

## Dr. SAYEED RUSHD

Associate Professor



### Personal Data:

Nationality | Canadian  
Date of Hire | 31<sup>st</sup> December 2017  
Date Rank Obtained | Assistant Professor  
Department | Chemical Engineering  
Email | [mrushd@kfu.edu.sa](mailto:mrushd@kfu.edu.sa)  
Office No | 2044  
Office Phone No | 0135899285

### Education:

| Academic Degree  | Major                | specialty             | Place of Issue       | Address                                       | Date           |
|------------------|----------------------|-----------------------|----------------------|---|----------------|
| Doctorate (PhD)  | Chemical Engineering | Fluid Mechanics       | Edmonton, AB, Canada | 116 St & 85 Ave, Edmonton, AB T6G 2R3, Canada | January, 2016  |
| Masters (M.Sc.)  | Chemical Engineering | Process Engineering   | Edmonton, AB, Canada | 116 St & 85 Ave, Edmonton, AB T6G 2R3, Canada | July, 2008     |
| Bachelor (B.Sc.) | Chemical Engineering | Petroleum Engineering | Dhaka, Bangladesh    | Dhaka-1000, Bangladesh                        | December, 2004 |

### PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions):

|        |  |
|--------|--|
| PhD    | A new approach to model friction losses in the water-assisted pipeline transportation of heavy oil and bitumen |
| Master | A capacitance sensor for pipeline flows of oil-water mixtures  |

### Experiences:

| Title of Job                    | Address of Work                              | Country      | Date |           |
|---------------------------------|--|--------------|------|-----------|
| Associate Professor             | King Faisal University, Hofuf, Al Ahsa 38219 | Saudi Arabia | From | Feb. 2025 |
|                                 |  |              | To   | Present   |
| Assistant Professor             | King Faisal University, Hofuf, Al Ahsa 38219 | Saudi Arabia | From | Jan. 2018 |
|                                 |  |              | To   | Jan. 2025 |
| Postdoctoral Research Associate | Texas A&M University, Education City, Doha   | Qatar        | From | Apr. 2016 |
|                                 |  |              | To   | Oct. 2017 |
| Project Engineer                | Matrikon Inc., Calgary, AB                   | Canada       | From | Aug. 2008 |
|                                 |  |              | To   | Apr. 2009 |

### Research Interests:

1. Transport Phenomena
2. Computational Fluid Dynamics
3. Seawater Desalination
4. Artificial Intelligence
5. Sustainable Technology

### Publications:

| # | Name of author(s)  | Title of Publication  | Publisher and Date of Publication   | Link of Publication   |
|---|--|---|---|---|
| 1 | Sayeed Rushd   | System and method for sustainable production of water and salt  | U.S. Patent and Trademark Office (U.S. Patent No. 12,115,465B1) October 2024  | <a href="https://patents.google.com/patent/US12115465B1">https://patents.google.com/patent/US12115465B1</a>                 |
| 2 | Chawki Awada, Sayeed Rushd, Nagih Shaalan  | Device for monitoring internal pipe deposit accumulation  | U.S. Patent and Trademark Office (U.S. Patent No. 11,815,351B1) November 2023 | <a href="https://patents.google.com/patent/US11815351B1">https://patents.google.com/patent/US11815351B1</a>                 |
| 3 | Noor Hafsa, Sayeed Rushd, Hazzaz Yousuf  | Comparative performance of machine-learning and deep-learning algorithms in predicting gas–liquid flow regimes        | Processes January 2023  | <a href="https://doi.org/10.3390/pr11010177">https://doi.org/10.3390/pr11010177</a>   |
| 4 | Ferroudji, H., Rahman, M.A., Hadjadj, A., Ofei, T.N., Khaled, M.S., Rushd, S. and Gajbhiye, R.N. | 3D numerical and experimental modelling of multiphase flow through an annular geometry applied for cuttings transport | International Journal of Multiphase Flow June 2022                            | <a href="https://doi.org/10.1016/j.ijmultiphaseflow.2022.104044">https://doi.org/10.1016/j.ijmultiphaseflow.2022.104044</a> |

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|---|---|---|---|---|
| 5 | Hossain, S. S.,<br>Ali, S. S.,<br><b>Rushd, S.</b> ,<br>Ayodele, B. V.,<br>& Cheng, C. K.             | Interaction<br>effect of<br>process<br>parameters<br>and Pd-<br>electrocatalyst<br>in formic acid<br>electro-<br>oxidation for<br>fuel cell<br>applications:<br>Implementing<br>supervised<br>machine<br>learning<br>algorithms | International<br>Journal of<br>Energy<br>Research<br>January 2022 | <a href="https://doi.org/10.1002/er.7602">https://doi.org/10.1002/er.7602</a>                           |
| 6 | <b>Sayeed Rushd</b> ,<br>Mohammad<br>Tanvir Parvez,<br>Majdi Adel Al-<br>faiaid,<br>Mohammed<br>Islam | Towards<br>Optimal<br>Machine<br>Learning Model<br>for Terminal<br>Settling<br>Velocity   | Powder<br>Technology<br>July 2021                                 | <a href="https://doi.org/10.1016/j.powtec.2021.04.011">https://doi.org/10.1016/j.powtec.2021.04.011</a> |

#### Language Proficiency:

1. English
2. Bangla
3. Arabic