی اکسیدکربن

Parvane Naroeimohammad, Mir mohammad Khalilipour langroudi, Farhad Shahraki, Mohammad Reza Sardashti

Volume: (32) 108 - 123

15. Simulation and improvement of biogas process using monoethanolamine solvent

Hamed Salehi, Mir mohammad Khalilipour langroudi, Farhad Shahraki

Volume: (17) 37 - 56

16. Plantwide Control Structure of the Diethyl Oxalate Process Concerning: Safety and Process Improvement

Hassan Bagheri, Mir mohammad Khalilipour langroudi, Jafar Sadeghi

Iranian Journal of Chemical Engineering Volume: (19) 52 - 75

2021

17. Soft Sensor Development for Monitoring ASTM-D86 Index: Effect of Feed Flow Rate Change

Bahareh Bidar, Mir mohammad Khalilipour langroudi, Farhad Shahraki, Jafar Sadeghi

international journal of industrial electronics, control and optimization Volume: (4) 211 - 220

18. Multivariable Control Crude Oil Distillation Column and Optimization Energy Consumption

Behnaz Moradi, Farhad Shahraki, Mir mohammad Khalilipour langroudi, Jafar Sadeghi

Volume: (16) 34 - 51

2020

19. Simulation and optimization of sulfur recovery unit in Ilam gas refinery by response surface methodology

Asma Taherinia, Farhad Shahraki, Mir mohammad Khalilipour langroudi, Mohammad Reza Sardashti Birjand

Volume: (11) 19 - 32

20. A New control structure for tert-amyl methyl ether production using reactive distillation

Shahin Kharaji, Jafar Sadeghi, Farhad Shahraki, Mir mohammad Khalilipour langroudi

ISA TRANSACTIONS Volume: (97) 53 - 66

2018

21. A data-driven soft-sensor for monitoring ASTM-D86 of CDU side products using local instrumental variable (LIV) technique

Bahareh Bidar, Mir mohammad Khalilipour langroudi, Farhad Shahraki, Jafar Sadeghi

Journal of the Taiwan Institute of Chemical Engineers Volume: (84) 49 - 59

22. Soft Sensor Modeling Based on Multi-State-Dependent Parameter Models and Application for Quality Monitoring in Industrial Sulfur Recovery Process

Bahareh Bidar, Farhad Shahraki, Jafar Sadeghi, Mir mohammad Khalilipour langroudi

IEEE SENSORS JOURNAL Volume: (18) 4583 - 4591

23. Control Structure Design and Dynamic Modeling for Atmospheric Distillation Column Effect of Increase Capacity

Mir mohammad Khalilipour langroudi, Farhad Shahraki, Jafar Sadeghi, Kiyanoosh Razzaghi

international journal of industrial electronics, control and optimization Volume: (2) 103 - 113

2017

24. Modeling and Optimization of Alkylation Process Using Response Surface Methodology

Soroush Mehdizadeh, Farhad Shahraki, Kiyanoosh Razzaghi, Mir mohammad Khalilipour langroudi

Volume: (27) 82 - 95

25. Data-driven soft sensor approach for online quality prediction using state dependent parameter models

Bahareh Bidar, Jafar Sadeghi, Farhad Shahraki, Mir mohammad Khalilipour langroudi

CHEMOMETRICS AND INTELLIGENT LABORATORY SYSTEMS Volume: (162) 130 - 141

2016

26. An industrial Steam Methane Reformer optimization using response surface methodology

Mojtaba Sinaei Nobandegani, , , Mir mohammad Khalilipour langroudi, Farhad Shahraki, Davod Mohebbi K

Journal of Natural Gas Science and Engineering Volume: (36) 540 - 549

27. Nonsquare multivariable non-minimal state space-proportional integral plus (NMSS-PIP) control for atmospheric crude oil distillation column

Mir mohammad Khalilipour langerudi, Jafar Sadeghi, Kiyanoosh Razzaghi, Farhad Shahraki

CHEMICAL ENGINEERING RESEARCH and DESIGN Volume: (113) 140 - 150

28. Design of multivariable control structure for crude oil distillation column effect of capacity change

Mir mohammad Khalilipour langroudi, Jafar Sadeghi, Farhad Shahraki, Kiyanoosh Razzaghi

Volume: (8) 1 - 12

2014

29. Consequence Modeling of Chlorine Release from Water Treatment Plant

, Mir mohammad Khalilipour langroudi, Farhad Shahraki, mohsen mansuri

American Chemical Science Journal Volume: (4) 97 - 104

2013

30. Application of Hazard and Operability Study Method in Hazard Evaluation of Reactor-Furnace in Sulfur Recovery Unit

Mir mohammad Khalilipour langroudi, , Farhad Shahraki, Mahdi Goharrokhi, Ali Asghar Mahjoobi

Volume: (8) 21 - 35

31. Rate Expression of Fischer-Tropsch Synthesis Over Co-Mn Nanocatalyst by Response Surface Methodology (RSM)

, Hossein Atashi, Mir mohammad Khalilipour langroudi, Farhad Shahraki,

Journal of the Korean Chemical Society Volume: (57) 769 - 777

Conferences Papers

2025

1. An AI-Augmented Framework for HAZOP Analysis in Sulfur Recovery Unit Incinerators: A Case Study on Time Efficiency and Safety Enhancement

The 4th National Conference on Application of Experimental and Numerical Methods in Chemical and Mineral Industries

Mir mohammad Khalilipour langroudi

2. Machine Learning-Based Prediction and Optimization of CO₂ Capture Efficiency Using Random Forests

The 4th National Conference on Application of Experimental and Numerical Methods in Chemical and Mineral Industries

Behrouz Kiani Talaei, Mir mohammad Khalilipour langroudi

2023

3. Soft Sensor Design of A Carbon Dioxide Absorption Unit Based on State-Dependent Parameter Model

4th International Conference New Technologies in Oil, Gas and Petrochemical Industries

Fereshte Tavakoli dastjerd, Jafar Sadeghi, Farhad Shahraki, Mir mohammad Khalilipour langroudi, Bahareh Bidar

2021

4. A Data-driven Soft Sensor for Estimation Viscosity in Batch Process Production of Polyester Resin

Gohar Hadizadeh, Jafar Sadeghi, Mir mohammad Khalilipour langroudi, Bahareh Bidar

2020

5. Quality Soft Sensor Design for Crude Oil Desalting/Dehydration Unit Using Local Instrumental Variable (LIV) Approach

The 11th International Chemical Engineering Congress Exhibition (IChEC 2020)

Bahareh Bidar, Farzane Naimirad, Mir mohammad Khalilipour langroudi, Farhad Shahraki, Jafar Sadeghi

2019

6. Steady State Simulation of Reaction Furnace and Waste Heat Boiler of Sulfur Recovery Unit of Ilam Refinery Using Aspen® software

The 16th Iranian National Congress of Chemical Engineering

Asma Taherinia, Farhad Shahraki, Mir mohammad Khalilipour langroudi, Ahmad Hlajisani, , Shahin Kharaji

7. Data-driven soft sensor design for prediction of quality in the Tennessee Eastman process

2nd national conference on gas and petrochemical processes

2018

8. A data-driven soft sensing approach for quality prediction in sulfur recovery unit using state dependent parameter models

The 10th International Chemical Engineering Congress Exhibition (IChEC 2018)

Bahareh Bidar, Farhad Shahraki, Jafar Sadeghi, Mir mohammad Khalilipour langroudi

9. A study of effective parameters to increase production of sulfur recovery unit in the Ilam refinery

The national conference on traetment of water oil and soil (TWAS2018)

Asma Taherinia, Farhad Shahraki, Mir mohammad Khalilipour langroudi, , Shahin Kharaji

2017

10. Soft sensor design for continuous product quality prediction in debutanizer column

1st GPP national conference on gas and petrochemical process

, Farhad Shahraki, Jafar Sadeghi, Mir mohammad Khalilipour langroudi

11. Non-Square Control Structure Selection for Crude Distillation Column Using Relative Gain Array Effect of Uncertain Feed Conditions

10th World Congress of Chemical Engineering

Farhad Shahraki, Bahareh Bidar, Jafar Sadeghi, Kiyanoosh Razzaghi, Mir mohammad Khalilipour langroudi

Executive activities

chemical process design عضو هیات تحریریه مجله

from 1403/12/13 - to 1407/12/13

مدیر پردیس علم و فناوری

from 1403/07/01 - now

مشاوره دانشجویان کارشناسی

from 1402/07/01 - to 1402/11/05

مدیر پردیس علم و فناوری دانشگاه

from 1401/10/28 - to 1403/06/31

دبیر بهداشت ایمنی و محیط زیست

from 1399/06/25 - to 1402/11/01

Research Project

2014

1. Hazard Identification and consequence modeling in the LPG storage vessels of Fooman Shimi complex

Mir mohammad Khalilipour langroudi, Farhad Shahraki - 2014