


FACULTY PROFILE

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|------------------------------|--------------------------|-------------------------------------------------------------------------------------|
| Name | : GIGI SEBASTIAN |  |
| Date of birth | : 10.05.1969 | |
| Highest Qualification | : Ph.D. | |
| Specialization | : Process Control | |

Academics

- Ph.D. – IIT Madras, 2013
- M.Tech. – NIT Trichy, 1994
- B.Tech. – GEC Thrissur, 1991

Experience

- Department of Technical Education, Kerala: 1999 Sept. onwards
- Kerala State Pollution Control Board, Assistant Engineer: 1996 Dec – 1999 Sept.
- Reynolds Engineering Corporation, Mumbai, Design Engineer: 1996 Jan – 1996 Nov.
- Central Electro Chemical Research Institute (CECRI), Karaikudi, Senior Post Graduate Fellow: 1995 June – 1995 Dec.
- Centre for Water Resources Development and Management, Apprenticeship: 1991 June – 1992 May

Publications

- S. Gigi and A. K. Tangirala **Quantitative analysis of directional strengths in jointly stationary linear multivariate processes**. Biological Cybernetics vol. 103, number 2, August 2010, pages 119-133. ISSN: 0340-1200
- S. Gigi and A. K. Tangirala. **Quantification of interaction in multiloop control systems using directed spectral decomposition**. Automatica, vol 49, number 5, May 2013, pages 1174-1183. ISSN: 0005-1098
- S. Gigi and A. K. Tangirala **Reconstructing Plant Connectivity using Directed Spectral Decomposition**. Proceedings of the 8th IFAC Symposium on Advanced

- Control of Chemical Processes, The International Federation of Automatic Control, Singapore, July 10-13, 2012, pages 481-486.
- S. Gigi and A. K. Tangirala. **Frequency domain quantification of interaction in MIMO systems using directed variance decomposition**. Proceedings of 5th international symposium on Design, Operation and Control of Chemical Processes, PSE Asia, July 25-28, 2010, Singapore.
 - S. Gigi and A. K. Tangirala. **Quantification of directed influences in multivariate systems by time-series modelling**. International Conference on Control, Automation, Communication and Energy Conservation (INCACEC – 2009), 4-6, June 2009, Kongu Engineering College, Erode. Published in IEEE Explorer
 - S. Gigi and A. K. Tangirala. **A data-driven method for control configuration in multivariate systems**. *Chemference 2009*, (National Conference on Chemical Engineering), 22-23, August 2009, IIT Madras.
 - Nighila V. Paul and Gigi Sebastian, **Modeling and fuzzy control of DME reactive distillation column**, ATCE, Dept. of Chemical Engineering, Govt. Engineering College, Thrissur. 26-28 September 2013, pages 46-51
 - Gigi Sebastian, **Process Modeling and Simulation – An Introduction**. Proceedings of ETIC 2014, NSS College, Nenmara (UGC sponsored national conference), December 4 -5, 2014, pages 1- 6.
 - SwethaP., Gigi Sebastian, **Study on drinking water purification using Phyllanthus Emblica (Nelli) and low temperature activated charcoal**, NET 2015, Government Engineering College, Kozhikode, October 30-31st 2015, pages 194 - 199
 - Leya N T, Gigi Sebastian, **A review on divided wall column – An emerging methodology for process intensification**, KETCON, 15 -17 February 2019
 - Srijina M, Gigi Sebastian, **Ammonia for dairy farms – A sustainable energy utilization technology**, YUKTHI 2021, Government Engineering College, Kozhikode
 - Nayana V T, Gigi Sebastian, **Methanol Synthesis – Dynamic simulation and heat integration**, YUKTHI 2021, Government Engineering College, Kozhikode