Short curriculum vitae – Sigurd Skogestad (May 2025)

Personal information

First name, Surname:	Sigurd Skogestad	
Position	Professor, Norwegian University of Science and Technology	
URL for personal website: Identifier	https://folk.ntnu.no/skoge/ ORCID: 0000-0001-6187-8261,	

Education

Year	Faculty/department - University/institution - Country
1987	Ph.D. in Chemical and Biological Engineering, California Institute of Technology, USA
1978	Master (siv.ing.) in Chemical Engineering, NTNU (former NTH), Trondheim. Norway

Positions - current and previous

Year	Job title – Employer - Country	
1987-	Professor in Chemical Engineering, NTNU, Trondheim, Norway	
Current		
1983-1987	PhD student and Research Assistant, California Institute of Technology, USA	
1980-1983	Research Engineer, Norsk Hydro Research Center, Porsgrunn, Norway	
1979	Military Service, Norwegian Defence Research Center (FFI)	

Career breaks - Mobility

Year	Job title – Employer - Country	
1994 -1995	Visiting Professor, Departments of Chemical Engineering and Mechanical Engineering, University of	
	California, Berkeley, USA (12 months).	
2001-2002	Visiting Professor, Departments of Chemical Engineering, University of California, Santa Barbara,	
	USA (5 months).	

Supervision of students 1987-2024 (Total number of students supervised to completion as main supervisor)

Master students	Ph.D. students	University/institution - Country
210	47	Department of Chemical Engineering, Norwegian University of Science and Technology (NTNU), Trondheim, Norway

Fellowships and awards

1979 Instilling awarded for the Siv.ing degree (result communicated to the Norwegian King)

1983 Fullbright Fellowship (travel grant) awarded for graduate studies at Caltech

1983 Utdanningsstipend awarded from Univ. of Trondheim for graduate studies at Caltech

1989 Ted Peterson Best Paper Award by the CAST division of AIChE (The American Institute of Chemical Engineers)

1990 George S. Axelby Outstanding Paper Award by the Control System Society of IEEE (The Institute of Electrical and Electronic Engineers)

1992 Hugo Schuck Best Paper Award by the American Automatic Control Council

2006 Best paper award for paper published in 2004 in Computers and chemical engineering

2019 Best paper award at the ESCAPE 2019 Symposium (Eindhoven, June 2019)

2019 Computing in chemical engineering award from the American Institute of Chemical Engineers (Orlando)

Membership of scientific societies

1988 Elected Member to the Norwegian Academy of Tehnical Sciences (NTVA)

1991 Elected member to Det Kongelige Norske Vitenskapers Selskab

2008-2014 Member of IFAC Technical Board

2011 Elected member of Process Automation Hall of Fame, Delaware, USA

2012 Elected Fellow of American Institute of Chemical Engineers (AIChE)

2014 Elected Fellow of International Federation of Automatic Control (IFAC) 2015 Elected member to *The Norwegian Academy of Science and Letters*, Oslo 2015 Honorary member of *Norwegian Society of Automatic Control*

Academic track record

- I have published about 230 international journal publications and 330 conference publications
- H-index (Web of Science): 54 (2024).
- H-index (Google scholar): 78 (2025)
- Author of 2 international text books. (1) S. Skogestad and I. Postlethwaite, ``Multivariable feedback control analysis and design," Wiley (1996); 2nd Edition (2005). (2) S. Skogestad, ``Chemical and energy process engineering", CRC Press (2009).
- No. of citations to book Multivariable feedback control: 12161 (Google scholar, 2024)

Selected Recent Publications

2024

- 1. A Comparative Study of Distributed Feedback-Optimizing Control Architectures. R Dirza, HP Varadarajan, V Aas, S Skogestad, D Krishnamoorthy. IEEE Transactions on Control Systems Technology, 2024
- 2. Optimal switching of MPC cost function for changing active constraints. LF Bernardino, S Skogestad. Journal of Process Control 142, 103298. 2024
- 3. Optimal measurement-based cost gradient estimate for feedback real-time optimization. LF Bernardino, S Skogestad Computers & Chemical Engineering, 108815 2024
- 4. Reinforcement learning based MPC with neural dynamical models S Adhau, S Gros, S Skogestad. European Journal of Control, 101048 2024
- 5. Primal-dual feedback-optimizing control with override for real-time optimization R Dirza, S Skogestad. Journal of Process Control 138, 103208 3 2024
- 6. Decentralized control using selectors for optimal steady-state operation with changing active constraints. LF Bernardino, S Skogestad. Journal of Process Control 137, 103194 5 2024
- 7. Understanding Temperature Profiles of Distillation Columns LM Ranger, IJ Halvorsen, T Grutzner, S Skogestad Industrial & Engineering Chemistry Research 63 (10), 4533-4546 2024

2023

- 1. Steady-state and dynamic model for recirculating aquaculture systems with pH included AM dos Santos, LF Bernardino, KJK Attramadal, S Skogestad Aquacultural Engineering 102, 102346 5 2023
- 2. Home Energy Management with Dynamic Tariffs and Tiered Peak Power Charges D Perez-Pineiro, S Skogestad, S Boyd arXiv preprint arXiv:2307.07580 2023
- 3. Transformed inputs for linearization, decoupling and feedforward control S Skogestad, C Zotica, N Alsop. Journal of process Control 122, 113-133 13 2023
- 4. Advanced control using decomposition and simple elements S Skogestad Annual Reviews in Control 56, 100903 24 2023
- 5. Decentralized control for optimal operation under changing active constraints LF Bernardino, S Skogestad Computer Aided Chemical Engineering 52, 1699-1704 2023

2022

- 1. Experimental validation of distributed feedback-based real-time optimization in a gas-lifted oil well rig R Dirza, J Matias, S Skogestad, D Krishnamoorthy Control Engineering Practice 126, 105253 4 2022
- Real-time optimization as a feedback control problem, A review. D Krishnamoorthy, S Skogestad Computers & Chemical Engineering 161, 107723 45 2022
- 3. Bidirectional inventory control with optimal use of intermediate storage C Zotica, K Forsman, S Skogestad Computers & Chemical Engineering 159, 107677 7 2022
- Control of steam bottoming cycles using nonlinear input and output transformations for feedforward disturbance rejection C Zotica, RM Montanes, A Reyes-Lua, S Skogestad IFAC-PapersOnLine 55 (7), 969-974 8* 2022
- 5. Comparison of simple feedback control structures for constrained optimal operation LF Bernardino, D Krishnamoorthy, S Skogestad IFAC-PapersOnLine 55 (7), 883-888 4 2022
- 6. Optimal control of water quality in a recirculating aquaculture system AM dos Santos, KJK Attramadal, S Skogestad IFAC-PapersOnLine 55 (7), 328-333 6 2022
- 7. Optimal operation of heat exchanger networks with changing active constraint regions LF Bernardino, D Krishnamoorthy, S Skogestad Computer Aided Chemical Engineering 49, 421-426 4 2022
- 8. Primal-dual feedback-optimizing control with direct constraint control R Dirza, D Krishnamoorthy, S Skogestad Computer Aided Chemical Engineering 49, 1153-1158 3 2022