

List of publications in SCI/SCIE indexed journals

Sl. No	Publication Details (Author's Name, Title of the Paper, Journal Name, Volume, No., Year of Publication, Page No.)
1.	A.K. Samantaray, S. K. Ghoshal , S. Chakraborty and A. Mukherjee. Improvements to single fault isolation using estimated parameters, SIMULATION: Transactions of the Society for Modeling and Simulation International, Vol. 81(12), (2005), pp. 827-845.
2.	A.K. Samantaray and S.K. Ghoshal . Sensitivity bond graph approach to multiple fault isolation through parameter estimation, Proceedings of the Institution of Mechanical Engineers (IMechE) - Part I, Journal of Systems and Control Engineering, Vol. 221 (2007), pp. 577 - 587.
3.	Samantaray AK and Ghoshal SK . Bicausal bond graphs for supervision: from fault detection and isolation to fault accommodation, Journal of the Franklin Institute, Vol. 345 (2008), pp. 1–28.
4.	Sanjoy K. Ghoshal ; Subrata Samanta; Arun K. Samantaray. Robust fault detection and isolation of hybrid systems with uncertain parameters, Proceedings of the Institution of Mechanical Engineers, Part I: Journal of Systems and Control Engineering, Vol. 226, Issue 8 (2012), pp. 1013-1028.
5.	N Kumar, K. Dasgupta, Sanjoy K Ghoshal . Dynamic analysis of a closed-circuit hydrostatic summation drive using bent axis motors, Proceedings of the Institution of Mechanical Engineers, Part I: Journal of Systems and Control Engineering, Vol. 229 (2015), pp. 761-777.
6.	Jay Prakash Tripathi and Sanjoy K Ghoshal . Multi-fault identification of a hydraulic lifting system via partitioning of unstructured residuals, Proceedings of the Institution of Mechanical Engineers, Part I: Journal of Systems and Control Engineering, Vol. 230 (2016), pp. 424-435.
7.	Sanjoy K. Ghoshal , Sarnendu Paul, Subrata Samanta and Jay P Tripathi. System identification and multi-fault isolation for a hydraulic drive with pump loading, Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability, Vol. 230 (2016), pp. 427-440.
8.	Anil C Mahato, Sanjoy K Ghoshal , Arun K Samantaray. Influence of locking and passive soft switching on hydraulic circuit efficiency, SIMULATION: Transactions of the Society for Modeling and Simulation International, 93 (2017), 237-249
9.	Anil C Mahato, Sanjoy K Ghoshal , Arun K Samantaray. Energy saving of a hydrostatic drive system by incorporating soft switch. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 39(6), (2017), pp. 1929-1945.
10.	Jay Prakash Tripathi and Sanjoy Ghoshal . Combining inertia and constriction technique in the PSO applied to fault identification in a hydraulic system, Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, vol. 231 (2017), pp. 2730-2740
11.	Tripathi, J.P., Ghoshal, S. , Dasgupta, K. and Das, J. (2017). Bond graph modelling of a hydraulic cylinder-actuated planar manipulator. Journal of the Brazilian Society of Mechanical Sciences and Engineering. doi: 10.1007/s40430-017-0790-0.
12.	Md Ehtesham Hasan, K Dasgupta, Sanjoy Ghoshal Comparison of the efficiency of the high speed low torque hydrostatic drives using bent axis motor: An experimental study Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, vol. 231 (2017), pp. 650-666
13.	Hasan M.E, Ghoshal S.K , Dasgupta K. and Kumar N. Dynamic analysis and estimator design of a hydraulic drive system. Journal of the Brazilian Society of Mechanical Sciences and Engineering 39(4), (2017), pp. 1097-1108.

14.	Santosh Kr Mishra, Jay Prakash Tripathi, J Das, Sanjoy K Ghoshal . Application of Parallel Multi-model Simulation Method for Condition Monitoring of a Power Hydraulic System. Arabian Journal for Science and Engineering (2017), https://doi.org/10.1007/s13369-017-2915-2
15.	Sujit Kumar, K Dasgupta, S.K. Ghoshal , J Das. Dynamic analysis of a hydro-motor drive system using priority valve Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering Doi:10.1177/0954408918770470, 2018
16.	Priyabrata Chattopadhyay, Sanjoy Ghoshal . Adhesion technologies of bio-inspired climbing robots: A survey. International Journal of Robotics and Automation (ACTA Press) Doi:10.1063/1.5031977, 2018
17.	Ranjan Kumar, Vinayak Ranjan, Bipin Kumar, Sanjoy K. Ghoshal . Finite element modelling and analysis of the burst margin of a gas turbine disc using an area weighted mean hoop stress method, Engineering Failure Analysis, vol. 90 (2018), pp. 425-433
18.	Prabhakar Kushwaha, Sanjoy K. Ghoshal and Kabir Dasgupta. Model based performance analysis of a hybrid summation drive used in off-highway vehicles, Arabian Journal for Science and Engineering, https://doi.org/10.1007/s13369-018-3334-8 (2018)
19.	Mahammad Arif Sanjid, K P Chaudhary, Sanjay Yadav, Mrinal Sen and Sanjoy K Ghoshal , A novel method of diameter measurement of pistons used in pressure standards using scanning principle and fusion technique, Measurement Science and Technology, Vol. 29 (2018), No. 8, 085008 (7pp)
20.	Anil C. Mahato, Sanjoy K. Ghoshal , Arun K. Samantaray. Reduction of wind turbine power fluctuation by using priority flow divider valve in a hydraulic power transmission. Mechanism and Machine Theory, Vol. 128 (2018), 234–253.
21.	Mohit Bhola, Niranjana Kumar and Sanjoy K. Ghoshal . Reducing fuel consumption of front end loader using regenerative hydro-static drive configuration-An experimental study, Energy, in press

Papers published in ESCI/SCOPUS indexed journals

1.	A.K. Samantaray, S. K. Ghoshal and S. Chakraborty, (2007)“Bond graph model based design of supervision algorithm for distributed fault tolerant control systems”, in Transactions of the International Journal of Automation And Control, vol. 1, No. 1, pp. 28-47	ESCI
2.	A.K. Samantaray, S. K. Ghoshal, K. Medjaher and B. OuldBouamama (2007),“Reconfiguration of an industrial steam generator using bond graph modeling”, inInternational Journal of Modelling Identification and Control, Vol. 2, No. 2, pp. 154-168	ESCI
3.	Anil C. Mahato, Sanjoy K. Ghoshal and Arun K. Samantaray. Bond graph modeling of soft switching concept and its parameters optimization, International Journal of Modelling and Simulation, <i>Taylor & Francis</i> , doi: 10.1080/02286203.2018.1490142	SCOPUS
4.	Tripathi J.P., Ghoshal S. , Dasgupta K. (2015). Towards energy saving of a hydraulic lifting system: A bond graph simulation. International Journal of Applied Engineering Research, Vol. 10(24), pp. 21096- 21101.	SCOPUS
5.	Hasan M.E., Ghoshal S.K. and Dasgupta, K. (2014). Speed Control of a Hydraulic Motor. Applied Mechanics and Materials, vol. 592, pp. 2239-2243.	SCOPUS
6.	Priyabrata Chattopadhyay and Sanjoy Ghoshal . Design and control of a bio-inspired climbing robot Mechatronic Systems and Control, (ACTA Press), Accepted for publication, in press	ESCI

Book Chapter:

Ghoshal S.K. and Samantaray A.K. Bond Graph Model-Based Fault Diagnosis, in: Bond Graph Modelling of Engineering Systems, Wolfgang Borutzky (Ed.), Chapter 7, pp. 227–265 (2011), Publisher: Springer-Verlag, New York

Papers published in conference proceedings

- [1] Subrata Samanta and **Sanjoy K. Ghoshal**, “Online monitoring of a hydrostatic transmission system undergoing multifault scenario”. In National Conference On Emerging Trends In Engineering And Sciences (ETES 2014), held on 30-31 January, 2014, at Asansol Engineering College.
- [2] Jay Prakash Tripathi, **Sanjoy K. Ghoshal**, K. Dasgupta (2014), Investigation of spool movement of direction control valve in a typical hydraulic system used for load lifting: A simulation study, in proceedings of the International Mechanical Engineering Congress (IMEC), Advances in Mechanical Engineering (ISBN-9789384389017), pp. 336-340, held at NIT-Tiruchirappalli, during 13th-15th June, 2014.
- [3] Md. Ehtesham Hasan, **Sanjoy K. Ghoshal** and Kabir Dasgupta, System Identification and Model based Performance Analysis of a Hydrostatic Transmission System, in International conference on Machines and Mechanisms (iNaCoMM 2013), held on December 18-20, 2013, at IIT-Roorkee.
- [4] **S. K. Ghoshal**, Subrata Samanta (2013): Single fault isolation of a power hydraulic system using unknown input observer, in the 2nd International Conferences on Engineering and Applied Science (ICEAS 2013) in Tokyo, Japan, held on 15 – 17 March, 2013, pp. 1176-1183.

- [5] **Sanjoy K. Ghoshal**, and AkshayKamath (2013): Stability Analysis of Articulated Vehicle using Root Locus Approach: A Simulation Study, in First International Conference on Instrumentation, Communication, Control And Automation-ICICCA-2013, held on January 4th – 5th, 2013, at Kalasalingam University, Tamil Nadu, INDIA.
- [6] **Ghoshal S.K.**, Samanta S. Modelling and identification of a hydrostatic system. *National seminar on mining equipment: New Technologies, challenges & applications* held at ISM, Dhanbad, India, pp. 179-187, 2012.
- [7] **Ghoshal S.K.**, Samanta S. (2012): Model based fault diagnosis of a belt conveyor through parameter estimation. In: Recent Advances in Information Technology, held at ISM, Dhanbad, India, pp. 497-502.
- [8] **Ghoshal S.K.**, Samanta S. (2012): System identification and qualitative fault detection and isolation of a hydrostatic transmission system: A bond graph approach, paper accepted in International congress on computational mechanics and simulation [ICCMS 2012], to be held at IIT Hyderabad during 09-12 December, 2012.
- [9] **Ghoshal S.K.**, Samanta S. (2009): Multiple fault isolation to a servo –valve controlled motor transmission system. In: 7th IFAC symposium on fault detection, supervision and safety of technical processes, Barcelona, Spain, pp. 710-715.
- [10] **Ghoshal S.K.**, Samanta S., Ghosh S.K. (2009): Model based supervision and monitoring of a hoisting mechanism: A simulation study. *National conference on machines and mechanism* (NaCoMM-2009), NIT, Durgapur, India, pp. 366-371.
- [11] **Sanjoy Kumar Ghoshal**, Arun Kumar Samantaray, “Model based fault detection and isolation using parallel simulation of multi-block model”, in *Proceedings of: national conference on Trends and Advances in Computer Aided Design and Engineering (TACADE-2007)*, February 16-17, 2007, KGEC, Kalyani, India.
- [12] **Sanjoy Kumar Ghoshal**, Arun Kumar Samantaray and Amalendu Mukherjee, “Improvements to single fault isolation using estimated parameters”, in *Proceedings of: International Conference on Bond Graph Modeling and Simulation (ICBGM-2005)*, Western Multi-conference 2005, sponsored by SCS, ISBN: 1-56555-287-3, pp. 301-306, January 23-27, 2005, New Orleans, Louisiana, USA.
- [13] Saurav Chakraborty, **Sanjoy K. Ghoshal** and A. K. Samantaray, “Improvements to fault isolation based on multiple fault hypotheses”, in *Proceedings of: National Conference on Industrial Problems on Machines and Mechanisms (IPROMM-2005)*, ISBN: 81-7764-761-X, pp. 419-426, February 24-25, 2005, Indian Institute of Technology, Kharagpur, India.
- [14] **Sanjoy Kumar Ghoshal** and Arun Kumar Samantaray, “Model-based fault tolerant control using analytical redundancy”, in *Proceedings of: International Conference on Reliability and Safety Engineering (INCRESE-2005)*, pp. 719-729, December 21-23, 2005, Bhubaneswar, India.
- [15] **Sanjoy Kumar Ghoshal**, Tarun Kanti Naskar and Sanjib Acharya, “Computer aided synthesis of cam displacement functions for optimised hertzian contact stress”, in *Proceedings of: Recent Trends in Manufacturing (CARTM – 2003)*, ISBN: 81-88901-04-0, pp. 37 – 48, November 14-15, 2003, Kalyani (W.B.), India.
- [16] S Samaddar, P Kushwaha, **SK Ghoshal**. Bond graph modelling and simulation of a variable inertia flywheel, IOP Conference Series: Materials Science and Engineering, Vol. 377 (1) pp. 012206 (2018)
- [17] S Kumar, S Das, **SK Ghoshal**, J Das. Review of Different Energy Saving Strategies Applicable To Hydraulic Hybrid Systems Used In Heavy Vehicles, IOP Conference Series: Materials Science and Engineering 377 (1), 012072 (2018)
- [18] JP Tripathi, **SK Ghoshal**, ME Hasan, K Dasgupta, J Das. Speed control of a hydrostatic drive using inverse steady state model, IOP Conference Series: Materials Science and Engineering 377 (1), 012115 (2018)

- [19] P Chattopadhyay, A Majumder, H Dikshit, **SK Ghoshal**, A Maity. A bio-inspired climbing robot: design, simulation, and experiments, IOP Conference Series: Materials Science and Engineering 377 (1), 012105 (2018)
- [20] AC Mahato, **SK Ghoshal**, AK Samantaray. Parameter estimation of soft switch and influence of critical parameters on the performance of a valve controlled hydraulic drive system, IOP Conference Series: Materials Science and Engineering 377 (1), 012033 (2018)
- [21] P Chattopadhyay, H Dikshit, A Majumder, **S Ghoshal**, A Maity. Dynamic analysis of a bio-inspired climbing robot using ADAMS-Simulink co-simulation, AIP Conference Proceedings 1952 (1), 020015 (2018)