

## BIO-DATA

1. **Name** : Dr. Harvinder Singh  
 2. **Designation** : Associate Professor  
 3. **Department** : Department of Mechanical Engineering  
 4. **Date of Birth** : 25 - 04 -1974  
 5. **Address for Correspondence** : # 193, Street No. 4, Gen. Harbax Enclave (Karheri), Opposite Punjabi University, Patiala (Pb.)  
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Photograph

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- 6 **Areas of Specialisation** : Manufacturing and Non -Traditional Machining

### 7. Academic Qualifications:

Sr. no.	Degree Held	Year	Board/Univ./ Inst.	% of marks	Div.	Subjects Taken
1	Matric	1990	PSEB, Mohali	73.62	1st	General subjects
2	Diploma (Mech.)	1994	SLIET, Longowal	74.69	1st	Mech. Engineering subjects
3	BE (Mechanical)	1997	PTU Jalandhar/ SLIET, Longowal	69.02	1st	Mech. Engineering subjects
4	ME (Mechanical)	2004	PTU Jalandhar/ SLIET, Longowal	65.16	1st	Mech. Engineering subjects
5	Phd	29/11/2021	Punjabi University, Patiala	.....	.....	Effect of different wire electrodes on machining performance of Nickel-based alloy with wire electrical discharge machining

8. **Membership of Professional Bodies/Organisations** i) Life member of the Indian society for technical education

### 9. Details of Experience:

#### Appointments held prior to joining this institution

Designation	Name of Employer	Date of Joining		Salary with Grade	Reason for Leaving
		Joining	Leaving		
Senior Lecturer	SUSCET , Tangori	1/8/2007	17/8/2009	8000-275-13500	Selection at Punjabi University, Patiala
Lecturer	SUSCET , Tangori	3/8/2004	31/7/2007	8000-275-13500	Promotion
Senior Engineer	International Tractor Ltd. Hoshiarpur	15/6/2000	6/6/2001	15000/- (Consolidated)	Resignation
Engineer	Standard Combines, Handiaya	Jan.1998	June 2001	6000/- (Consolidated)	Better opportunity

**Posts held after appointment at this institution:**

<b>Designation</b>	<b>Department</b>	<b>From</b>	<b>To</b>	<b>Grade</b>
Assistant Professor (Grade-I)	Department of Mechanical Engineering,	18.08.2009	18.08.2014	Rs 8000-275-13500( Pre Revised) Rs.15600-39100 with (G.P. 6000/) (Revised Scale)
Assistant Professor (Grade-II)	-----Do-----	18.08.2014	18.08.2019	Rs.15600-39100 with (G.P. 7000/)
Assistant Professor (Grade-II)	-----Do-----	18.08.2019	18.08.2022	Rs.15600-39100 with (G.P. 8000/)
Associate Professor	-----Do-----	18.08.2022	Till Date	

**10. Books :**

<b>S. no.</b>	<b>Title</b>	<b>Authors</b>	<b>Publisher</b>
1.	A text book of Engineering Material and Metallurgy	Amandeep Singh Wadhwa & Harvinder Singh Dhaliwal	University Science Press (An imprint of Laxmi Publications Pvt.Ltd.) (ISBN9788131803578)
2.	Modern's abc of Elements of Mechanical Engineering	Harmesh Kumar Kansal & Harvinder Singh Dhaliwal	Modern Publishers, Jalandhar (EAN9788177240795)
3.	Modern approach to Workshop Technology-II,	Harvinder Singh Dhaliwal & Amandeep Singh Wadhwa	Modern Publishers, Jalandhar (ISBN9789351841265)
4.	Surface roughness prediction of Aluminium 6063 in CNC turning by RSM	Amandeep Singh Wadhwa & Harvinder Singh Dhaliwal	LAP LAMBERT Academic Publishing ,Mauritius (ISBN978-620-2-01752-7)

**11. M.Phil./M.Tech Students guided**

<b>S. No.</b>	<b>Name of the Student</b>	<b>Title of Thesis</b>	<b>Year of Completion</b>
1.	Harseerat Singh	Investigating high temperature corrosion behaviour of thermally sprayed composite coatings on T-91 boiler steel at an elevated temperature	2022
2.	Gursewak Singh	Investigation of SR & WWR for WEDM of annealed Nimonic 75 using RSM	2022
3.	Gagandeep Singh	Mathematical modelling of the effect of input parameters on the MRE and KW during WEDM of annealed Nimonic 75	2022
4.	Jaskirat Singh	To study the implementation of 5S in northern Indian manufacturing industries	2022
5.	Jatinder Singh	High temperature corrosion behaviour of ZrO <sub>2</sub> reinforced Cr <sub>2</sub> O <sub>3</sub> coatings in molten salt environment	2021
6.	Jatinder Pal Singh Rana	Developing welding procedure for dissimilar welding of AISI316L & DSS2205 to improve mechanical properties	2020
7.	Manjinder Kaur	Characterization of performance features for WEDM of Nimonic 90 at different discharge energy	2019
8.	Pawan Kumar	A study of WEDM parameters with one factor at a time technique	Jan. 2019
9.	Gurpreet Dhaliwal	Optimization of process parameters for surface roughness and analysis of machined surface in WEDM of Nimonic 75	Sept. 2018

10	Dharmbir Singh	Study, analysis & simulation of horizontal light pipe system with laser cut for daylight system	Aug. 2018
11	Karanvir Sharma	Study, analysis & experimentation of new designed Fresnel lens for daylight system using optical fiber	Aug. 2018
12	Hitesh Sharma	Study, analysis & optimization of Fresnelized dome as passive daylight collector	Aug. 2018
13	Kalbir Singh	Compositional modification of thresher's spike as sprayed by D-gun process for perspective wear based applications	March 2018
14	Sandeep Singh	Hot corrosion behaviour of HVOF coated T-11 steel in high temperature environment	Sept. 2017
15	Jatinder kumar	An experimental investigation on tool wear and surface roughness in CNC turning of particulate SiC reinforced metal matrix composite	Sept. 2017
16	Kartik	Prediction of surface roughness in CNC turning of Al 6063 using RSM	Aug. 2017
17	Vishal	Optimization of process parameters for WEDM of Nimonic75 using RSM and GRA	May 2017
18	Hemant kumar	Study, analysis & experimentation of weight in motion (Railway) using fiber Bragg grating sensor	Sept. 2016
19	Rajdeep Singh	Experimental investigation of EDM of cobalt based alloy satellite 6	Aug. 2016
20	Lakhwi nder Singh	A comparative study on mechanical properties and microstructural behaviour of SS304 welds using A-TIG & MIG welding processes	Sept. 2015
21	Atinderjit Singh	To study the effect of welding parameters on weld bead geometry using A-TIG welding	Aug. 2015
22	Kamaldeep Singh	To study the effect of activating fluxes on bead characteristics using TIG welding	July 2015
23	Major Singh	Parametric optimization of EDM of Al/SiCp-MMC by RSM	Nov. 2014
24	Manninder Sidhu	MRR & electrode wear rate study on EDM of Al/SiCp-MMC	Nov. 2014
25	Jagdeep Sharma	Optimization and mathematically modelling of WEDM for the fabrication of micro-channels through RSM and GA	July 2014
26	Manjinder Singh	The optimization of wheel manufacturing process experimentally by using Taghuchi methodology	Sept. 2013
27	Parminder Singh	To investigate the performance of cryotreated HSS T42 tool bits in dry turning of EN8 by applying Taguchi method	July 2012
28	Manpreet Sidhu	Effect of hardfacing using SMAW on stainless steel properties	July 2012
29	Navdeep Singh	Effect of hardfacing on mild steel properties using electric arc welding	July 2012
30	Ramandeep Singh	Analytical study of the perspectives for implementation of ERP: A study of selected manufacturing industries	July 2012

## 12. List of Papers/Courses taught at P.G. and U.G. Level

S. No.	Paper	Class
1.	Theory of Machines	U.G.
2.	Manufacturing Technology	U.G.
3.	Basic Thermodynamics	U.G.
4.	Non Conventional machining processes	P.G.
5.	Welding Technology	U.G. & P.G.

### 13. Technical Proficiency

- Organised International Conference on Recent Developments in Mechanical Engineering on 23-25 January 2008 at SUSCET, Tangori (MOHALI).
- Organised National Conference on Futuristic Trends in Mechanical Engineering on 13-14 Sept. 2007 at SUSCET, Tangori (MOHALI).
- Developed Experimental Setup for Powder Mixed Electric Discharge machining in 2004 at SLIET, Longowal.
- Proficient in operation and programming on CNC turning center and CNC Universal milling machine.
- Member of team who got approval of combine harvester (Sonalika) from ministry of agriculture affairs at Budni, 2001.
- Developed mathematical models for MRE, KW, Ra, & WWR during WEDM of Nimonic 75 alloy, 2019

### 14. List of Papers Published

1	Khushdeep Goyal, Davinder Singh, Harvinder Singh, Charnjit Singh, "High temperature corrosion behaviour of ZrO <sub>2</sub> reinforced Cr <sub>2</sub> O <sub>3</sub> composite coatings in molten salt environment", Anti-corrosion methods and materials, 70/4, pp 189-196, 2023
2	Davinder Singh, Khushdeep Goyal, Charnjit Singh, Harvinder Singh, "Effect of Y <sub>2</sub> O <sub>3</sub> reinforcement on hot corrosion of Cr <sub>2</sub> O <sub>3</sub> -based composite coatings at elevated temperature", Journal of bio and tribo-corrosion, 9:52, 2023.
3	Harvinder Singh, Vinod Kumar, Jatinder Kapoor, "Multi-response optimization of WEDM process parameters during the fabrication of microchannels for industrial applications", Materials Today: Proceedings 46 (2021) 81–88.
4	Harvinder Singh, Vinod Kumar, Jatinder Kapoor, "Modelling process parameters and morphology of wear out brass wire surface during WEDM of Nimonic75 alloy", Materials Today: Proceedings 56 (2022) 2048–2057
5	Harvinder Singh, Vinod Kumar, Jatinder Kapoor, "Optimization of WEDM process parameters in machining Nimonic 75 alloy using brass wire", Multidiscipline Modeling in Materials and Structures (2020).
6	Harvinder Singh, Vinod Kumar, Jatinder Kapoor, "Effect of WEDM process parameters on machinability of Nimonic75 alloy using brass wire", World Journal of Engineering (2019)
7	Harvinder Singh, Vinod Kumar, Jatinder Kapoor, "Modelling of WEDM parameters and surface integrity characteristics in the machining of Nimonic75 alloy", Materials Today: Proceedings.
8	Harvinder Singh, Khushdeep Goyal, Jatinder Pal Rana, "Effect of post-weld Heat treatment on the metallurgical studies of dissimilar weldments of SS316L welded with DSS 2205", Proceedings of institute of mechanical Engineers, Part C: Journal of Mechanical Engineering Science (2022).
9	Sarpreet Singh, Harvinder Singh, "Review of wire electric discharge machining (WEDM) of Nimonic alloys of different grades", Journal of emerging trends in engineering, science & technology Vol.4, No.1, 2016.
10	Taranveer Singh, Harvinder Singh, "Review of wire EDM process on titanium alloys", Journal of emerging trends in engineering, science & technology, Vol.4, No.1, 2016

11	Jasvir Singh, Harvinder Singh, Gagandeep Singh “Optimization of Machining Parameters during CNC turning of Aluminium 6061 with CNMG EN-TM (H20TI) insert using Response Surface Methodology”, IJEDR, Vol. 4, Issue 1,2016
12	Lovdeep Singh, Charnjit Singh, Khushdeep, goyal, Harvinder Singh, “Experimental Investigation of Properties of Friction Stir Welded Butt Joints of Dissimilar Aluminium Alloys 6061 and 6082’, Journal of modern chemistry & chemical technology, Vol.8, Issue 3, 2017.
13	Dharmbir Singh, Harry Garg, Harvinder Singh, “Various Daylighting Systems for Energy Conservation: A Review”, An international journal of engineering sciences, Vol.30, 2018.
14	Dharmbir Singh, Harry Garg, Harvinder Singh, “Study and analysis of horizontal light pipe with laser cut panel for daylighting system”, An international journal of engineering sciences, Vol.30, 2018.
15	Hitesh Sharma, Harvinder Singh, Harry Garg, “Study and Analysis of Fresnelized Dome”, international journal of engineering sciences, Vol.30, 2018.
16	Harvindert Singh, “Studies the effect of Iron based hardfacing electrodes on stainless steel properties using shielded metal arc welding process”, International journal of research in advent technology, Vol.2, No. 4, pp 419-430, 2014.
17	Ramandeep Singh, Chandan Deep Singh, Harvinder Singh, “ Analytical study of the perspectives for implementation of ERP”, International Journal of mechanical engineering & robotic research, Vol.1, No.3,2012
18	Harvinder Singh, Sukhjinder Singh, Arun Kumar, “Studies the effect on wear and dilution of Iron based hardfacing electrodes on mild steels using SMAW process”, International conference on advancemens & futuristic trends in mechanical and materials engineering,pp 552-556, 2013.

Harvinder Singh  
(Signature of the Teacher)