Dr. Ahammed Sherief Kizhakkethil Youseph
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Academic Background:

Year	Degree/Certificate	University/Board	Marks/Grade
2012-17	*Doctorate:* Ph D Applied and Computational Mathematics	Monash University, Australia	Not Applicable
2009-11	*Post Graduation:* M Tech Chemical Engineering	Indian Institute of Technology Bombay, Mumbai, India	9.58/10
2004-08	*Graduation:* B Tech Chemical Engineering	University of Calicut, Kerala, India	71.42%
2002-04	*Plus Two:* Technical Higher Secondary Examination	Board of Higher Secondary Examinations, Kerala, India	84.33%
2002	*Matriculation:* Secondary School Leaving Certificate	Board of Public Examinations, Kerala, India	87.33%

Honors/Awards/Scholarships:

- Faculty of Information Technology Postgraduate Publication Award (FIT-PPA), Monash University, Australia: March 2017-April 2017 (AUD 4,420.00)
- National ICT Australia (NICTA) Top-up Scholarship: April 2012 – December 2016 (AUD 7,000 per annum)
- Monash Departmental Scholarship (MDS) - Gippsland Postgraduate Research Scholarship (Living allowance): April 2012 – June 2016 (AUD 23,728 per annum)
- Monash Departmental Scholarship (MDS) - Gippsland Postgraduate Research Scholarship (Tuition fee waiver for Ph D course): April 2012 – December 2016
- All India Ranking of 78 out of 10540 candidates, Chemical Engineering, Graduate Aptitude Test in Engineering, 2010

Positions held:

Duration	Position	Employer
Feb 2022 – Present	Assistant Professor (Contract)	CUSAT, Kerala, India
Aug 2020 – Feb 2022	Adhoc Faculty	NIT Andhra Pradesh, India
July 2017 – Aug 2020	Adhoc Faculty	NIT Calicut, Kerala, India
July 2011 – Jan 2012	Temp Research Assistant	IIT Bombay, India

Theory Courses Taught:

	Subject	Type	Semester	Role
PG	Chemical Reactor Analysis and Design	Core	Odd, 2021 – 2022	Sole Instructor
	Process Modelling and Simulation	Core	Even, 2019 – 2020	Co-Instructor
	Bioreactor Engineering	Elective	Even, 2017 – 2018	Sole Instructor
UG	Mass Transfer Operations – I	Core	Even, 2021 – 2022	Sole Instructor
	Environmental Engineering and Management	Core	Even, 2021 – 2022	Sole Instructor
	Chemical Reaction Engineering – I	Core	Even, 2021 – 2022	Sole Instructor
	Chemical Reaction Engineering – II	Core	Odd, 2021 – 2022	Sole Instructor
	Optimization Techniques	Elective	Even, 2021 – 2022 Even, 2020 – 2021	Sole Instructor
	Process Instrumentation	Core	Even, 2021 – 2022 Even, 2020 – 2021 Odd, 2017 – 2018	Sole Instructor
	Plant Design and Process Economics	Core	Odd, 2020 – 2021	Sole Instructor
	Industrial Safety and Hazard Mitigation	Core	Odd, 2020 – 2021	Co-Instructor
	Chemical Technology	Core	Odd, 2020 – 2021 Odd, 2019 – 2020	Sole Instructor
	Food Technology	Elective	Even, 2019 – 2020	Co-Instructor
	Biochemical Engineering	Elective	Even, 2018 – 2019	Sole Instructor
	Environmental Studies for Electronics Engineers	Core	Even, 2018 – 2019	Sole Instructor
	Environment Impact Assessment and Clean Technology	Elective	Odd, 2018 – 2019	Sole Instructor
	Environmental Studies	Core	Odd, 2018 – 2019	Sole Instructor
	Operations Research	Elective	Even, 2017 – 2018	Sole Instructor
	Membrane Technology	Elective	Odd, 2017 – 2018	Sole Instructor

Conferences/Workshops/FDPs Attended:

- Aspen Plus® simulation software – a basic course for beginners, NPTEL–AICTE FDP, July – Oct 2021
- NPTEL Online Workshop, Building Machine Learning Apps Rapidly, 22nd May 2021
- Data Science for Engineers, NPTEL–AICTE FDP, scored 84%, (Top 2%), Sep-Nov 2020
- Python for Data Science, NPTEL–AICTE FDP, scored 77%, Sep-Oct 2020
- Faculty Development Program on Recent Innovations and Developments in Electrochemical and Chemical Process Optimization (RIDECPO-2019) – NIT Calicut, 17th -22nd June 2019

- International Conference on Energy and Environment: Global Challenges (ICEE 2018) – NIT Calicut, 9^{th} – 10^{th} March, 2018
- IEEE Congress on Evolutionary Computation – Sendai, Japan, 25^{th} – 28^{th} May, 2015

Research Experience:

- Ph D Thesis: A Nonlinear Modeling Framework Using Michaelis-Menten Kinetics for Reconstruction of Gene Regulatory Network (April 2012 – May 2017)
  Advisors: Assoc Prof Madhu Chetty and Dr. Gour Karmakar, Faculty of Science and Technology, Federation University Australia (formerly Gippsland School of IT, Monash University, Australia).

- M Tech Project: Comparative Designs of Biological Regulatory systems: *GAL* Regulon in Yeast - A Case Study (January 2010 – June 2011)
  Advisors: Prof. Sharad Bhartiya and Prof. K. V. Venkatesh, Department of Chemical Engineering, IIT Bombay.
- B Tech Project: Study of TiO_2 manufacture by sulphate process and design of a pre-heater (Nov 2007–June 2008)
  Advisor: Dr. Mary Thomas, Department of Chemical Engineering, GEC, Calicut.

Presentations:

- An invited talk on the topic, "Applications of Evolutionary Algorithms (EAs): From Chemical Process Optimization to Systems Biology" in Faculty Development Program on Recent Innovations and Developments in Electrochemical and Chemical Process Optimization (RIDECPO-2019) – NIT Calicut (June 2019).
- Presented the paper titled, "Gene regulatory network inference using Michaelis-Menten kinetics" at IEEE Congress on Evolutionary Computation (CEC) (May 2015)

Computer Skills:

Operating Systems	Windows XP, Windows 2003/7/8/10, Linux
Computer Languages	Basic, FORTRAN, C, Python
Scientific Applications	MATLAB, Simulink, R, ALOHA
Technical Drawing	Microsoft Visio
Office Applications	Microsoft PowerPoint, Excel, Word, LaTeX

PG Courses Studied:

Courses in Mathematical Tools and Applications	Optimization Techniques Mathematical and Statistical Methods in Chemical Engineering Computational Methods in Chemical Engineering Artificial Intelligence in Process Engineering

Chemical Engineering Courses	Advanced Reaction Engineering Advanced Thermodynamics Advanced Transport Phenomena Polymer Reaction Engineering
Courses in Biological Sciences	Bioprocess Principles Genetics and Evolution of Biological Circuits

Publications:

- **A. S. K. Youseph**, M. Chetty and G. Karmakar, "Reverse engineering genetic networks using nonlinear saturation kinetics", *BioSystems*, 2019, 182, 30-41.
- **A. S. K. Youseph**, M. Chetty and G. Karmakar, "PCA based population generation for genetic network optimization", *Cognitive Neurodynamics*, 2018, 12 (4), 417-429.
- **A. S. K. Youseph**, M. Chetty and G. Karmakar, "Large scale modeling of genetic networks using gene knockout data", *Proceedings of the Australasian Computer Science Week Multiconference (ACSW '18)*, ACM, New York, NY, USA, Article 34, 2018, 8 pages.
- **A. S. K. Youseph**, M. Chetty and G. Karmakar, "Exploiting temporal genetic correlations for enhancing regulatory network optimization", *Neural Information Processing: 23rd International Conference, ICONIP 2016, Proceedings, Part I*, Kyoto, Japan, 2016, pp. 479-487.
- **A. S. K. Youseph**, M. Chetty and G. Karmakar, "Decoupled modeling of gene regulatory networks using Michaelis-Menten kinetics", *Neural Information Processing: 22nd International Conference, ICONIP 2015, Proceedings, Part III*, Istanbul, Turkey, 2015, pp. 497-505.
- **A. S. K. Youseph**, M. Chetty and G. Karmakar, "Gene regulatory network inference using Michaelis-Menten kinetics", *2015 IEEE Congress on Evolutionary Computation (CEC)*, Sendai, Japan, 2015, pp. 2392-2397.
- V. R. Pannala, **K.Y. Ahammed Sherief**, S. Bhartiya and K.V. Venkatesh, "Dynamic analysis of the *KlGAL* regulatory system in *Kluyveromyces lactis*: a comparative study with *Saccharomyces cerevisiae*", *Systems and Synthetic Biology*, 2011, 5, 69-85.

Declaration:

I hereby declare that the information provided above is true and correct to the best of my knowledge and belief.

Ahammed Sherief K.Y.