


1.	Name:	Vinod Kumar	
2.	Date of Birth:	21-09-70	
3.	Education Qualifications:	<p>B.E. (Mechanical).... Ist Class, Thapar Institute, Patiala -India. Year (1992)</p> <p>M.E. (Industrial) with Ist Class Distinction... Thapar Institute, Patiala-India. Year (1996)</p> <p>Ph.D (Mech. Engg.) Punjabi University, Patiala -India. Year (2010)</p>	
	Contact Details	+919646004086	 <p>Email: vinod_me@pbi@ac.in</p>
4.	Work Experience:	Teaching: 28 years (Undergraduate, Post Graduate & Research)	
		Department of Mechanical Engineering, Punjabi University, Patiala	Working as Professor since 29.11.2012
5.	Research Experience:	12 Years (After Ph.D)	
		<p>Title of Ph. D Thesis : DEVELOPMENT AND CHARACTERIZATION OF FLUXES FOR SUBMERGED ARC WELDING</p> <p>Title of M.E. Thesis : AN APPLICATION OF GOAL PROGRAMMING TECHNIQUE IN FINE TURNING OPERATION</p>	
6.	Development of Course Curriculum	<p>Member of the Team in designing the Syllabi for B.Tech. (Industrial), for Punjab Technical University, after thorough consultation with Industries and Academicians</p> <p>Member of a team to design Syllabi for M.Tech. (Industrial Engg.) for Punjab Technical University and designed the Syllabi for M.Tech.(Industrial Engg) in June-July 2003.</p>	
7.	Development of Laboratories	Developed various Laboratories of Mechanical Engg. viz. Fluid Mechanics, Thermal, Theory of Machine and Engineering and Machine Drawing Labs, at B.B.S.B. Engg. College Fatehgarh Sahib and Shaheed Bhagat Singh State University Ferozepur.	
8.	Short Term Training Programmes Conducted/ Organized	<ul style="list-style-type: none"> Organized AICTE/ISTE Short Term Training Programme on “Total Quality Management and ISO 9000 Quality System”at S.B.S.C.E.T Ferozepur from 1st july to 12th july, 2002 (Two weeks) Organized AICTE /ISTE Short Term Training Programme on “Industry Institute Interaction: New Challenges” at Shaheed Bhagat Singh State University, Ferozepur, from 16/12/2002 to 27/12/2002. (Two weeks) 	
9.	Area of Specialization	Industrial & Manufacturing Engineering	

10.	Subjects Taught	<p>At Graduate Level:</p> <ul style="list-style-type: none"> Operations Research Engineering Drawing Manufacturing Processes Industrial Engineering. Theory of Machines Industrial Quality Control Operations Management <p>At Post-Graduate Level:</p> <ul style="list-style-type: none"> Quantification Techniques Production Planning &Control Statistical Quality Control 										
11.	Membership of Professional Bodies	<ul style="list-style-type: none"> 1.Life Member (LM 28559) of Indian Society of Technical Education, New Delhi 2. Member SAE 3.Senior Member International Economics Development Research Center (IEDRC) Member No: 30080008 										
12.	Toal Number of Research Publications: (Annexure-A)	<table border="0" style="width: 100%;"> <tr> <td style="width: 80%;">International Journals</td> <td style="text-align: right;">22</td> </tr> <tr> <td>National Journals</td> <td style="text-align: right;">05</td> </tr> <tr> <td>International Conferences</td> <td style="text-align: right;">05</td> </tr> <tr> <td>National Conferences</td> <td style="text-align: right;">26</td> </tr> <tr> <td>Book</td> <td style="text-align: right;">01</td> </tr> </table>	International Journals	22	National Journals	05	International Conferences	05	National Conferences	26	Book	01
International Journals	22											
National Journals	05											
International Conferences	05											
National Conferences	26											
Book	01											
13.	M.Tech. Thesis Guided	<ul style="list-style-type: none"> 1. Achieving Business excellence through Total Productive Maintenance 2. CFD Analysis of Heat Transfer Enhancement in a Heat Exchanger Using Various Baffle Arrangements 3. Effect of Activated TIG Welding on Wear properties and Dilution percentage in Medium carbon steel welds 4. Effect of TIG welding process parameters on mechanical properties and microstructure of dissimilar weldments of SS304 and P91 steel 										
15.	Ph.D Thesis Supervision	05										
16.	Ph.D Thesis (Guided)	<p>02</p> <p>Title: INFLUENCE OF PROCESS PARAMETERS ON FRICTION STIR WELDING OF ALUMINIUM ALLOY WITH INTERLAYER</p> <p>Title: EFFECT OF DIFFERENT WIRE ELECTRODES ON MACHINING PERFORMANCE OF NICKEL-BASED ALLOY WITH WIRE ELECTRICAL DISCHARGE MACHINING</p>										

(Annexure-A)
LIST OF PUBLICATIONS

(A) International Refereed Journals

- 1.Kumar, Vinod., Mohan, Narendra., and Khamba, J.S. (2010) “Modeling of bead width and flux consumption in submerged arc welding using developed fluxes”, Journal of Mechanical Engineering, Icfai University, pp. 42-57.
- 2.Kumar, Vinod., Mohan, Narendra., and Khamba, J.S. (2010) “Recent Research Trends in the Field of Submerged Arc Welding- An overview”, Journal of Manufacturing Technology Research, USA, ” Vol. 2,issue1-2, pp.143-159.
- 3.Kumar, Vinod., Mohan, Narendra., and Khamba, J.S. (2010) “Some investigation on bead width, performance and flux consumption in Submerged Arc Welded joints using developed fluxes”, Journal of Modern Manufacturing Technology, Vol.2(20), pp.196-216.
- 4.Kumar, Vinod, Mohan, Narendra., and Khamba, J.S. (2010) “Development of agglomerated acidic flux for submerged arc welding”, Estonian Journal of Engineering, Vol 16, issue 2, pp.135-141.
- 5.Kumar, Vinod. “Modeling of Weld Bead Geometry and Shape Relationships in Submerged Arc Welding using Developed Fluxes, “Jordan Journal of mechanical and industrial engineering, pp.61-470.
- 6.Kumar, Vinod., “Just In Time Perspective of Supply Chain Management”, International Journal of Business Management & Research, Vol. 2, No. 1, Jan. - June 2012, page 53-59.
7. Ankit Uppal, Vinod Kumar and Chanpreet Singh (2014) “CFD Analysis of Heat Transfer Enhancement in a Heat Exchanger Using Various Baffle Arrangements”, International Journal of Research in Mechanical Engineering &Technology, Vol.4, issue 2, pp.118-122.
8. Khuspinder Pal and Vinod Kumar(2014) “Effect of Activated TIG Welding on Wear properties and Dilution percentage in Medium carbon steel welds”, International Journal of Emerging Technology and Advanced Engineering”, Vol.4, issue 8.pp. 175-182.
9. Kumar Vinod., Singh, Avtar., Grover, Neel Kanth., (2019) “Influence of tool pin profile on friction stir welding with a gap for AA6082-T6 aluminium alloy” Materials Research Express (IF 1.15), Volume 6, Number 8, pp:1-8. **(May 2019)--- ISSN 2053-1591**
- 10.Kumar Vinod., Singh, Avtar., Grover, Neel Kanth., (2019) “A study of microstructure and mechanical properties of friction stir welding aluminium alloy AA6082 with Zn interlayer” Materials Research Express, Volume 6, Number 11, pp:1-10. **(October 2019) ISSN 2053-1591**
11. Vinod Kumar, Avtar Singh, Neel Kanth Grover (2019), “Impact of a gap on defect formation in friction stir welding of aluminium alloy using threaded tool pin profile” Journal of emerging technologies and innovative research (IF 5.87) volume 6, March 2019),pp: 373-376. **www.jetir.org (ISSN-2349-5162)**

12. Vinod Kumar, Avtar Singh, Neel Kanth Grover (2020), "Evaluation of Tensile Strength Behaviour of Friction Stir Welding Joints of Aluminium Alloy with Interlayer" *Advances in Production and Industrial Engineering, Select Proceedings of ICETMIE 2019*, pp:347-357. (Springer)
13. Vinod Kumar, Harwinder Singh, Jatinder Kapoor (2020), "Effect of WEDM process parameters on machinability of Nimonic75 alloy using brass wire", *World Journal of Engineering, Emerald Publishing Limited, Volume 17,issue 3,pp: 389-397. (March 2020) DOI 10.1108/MMMS-10-2019-0178 (I.F. 1.20) ISSN 1708-5284..... <https://doi.org/10.1108/WJE-09-2019-0277>*
14. Vinod Kumar, Harwinder Singh, Jatinder Kapoor (2021), "Modeling of WEDM parameters and surface integrity characteristics in the machining of Nimonic75 alloy", *Materials today Proceedings, Volume 28, Part 3, pp:1363-1371. (May 2020). <https://doi.org/10.1016/j.matpr.2020.04.801>----- 4 December 2021--- ISSN 2214-7853*
15. Vinod Kumar, Harwinder Singh, Jatinder Kapoor (2020), "Optimization of WEDM process parameters in machining Nimonic 75 alloy using brass wire", *Multidiscipline Modeling in Materials and structures, © Emerald Publishing Limited 1573-6105., Volume 16, issue 5, pp:1189-1202. (March 2020) DOI <https://doi.org/10.1108/MMMS-10-2019-0178>. Jan. 2020--- ISSN 1573-6105---*
16. Singh, H., Kumar, V., Kapoor, J. (July 2021), Multi-response optimization of WEDM process parameters during the fabrication of microchannels for industrial applications, *Materials Today: Proceedings, Volume 46, Part 1, 2021, Pages 81-88 <https://doi.org/10.1016/j.matpr.2020.06.134>----- ISSN 22147853*
16. Kumar, Vinod "Buyer Supplier Relationships and Performance Measures in Supply chain Environment of Automotive Industry", *International journal of Computer Science & Technology, Vol 5, Jan-March 2014.*
17. Kumar, Vinod "Operations Research and Value Engineering–Role in Decision Making and Productivity Improvement ", *International journal of Computer Science & Technology, Vol 6, Jan-March 2015.*
18. Vinod Kumar, D.S. Sahota , Amit Bansal , "Application of microwave in welding of metallic materials – A review" *Materials Today: Proceedings, ELSEVIER, <https://doi.org/10.1016/j.matpr.2020.11.997> (Nov. 2020) ISSN 22147853*
19. Vinod Kumar, D.S. Sahota , Amit Bansal , "Effect of filler material on the microwave joining of SS-430 steel" **Journal Materials and Manufacturing Processes on 28 November, 2022.** ISSN 1532-2475 <https://doi.org/10.1080/10426914.2022.2149784>. (Impact Factor =4.783) Pages 1385-1395.
20. Vinod Kumar, D.S. Sahota , Amit Bansal , "Microwave Butt Joining of Stainless Steel (SS-316L) With an SS-316L Powder" *Journal Transactions of the Indian Institute of Metals June, 2023.*

<https://doi.org/10.1007/s12666-023-03009-w>. (Impact Factor = 1.4), ISSN 0975-1645

21. Verma S, Kumar V. "Optimization of friction stir welding parameters of dissimilar aluminium alloys 6061 and 5083 by using response surface methodology." *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*. **March 2021**; 235(23):7009-7020. doi: <https://doi.org/10.1177/09544062211005804> (SCI Index)--- /ISSN/2041-2983

22. Verma, Sanjeev, and Vinod Kumar. "Friction stir welding and processing-a perspective review." *IOP Conference Series: Materials Science and Engineering*. Vol. 1091. No. 1. IOP Publishing, **Feb 2021**. (SCOPUS Index) --- **ISSN 1757-899X** --- <https://doi.org/10.1088/1757-899X/1091/1/012072>

23. Sanjeev Verma, Vinod Kumar, Raman Kumar, Ramandeep Singh Sidhu. "Exploring the application domain of friction stir welding in aluminum and other alloys." *Materials Today: Proceedings*, 2022; 50(5):1032-1042. (<https://doi.org/10.1016/j.matpr.2021.07.449>). (SCOPUS Index)

24. Sanjeev Verma, Vinod Kumar. "Investigation of Microhardness and Microstructure Using Friction Stir Welding of Dissimilar Aluminium Alloys." *Journal of Communication Engineering & Systems*. 2018; 8(3): 37-44. **ISSN: 2249-8613**---
<https://computerjournals.stmjournals.in/index.php/JoCES/article/view/123>

(B) National Journals

25. Kumar, Vinod., Mohan, Narendra., and Khamba, J.S. (2010) "Development of Basic Agglomerated Flux From Submerged Arc Welding Flux Waste" *Journal of Manufacturing Engineering*, Vol.5, issue2, pp.106-110.

26. Kumar, Vinod., Mohan, Narendra., and Khamba, J.S. (2010) "The effects of process variables on the penetration of submerged-arc weld deposits" *Indian Journal of Engineering Science and Technology*, Vol 4. No.1, pp. 13-18.

27. Kumar, Vinod, "Buyer Supplier Relationships and Performance Measures in Supply chain Environment of Automotive Industry", *Punjab Journal of Business Studies*, pp. 111-124, Vol. 2005

28. Kumar, Vinod, "Achieving Business excellence through Total Productive Maintenance," "Punjab Journal of Business Studies" page 73-81, Vol. October 2006-2007.

29. Sanjeev Verma and Vinod Kumar (2018), "Investigation of Microhardness and Microstructure Using Friction Stir Welding of Dissimilar Aluminum Alloys" *Journal of Communication Engineering and Systems* (Special Edition: Emerging Trends in Management, Science and Technology), Volume 8, Issue 2, August 2018, PP: 34-38

(C) International Conferences

30. Kumar, Vinod., Mohan, Narendra., and Khamba, J.S. "Development Of Cost Effective Agglomerated Fluxes From Waste Flux Dust For Submerged Arc Welding" *World Congress on Engineering-2009*, Imperial College, London, 1-3 July 2009, pp. 561-565.

31. Kumar, Vinod., Mohan, Narendra., and Khamba, J.S. "Use of Response Surface Modeling In Prediction And Control Of Flux Consumption In Submerged Arc Weld Deposits", Word Congress on Engineering and Computer Science, San Francisco, USA, 20-22 October, 2010.

32. Singh, Avtar., Kumar, Vinod., Grover, Neel Kanth., (2019) "Evaluation of tensile strength behaviour of friction stir welding joints of aluminium alloy with interlayer" 4th international conference on emerging trends in mechanical & industrial engineering organised by North Cap University Gurugram (HR) on dated 10-11 Oct, 2019.

33. Vinod Kumar, Harwinder Singh, Jatinder Kapoor (May 2020), Modelling of parameters and surface integrity characteristics in the machining of Nimonic 75 alloy, Punjab University Chandigarh.. International conference on aspects of materials science & engineering

34. Vinod Kumar, Harwinder Singh, Jatinder Kapoor (October 2020), Effect of discharge energy on performance characteristics and surface topography during WEDM of Nimonic 75 alloy, International conference ON Recent Advances in Design Materials and Manufacturing, Amity University Gwalior

(D) National Conferences

35. Kumar, Vinod., Mohan, Narendra., and Khamba, J.S. "The effects of process variables on the penetration of submerged-arc weld deposits" National Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering, Yadwindra College of Engineering, Talwandi sabo. (February 19-20, 2010). Published

36. Kumar, Vinod., Mohan, Narendra., and Khamba, J.S.(2010) "Optimization techniques in the Field of Submerged Arc Welding- An overview", National Conference on Global Trends in Mechanical Engineering, Rayat & Bahra institute of Engineering and Bio-Technology, Mohali. (April 16-17, 2010), pp.102-106.

37. Kumar, Vinod., Mohan, Narendra., and Khamba, J.S.(2010) "Investigation of developed agglomerated fluxes from waste flux dust for submerged arc welding", National Conference on Global Trends in Mechanical Engineering, Rayat & Bahra institute of Engineering and Bio-Technology, Mohali. (April 16-17, 2010), pp.91-95.

38. Kumar, Vinod., "An Application of Goal Programming Technique in Fine Turning", 16th National Conference of Mechanical Engg. at University of Roorkee on September 29-30, 2000.

39. Kumar, Vinod., "Integrating Human Values in Technical Institutions" at National level Conference organized by B.B.S.B. Engg. College Fatehgarh Sahib, on 26th April, 2002.

40. Kumar, Vinod., "Recent Advances in Sciences & Engg." on Topic "Simulation of Flow Shop Scheduling with fixed no. of jobs" National Seminar of ISTE on 29th Nov. 2002, at G.N.D.E.C, Ludhiana on 20.

41. Vinod Kumar "Focus on Current Research Trends For Modeling Of Submerged Arc Welding", National Conference on Advances in Mechanical Engineering (NCAME-2010) 27-28, November, 2010 Aligarh Muslim University, Aligarh (UP)-202002, India.

42. Vinod Kumar, "Application of Response Surface Methodology for Modelling Of Reinforcement In Submerged Arc Weld Deposits Using Developed Fluxes", National Conference on Advances in Mechanical Engineering (NCAME-2010) 27-28, November, 2010 Aligarh Muslim University, Aligarh (UP)-202002, India.
43. Vinod Kumar, "Research Trends On Metallurgical And Mechanical Properties Of Submerged Arc Welds: An Overview", National Conference on Advances in Mechanical Engineering (NCAME-2010) 27-28, November, 2010 Aligarh Muslim University, Aligarh (UP)-202002, India.
44. Vinod Kumar, "Some investigations on mechanical properties of developed basic fluxes for submerged arc welding", National Conference on Advancements & Futuristic Trends in mechanical and Industrial Engineering, Ganpati Institute of Technology & Management, Bilaspur (Haryana), 12-13, November, 2010.
45. Vinod Kumar, "The effect of process variables on bead width and reinforcement in submerged Arc weld deposits", National Conference on Advancements & Futuristic Trends in mechanical and Industrial Engineering, Ganpati Institute of Technology & Management, Bilaspur (Haryana), 12-13, November, 2010.
46. Vinod Kumar, "The effect of process variables on bead width and reinforcement in submerged Arc weld deposits", Second National Conference On Emerging Vistas of Technology in 21st Century, Parul Institute of engineering & Technology, Limda-Waghodia, Vadodara, Dec. 4-5, 2010.
47. Vinod Kumar, "Investigation of Microstructure and Micro hardness of Submerged Arc Welded Joint", Second National Conference On Emerging Vistas of Technology in 21st Century, Parul Institute of engineering & Technology, Limda-Waghodia, Vadodara, Dec. 4-5, 2010.
48. Vinod Kumar, "Focus on Recent Research Trends for modeling, simulation and optimization of Submerged Arc Welding process", Advanced Manufacturing Technologies" (AMT-2011), Chitkara Institute of Engineering and Technology, Rajpura, Punjab, India, (January 2011).
49. Vinod Kumar, "Modeling of Bead Parameters in Submerged Arc welding using Developed Fluxes", Advanced Manufacturing Technologies" (AMT-2011), Chitkara Institute of Engineering and Technology, Rajpura, Punjab, India, (January 2011).
50. Vinod Kumar, "Effect of Submerged Arc Welding Parameters on Penetration Shape Factor and Reinforcement Form Factor", National Conference on Advances in Mechanical Engineering (AIM Engg 2011), Manipal Institute of Technology, Manipal (A Constituent Institution of Manipal University), Manipal – 576104, Karnataka, India, (Jan 3-5, 2011).
51. Vinod Kumar, "Effect of Heat Input on Microhardness and Weld Metal Chemistry on Submerged Arc Weld Deposits using Developed and Commercially Available Fluxes", National Conference on Advances in Mechanical Engineering (AIM Engg 2011), Manipal Institute of Technology, Manipal (A Constituent Institution of Manipal University), Manipal – 576104, Karnataka, India. (Jan 3-5, 2011).
52. Vinod Kumar, "Element Transfer Behavior during Submerged Arc Welding using Developed Fluxes", National Conference on Advances in Mechanical Engineering (AIM Engg 2011), Manipal Institute of Technology, Manipal (A Constituent Institution of Manipal University), Manipal – 576104, Karnataka, India. (Jan 3-5, 2011).
53. Vinod Kumar, "Welding Current in Submerged Arc Welding", National Conference on Advances in Mechanical Engineering (AIM Engg 2011), Manipal Institute of Technology, Manipal (A Constituent Institution of Manipal University), Manipal – 576104, Karnataka, India. (Jan 3-5, 2011).

54. Vinod Kumar, "Comparison of CNG vis-à-vis Alternative Fuels", Power and Energy Sustainable Growth" on Feb.20-21, 2003, at C.R. College of Engg. & Tech, Murthal, organized by The Institutions of Engineers and Topic of the Paper is

55. Vinod Kumar, "Work is worship worship is not work", International seminar on "Value Based Education (Dimensions and Directions)" at Desh Bhagat Institute of Management and Computer science, Gobindgarh, on Oct. 3-4, 2008.

56. Vinod Kumar, Welding Current in Submerged Arc Welding, National conference n Recent advances in Engineering & Technology (RATE-2012), Mangalayatan University, Aligarh, pp.1-4

57. Vinod Kumar, Creativity and Innovation: The basis of leadership, International seminar on Innovate-lead –succeed at DBIMCS 2011.

58. Avtar Singh and Vinod Kumar, "Friction Stir Welding and its Perspectives", National conference on Advances in Manufacturing System Technology, Materials and Management, Shaheed Bhagat Singh State Technical Campus, Ferozepur, Punjab, pp.28-31,(5-6Sep. 2014).

59. Singh J. and Vinod Kumar "Welding of Dissimilar Metals-A Literature Review", National conference on Advances in Manufacturing System Technology, Materials and Management, Shaheed Bhagat Singh State Technical Campus, Ferozepur, Punjab, pp.68-72,(5-6Sep. 2014).

60. Sanjeev Verma and Vinod Kumar, "An Overview of Friction Stir Welding Tools", *7th National Conference on Advancements in Manufacturing Technology held at NITTTR, Chandigarh, May 25-26, 2021.* (Scopus Index)---**Book Chapter**

(E) Book Published:

Achieving Business excellence through Total Productive Maintenance

(A case study of Indian Automotive Manufacturing Company)---Lambert Academic Publishing