

Dr. Tameshwer Nath

M.Tech (SLIET, Sangrur), Ph.D. (IIT Indore)

Assistant Professor, Mechatronics Engineering,

Indian Institute of Information Technology Bhagalpur

Email id: tameshwer.nath@gmail.com, tnath.me@iiitbh.ac.in

Website: www.tntiwari.webs.com

Contact No:+918959591837/+91-9528993366

Orcid Id: 0000-0002-1471-9900



➤ Educational Qualification:

S.No	Qualification	Institution	Year of Passing	Division
1.	Ph.D. (Mechanical Engineering)	Indian Institute of Technology, Indore www.iiti.ac.in	February 2019
2.	Master of Technology (Manufacturing systems Engineering)	SLIET, Deemed university, Central Government, Sangrur, Punjab, www.sliet.ac.in	July 2012	First Div.
3.	Bachelor of Technology (Mechanical Engineering)	Institute of Technology and Management, Gorakhpur www.itmgida.edu.in	July 2008	First Div.
4.	Diploma in Mechanical Engineering (Computer Aided Design)	MaharanaPratap Polytechnic Gorakhpur www.mppolytechnic.net	August 2005	First Div.
5.	Intermediate	F.C.I.Inter college, Gorakhpur	August 2001	First Div.
6.	High school	F.C.I.Inter college, Gorakhpur	August 1999	First Div.

- **Research Interest :** Design and control of Mechanical Systems , smart material (Shape Memory Alloy specially NiTi), MEMS, Vehicle Dynamics, Design for Manufacturing & Assembly, Mechatronics, Machine Design
- **Technical Skills:** SEM, TGA, XRD, EDAX etc.
- **Analysis And Control Software:** Symbol' s' shakti(Bond Graph), Ansys, Comsol, Matlab (Simulink), Auto- CAD, Origin-Pro, PDF Illustrator

➤ Work Experience :

S.No	Position	Department and Institute	Period
1.	Assistant Professor	Department of Mechatronics Engineering, Indian Institute of Information Technology Bhagalpur, Bihar	September 2020- Till Now
2.	Assistant Professor	Department of Mechanical Engineering, Swami Vivekanand Subharti University, Meerut, UP	April 2019 to July 2019
3.	Research Associate	Funded by CSIR, working in IIT Indore	May 2018 to Dec. 2018

4.	Teaching Associate	Department of Mechanical Engineering, IIT Indore, MP	Jan. 2014 to April 2018
5.	Assistant Professor	Department of Mechanical Engineering, Swami Vivekanand Subharti University, Meerut, UP	Aug. 2012 to Dec. 2013
6.	Lecturer	Department of Mechanical Engineering, Swami Vivekanand Subharti University, Meerut, UP	Aug.2008 to Aug.2010

➤ **Research and Development :**

S.No	Degree	Stream	Dissertation Title	Supervisor
1.	Doctor of Philosophy	Mechanical Engineering	Investigations on Contact and Non-Contact Based Actuation Studies of Shape Memory Alloy (SMA) Structures and their Life Cycle Behavior	Dr. I.A.Palani(Associate Professor and Head of ME), Indian Institute of Technology Indore
2.	Master of Technology	Manufacturing systems Engineering	Dynamic behavior and control of Quarter/Half/FullCar Models with Active And Passive Suspension system	Dr. Vikas Rastogi (Professor), Delhi Technological University, Delhi
3.	Bachelor of Technology	Mechanical Engineering	Design of Powered Jack	Dr. Virendra Mishra (Associate Professor), Galgotia Engineering College, Noida
4.	Polytechnic	Mechanical Engineering-Computer Aided Design	Design and Fabrication of Wining Fan”	Mr. Rajendra Tiwari (Lecturer)

➤ **Administrative Responsibilities:**

S.No	Position	Department and Institute	Period
1.	F/I Batch 2018-2022	Mechatronics Engineering, IIIT Bhagalpur	Nov. 2020 - Till Now
2.	Faculty Lab In-charge, Electrical Machine	Mechatronics Department, IIIT Bhagalpur	Nov.2020 - Till Now
3.	Training and Placement officer	SITE, Subharti University, Meerut	Apr. 2019 - Jul. 2019
4.	Head of Department	Department of Mechanical Engineering, Swami Vivekanand Subharti University, Meerut, UP	Aug.2012 - Dec. 2013
5.	PG-Programme Coordinator	Department of Mechanical Engineering, Swami Vivekanand Subharti University, Meerut, UP	Sept.2012-Dec. 2013
6.	Head of Academics	Subharti polytechnic college, Swami Vivekanand Subharti University, Meerut, UP	Dec. 2012 to Dec.2013
7.	UG Programme Coordinator	Department of Mechanical Engineering, Swami Vivekanand Subharti University, Meerut, UP	Oct.2009 to Aug.2010

➤ Training:

S.No	Position	Unit	Period
1.	Training	Central Workshop, Indian Railway, Gorakhpur	Jun. 2006-Jul. 2006
2.	Training	CFEES, Defence Research and Development Organisation, Delhi	Jun.2007-Jul.2007

➤ Thesis Supervised:

S.No	Degree	Total
1.	M.Tech Thesis	02
2.	B.Tech Project	04

➤ Project Completed: (01) : As a PI

S.No.	Title	Funding Agency (Fund)	Principal Investigator	Designation	Duration
1.	Investigation on the thermo-mechanical behavior of Ni-Ti shape memory alloy under different control strategies for MEMS devices	Council of Scientific and Industrial Research (CSIR) Project Cost: (Rs.5,14,333.00)	Dr. Tameshwer Nath (Indian Institute of Technology Indore)	Research Associate	01 Year (May 2018-Mar 2019)

➤ Project: On Going (1) : As a CO-PI

S.No.	Title	Funding Agency (Fund)	Principal Investigator	Co-Investigator	Duration
1.	Design and Development of fire resistance Hollow Tubes for gun barrel applications using wire arc additive manufacturing.	Defence Research and Development Organization (DRDO), Project Cost: Rs. 46,63000	Dr. Shiva S. (IIT Jammu)	Dr. Tameshwer Nath (IIIT Bhagalpur)	02 Years (April 2021-April 2023)

➤ Ph.D. Thesis Supervision (02):

S.No	Roll No	Student Name	Report Title	Status	Institute
1.	2103014	Mr. Lawakush Mishra	Yet to be Decided	On-Going (From August 2021-Till Now)	IIIT Bhagalpur
2.	2103015	Mr. Shankar Kumar	Yet to be Decided		

➤ **M. Tech Report Supervision (02):**

S.No	Student Name	Thesis Title	Status	Co-Guide (If any)	College
1.	Abhishek Shukla (1001240001)	Optimization of Surface Roughness of A 713 Aluminium Alloy in Turning operation using Taguchi Method	Completed (2012-2013)	No	At Swami Vivekanand Subharti University, Meerut
2.	Mayank Tripathi (1001240006)	Optimization of Surface Roughness of A 535 Aluminium Alloy in Turning operation using Taguchi Method	Completed (2012-2013)	No	

➤ **B.Tech Report Supervision (04 Groups):**

S.No	Roll No	Student Name	Project Title	Status	Co-Guide (If any)	At Swami Vivekanand Subharti University, Meerut
1.	0520940018	Mohd. Adil	Analysis of Technique Using Briquetting Plant	Completed (2008-2009)	Mr. Lawakush Mishra	
	0520940023	Navneet Tyagi				
	0520940048	Saurav Khandelwal				
	0520940055	Vasisth Kumar				
2.	0520940028	Pankaj Kumar	Study of steer by wire system	Completed (2009-2010)	No	
	0620940003	Amit Kumar Upadhyay				
	0620940014	Guru sewak Kesarwani				
	0620940039	Sarish Barnwal				
3.	0901140004	Aditya Raj	Study of Maglev Train	Completed (2012-2013)	Mr. D.P.Singh	
	0901140011	Arun Kumar Singh				
	0901140020	Gautam Kumar				
	0901140037	Rajeev Ranjan				
4.	0901140002	Abhishek Tiwari	Automatic Wiper starts when Rain Starts	Completed (2012-2013)	Mr. Sanjeev Kumar	
	0901140008	Amrit Gogoi				
	0901140018	Gaurav				
	0901140026	Mohd. Shamshad Alam				

➤ **Internship Report Supervision (03):**

S.No	Roll No	Student Name	Report Title	Status	College
1.	180103007	Aswin P.	Design and Development of SMA based Autonomous Bladeless Drone for the Fruit Harvesting Application	On-Going	IIIT Bhagalpur
2.	180103011	Gopesh Krishna Yadav			
3.	180103012	Prashant Kumar Ekka			

➤ **Publication:**

• **Patent (IPR): 01**

- I.A.Palani, B.K. Lad, **Tameshwer Nath** and Pradeep Kundu, (2016), ""Thermo-mechanical test bench for reliability estimation of Shape memory alloy spring," India, *Application No: 201621007005*, **Published online:10-11-2017**

• **International Journals (SCI Indexes): 09**

1. **Tameshwer Nath**, Abhishek Kumar Upadhyay, Dhananjay Pradhan, 2021” “Continuous Measurement and Analysis of Temperature-Deformation-Force Driving Characteristics of SMA Springs” *Indian Journal of Engineering and Materials Sciences: CSIR, Accepted, IF:0.881*
2. **Tameshwer Nath**, Sunil Kumar, October 2021, “Nitinol shape memory alloy spring: A review” *Indian Journal of Engineering and Materials Sciences: CSIR, 28 (5), pp: 446-453, IF: 0.881*
3. Mani Prabu S.S., Mithun R., Muralidharan M., **Tameshwer Nath**, Brohin A, Akash K., Palani I.A. 2019, "Thermomechanical Behavior of shape memory alloy spring actuated using novel scanning technique powered by yttrium doped continuous fiber laser" *Smart Material and Structures (IOP Science), 28 (4), 047001, DOI: 10.1088/1361-665X/ab068, pp-1-13, IF: 2.9*
4. **Tameshwer Nath**, Akash K., Priya Chouhan, Bhupesh Kumar Lad, I.A.Palani, 2018,"Investigation on thermo-mechanical behaviour of SMA spring under the influence of different actuation medium" *Micro-system Technologies (Springer), DOI: 10.1007/s00542-017- 3695-z, pp: 1-9 IF: 1.439*
5. Reena Disawal, **Tameshwer Nath**, Shashi Prakash, I.A. Palani, 2018 "Life cycle analysis of Electrically actuated SMA spring using Talbot Interferometry" *Applied Optics (OSA), 57 (20), pp: 5779-5783, DOI: 10.1364/AO.57.005779*
6. Reena Disawal, **Tameshwer Nath**, Shashi Prakash, I.A. Palani, 2018 "Life cycle analysis of Electrically actuated SMA spring using Talbot Interferometry" *Applied Optics (OSA), 57 (20), pp: 5779-5783, DOI: 10.1364/AO.57.005779*
7. Pradeep Kundu, **Tameshwer Nath**, I.A.Palani, B.K. Lad, 2018 "Integrating GLL-Weibull distribution within a Bayesian framework for life prediction of Shape memory alloy spring undergoing Thermo-mechanical fatigue" *Journal of Materials Engineering and Performance, (Springer), DOI: 10.1007/s11665-018-3435-2, pp- 28-35, IF: 1.652*
8. Akash Kumar, Mani Prabu, Ashish Shukla, **Tameshwer Nath**, Karthick S, I.A.Palani, 2017 “Investigations on the Life cycle Behavior of Cu-Al-Ni/Polyimide Shape Memory Alloy Bi-morph at Varying Substrate Thickness and Actuation conditions” , *sensors and actuators A: Physical (Elsevier), IF: 2.201, 254, pp:28 – 35, DOI:10.1016/j.sna.2016.12.008*
9. **Tameshwer Nath**, Priya Chouhan, Reena Disawal, I.A. Palani, 2017 "Comparative study of electrically and hot water actuated shape memory alloy using developed thermo-mechanical cycle test bench",*Defence Science Journal, IF: 0.50, 67 (1), ,pp:100-107,DOI: 10.14429/DSJ.67.10489*

- **International Journal (SCOPUS Indexes): 01**

1. **Tameshwer Nath**, Abhilash Kasliwal, Raghunandan singh, Kartik Kulkarni, Gaurav Raut, Alok Kumar, Ritesh Khatri, Sahil Mittal, I.A. Palani, 2015 "Investigation on the Laser Based Actuation of Single way Trained SMA sheet and Their Application for the Development of Micro Positioning Stage" ,*Applied Mechanics and Materials*, 766-767, pp 427-431, doi: 10.4028/www.scientific.net/AMM.766-767.427

- **International Journal (PubMed Indexes): 01**

1. Pratik Bhatnagar, Sumit Aggrawal, **Tameshwer Nath**, Surendra P. Singh, 2020 "Investigation on mechanical Properties of selected restorative dental materials upon fiber reinforcement " *International Journal of Dental science & Innovative Research (IJDSIR)*, 3(5), 190-201

- **Book Chapter: 03**

1. Mithun R, **Tameshwer Nath**, Mani Prabu S S, Palani I A, 2019 "Influence of Flow Domain Parameters on hot Water Actuation Of Shape Memory Alloy Spring For Barrier Gate System" 2019, ISBN: 978-981-32-9486-8, *Advances in Simulation, Product Design and Development: Part of the Lecture Notes on Multidisciplinary Industrial Engineering book series (LNMIINEN)*, DOI: 10.1007/978-981-32-9487-5_70
2. **Tameshwer Nath**, Karthick S.,Priya chouhan, Bhupesh K. Lad, I.A.Palani, 2016 "Investigation on Actuation and thermo-Mechanical Behavior of Shape Memory Alloy Spring by comparing On/off and PID Controller for Precise Position Control" *CCIS 627*, pp. 1 - 11, ISBN: 978-981-10-2844-1, DOI: 10.1007/978-981-10-2845-8_8
3. Priya Chouhan, **Tameshwer Nath**, Bhupesh K Lad, I.A.Palani, 2016 "Investigation on actuation and thermo-mechanical behavior of Shape Memory Alloy spring using hot water" *IOP Conference series under material science and engineering* DOI: 10.1088/1757-899X/149/1/012147

- **International Conferences (Published in Proceeding): 07**

1. Suraj, Arun Kumar, Tameshwer Nath, Bikas Prasad, 2021 "Sustainable Design Innovation & analysis of Customized Solar Frame Bicycle" *International Conference on Progressive Research in Industrial & Mechanical Engineering (PRIME - 2021)*, accepted and will be held at NIT Patna during 5th- 7th August 2021.
2. Akhil Verma, Anand K, Hari Visanth, **Tameshwer Nath**, I.A. Palani, 2018 "Investigation on hot fluid based actuation of SMA spring and their application for the development for Heat Engine" *International conference on Mechanical and material science engineering: Innovation and Research (ICMMSEIR:2018) held during 5-6th July 2018 at Sandip foundation: Sandip Institute of Technology and Research Centre, Nasik, India*, AIP Conference Proceedings 2018, 020022 (2018); DOI: 10.1063/1.5058259

3. Yogeshwaran S.M., **Tameshwer Nath**, Reena Disawal, I.A. Palani, 2017 "Design and fabrication of shape memory alloy actuated Stewart platform for automated laser assist micro machining application" *10th International conference on precision, Meso, Micro and Nano Engineering (COPEN-10), held during 06-09 December 2017 at Indian Institute of Technology Madras, India, ISBN No: 978-93-80689-28-9, PP No: 962-965*
4. **Tameshwer Nath**, Gaurav Raut, Alok Kumar, Ritesh Khatri, I.A.Palani,, 2015" Investigation on Laser assisted actuation of shape memory alloy based Micro-Valve" *International conference on Robotics , Automation, Control and Embedded systems (RACE 2015), held during 18th-20th February 2015, at Hindustan university chennai, India.*
5. Himanshu singh, Prateek Juiker, **Tameshwer Nath**, I.A. Palani, B.K. Lad, 2015, "Failure Diagnosis & Reliability Assessment of NiTi Shape Memory Alloy Spring for Micro- Actuators"*International conference on Robotics, Automation, Control and Embedded systems (RACE 2015), held during 18th-20th February 2015, at Hindustan university chennai, India.*
6. **Tameshwer Nath**, Akash K., Shiva S., Farhan Babu, I.A. Palani, 2014 ‘Investigations on The Effect of Laser Actuation And Interaction on Ni-Ti SMA Sheet For The Development of Micro-Grippers’ *International Union of Material Research Societies- The IUMRS International Conference in Asia-2014 , held during August 24th-30th, 2014 at Fukoka Japan.*
7. Tameshwer Nath, Ruchi chaudhary, Ajit Katiyar, 2013 “future of supply chain management in various food production” *International conference on Role of Technology in Nation Building” held during April 26, & 28th , 2013, at SITE (swami vivekanand subharti University, Meerut, U.P). ISBN: 97881925922-1-3*
8. **Tameshwer Nath**, Vikas Rastogi, 2012 “Dynamic Behavior and control of Quarter/Half/Full car model with Active suspension (PID controller),” *International conference on Recent Trends in Engineering &Technology” held during November 28th - 29th 2012 at SITE (swami vivekanand subharti University, Meerut, U.P). ISBN: 978-81-925922-0-6*

- **International Conferences (Presented but not Published): 04**

1. Priya Chouhan, **Tameshwer Nath**, I.A.Palani, Bhupesh K. Lad, 2016 “Development of test rig for Laser actuated Shape Memory Alloy (SMA) spring and its life cycle analysis” , *6th International and 27th All India Manufacturing technology, Design and Research (AIMTDR-2016)” ,held during 16th to 18th December 2016 at college of Engineering, Pune, India*
2. Karthick S, **Tameshwer Nath**, Akash K., I.A. Palani, 2016 “Cyber Physical System Design for Shape Memory Alloy Sentrroller based Intelligent Instrument” *International Conference on Advancements in Automation, Robotics and Sensing (ICAARS 2016),held during 23rd to 24th June 2016 at PSG Tech college of Technology, Coimbatore, India*

3. **Tameshwer Nath**, Ravi Kumar Thakur, Vikas Rastogi, 2013 "Modeling and simulation of vehicle with controller" *International Conference on Contribution of Science and Technology in Progress of the World held during December 5th -7th 2013 at Metcalf House, DRDO House, New Delhi*
4. **Tameshwer Nath**, Vikas Rastogi, 2013 "Dynamic Modeling and Simulation of Automotive Suspension System with Overwhelming Controller" *International conference on smart Technologies for Mechanical Engineering* held during October 25th - 26th 2013 at Delhi Technological University, Delhi.

- **National Conferences: 02**

1. **Tameshwer Nath**, Vikas Rastogi, 2011, "Dynamic Modeling and control of Automotive suspension system using and Graph." *"National conference on Recent Trends in Mathematics", held during December 16 & 17th , 2011, at Sant Longowal Institute of Engineering & Technology, Sangrur, Punjab.*
2. Vikas Rastogi, **Tameshwer Nath**, 2012 "Quarter/Half/Full car models for passive suspension (With PID controller *"National conference on Recent advances in Mechanical Engineering", held during June 08 & 09th, 2012, at Hindustan College of Science & Technology Mathura, U.P.*

- **Session Chair-Person: 02**

1. Acted as a Session Chair in 06th International conference on Soft Computing: Theories and Applications -2021 (SOCTA 2021) organized by *Indian Institute of Information Technology (IIIT Kota)* during 17-19 Dec 2021
2. Acted as a Session Chair in 11th International Conference on Materials Processing and Characterization -2020 (ICMPC 2020) organized by *Department of Mechanical Engineering, Indian Institute of Technology Indore (IIT Indore)* during 15-17 Dec 2020.

- **Expert Talk/Webinar Delivered: 04**

1. Delivered Expert Talk virtually on "*Micro-Mechatronics and Soft Robotics*" on 22nd December 2020 at *Indian Institute of Technology Indore.*
2. Delivered Expert Talk in webinar virtually on "*Investigation on Contact and non-contact based Actuation studies of smart structure and their life cycle behavior* on 30th December 2020 at *swami vivekanand subharti University Meerut*
3. Delivered Expert Talk virtually on "*Mechanical System Design and Modeling* on 27th January 2021 at *BCE Bhagalpur*
4. Delivered Expert Talk on "*Recent Innovations in MEMS field: Mechatronics Approach*" in One Hour (Online) *Research Seminar Programme* on 4th February 2021 at *Department of Mechanical Engineering, Amity School of Engineering and Technology, Noida (India).*

- **Organized webinar/short Term Course: (02):**

1. Organized Short Term course on "Mechatronics, Instrumentations, Intelligent & Bio-Inspired Materials" at *IIIT Bhagalpur* from 10th -14th February 2021.

2. Organized a webinar on "Compact Modeling, Parameter Extraction and Verilog-A Implementation of RF MOS Devices: for 5G Applications" at *IIT Bhagalpur on 27th October 2020.*

➤ **Attended QIP/Webinar (02)**

1. Attended QIP short Term course (Online) on Mechanical Behaviour of Materials conducted by the *Department of Materials Science and Engineering, IIT Kanpur from 15-20 March 2021.*
2. Attended Webinar on "Covid-19 & Related Technology Developed by Engineering Institutes" organized by *Department of Applied Sciences and Humanities, Rajkiya Engineering College, Mainpuri on 26 June, 2021.*

➤ **Reviewer of:**

- a) Material Research Express (IOP Science),
- b) Microsystems Technologies (Springer),
- c) Current Mechanics and Advanced Materials
- d) Journal of Intelligent Material systems and Manufacturing
- e) and IOP Science, Smart Material and Structurers

➤ **Achievements and Awards**

1. Training and Placement officer of SITE, Subharti University from 16 February 2019 to July 2019.
2. SPIE Membership from 2018 to Till Now (SPIE-3623207)
3. Appreciation letter given by Discipline of Mechanical Engineering, IIT Indore on July 8th -14th 2018 for Successful completion (Member of student organizing Team) of GIAN *Course* on Laser Assisted Surface Micro- and Nano-fabrication
4. Reviewer of International conference on Mechanical and material science engineering: Innovation and Research (ICMMSEIR:2018) organized by Sandip Foundation Nasik.
5. Appointed as an "Associate Bentham Science Ambassador" of Bentham science Journal from July 2019 onwards.
6. Best Outstanding research award in 2018 by Sandip Foundation Nasik on 5th July 2018.
7. Awarded for Research Associate ship (RA) from CSIR-HRDG (May 2018- March 2019)
8. Participated in TEQIP sponsored Short term training programme on Recent Trends in Mechatronics and Robotics-2018 on December 10th-14th, 2018.
9. Participated in 5th Industry Academia conclave at Indian Institute of Technology Indore on 6th September 2017.
10. Appreciation letter given by Discipline of Mechanical Engineering, IIT Indore on December 7th -21st 2016 for Successful completion (Member of student organizing Team) of ISHAN VIKAS PROGRAM.
11. Attended course on Lab-view for core-1 and core-2 sponsored by NI systems India on February 15th-16th 2016.
12. Appreciation letter given by Discipline of Mechanical Engineering, IIT Indore on July 19th -23rd 2016 for successful completion (Member of student organizing Team) of short term course on Mechatronics, MEMS & Micro fabrication.

13. Appreciation letter given by Discipline of Mechanical Engineering, IIT Indore on December 2nd -15th 2015 for Successful completion (Member of student organizing Team) of ISHAN VIKAS PROGRAM.
14. Appreciation letter given by Discipline of Mechanical Engineering, IIT Indore on July 7th -11th, 2014 for successful completion (Member of student organizing Team) of short term course on Mechatronics, MEMS & Micro fabrication.
15. Awarded Half time Teaching and Research Assistantship (HTRA) from IIT Indore (January 2014-April 2018)
16. Appreciation letter given by SITE, Subharti University, Meerut for In charge of Technical Committee of VERVE-2013 (Tech fest) on November 28-30th 2013.
17. Awarded Best Teacher (2012-13) from SITE, Subharti University (Subharti Institute of Technology & Engineering), Meerut, U.P.
18. All India Test Qualified in 2010 as 3rd Ranker in SLIET Entrance Test.
19. Achieved “B” Certificate with grade of “C” from NCC at Gorakhpur on 10 September 2003.
20. Achieved certificate of Participation from PCRA (Petroleum conservation Research Association), held in Maharana Pratap Polytechnic Gorakhpur, U.P. on 27-03-2003

➤ **Contact Information:**

Dr. Tameshwer Nath
Assistant Professor, department of Mechatronics Engineering,
Indian Institute of Information Technology Bhagalpur
Sabour, Bhagalpur-813210
Phone: +91-8959591837 / +91-9528993366
Home: www.tntiwari.webs.com
E-mail: tnath.me@iitbh.ac.in, tameshwer.nath@gmail.com