

## Abhay Sharma

Email : abhay.sharma@iptg.ac.in

Phone : +91-7923275013, 9974366346

Qualification: M.Tech., Ph.D.

**Date of Birth** 09.01.1977

### Educational Qualification

		Year	Institute / University	Subject / specialization	Remark
1	Ph.D.	2008	I.I.T. Roorkee	Mechanical Engg. ( Welding Engineering)	National Doctoral Fellowship
2	M.Tech.	2003			1 <sup>st</sup> position, 9.58/10.00
3	B.E.	2000	C.T.A.E. Udaipur	Mechanical Engineering	3 <sup>rd</sup> Univ. position, 73.15 %

**PhD Topic** : Process Modelling of Twin Wire Submerged Arc Welding

**Specialization** : Computational Intelligence, Welding Engineering

**Research Interests:** Process Modelling, Drilling Engineering, Micro and Nano Manufacturing Processes, Welding Engineering, Nano-Composites.

### Professional Experience

	Organization	Designation	Period		Job profile
			From	To	
1	SPTG Gandhinagar	Assistant Professor	01.08. 07	Till Date	Teaching, Research, Development activities
2	TVS motors	Assistant Manager	11.3.2003	14.7. 2004	Production Engineering, Process design, Planning, Commissioning
3	Bhushan Steels	Production Engineer	25.9.2000	13.4.2001	Process Planning and control

---

**Publications :**

(a)	Journal	International	06
		National	02
(b)	Conferences	International	04
		National	02

**Awards and Recognition :**

1. National Doctoral Fellowship AICTE, Gov. of India Pursuing Ph.D. Dec. 2004-Dec. 2007
2. GATE MHRD, Gov. of India Pursuing M.Tech Aug. 2001- Jan.2003
3. 3rd university position in order of merit B.E. (Mech.) 2000 Rajasthan Agriculture University, Bikaner
4. Certificate of merit, MHRD, Gov. of India Recognition of the high position secured in the list of meritorious candidates 1992
5. Indian Council of World Affairs, New Delhi First prize - 13<sup>th</sup> Indira Gandhi National Level Inter-University Debate Competition 1998
6. Third Prize -West Zone Youth Festival 1998-99, Debate Competition, Association of Indian Universities, New Delhi
7. First Prize - University Youth Festival 1998, Debate Competition, Rajasthan Agriculture University, Bikaner

**Extra Curricular Activities :**

1. Reviewer to International Journals

International Journal of Advanced Manufacturing Technology

International Journal of Material Processing and Technology

2. Valuable contribution as organising member in 1st International and 22<sup>nd</sup> All India Manufacturing Technology and Design Research Conference, Indian Institute of Technology, Roorkee, 21-23 December, 2006.

3. Active participation in 2 days National workshop on IPR Creation and Management in Academic and Research Institutions, held at IIT Roorkee. February 24 -25 2006

## List of Publications

### Published / Accepted

1. **Abhay Sharma**, Navneet Arora, S. R. Gupta, Investigation into Arc Behavior during Twin-wire Submerged Arc Welding, Materials and Manufacturing Processes, Taylor & Francis (Accepted)
2. **Abhay Sharma**, Ajay Kumar Chaudhary, Navneet Arora, Bhanu K. Mishra, Estimation of Heat Source Model Parameters for Twin-wire Submerged Arc Welding, International Journal of Advanced Manufacturing Technology DOI: 10.1007/s00170-009-2046-3 (In Press)
3. **Abhay Sharma**, Navneet Arora, Bhanu K. Mishra, Statistical Modelling of Deposition Rate in Twin-wire Submerged Arc Welding, Journal of Engineering Manufacture, IMECHE Part B, DOI: 10.1243/09544054JEM1342 (In Press)
4. **Abhay Sharma**, Navneet Arora, Bhanu K. Mishra, 2008, A Practical Approach towards Mathematical Modeling of Deposition Rate during Twin-Wire Submerged Arc Welding, International Journal of Advanced Manufacturing Technology, 36 (5-6) , 463-474.
5. **Abhay Sharma**, Navneet Arora, Bhanu K. Mishra, 2008, Mathematical Modeling of Flux Consumption during Twin-wire Welding, International Journal of Advanced Manufacturing Technology, 38, (11-12), 1114-1124.
6. **Abhay Sharma**, Navneet Arora, Bhanu K. Mishra, 2008, Impact of process modelling on current direction of welding research and future targets, Indian Welding Journal, 41(4), 43-50.
7. **Abhay Sharma**, Navneet Arora, Bhanu K. Mishra, 2007, Artificial Neural Network Modelling of Deposition Rate during Twin-Wire Welding, Australasian Welding Journal, 52 (Forth Quarter), 39-48.
8. **Abhay Sharma**, Navneet Arora, Bhanu K. Mishra, 2007, Modified Mathematical Models for Melting Rate during Submerged Arc Welding, Indian Welding Journal, 40(4), 21-32.

### **Communicated:**

9. **Abhay Sharma**, Navneet Arora, Bhanu K. Mishra, Predictive Modelling and Sensitivity Analysis of Flux Consumption Rate in Twin-wire Submerged Arc Welding, Journal of Manufacturing Technology Research, NOVA USA
10. **Abhay Sharma**, Dhanesh Kant Verma, Navneet Arora, Weld Bead Quality Modelling in Pulsed TIG Welding, Journal of Achievements in Materials and Manufacturing Engineering
11. Vivek Araya, **Abhay Sharma**, Navneet Arora, Enhancement in Mechanical Properties of Tailored Welded Blanks due to Pulsed TIG Welding, Indian Welding Journal

### **Conferences Proceedings:**

12. **Abhay Sharma**, Navneet Arora and S .R. Gupta, 'Three dimensional transient heat transfer modeling of submerged twin arc welding process', Proc. of 2nd International Conference, Welding and Joining 2005, Frontiers of Materials Joining, Israel, pp 222-230, Jan 25-28, 2005
13. **Abhay Sharma**, Navneet Arora and S.R. Gupta, Simulation of behaviors of leading and trailing arcs during submerged twin arc welding process, Proc. of IIW International Congress 2005, Mumbai, pp 11, February 16-19, 2005.
14. **Abhay Sharma**, Navneet Arora and S.R. Gupta, Simulation of effect of weld variables on thermal cycles during twin wire welding', Proc. of 7th International Conference on Trends in Welding Research, Pine Mountain, Georgia, USA, May 16-20, 2005.
15. **Abhay Sharma**, Dhaneskant Verma and Navneet Arora, Modeling and optimisation of Weld Quality of Pulsed TIG Welding by Aggregate Quality Index Method, First International and 22nd AIMTDR Conference, Indian Institute of Technology, Roorkee, 21-23 December, 2006.

16. **Abhay Sharma**, Prashant Chubachi and Navneet Arora, 'Application of Artificial Neural Networks for Predicting Weld Bead Geometry in Twin-wire Submerged Arc Welding', National Welding Seminar (NWS- 2005), The Indian Institute of Welding, Bhilai, pp 101-107, December 15-17, 2005.
17. **Abhay Sharma**, Navneet Arora, Bhanu K. Mishra, 'Application of Computational Intelligence in Welding', RDFTME, NIT Hamirpur, 3- 5 December 2006, 281-291