#### DR. SHAILENDRA KUMAR

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## **Educational Qualification:**

Degree	Division / Grade	Year	Institute / University
B.Sc. Engineering (Production Engineering & Management)	79% First class Distinction	1999	Regional Institute of Technology, Jamshedpur (Presently NIT Jamshedpur), India
Ph.D.* (Mechanical Engineering)	-	March 2007	Maharshi Dayanand University, Rohtak, Haryana, India

<sup>\*</sup> Title of Ph.D. Thesis: "A Contribution to the Development of Knowledge-based System for Intelligent Design of Progressive Dies"

#### **Teaching Experience:**

Organization	Post held	Duration	Responsibilities
Sardar Vallabhbhai	Professor	28 <sup>th</sup> January, 2019	Teaching of UG & PG
National Institute of	(Present Post)	onward	subjects, Research &
Technology (S.V.N.I.T.),			Administrative work
Surat, India			
S.V.N.I.T. Surat,	Associate	16 <sup>th</sup> August, 2007	Teaching of UG & PG
India	Professor	to 27 <sup>th</sup> January,	subjects, Research &
		2019	Administrative work
Hindu College of	Lecturer /Assistant	9 <sup>th</sup> Nov'1999	Teaching of UG
Engineering, Sonepat,	Professor	to 14 <sup>th</sup> August 2007	subjects, Research &
Haryana, India			Administrative work

# Subjects Taught during last five years:

• Under-Graduate: Machining Processes, Production Technology

• Post Graduate: Computer Aided Production Planning, Metal Forming, Additive Manufacturing, Flexible Manufacturing Systems, CIM, Non-traditional machining, Advanced Tool Design

#### **Research Publications:**

• International Journals: 44

• National Journals: 15

• International Conferences: 49

• National Conferences: 35

(Kindly refer the List of Research Publications attached vide Annexure - 1)

# Area of Research Interests:

- AI Applications in Sheet Metal Forming
- Press Tool Design
- Incremental Forming
- Additive Manufacturing
- Composite Materials
- Non-traditional Machining
- Computer Aided Process Planning (CAPP)
- CAD/CAM/CIM
- Manufacturing Processes

# Research Projects:

<b>Funding Agency</b>	Title of Project	Grants Sanctioned	Duration	PI/Co-PI	Status
DST, New Delhi (Under Fast Track Scheme for Young Scientist)	Development of an intelligent system for selection of materials for press tool components	3.60 Lakhs	2008- 2011	PI	Completed
MHRD, New Delhi (Project was headed by IIT Kharagpur)	National Mission Project on Developing suitable pedagogical methods for various classes, intellectual calibers and research in e- learning	91.0 Lakhs (total 13 courses)	25/03/2014 - 17/05/2018	Institute Coordinato r (Also developed one course as Principal Developer)	Completed
National Plan for Science and Technology (NPST), Kingdom of Saudi Arabia, Riyad	Intelligent workshop in sheet metal dies	1651000 Saudi Riyals (Approx. Rs. 2.95 Crore)	July 2014- July 2016	Co-PI	Completed
Science & Engineering Research Board(SERB), New Delhi	Automation of design of compound dies for sheet metal industries	24.10 Lakhs	2014- 2017	PI	Completed
Naval Research Board, Directorate of Naval R&D (DNRD), New Delhi	Investigation on the influence of Machining Parameters in the Machining of Carbon epoxy composite with AWJM to improve surface finish and minimize defects	22.9584 Lakhs	05/01/2015 - 29/08/2018	PI	Completed

## Membership:

- Life member of Indian Society of Mechanical Engineers (ISME), New Delhi (Membership No.: L 1088).
- Life member of International Association of Engineers (IAENG), Singapore (Membership No.: 65421).
- Life member of World Academy of Science, Engineering & Technology (WASET).
- Senior member of Universal Association of Mechanical and Aeronautical Engineers (UAMAE), IRED, New York, USA (Membership No.: SNM10100052506).

#### Workshop / Short Term Programmes / Conference Organized:

- 1. National Workshop on Intelligent Systems, March 2007, HCE Sonepat, Haryana
- 2. Short Term Training programme (STTP) "Pedagogy (Teaching Methodology)", 12-15 May, 2008, SVNIT Surat.
- 3. Workshop on Machine Tools & Applications (MTA-2008), 9-13 June, 2008, SVNIT Surat
- 4. Short Term Training programme (STTP) "Pedagogy and Research Methodology", SVNIT, Surat, 3-7 August, 2009.
- 5. Short Term Training programme (STTP) "Advances in Manufacturing" 28<sup>th</sup> Dec 2009 to 1<sup>st</sup> Jan, 2010, SVNIT Surat.
- 6. 1st National Conference "Recent Advances in Manufacturing (RAM-2010)" (CSIR & DST, New Delhi sponsored), 19-21 July, 2010, SVNIT Surat.
- 7. One week Indo-US Council for Engineering Education (IUCEE) FLI course on "Advances in Manufacturing Systems", 20-24 June, 2011, SVNIT, Surat.
- 8. 2nd National Conference "Recent Advances in Manufacturing (RAM-2011)" (DST sponsored), 15-17 September, 2016, SVNIT Sura.t
- 9. 3rd National Conference "Recent Advances in Manufacturing (RAM-2012)" (DST sponsored), 27-29 June, 2012, SVNIT Surat.
- 10. One day Regional Workshop on 28th August, 2013 (under MHRD Pedagogy project headed by IIT Kharagpur), SVNIT Surat
- 11. 4th National Conference "Recent Advances in Manufacturing (RAM-2014)" (DST sponsored), 26-28 June, 2014, SVNIT Surat.
- 12. Short Term Training programme (STTP) "Advances in Manufacturing", 28th July- 1st Aug 2014, SVNIT Surat.
- 13. 5th National Conference "Recent Advances in Manufacturing (RAM-2015)" (DST, & TEQIP- II sponsored), 15-17 May, 2015, SVNIT Surat.
- 14. One day Regional Workshop 21st December, 2015 (under MHRD Pedagogy project headed by IIT Kharagpur), SVNIT Surat
- 15. 6th National Conference "Recent Advances in Manufacturing (RAM-2016)" (DST, & TEQIP- II sponsored), 12-14 May, 2016, SVNIT Surat.
- 16. Faculty development Programme on "Outcome Based Teaching Learning", 3-5 June, 2016, SVNIT Surat (TEQIP-II sponsored)

#### Expert / Key-note Lectures delivered: more than 30

#### Recent -

- 1. "Additive Manufacturing", in Faculty Development Programme (FDP) on "3D Printing and Design", organized by Mechanical Engg. Dept., SVNIT during 30th Dec 2019 to 3rd Jan 2020.
- 2. "Expert System in Metal Forming", in FDP on "Advances in Smart Manufacturing Technologies (ASMT)", organized by VJTI Mumbai during 30th Dec 2019 to 4rd Jan 2020.
- 3. "Additive Manufacturing", in FDP on "Reverse Engineering for Product Design", organized by Mechanical Engg. Dept., SVNIT during 6-10 Jan 2020.

- 4. Two expert lectures entitled "Abrasive water jet machining of composites" and "AI applications in sheet metal forming" in the Short Term Course on "Advanced Materials Processing and Characterization" at NIT Srinagar during 22-26 July, 2019 organized jointly by NIT Srinagar and IIT Kharagpur under twinning activity of TEQIP-III
- 5. "AI applications in sheet metal forming" in DST sponsored STTP "Industry 4.0 Theory and application" organized by Uka Tarsadia University, Bardoli during 1-5 July, 2019.
- 6. "AI Applications in Sheet Metal Forming" in the 3rd International Conference on Innovative Design, Analysis and Development Practices in Aerospace and Automotive Engineering (I-DAD 2018), held at Veltech University, Chennai, 22-24 Feb, 2018.
- 7. "Knowledge-based System to Automate Die Design for Sheet Metal Industries" in the 9th International Conference on Mechatronics & Manufacturing (ICMM 2018) held at Phuket, Thailand, 27-29 January, 2018.

## **Books/Book Chapters:**

# • Book Chapters:

- 1. S. Kumar, "AI Applications to Metal Stamping Die Design", In: Artificial Intelligence: Approaches, Tools and Applications (ISBN 978-1-61324-019-9), Nova Science Publishers, New York, 2011, pp. 71-95.
- 2. S. Kashid, S. Kumar, "Prediction of life of compound die using ANN", In: Metal Forming 2014 (ebook), ISBN-13:978-3-03835-193-1, TTP, Switzerland, pp. 664-671.
- 3. S. Kumar, R. Singh, D. Panghal, S. Salunkhe, H. M. A. Hussein, "Feature Extraction and Manufacturability Assessment of Sheet Metal Parts", In: AI Applications in Sheet Metal Forming, ISBN 978-981-10-2250-0, Springer Science, Singapore, 2017
- 4. H.M.A. Hussein, W. Fengyin, A. F. Barakat, S. Kumar, "Knowledge Based System for Design of Blanking Dies", In: AI Applications in Sheet Metal Forming, ISBN 978-981-10-2250-0, Springer Science, Singapore, 2017
- 5. V. Naranje, S. Kumar, "Knowledge-Based System for Design of Deep Drawing Die for Axisymmetric Parts", In: AI Applications in Sheet Metal Forming, ISBN 978-981-10-2250-0, Springer Science, Singapore, 2017
- 6. S. Salunkhe, S. Kumar, H. M. A. Hussein, "An Expert System for Automatic Design of Compound Dies", In: AI Applications in Sheet Metal Forming, ISBN 978-981-10-2250-0, Springer Science, Singapore, 2017
- 7. S. Salunkhe, S. Kumar, H. M. A. Hussein, "Prediction of Die Life of Compound Die using ANN", In: AI Applications in Sheet Metal Forming, ISBN 978-981-10-2250-0, Springer Science, Singapore, 2017
- 8. D. Panghal, S. Kumar, H. M. A. Hussein, "Knowledge Based System for Automatic Design of Bending Dies", In: AI Applications in Sheet Metal Forming, ISBN 978-981-10-2250-0, Springer Science, Singapore, 2017
- 9. Sachin Salunkhe, Soham Teraiya, H. M. A. Hussein and Shailendra Kumar, "Smart System for Feature Recognition of Sheet Metal Parts: A Review", In: Innovative Design, Analysis and Development Practices in Aerospace and Automotive Engineering (I-DAD 2018), Lecture Notes in Mechanical Engineering, Springer Nature, Singapore, 2019.
- 10. Rahul Jagtap and Shailendra Kumar, "Incremental Sheet Forming: An Experimental Studyon the Geometric Accuracy of Formed Parts", In: Innovative Design, Analysis and Development Practices in Aerospace and Automotive Engineering (I-DAD 2018), Lecture Notes in Mechanical Engineering, Springer Nature, Singapore, 2019.

11. Ravi Kumar Gupta, H. M.A. Hussein, S.S.Salunkhe, Mukur Gupta, S.Kumar, "Step toward computer-aided integration of sheet metal application", In: Innovative Design, Analysis and Development Practices in Aerospace and Automotive Engineering (I-DAD 2018), Lecture Notes in Mechanical Engineering, Springer Nature, Singapore, 2019.

## • Edited Books/Proceedings:

- 1. Proc. 1st National Conf. "Recent Advances in Manufacturing", ISBN:978-93-80697-05-5, (2010)
- 2. Proc. 2<sup>nd</sup> National Conf. "Recent Advances in Manufacturing", ISBN:978-93-80697-05-5 (2011)
- 3. Proc. 3<sup>rd</sup> National Conf. "Recent Advances in Manufacturing", ISBN:978-93-5067-338-6 (2012)
- 4. Proc. 4<sup>th</sup> National Conf. "Recent Advances in Manufacturing", ISBN:978-93-5156-755-4 (2014)
- 5. Proc. 5<sup>th</sup> National Conf. "Recent Advances in Manufacturing", ISBN:978-93-5212-649-1 (2015)
- 6. Proc. 6<sup>th</sup> National Conf. "Recent Advances in Manufacturing", ISBN:978-93-5265-309-6 (2016)
- > Shailendra Kumar, H.M.A. Hussein (Ed.), "AI Applications in Sheet Metal Forming, Springer Science, Singapore, ISBN 978-981-10-2250-0 (2017)

Books Reviewed: 04 (Publisher - Tata-McGraw Hills, New Delhi)

Ph.D. Guidance: 07 (Completed) + 06 (Ongoing)

Research scholar	Topic of Research	Status
Vishal Naranje	A contribution to the development of knowledge-based	Awarded
	system for intelligent design of deep drawing dies for axisymmetric parts	(April, 2013)
Sachin Kashid	A contribution to the development of expert system	Awarded
	for intelligent design of compound dies and prediction of die life using ANN	(April, 2015)
Deepak Panghal	A contribution to the development of knowledge-based	Awarded
	system for intelligent design of bending dies	(June, 2015)
Ajit Dhanwade	Experimental investigation on the influence of process	Awarded
	parameters in machining of Carbon Epoxy Composites using abrasive water jet machining	(March, 2017)
Pramod	Energy and cost conscious flexible process routing for	Awarded
Chougule	sustainable manufacturing	(July, 2018)
Rahul Jagtap	Experimental investigation on hybrid incremental	Awarded
	forming	(June, 2019)
Vikas Sisodia	Experimental investigation on incremental forming with dummy sheet	Thesis Submitted
Aniket Jadhav	Experimental investigation on laser assisted Machining	Permitted for Presynopsis
Swapnil Vyavahare	Experimental investigation on FDM	Ongoing
Kiran R More	Experimental investigation on SPIF of bi-metallic sheet	Ongoing
Soham Teraiya	Experimental investigation on FDM	Ongoing
Dattu Kumar Kulkarni	Experimental investigation on EDM	Ongoing
Nikhil Bari	Experimental investigation on incremental forming	Ongoing

# M. Tech. Dissertation Guidance: 41 (Completed) + 04 (Ongoing)

Name of Student	Dissertation Topic	Academic Year
Gajjar	Investigation on geometric accuracy in multistage incremental sheet	2018-19
Sunandkumar	forming	2010 19
Kanaiyalal	Tomming	
Lakum Hardik	Experimental study on influence of process parameters on thickness	2018-19
Babulal	distribution in Hybrid Incremental Sheet Forming (HISF)	2010 19
Prajapati	Experimental Investigation on Influence of Process Parameters of	2017-18
Harshkumar J	Abrasive Water Jet Machining on Kerf Properties of Glass Fiber	2017 10
	Reinforced Polymer Composites	
Tank Bhavik D	Investigation on Influence of Process Parameters on Surface	2017-18
	Roughness and Kerf Properties in Abrasive Water Jet Machining of	
	Carbon Fiber Vinyl Ester Composites	
Vaghela	An Experimental Investigation on the Geometrical Accuracy of	2017-18
Anilbhai R	Part Formed Using Single Point Incremental Forming (SPIF)	
Patel	An Experimental Study of Electrical Discharge Machining of	2017-18
Sandeepkumar	Incoloy 825 Superalloy	
Vaghela	Experimental Investigation on Influence of Anisotropy of AA6061-	2017-18
Shubham N	T6 Material on Tensile Strength of Weld Prepared by Friction Stir	2017 10
	Welding	
Patel	Investigation on influence of process parameters of abrasive water	2016-17
Mitenkumar	jet machining on kerf taper of Kevlar fiber reinforced polymer	2010 17
Vinodbhai	composites	
Dharmanshu	Experimental investigation on formability and surface finish in	2016-17
Singh Sodha	single point incremental forming with dummy sheet	2010 17
Shekhar Saxena	Experimental investigation on influence of process parameters on	2016-17
	surface roughness in single point incremental forming (SPIF) of	2010 17
	Aluminium Alloy 1050	
Sahil Kumar	Investigation on influence of process parameters of Abrasive Water	2016-17
Gupta	Jet Machining on surface roughness and kerf taper of hardened AISI	
o up u	440C Stainless Steel	
Arun Kumar	Investigation on influence of process parameters on surface	2015-16
Rouniyar	roughness of abrasive water jet machined lead zirconate titanate	
J	ceramic material	
Pratik S.	Investigation on sheet thickness and surface quality in Hybrid	2015-16
Parwatwar	incremental sheet forming process	
Ravi Prakash	Investigation on influence of process parameters on kerf properties	2015-16
Upadhyai	in abrasive water jet machining of lead zirconate titanate ceramic	
	material	
Gothi Nitinbhai	Automatic feature extraction and process planning of sheet metal	2015-16
M.	parts produced on compound die	
Balkesh	An investigation on sheet thickness distribution and surface	2015-16
	roughness in multistage incremental sheet forming process	
Shweta Jagdale	Investigation on influence of process parameters in AWJM of	2014-15
	carbon epoxy composite to minimize kerf taper	
Pratik Bose	Investigation on influence of process parameters in AWJM of Glass	2014-15
	epoxy composite to improve surface finish	
Amol Patil	An Investigation on the effect of process parameters in Single Point	2014-15
	Incremental Sheet Forming (SPIF)	
Soham Teraiya	Automatic feature recognition of sheet metal parts	2014-15

Vikas Sisodia	Study of dynamic behaviour, design and development of interface	2014-15
	operating mechanical linkage between the drive and the	
	disconnecter switch of 420KV gas insulated switch gear	
Mahul	Experimental investigation on the influence of process parameters on	2013-14
Chaudhari	accuracy and surface roughness in SPIF	
Ankur Vasava	Scheduling of AGVs in different FMS environment	2013-14
Sujit Mulay	A knowledge based system for selection of bending die components	2012-13
Rahul Jagtap	An experimental study on the influence of process parameters in single point incremental sheet forming (SPIF)	2012-13
Ravi Kumar	Life estimation of compound die using artificial neural network	2012-13
Jai Kishan	Computer aided process planning for bending	2011-12
Kirtesh A. Patel	Development of a Computer Aided System for Bottleneck Analysis of FMS	2011-12
Mayur R. Patel	Development of a Computer Aided System for Single Model Manual Assembly Line Balancing	2011-12
Dhaval B. Chaudhari	Optimization of He-cooled divertor cooling finger"s geometry by thermal stress analysis.	2011-12
Udai Singh	Development of an Intelligent CAD System for Process Planning of Deep Drawing Die	2010-11
Ankush Sharma	Development of a Computer-Aided System for Scheduling of FMS	2010-11
Prakash P. Mali	Finite Element Analysis of Crankshaft with Analytical Verification	2010-11
Shreesh P. S.	Finite Element Study of Spring back in Sheet Metal Stretch Forming	2010-11
Madhusudan	An Intelligent System for Manufacturability Evaluation of Sheet	2010-11
Chaudhari	Metal Parts	
Sachin S. Kashid	Design and FE Analysis of End Effector	2009-10
Mahesh K. Prajapati	Modeling and Analysis of Centrifugal Air Compressor Suction Filter using CFD Techniques	2009-10
Isai Sagar Sharad	Structural Analysis of 6-wheeler chassis	2009-10

# Visits Abroad for participation in International Conferences:

Place visited	Duration	Purpose
Brisbane &	2-10 December,	Participated in 14 <sup>th</sup> Global Congress in Manufacturing &
Melbourne,	2018	Management (GCMM 2018) held at Brisbane, Australia during
Australia		5-7 Dec'2018
		Presented one research paper
Phuket, &	26- 31 January,	Participated in International Conference ICMM 2018 held at
Bangkok,	2018	Phuket, Thailand
Thailand		Delivered one Key-note lecture, Chaired one session, and
		Presented one research paper (Won award for best paper presentation)
Tokyo,	17-23 January,	Participated in International Conference ICMM 2017 held at
Japan	2017	Chuo University, Tokyo.
		Presented one research paper
Zurich,	8-14 October,	Participated in International Conference AMRE 2015 held at
Switzerland,	2015	Zurich.
& Munich,		Presented one research paper
Germany		

Dubai, <b>UAE</b>	16-20 November,	Participated in International Conference AMPT 2014 held at
Duom, OAL	2014	Atlantis The Palm, Dubai. Presented five research papers
Detroit, MI USA	9-13 June, 2014	Participated in 42 <sup>nd</sup> North American Manufacturing Research Conference (NAMRC42) hosted by University of Michigan, Ann Arbor, MI, USA. Presented one research paper.
Belfast Northern Ireland, UK	24-28 March, 2013	Participated in 15 <sup>th</sup> International Conference on Sheet Metal (SheMet-2013) hosted by University of Ulster, Belfast, UK Presented two research papers.
Leuven (near to Brussels), <b>Belgium</b>	18-22 April, 2011	Participated in 14 <sup>th</sup> International Conference on Sheet Metal (SheMet-2011) organized by K.U. Leuven, Belgium. Presented one research paper.
Singapore	17-22 December, 2010	Participated in International Conference ICISE-2010 & ICIME-2010 organized by WASET (World Academy of Science, Engineering and Technology). Presented two research papers and chaired one session.
Paris, France	28 July- 2 August, 2010	Participated in International Conference ICMAME – 2010 organized by WASET (World Academy of Science, Engineering and Technology). Presented one research paper
San Francisco, & Los Angeles, USA	20 October -1 November, 2008	Participated in International Conference on Intelligent Automation and Robotics ICIAR 2008, organized by the Int. Association of Engineers, Singapore and held at University of California, Berkeley, San-Francisco, California, USA. Presented one research paper.
Las Vegas, & Los Angeles, USA	29 July - 7 August, 2006	Attended the International Conference AMPT-2006 jointly organized by the Ohio University, Athens and University of Nevada, Las Vegas.  Presented two research papers.
Dublin, Ireland	7- 14 July, 2003	Attended the International Conference AMPT-2003 organized by the Dublin City University, Dublin. Presented one research paper.

#### Administrative Assignments at SVNIT, Surat:

- Head of Mechanical Engineering Department w.e.f. 15<sup>th</sup> April, 2019.
- PG Incharge, M.Tech. CAD-CAM during 12<sup>th</sup> January, 2018 to 6<sup>th</sup> May, 2019.
- Chairman, Local Organising Committee & Technical Committee of Centralised Counselling for M.Tech./M.Arch./M.Plan. (CCMT 2017) Admissions of all NITs (30), IIITs (04) and CFTIs (07).
- Member, Core Committee of 14<sup>th</sup> Convocation of the Institute held on 22<sup>nd</sup> Jan' 2017
   (O.O. No. Dean (Acad)/Convocation/398/2016-17, Dtd. 12<sup>th</sup> Dec' 2016)
- Chief Coordinator, Examinations w.e.f. September, 2015 to June, 2017
- QIP Coordinator w.e.f. January, 2015 to June, 2017
- Associate Dean (Academic) w.e.f. 5<sup>th</sup> May, 2014 to 8<sup>th</sup> June, 2017 (O.O. No. E/96, Dtd. 5<sup>th</sup> May, 2014)
- Member of National Core Committee and Technical Committee of CCMT-2015 which was responsible for framing guidelines for M.Tech. Admissions in all NITs and some IIITs and CFTIs.
- Center in-charge of Help Centre and Reporting Centre of CCMT-2014, 2015 & 2016

- Institute Coordinator, Main phase of the National Mission Project on "Developing suitable pedagogical methods for various classes, intellectual calibres and research in e-learning", funded by the MHRD, Govt. of India with IIT Kharagpur as the Anchor Institute.
- PG Incharge Industrial Process and Equipment Design (IPED) during 2012-2014 (O.O. No. MED/2012-13/1607, Dtd. 24/08/2012)
- PG Incharge Manufacturing Engineering from 01/01/2013 to 01/01/2015
   (O.O. No. MED/2012-13/2879-A, Dtd. 15/02/2012)
- Chief Hostel Warden (in the Centralized system of all hostels of SVNIT) during December, 2008 to August, 2011.
- Member of Institute Discipline Committee till August 2011
- Member of Institute Level Anti-Ragging Committee till August 2011
- Member of Institute Purchase Committee during 2008-2011 (O.O. No. C/BOG(14)/1423, Dtd. 24/01/2008)
- Senate Member from December, 2008 to August, 2011; May 2014 to June, 2017
- Professor-Incharge, Gardening, Institute beautification & Road Networking, 2007-2008 (O.O.No. E//1488, Dtd. 31/01/2008)
- Chairman, Institute Literary & Debate Committee during 2007-2008 (Circular No. SC/2007-08/751, Dtd. 05/09/2007).

## Awards and Recognitions:

- Member of Technical Committee of 9th Int. Conf. on Mechatronics and Manufacturing (ICMM-2018), Jan 27-29, 2018, Phuket, Thailand. Delivered one Key-note lecture and Chaired one session, and also received award for *Best Paper*
- Member of Technical Committee of 8th Int. Conf. on Mechatronics and Manufacturing (ICMM-2017), Jan 20-22, 2017, Tokyo, Japan
- Member of Advisory Committee of many International and National Conferences.
- Acting as REVIEWER of reputed International Journals (published by Elsevier, Inderscience, SAGE, SME), National Journals and for various International & National Conferences.
- Chaired sessions in various reputed International and National Conferences.
- Delivered Key-note lectures in various reputed International Conferences.
- Editorial member of American Journal of Intelligent Systems.
- Young Scientist Award (2008-2011) from Dept. of Science & Technology, Govt. of India: This award carries a grant for a fast track research project
- Topped throughout the academic career during studies and received merit scholarships by the State Govt. of Haryana, India.
- Biography has been published in the International Biographical Centre (IBC), Cambridge, England for publication in its leading title: "2000 Outstanding Intellectuals of the 21st Century"

(Dr. Shailendra Kumar)

**Encl:** List of Research Publication (Annexure-1)

# **RESEARCH PUBLICATION**

S. N.	Author(s)	Title of paper	Name of Journals/Conference	Year of Pub.	Page Nos. / DOI
INT	ERNATIONAL JO	OURNALS:			
1	S. Kumar, and R. Singh	A low cost knowledge base system framework for progressive die design	Journal of Material Processing Technology, Vol.153-154 (Elsevier)	2004	958-964
2	S. Kumar, and R. Singh	Trends and developments in intelligent computer aided design of progressive dies	Journal of Advanced Materials Research, Vol. 6-8 (Elsevier)	2005	241-248
3	S. Kumar, and R. Singh	An intelligent system for selection of die-set of press tool for metal stampings	Journal of Materials Processing Technology, Vol. 164-165 (Elsevier)	2005	1395-1401
4	S. Kumar, R. Singh, and G. S. Sekhon	CCKBS: A component check knowledge base system for accessing manufacturability of sheet metal parts	Journal of Materials Processing Technology, Vol. 172. (Elsevier)	2006	64-69
5	S. Kumar, and R. Singh	A knowledge-based system for selection of progressive die components	Journal of Achievements in Materials and Manufacturing Engineering, Vol. 20	2007	475-479
6	S. Kumar, and R. Singh	A short note on an intelligent system for selection of materials for progressive die components	Journal of Materials Processing Technology, Vol. 182 (Elsevier)	2007	456-461
7	S. Kumar , and R. Singh	An intelligent system for modeling and material selection for progressive die components	Journal - Key Engineering Materials, Vol. 344 (Trans Tech Pub.)	2007	873 -880
8	S. Kumar , and R. Singh	An intelligent system for automatic modeling of progressive die	Journal of Materials Processing Technology, Vol. 194 (Elsevier)	2007	176-183
9	S. Kumar, and R. Singh	A knowledge-based system to automate the selection of progressive die components	International Journal of Computational Mateial Science and Surface Engineering, Vol. 1. (Inderscience)	2007	85-96
10	S. Kumar, and R. Singh	Automation of strip- layout design for sheet metal work on progressive die	Journal of Materials Processing Technology, Vol. 195. (Elsevier)	2008	94-100

11	H. M. A. Hussein, and S. Kumar	A Computerized Retrieval System for Sheet Metal Parts	Asian Int. Journal of Science and Technology in Production and Manufacturing Engineering, Vol.1(2)	2008	31-40
12	S. Kumar, R. Singh, and G. S. Sekhon	An Expert System for Design of Blanking Dies for Sheet Metal Operations	Journal: Lecture Notes in Engineering and Computer Science, ISSN:20780958, Vol. 2173 (1)	2008	699-704
13	S. Kumar, and R. Singh	An Automated Design System for Progressive Dies	Expert Systems with Applications, Vol.38 (Elsevier)	2011	4482-4489
14	S. Kumar	An Intelligent System for Selection of Materials for Press Tool Components	Journal of Engg. Research & Studies, Vol. 2	2011	119-130
15	V. Naranje, and S.Kumar	A knowledge based system for manufacturability assessment of deep drawn sheet metal parts	Key Engineering Materials, Vol.473	2011	749-756
16	V. Naranje, and S. Kumar	A knowledge based system for selection of components of deep drawing die	American Journal of Intelligent Systems, Vol.2 (2) (SAP, USA)	2012	1-11
17	S. Kashid, and S. Kumar	Applications of ANN to sheet metal work: A review	American Journal of Intelligent Systems, Vol.2 (7)	2012	168-176
18	D. Panghal, and S. Kumar	An expert system framework for design of bending die	American Journal of Intelligent Systems, Vol.2 (7)	2012	163-167
19	V. Naranje, and S. Kumar	A knowledge based system for process planning of axisymmetric parts	Key Engineering Materials, Vol. 549	2013	239-246
20	D. Panghal, and S. Kumar	A low cost knowledge based system framework for design of bending die	Key Engineering Materials, Vol. 549	2013	284-291
21	V. Naranje, and S. Kumar	A knowledge-based system for design of strip layout for progressive deep drawing dies	Int. Journal of Computer Applications in Technology, Vol.48 (3)	2013	222-234
22	V. Naranje, and S. Kumar	An intelligent CAD system for automatic modeling of deep drawing die	Int. Journal of Computer Applications in Technology, Vo.48 (4) (Inderscience)	2013	330-344
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