

National Institute of Technology, Tiruchirappalli: Performa for CV of Faculty/ Staff Members

Curriculum Vitae

Dr. Santosh Kumar Mishra is currently serving as an Assistant Professor in the Department of Production Engineering at NIT Trichy. He received his Ph. D. degree in Fluid Power Control from IIT Dhanbad in 2018. He received his B.Tech in Production Engineering from NIT Trichy in 2009. His research interests include Hydraulics, Hydrostatic Transmission System, Fault diagnosis, Robotics, Solar Power Systems with nano-materials.



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2. Designation: Assistant Professor
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apsantoshmishra@gmail.com
6. Field(s) of Specialization: Oil Hydraulics, Solar Power Systems with nano-materials.
7. Employment Profile

Job Title	Employer	From	To
Assistant Professor	National Institute of Technology, Tiruchirappalli	26-05-2020	Continue
Assistant Professor	Lovely Professional University, Phagwara, India	09-07-2018	30-04-2019
Executive Trainee	NMDC Limited, Hyderabad	31-07-2009	02-07-2010

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8. Academic Qualifications (From Highest Degree to High School):

Examination	Board / University	Year	Division/ Grade	Subjects
Ph. D (Full Time) (Doctor of Philosophy)	Indian Institute of Technology (Indian School of Mines), Dhanbad, India	2018		Fluid Power Control
B. Tech (Bachelor of Technology)	NIT, Trichy	2009	1 st class	Production Engineering
12th /Inter	Ramakrishna Mission School Along, A.P.	2005	1 st class	Science
10th /Matric	Ramakrishna Mission School Along, A.P.	2003	1st class	Science

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	To
Ph.D Selection Committee	Department	01-08-2020	01-05-2022
Heritage Centre Committee	Institution	01-10-2020	01-10-2021
Department Project Evaluation Committee	Department	05-05-2021	05-05-2022

10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To

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11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization

12. Fellowships

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)

13. Details of Academic Work

- (i) Curriculum Development
- (ii) Courses taught at Postgraduate and Undergraduate levels
- (iii) Projects guided at Postgraduate level
- (iv) Other contribution(s)

14. Details of Major R&D Projects

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed

15. Number of PhDs guided

Name of the PhD Scholar	Title of PhD Thesis	Role (Supervisor/ Co-Supervisor)	Year of Award

16. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc. (mentioning the role)

Date (s)	Title of Activity	Level of Event (International/ National/	Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other)	Event Organized by	Venue

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		Local)			

17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)

Title of Activity	Level of Event (International/ National/ Local)	Date (s)	Role	Venue

18. Invited Talks delivered

Topic	Date	Inviting Organization

19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date

20. Academic Foreign Visits

Country	Duration of Visit	Programme

21. Publications

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(A) Refereed Research Journals:

Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
Jose, J.T., Das, J and Mishra, S. K. and Wart, G.,	Early detection and classification of internal leakage in boom actuator of mobile hydraulic machines using SVM	Engineering Applications of Artificial Intelligence	106		2021	7.802
Jose, J.T., Das, J and Mishra, S. K.*	Dynamic improvement of Hydraulic excavator using pressure feedback and gain scheduled Model predictive control	IEEE Sensors	21(17)	18526-18534	2021	4.325
Mandal, S.K., Singh, P.K., Kumar, S. and Mishra, S.K.,	Parametric investigation of CuO doped charged Nanofluid in Solar Water Heater	International Journal of Environmental Science and Technology	18(9)	2855-2864	2021	3.519
Mandal, S.K., Kumar, S., Singh, P.K., Mishra, S.K., Singh, D.K.	Performance investigation of nanocomposite-based solar water heater	Energy	198		2020	8.857
Wart, G., Ranjan,P.,Bhola, M., Mishra, S. K. , and Das, J.	Energy-saving and Fuzzy-PID position control of electro-hydraulic system by	ISA Transactions	101	269-280	2020	5.911

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	leakage compensation through proportional flow control valve					
Ranjan, P., Wart, G., Bhola, M., Mishra, S.K. , and Das, J.	Performance enhancement of hybrid hydraulic excavator using multiple hydro-pneumatic accumulators	Journal of Systems and Control Engineering	234(10)	1133-1149	2020	1.623
Singh, P.K., Mandal, S., Das, A.K., Mishra, S.K. , Singh, D.K., Singh, S.K.	Production of W-based nanoparticles via spark erosion process along with their characterization and optimization for practical application in gas sensor	Applied Physics A	126(1)	1-13	2020	2.983
Ranjan, P., Wart, G., Bhola, M., Mishra, S.K. , and Das, J.	A novel approach for the energy recovery and position control of a hybrid hydraulic excavator	ISA Transactions	99	387-402	2020	5.911
Kumar, S., Mandal, S.K., Singh, P.K., Mishra, S.K. , Das, A.K.	Performance Analysis of a Thermoelectric Generation System with Different Flow Configurations	Journal of Electronic Materials	48(7)	4607-17	2019	2.047
Mandal, S.K., Kumar, S., Singh, P.K., Mishra, S.K., Bishwakarma, H., Choudhry, N.P., Nayak, R.K., Das, A.K.	Performance investigation of CuO-Paraffin Wax nanocomposite in Solar water heater during Night	Thermochimica Acta	671	36-42	2019	3.378

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Wart, G., Ranjan,P.,Bhola, M., Mishra, S. K. , and Das, J.	Position control and performance analysis of hydraulic system using two pump control strategies	Journal of Systems and Control Engineering	233(9)	1093- 105	2019	1.623
Vardhan, A., Dasgupta, K., and Mishra, S. K.	Dynamic analysis of a closed-circuit hydraulic drive system used in the rotary head of blasthole drilling machine using MATLAB– Simulink environment	Journal of Systems and Control Engineering	233(6)	702-719	2019	1.623
Vardhan, A., Dasgupta, K., Kumar, N., & Mishra, S. K	Steady- state performance investigation of open circuit hydrostatic drives used in the rotary head of drill machine	Journal of Process Mechanical Engineering	233(1)	3-20	2019	1.822
Mishra, S. K.* , Wart, G., Ranjan, P., and Das, J.	PID controller with feed forward estimation used for fault tolerant control of hydraulic system	Journal of Mechanical Sciences and Technology	32(8)	3849- 3855	2018	1.810
Mishra, S. K.* , Tripathi JP, Das, J., and Ghoshal S.	Application of parallel multi- model simulation method for condition monitoring of a power hydraulic system	Arabian Journal for Science and Engineering	43(9)	4501-15	2018	2.807
Das, J., Mishra,	Nonlinear	Brazilian	40(2)	1-15	2018	1.822

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S. K.*, Saha, R., Mookherjee, S., & Sanyal, D.	Modeling of an Electrohydraulic Actuation System via Experiments and its Characterization by means of Neural Network	Society of Mechanical Sciences and Engineering				
Das, J., Mishra, S. K.* , Saha, R., Mookherjee, S., & Sanyal, D.	Nonlinear modeling and PID control through experimental characterization for an electrohydraulic actuation system: system characterization with validation	Journal of the Brazilian Society of Mechanical Sciences and Engineering	39(4)	1177-1187	2017	2.361
Das, J., Mishra, S. K.* , Saha, R., Mookherjee, S., & Sanyal, D.	Actuation dynamic modeling and characterization of an electrohydraulic system	Journal of Systems and Control Engineering	230(6)	537-550	2016	1.623
Das, J., Mishra, S. K. , Paswan, R., Kumar, A., Kumar, S., Saha, R., & Mookherjee, S.	Characterization and tracking control of a nonlinear electrohydraulic valve-cylinder system	Journal of Process Mechanical Engineering	230(5)	371-384	2016	1.822

(B) Conferences/Workshops/Symposia Proceedings

Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Page numbers	Conference Theme	Venue	Year

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(C) Books & Monographs

Author(s)	Title of Book/Monograph	Name of Publishers	Year of Publication	ISSN/ISBN Number